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The role of L1 in figurative language production by Hungarian learners of English

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Nyilatkozat

„*Én **Lukács Béla** teljes felelősségem tudatában kijelentem, hogy a benyújtott értekezés önálló munka, a szerzői jog nemzetközi normáinak tiszteletben tartásával készült, a benne található irodalmi hivatkozások egyértelműek és teljesek. Nem állok doktori fokozat visszavonására irányuló eljárás alatt, illetve 5 éven belül nem vontak vissza tőlem odaítélt doktori fokozatot. Jelen értekezést korábban más intézményben nem nyújtottam be és azt nem utasították el.”*

…….

Lukács Béla

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1 The Outline of the Thesis

An issue of large interest in linguistics, L1 transfer in the L2, refers to the influence of the learner's mother language on their L2 learning and use. The degree of L1 transfer may depend on several factors, including language distance between the languages, and the level of the students' proficiency. In this thesis, I investigate Hungarian L1 transfer influence on English figurative language use, and I apply two experiments to this end. The first is an essay research, and the second a testing on idioms. By understanding these aspects, the thesis seeks to reveal the extent to which Hungarian L1 transfer contributes to errors in English figurative language use and idiom production.

The first experiment investigates metaphor errors in English essays written by Hungarian students at proficiency levels B1 to C2, aiming to determine how their L1 affects their ability to use metaphors correctly in English. Many researchers have examined cross-linguistic influence affecting second language learning. Metaphors are ubiquitous in thinking and language (MacArthur 2010: 157, Nacey (2013: 127), and their application in language teaching is potentially beneficial for language learners (see, for example Iaroslavtseva and Skorczynska 2017, Littlemore et al. 2014). Also, it is a commonly-seen phenomenon that metaphors cause a lot of difficulties to cope with for language learners, as discussed by, among other researchers, Iaroslavtseva and Skorczynska (2017), Johansson Falck (2012), Kathpalia and Heah (2011), Littlemore et al. (2014), MacArthur (2010). In the case of L2 essay writing and idiom production, understanding the role of L1 transfer may facilitate the designing and implementation of more effective language teaching materials for idiom teaching. To this end, the experience gained from such research may be especially helpful, as one may discover the challenges of L1 influence and, once so, handled through, for example, applying various learning strategies.

The objective of my essay research is to examine the types of metaphor errors that occurred in L2 essays written by university students with a Hungarian mother tongue at the B1-C2 level and the extent to which these errors may be the result of L1 transfer. Through detecting and analyzing metaphorical errors in their essays written in English, one may gain a greater understanding of the challenges Hungarian B1-C2 students encounter in using metaphors in English. By addressing the role of L1 transfer in these errors, the experiment with students' essays expands our knowledge of the relationship between students' L1 and L2 and can serve as a ground for developing more efficient language teaching strategies. The essay analysis shows that without any prompts calling for the use of idioms and/or

metaphorically used words the subjects produced few metaphorically used words. However, when given such prompts, as in my idiom testing, they used idioms – and, therefore, metaphors – much more frequently. As a consequence, I was able to observe the potential influence of their L1 much more than in the case of the essay analysis.

My second experiment examines the production of idioms, focusing on how idiom motivation and predictability impact the scores of familiar idioms across different categories and proficiency levels. The main issue is to examine how idiom motivation and predictability affect the production scores of familiar idioms across different categories and proficiency levels, with categories defined later. If familiar idioms have high motivation, they will score higher in all idiom categories in the idiom production task compared to less-motivated idioms. Similarly, if familiar idioms have high predictability, they will score higher in all idiom categories in the idiom production task compared to less-predictable idioms. Furthermore, if familiar idioms have high motivation, their average production scores will be high across all idiom categories and proficiency levels. Likewise, if familiar idioms have high predictability, their average production scores will be high across all idiom categories and proficiency levels. These hypotheses may be valid for the unfamiliar idioms, too, but my idiom testing included the familiar ones only. Such investigation with unfamiliar idioms may be a vista for additional research.

The idiom testing included a pilot and a main experiment. There were two aims in the pilot study of the idiom tests. The first aim was to determine what inference one could draw from the production averages of the expression types from the point of view of transparency in terms of English and Hungarian idioms by Hungarian students of English. Idiom researchers usually establish idiom types based on the congruence of literal and non-literal meanings of some idioms taken from the L1 and L2 to measure their understanding and/or production among their subjects. The higher an idiom type scores after conducting a task or a number of tasks, the less the researchers consider it to be influenced by the mother tongue. Second, the study aimed at investigating what relationship existed between the production results, the type of idioms, and the subjects' proficiency levels.

Summing up the aim of the research, we can see two directions: Essay and idiom research. This could enlarge our knowledge of how the students produce metaphors and what challenges they face when using them in English. Idiom testing scrutinizes the idiom used in English by Hungarian students, exploring how cross-linguistic similarities and differences and various extents of opacity may affect their English idiom production. By analyzing students' responses in connection with idioms of varying predictability, motivation, and familiarity

levels, we may have a thorough understanding of how these factors may influence these subjects' idiom production. In general, I hope to expand our knowledge on the extent to which Hungarian L1 transfer potentially contributes to errors in the use of English figurative language and to the production of English idiomatic language by Hungarian students.

Having discussed the aims in my thesis, I provide its chapter-based outline. I detail the aims and rationale of the experiments in Chapter 1. As I state there, the thesis aims to reveal and detail the challenges presented by L1 transfer and to potentially contribute to the development of more efficient language teaching strategies by identifying the metaphorical errors that are likely to be present in L2 essays and by exploring the factors affecting idiomatic expression use in L2. An additional goal is to disclose new vistas possible for efforts to improve idiom teaching and learning.

In Chapter 2, I establish the theoretical framework of the thesis and offer an exact explanation of the terminology used. In this chapter, I explain how various terms correlate with one another in the Conceptual Metaphor Theory. Moreover, my explanation covers how CMT terminology relates to the Metaphor Identification Procedure Vrije Universiteit (MIPVU) (Steen et al. 2010: ix), as hinted in the first paragraph of this introduction. MIPVU is a protocol for identifying words that function as metaphors, whereas CMT is a theory that views metaphors as mappings between source and target domains, in other terms, metaphors motivate linguistic expressions known as idioms. MIPVU focuses on actual words as metaphors. MIPVU does not specifically analyze conceptual metaphors and therefore its categories are not fully compatible with CMT, though some overlap exists. According to Nacey et al. (2019), MIPVU requires researchers to disclose the mappings of lexical units, determining their contextual (target domain) and basic meanings (source domains), and decide if the lexical units are used metaphorically.

Chapter 3 details some of the pertinent literature of second language acquisition. First, I detail a general overview of the early developments of the field. Then, I continue to detail the acquisition of figurative language in L2. Finally, I discuss the pedagogical implications of how one can teach figurative language for language learners.

Chapter 4 illustrates CMT through a number of metaphors used in Hungarian and English; this highlights both similarities and differences in terms of conceptualization, metaphor productivity as well as culture and embodiment, and universality and variability. In general, the experiments analyzed in this chapter aimed to reveal the type of relationship between metaphor use and proficiency level, and to what extent proficiency level influenced metaphor use.

In Chapter 5, I detail the methodology metaphor researchers use to detect metaphorically used linguistic units in essays or corpora. Also, the section aims to establish a methodological background for my metaphor research.

Essay analysis is the topic of Chapter 6. The analysis included 15 students of English with Hungarian L1; their task was to write a short argumentative essay on how our lives were changed by Covid-19. Using the MIPVU protocol and an error taxonomy based on James (1998), I searched for words used incorrectly and intended as metaphorical at the same time. I analyzed each essay word-by-word according to parts of speech, metaphors, and error types. I attempted to discover the nature of metaphoric errors that native speakers of Hungarian made in their English compositions. The study may also contribute to research on language transfer in addition to metaphor research. Having conducted this analysis, I experienced that metaphor and transfer analysis involving this method yielded only few linguistic data. Consequently, potential Hungarian influence was extremely difficult to measure in any reliable manner. As demonstrated by my examples, my subjects at B and C levels produced merely four metaphorical instances that were grammatically incorrect (see also Section 6.2.4) out of 3,381 words. In other words, the use of metaphoric linguistic units is marginal at these levels and in this task types. Teachers may need to raise awareness of metaphorical language use in English, as students may struggle with this aspect, especially when it differs significantly from their L1. Also, the task type (e.g., argumentative essay) might not elicit extensive metaphor use, so varying task types could be beneficial in exploring it. The findings suggest that language transfer from Hungarian to English might be minimal in terms of metaphorical errors, indicating that other areas of language transfer should be explored; therefore, I opted for conducting idiom testing to analyze L1 influence.

In Chapter 7, I detail the two experiments I conducted to measure idiom production as well as some factors that are likely to influence it. The goal of the tests was to enable me to formulate some conclusions and observations regarding the influence of L1. There are intrinsic and extrinsic factors regarding idiom processing. The intrinsic ones are decomposability, compositionality, transparency, and familiarity; extrinsic factors are context, task type, proficiency level, and strategy. Regarding the intrinsic factors, in general, lexical and/or metaphorical similarity between the mother tongue and the second language idioms facilitates processing idioms in the second language (Aradi 2019, Charteris-Black 2002, Irujo 1986, Türker 2016, Suñer 2018). Extrinsic factors may also influence processing. The frequency of idioms and their influence on idiom learning may be a potential field for further research in Charteris-Black (2002: 128) as well as Suñer (2018: 495-496, 509). In terms of

context, L1 is typically employed in processing L2 idioms when the context is poor, and the other way round: the more elaborate an L2 context is, the less the people rely on their L1, as the results of Türker (2016) show. Some papers, for example, Aradi (2019: 25) posit that L1 is influential even if there is context. Contrary to Aradi's (2019), Cooper's (1999) results reveal little influence of L1 even in poor context. An explanation of that could be that students remember L1 idioms lexically and figuratively similar to or identical to L2 idioms (Cooper 1999: 250). Regarding proficiency level and strategy, Irujo (1986: 297) suggests comparing intermediate and advanced learners to see whether advanced learners use more strategies than intermediate ones; she also reports the need for the study of the students' various cultural and language backgrounds (Irujo 1986: 298).

Chapter 8 includes the individual research with idiom categories. This part attempts to discover Hungarian cross-linguistic effects in the figurative language use in the English language performance of Hungarian students. I tried to detect Hungarian (L1) influence by means of discourse completion tasks. This phase involved a 30-student pilot study and a 50-student experiment. In both cases, I worked with 50 English idioms, 10 items in each category. The students were supposed to provide me with their own solutions (free completion tasks). The context of the tasks was complex sentences. Based on the literature, I have chosen the five types of L1-L2 idiom pairs I mentioned above. These types rely on the form and meaning similarity of the English-Hungarian idiom pairs. Regarding the linguistic data obtained, my conclusion is that one can obtain more relevant data by opting for idiom tests than by analysing a corpus. In addition to the influence of the two types of transparency, I studied the effects of language level on production. In my dissertation, I investigated various factors influencing figurative language use in English by Hungarian speakers through essay analysis and idiom testing. The essay analysis yielded limited results, while idiom testing proved more substantial. Key findings highlight that familiarity, transparency, context, task types, motivation, and predictability significantly impact L2 learners' ability to use idiomatic expressions. My idiom testings revealed that, usually, the idioms rated as motivated and/or predictable (transparent) had higher production averages. Another observation was that, somewhat paradoxically, language level did not play an important role in idiom production, namely, there were instances with B-level subjects having higher idiom production averages than C-level subjects, and vice versa. Generally, transparent idioms, familiar contexts enhance idiom production, reducing reliance on L1. This suggests that transfer, proficiency and familiarity with L2 idioms shape the use of such expressions.

2 Theoretical Background and Terminology

2.1 Introduction

This section aims to establish the theoretical background to this thesis. Since this work deals with L1 influence on L2 figurative language production, the meanings of terms like *metaphor*, *words used metaphorically*, and *idiom*, as well as their correlation, need clarification. Also, I include a short description on four theories on figurative language understanding and production; Idiom diffusion model, Graded Salience Hypothesis, Dual Idiom Representation, and the Literal Salience Model. The chapter ends with a short summary.

I proceed with an overview of the terminology and their application in the current thesis necessary, as technical terms have several, different interpretations in the literature in many cases. Metaphor has been defined and approached in many ways over time. Here, I discuss only three approaches on metaphors. These are the analogical approach, the second is the categorization approach, and the third, which serves the purposes of the thesis, is conceptual mapping (Conceptual Metaphor Theory, CMT).

Analogical reasoning is a critical aspect of human intelligence and creativity because it enables humans to find and exploit similarities between entities based on their relationships rather than the entities themselves (citing Gentner, Holyoak, and Kokinov 2001; Holyoak and Thagard 1995, Holyoak and Stamenković 2018:645). Referring to Black (1962:37), Holyoak and Stamenković (2018:645) state that metaphors are a type of analogy in which one identifies similarities between concepts from dissimilar realms. Holyoak and Stamenković (2018: 645) further state that it was Aristotle who first proposed metaphor as an analogy-based entity, which Black (1962) later expanded, and Tourangeau and Sternberg (1981, 1982) and Gentner and Clement (1988) developed. The key prediction of this hypothesis is that metaphors depend primarily on relational similarities rather than individual object attributes (referring to Gentner and Clement 1988, Holyoak and Stamenković 2018:646).

Unlike the analogy view, the categorization view assumes that the understanding of metaphors only operates on a comparison of the two individual concepts (based on Glucksberg and Keysar 1990, Holyoak and Stamenković 2018: 646). The categorization view holds that nominal metaphors have the same syntactic form as literal category statements: *My job is a jail* vs *My job is a profession* (taken from Glucksberg and Keysar 1990, Holyoak and Stamenković 2018: 646). It has been found that literal comparative statements generally refer to entities at the same level of abstraction (*plums are like peaches*) and cannot meaningfully assign an instance to a category *(*plums are like fruits*). Conversely, you can also express a

metaphorical comparison (*My job is a prison*) in parable form as a comparison (*My job is like a prison*) (based on Glucksberg and Keysar 1990, Holyoak and Stamenković 2018: 646-647).

Glucksberg and Keysar (1990) interpreted the difference between literal and allegorical comparisons as evidence that a metaphorical source has two meanings: its concrete literal meaning and a more abstract categorical meaning (Holyoak and Stamenković 2018: 647). The results of the experiments show that metaphors are generally irreversible and their effectiveness depends on the extent to which the goal provides constraints on the types of properties that one can plausibly ascribe to it (Holyoak and Stamenković 2018: 647).

CMT constitutes the third approach and the theoretical framework of this thesis. This theory is a framework proposing that much of our abstract thinking and language is based on metaphorical mappings between more concrete, embodied experiences and abstract concepts. Developed by cognitive linguists like Ronald Langacker, George Lakoff and Mark Johnson, among others, in the 1970s and 1980s (Kövecses 2006: 4), CMT has since become an influential tool for understanding how we make sense of the world around us, including the interpretation of poetry, short stories, and novels.

The first major concept serving as the criteria of analysing L1 influence in my thesis is metaphor. One of the tenets of CMT is that thought is metaphorical (Gibbs 2011b, as cited by Gibbs 2014: 18), which means that we use metaphors to understand abstract concepts by mapping them onto more concrete and familiar experiences. As stated by Lakoff and Johnson (1980: 5), "the essence of metaphor is understanding and experiencing one kind of thing in terms of another", and this is what I adopt as a definition of metaphor in the thesis. For example, the metaphor of "LOVE IS A JOURNEY" maps the experience of traveling through space and time onto the experience of being in a romantic relationship; linguistic expressions on, for instance, love like *We're at a crossroads* or *We can't turn back now* (Lakoff and Johnson 1980: 44-45) are understood by means of such metaphors. We can talk about the ups and downs of a relationship as if they were hills and valleys on a journey, and we can describe the progress of the relationship as if it were a journey toward a destination. Another example to illustrate metaphor is Lakoff and Johnson's (1980: 4) detailed description of how one can understand a concept (ARGUMENT) metaphorically. For example: *Your claims are indefensible* describes *claim* as an entity to defend militarily in the literal sense of *indefensible*, but, in this sentence, *indefensible* means that one cannot argue for something, which is the metaphorical sense of the word. Therefore, *indefensible* has a metaphorical use in the example. This duality of meanings leads us to understand that sentence with the help of the conceptual metaphor ARGUMENT IS WAR. Often, such words are not only metaphorical but used creatively, as well,

see Nacey (2013: 161-167) and Section 6.2.4. In this thesis, the term *word used metaphorically* refers to a word the meaning of which may be metaphoric conventionally or creatively in its context. In terms of domain mapping, this interpretation is identical with Steen et al.'s (2010: 10) indirect metaphors, as such metaphors involve the indirect conceptualization of a target domain by means of its source domain. In other words, indirect conceptualization means that one uses the source domain to understand the target domain indirectly (Steen et al. 2010: 11, see also Section 2.5). Conceptualization is the process during which we make an abstract (target) domain easier to understand in terms of a source (concrete) domain (Kövecses 2010: 19).

When reading the literature, we see a plethora of technical terms; therefore, it is necessary to clarify some of the terminology used by the various researchers and throughout this dissertation. While reading the literature on metaphors, we can see a varying use of terminology. Therefore, we need to clarify first some terms used by Lakoff (1987a): *constitutive, basic-level, principal,* and *minor metaphors*. Constitutive metaphors are entities having highly abstract, superordinate concepts, for instance ANGER IS ENTITY (Lakoff 1987a: 405-406). Regarding the second term, Lakoff (1987a) posits that basic-level metaphors are information-rich concepts with direct links to experience and with a lot of conventional imagery, for example ANGER IS HOT FLUID (Lakoff 1987a: 406). Some examples illustrate such metaphors: MORALITY IS CLARITY, exemplified by *Someone is clean*, *Someone has a clean name*, and *Someone has a clean sheet/slate* and HUMAN SOUL IS A SHEET/ LIVING A MORAL LIFE IS HAVING A CLEAN SHEET, shown by *fehérlelkű* 'white-spirited/ white-souled/ having a white soul', *fehérre mos valakit (vád/gyanú alól)* 'wash someone white (from under charge/suspicion)', and *szerecsenmosdatás* 'washing of a blackamoor = an attempt to whitewash someone' (Csillag 2006: 25-26).

Lakoff (1987a: 389-390) uses *principal metaphor* as a term referring to the central or primary metaphor one uses in a particular context; in other terms, a principal metaphor has an important role in understanding an idea. For example, I *just touched him, and he went crazy.* implies that one draws a parallel between being angry and being crazy, so one formulates the metaphor ANGER IS INSANITY (Lakoff 1987a: 390). As we can see, INSANITY is a specific source domain.

Unlike those of the *principal metaphors*, the source domains of the *minor metaphors* are less specific, as instantiated in *His anger went away* and *She flew into a rage* (Lakoff 1987a: 397). In the first, we have the EXISTENCE IS PRESENCE metaphor, and in the second,

EMOTIONS ARE BOUNDED SPACES. (Lakoff 1987a: 397). As stated by Lakoff (1987a: 396), such minor metaphors are low in number, general, and used to describe emotions.

Based on the above arguments, we can formulate the difference between principal and minor metaphors as follows. A principal metaphor has a source domain which is more specific than that of the minor metaphor. Also, the primary role of the principal metaphors stems from this specificity and the fact that minor metaphors are rare.

While reading the literature of conceptual metaphor studies, one may encounter cases when some researchers use terminology even more uniquely; for example, Charteris-Black's (2002) source domain is the literal form, although it is not word-to-word equivalent. In *a broken heart* meaning *patah hati* – "broken liver" 'To feel very upset' in Malay, the conceptual basis in other words the conceptual metaphor is THE STATE OF THE FEELINGS IS THE MATERIAL STATE OF A VITAL ORGAN (Charteris-Black 2002: 129), see Section 7.2.3. Suñer's (2018: 503) "conceptual distance" means the degree of similarity between the conceptual domains (source and target) of the idioms; for example, (German) *mit einem Fuß im Grabe stehen* (literally "to stand with one foot in the grave") and (French) *avoir un pied dans la tombe* ('to have one foot in the grave') include the same concepts, which means that these idioms are conceptually identical, see Section 7.2.7. As the German idiom includes an intransitive, while the French a transitive verb, these are an example of "formal distance" Suñer's (2018: 503). This term means the degree of similarity between the literal meanings of the idioms.

2.2 Components of Conceptual Metaphors

The components of conceptual metaphors, according to Kövecses (2006: 116-117), encompass various aspects. These include source and target domains, the basis of metaphor, their relationship, linguistic expressions, basic mappings, inferences[1] and inference potential, aspects of concepts that participate in metaphor, non-linguistic realization, and cultural models.

Conceptual metaphors involve a source (more physical) and target (more abstract) domain. For instance, WARMTH is a source domain, while AFFECTION is a target domain. This results in the metaphor AFFECTION IS WARMTH in *a <u>warm</u> relationship* (Kövecses 2006: 121). As we can see, it is the more concrete domain which serves as the starting point of mapping, with its endpoint being the target, abstract domain. This is what Kövecses (2005b: 22) terms unidirectionality. Kövecses (2006: 117) explains that the basis of metaphor in traditional

[1] Kövecses (2006: 123) uses the term *entailment* to refer to these inferences.

theories is the similarity between the two concepts, but it is embodiment that has a more important role in CMT. Kövecses (2006: 117) terms physical experience, in other words, the grounding of concepts in sensorimotor experience, as embodiment. Bodily experience motivates several conceptual metaphors (Kövecses 2006: 118). For example, when people work hard or have a strong emotion (for example ANGER), they feel an increase in body heat. Based on this correlation, INTENSITY IS HEAT maps its source domain, HEAT onto several other target domains, for instance LOVE, LUST, or WORK. One may formulate the question, if it is possible for a domain to be the source domain in a metaphor and the target of another one? It is, as illustrated by MAN in the metaphor A MAN IS A LION in the expression *indoda yingonyama* ('the man is brave like a lion') (Nokele 2014: 76) and AZ ERKÖLCS EMBER 'MORALS ARE A MAN/HUMAN' in *A MI* < ***erkölcseink*** > ***tiltják a hazugságot.*** ('Our morals forbid lies.'[2]) (Lechner 2020: 88). Domains belonging to THE GREAT CHAIN OF BEING metaphor including HUMANS, ANIMALS, PLANTS, COMPLEX OBJECTS, and NATURAL PHYSICAL OBJECTS (referring to Lakoff-Turner 1989, Kövecses 2005b: 133, in Lechner 2020: 26) can be both domains, as we may conclude from the literature. Another conclusion is, that it is ultimately up to the language user what they consider as concrete or abstract. The source-target combination is, however not entirely arbitrary but based on some correspondence perceived between the two domains, cf Kovács (2023: 35).

As mentioned before, similarity between concepts is crucial in forming metaphors. Kövecses (2006: 119) illustrates this, such as likening human lifetime to the life cycle of plants, leading to THE HUMAN LIFETIME IS THE LIFE CYCLE OF A PLANT. This example demonstrates an abstract and generic-level similarity, but there are more concrete instances of similarity as well; for instance, image metaphors reflect features that are common in the source and target domain. Citing Lakoff and Turner (1989), Kövecses (2006: 119) illustrates similarity with the parallel of the shape of woman's waist and an hourglass. Another instance of similarity is demonstrated with *She's a regular fish*, implying that she swims as well as a fish (Kövecses 2006: 119).

The relationship between source and target domains varies, as multiple source domains can link to a single target and vice versa (Kövecses 2006: 120). For instance, WAR can be linked to ARGUMENT, LOVE, etc., as seen in linguistic expressions like *His criticisms were right on the target* (Lakoff and Johnson 1980: 4) and *He is slowly gaining ground with her* (Lakoff and Johnson 1980: 49).

[2] Translation mine.

Metaphorical linguistic expressions realize conceptual metaphors, creating connections between abstract and concrete concepts (Kövecses 2006: 121), for example in *a warm relationship* illustrates AFFECTION IS WARMTH. Kövecses (2006: 122) considers metaphor a linguistic phenomenon only derivatively, since metaphors exist in language only because they are in the body/brain and thought. Since it is linguistic phrases that expresses conceptual metaphors, one may connect several linguistic expressions to the same conceptual metaphor, as the following examples of LOVE IS WAR illustrate (Lakoff and Johnson 1980: 49): *She is besieged by her suitors.*

Conceptual correspondences, or mappings, link source and target domains. For example, in LOVE IS A JOURNEY one may establish these correspondences: JOURNEY (source) and LOVE (target) (Kövecses 2006: 122-123). The former's components are travellers, vehicle, etc. and the latter includes lovers, love relationship, etc., respectively. An instance of these correspondences is illustrated by *A relationship isn't getting anywhere*, in which the vehicle from JOURNEY is mapped onto the relationship from LOVE. Source-target mappings frequently include inferences in addition to basic mappings (Kövecses 2006: 123). We carry these inferences over to the target domain from the source. If the vehicle breaks down, we try to reach our destination by some other means, repair the vehicle, or we stay in the vehicle without doing anything. In terms of love, these are the inferences: 1) leaving the relationship, 2) trying to improve it, or 3) stay in it (and suffer). What we can see here is that the inferences of the LOVE domain arise from the carrying over of the inferences of the JOURNEY domain (cf. Kövecses 2006: 123).

Conceptual metaphors highlight specific aspects while hiding others, as demonstrated in examples like AN ARGUMENT/THEORY IS A BUILDING in *If you don't support your argument with solid facts, the whole thing will collapse.* (Kövecses 2006: 124). In the source domain, the process of building, its physical structure and strength are such aspects and, similarly, argument/theory has three aspects highlighted here: constructing an argument or theory, its structure, and its strength. While some aspects of BUILDING are important, others (for example tenants, doors, windows, etc.) remain hidden. Since the hidden aspects evade being utilised in the source domain, their counterparts remain hidden in the target. Why only some aspects of BUILDING seem to play a role is explained by Grady (1997a, b, as cited by Kövecses (2006: 124-125), who suggests that A THEORY IS A BUILDING is a complex metaphor, which is constituted by primary metaphors (for example LOGICAL STRUCTURE IS PHYSICAL STRUCTURE, PERSISTING IS REMAINING ERECT). Based on the two primary metaphors, one conceptualizes the abstract logical structure as a physical structure, and persistence as remaining vertical.

Conceptual metaphors are frequently realized in social-physical reality, not only in language and thought (Kövecses 2002 and Lakoff 1993, as cited by Kövecses 2006: 125). For example, IMPORTANT IS CENTRAL and its linguistic expressions (for example *the central issue*) illustrate that people usually consider centrality as related to being more important. The importance of centrality in social-physical reality is clear to see, for example, during meetings, where important participants usually take place in the middle (Kövecses 2006: 126).

Kövecses (2006: 126) defines cultural models as culture-specific cognitive representations of the world. Such models are both cultural and cognitive. Conceptual metaphors frequently produce simultaneously cultural and cognitive models, or frames (often termed as *cultural model, cognitive model,* and *ICM)* (Kövecses 2006: 126). For example, we frequently conceptualize TIME as an entity that moves: *Time flies, time passes, time arrives,* etc.

2.3 Kinds of Metaphor

Kövecses (2006: 127-129) categorizes metaphors based on conventionality, cognitive function, nature, and generality. These four criteria differentiate metaphors in terms of their entrenchment, structural imposition, ontological, orientational aspects, propositional and image-schematic knowledge, and specificity or generality.

2.3.1 Conventionality

Conventionality refers to the degree of entrenchment of a metaphor (Kövecses 2006: 127). For example, as it is part of the mental lexicon, *steal the show* is highly conventional for LIFE IS A PLAY, but the Shakespearean line "All the world is a stage" is unconventional for the same conceptual metaphor (Kövecses 2006: 127). The conventionality of conceptual metaphors also may vary: LIFE IS A PLAY, as opposed to LIFE IS A BOX OF CHOCOLATES (Kövecses 2006: 127).

2.3.2 Cognitive Function

Cognitive function means that a metaphor may belong to one or more of these categories: structural, ontological, or orientational metaphors. Kövecses (2006: 128) points out that structural metaphors have their source domains imposing a structure on the target, as is the case with LIFE IS A JOURNEY. In ontological metaphors, the target domain receives an existential status; in other words, we view abstract concepts as concrete objects and

substances; thus, we have visual perceptions as containers, actions as metaphorical objects: *what we can see is <u>within</u> our sight* and *we give people <u>a call</u>*, respectively. Lakoff and Johnson (1980: 14) describe orientational metaphors as entities providing a concept with a sense of spatial orientation. Such metaphors are based on the speakers' physical and cultural experience (Lakoff and Johnson 1980: 14). For example, CONTROL is good and, therefore, occupies a high position metaphorically, as illustrated by *I'm on top of things* (CONTROL IS UP) (Kövecses 2006: 128).

2.3.3 Nature

Metaphor nature refers to the fact that since human knowledge may be of either propositional or of image-schematic origin, metaphors may be characterized on the basis of those criteria (Kövecses (2006: 128). The first type of knowledge comes predominantly from the meaning of the sentences used to describe various phenomena. For example, our knowledge of the functioning of computers may be of propositional origin (computers have hardware and software), hence the basis of THE MIND IS A COMPUTER. The second type of knowledge is the product of regular experiences of the world, for example entering and leaving containers. Such experience produces image-schematic knowledge on which several metaphors are based, for example STATES ARE CONTAINERS.

2.3.4 Generality

Regarding metaphor generality, metaphors can be specific or generic (Kövecses 2006: 129). Most conceptual metaphors belong to the first category. BIRTH IS ARRIVAL is a specific-level metaphor, because BIRTH is a specific event, and so is ARRIVAL. Generic metaphors are of a high level of generality and consist of generic source and target domains, for example EVENTS ARE ACTIONS (Kövecses 2006: 129). Generic metaphors frequently motivate personification. During personification, we have two conceptual metaphors: EVENTS ARE ACTIONS and THINGS ARE PEOPLE.

2.4 Criticisms of Conceptual Metaphor Theory

Gibbs (2014: 36) adopts a critical viewpoint towards CMT. Several concerns emerge about neglecting social and communicative aspects, and he adds that one should analyse conceptual metaphors as the dynamic couplings between social actions and language, not merely as cognitive entities (Gibbs 2014: 36). Also, he questions whether linguistic metaphors reflect human thinking (Gibbs 2014: 20). In this section I address the elements of his criticisms that

are relevant from the point of view of this work. The first is the concern about the limitations of the individual analyst, and the difficulty of introspecting rapid unconscious online processing of metaphoric speech (Gibbs 2014: 21).

An answer may be that research on conceptual metaphors in psycholinguistics and social psychology addresses the need for studies that do not rely on individual analysts. Experimental research involving corpus-based data and unbiased, naïve participants (Gibbs 2014: 26) may provide solution to this criticism. Testing CMT as a psychological theory of metaphoric thought and communication requires that we should determine 1) whether conceptual metaphors in long-term memory motivate different metaphoric meanings, and 2) whether immediate experiences, including the production and understanding of metaphoric language and gesture, automatically trigger conceptual metaphors. Several studies (Gibbs 1994, 2006a, 2011b, Gibbs and Colston 2012, as cited by Gibbs 2014: 26) have answered this question positively, showing that conceptual metaphors shape people's tacit understanding of why conventional and novel metaphoric expressions have the meanings they do. This has been demonstrated in the case of idioms (for example *John blew his stack* is motivated by ANGER IS HEATED FLUID IN THE BODILY CONTAINER) and proverbs (for example *Don't put all your eggs in one basket*).

Regarding the difficulty of introspecting rapid unconscious online processing of metaphoric speech, we need to bear in mind that demonstrating conceptual metaphors does not mean that speakers always process metaphoric language through conceptual metaphors (Gibbs 2014: 27). Studies show that understanding verbal metaphors depends on their conceptual metaphors, in other words understanding is easier if consecutive conceptual metaphors in a stretch of text are the same and takes more time if they are different (Gibbs 2014: 27).

The second criticism raises about the lack of explicit criteria for identifying metaphors (Gibbs 2014: 22). The answer to it is the development of replicable procedures (citing the Pragglejaz Group 2007 and Steen et al. 2010, Gibbs 2014: 24). In addition to such procedures, using advanced corpus linguistic methodologies and databases to detect and quantify conceptual metaphors in discourse are employed to answer this concern (citing Deignan 2006, and Stefanowitsch and Gries 2006, Gibbs 2014: 25).

2.5 Metaphor Identification Procedure

The answer given to the second criticism discussed in the previous paragraph leads us to other ways of identifying and, necessarily, categorizing metaphors. Metaphor Identification

Procedure Vrije Universiteit (MIPVU) (Steen et al. 2010), a modified version of Pragglejaz (2007), includes direct and implicit metaphors, borderline cases of metaphoric use, personification, and signals of metaphors. In the next paragraphs, I explain and illustrate each.

Direct metaphors are mappings (links) triggered by content words within a text segment (typed in italics below) that are topically incongruous with the rest of the text:

> (1) IN SYSTEMS development nothing is more fundamental than assessing user requirements. (…) But many system developers are unable to assess requirements properly. They seem to think that you can ask a businessman what his requirements are and get an answer that amounts to a draft system specification. *A doctor doesn't ask his patient what treatment to prescribe. The patient can explain only what the problem is. It is the doctor that provides the remedy.* (…) A user may have a deep knowledge of business problems, but knowing little about computers, has no idea how they should be tackled. Yet, analysts are heard asking time and again, 'Tell me what you want. (…)' But of course the users don't know what they want, so they end up getting another duff system. An effective analyst provides the same service to the business as *the doctor provides to the patient* (Steen et al. 2010: 57).

The segments in italics display a shift from the topic of computer science towards medicine, in a way that they use direct language to establish mappings between system developers' and doctors' domains (Steen et al. 2010: 57). "Direct" means explicit concepts and referents that one needs to link to the target domain (Steen et al. 2010: 10), while "indirect" refers to the use of a source domain to understand a target domain in an indirect manner (Steen et al. 2010: 11).

Implicit metaphors are instances of words, typically pro-forms, referring to other words that one actually uses metaphorically. For example, *it* refers to *step* in the following sentence: "*Naturally, to embark on such a step is not necessarily to succeed immediately in realising it"* (Steen et al. 2010: 15). Here, it is *step* that is used metaphorically, *it* simply refers back to it, and *it* is labelled as implicit metaphor. (Steen et al. 2010: 15). Also, in elliptical texts with direct or indirect meaning explainable by some form of cross-domain mapping from a more basic meaning or referent than the contextual meaning which is recoverable from the lexical units, the analyst designates such occurrences as implicit metaphors (Steen et al. 2019: 37). For example, in the case of *but he is*, which one may read as *but he is [an ignorant pig]*, when the ellipted expression refers to a male colleague, the verb *is* an implicit metaphor (Steen et al. 2019: 37).

Borderline cases occur when one can interpret a word both metaphorically and non-metaphorically at the same time; in other terms, the difficulty on deciding the contextual

meaning of the expression is the source of ambiguity (cf. Steen et al. 2010: 46). For example, *in* in the sentence "*In* primary schools, class teachers are expected to be polymaths (…)" leads to a borderline case (Steen et al. 2010: 46). *In primary schools* may refer to the actual place (literal meaning) or an activity (metaphoric meaning), or both understandings are possible on grounds of the ambiguous *in* (cf. Steen et al. 2010: 46). Regarding the non-literal meaning of *in*, we may see that, actually, *in* has a metonymy-based metaphoric meaning. ACTION connects to the physical place (*primary schools*), and the meaning shifts on metaphorically in the next phase. It is the ACTION DONE AT A GIVEN PLACE that establishes the link between the two meanings, enabling the metaphorical association, but the motivation of the association is metonymical in this manner. When encountering such borderline cases, researchers indicate the problematic words as "WIDLII"[3] (Steen et al. 2010: 46). Therefore, *in* in this example would be "WIDLII".

Personification means that the contextual meaning of a lexical unit is either metaphorical or non-metaphorical: in *furious debate* (Steen et al. 2010: 34). One may use *furious* metaphorically or metonymically[4], but, when one uses it metonymically, *debate* ceases to be metaphorical (Steen et al. 2010: 34). The potential metaphorical interpretation of *furious*, however, remains, and this should be marked as and attributed to potential personification (Steen et al. 2010: 34).

Signals of metaphors are explicit linguistic units, for example *like* in these lines by Bruce Springsteen: "*Sometimes it's like someone took a knife, baby, edgy and dull, /And cut a six-inch valley through the middle of my soul*" (Steen et al. 2010: 10). As we can see, additional signals like *as, more, less, more/less*, etc. (Steen et al. 2010: 40-41) indicate that linguistic units used metaphorically ensue.

The difference between CMT and MIPVU is that the first is a theory and the second is a protocol applicable to finding lexical units with potential metaphorical use. CMT considers metaphors as mappings between source and target domains, which means that metaphor is an instance of the conceptualization of a metaphorical linguistic expression (idiom), while MIPVU regards actual words as metaphors (cf. Nacey et al. 2019: 61). Originally, MIPVU is not a protocol to analyze conceptual metaphors (cf Nacey et al. 2019: 61). Therefore, its categories are not entirely compatible with those of CMT, although some overlaps may be possible. Nokele's (2014) study proves this statement. She combined MIPVU and CMT to

[3] "When In Doubt, Leave It In", i.e. in the analysis for metaphorical use (Steen et al. 2010: 19).
[4] When *furious* is used metonymically in the structure *furious debate*, we refer to the whole by means of a part (the participants were furious in the course of the debate, thus rendering it a *furious debate*).

find conceptual metaphors (Nokele 2014: 79-84). Her results show that direct, indirect, and implicit metaphors may be structural, ontological, or orientational, although this overlap is not systematic, for example an indirect metaphor may be structural: HUMANS ARE MACHINES in the case of *drive* in *The/ warders/ would/ then/ drive/ us/ harder* (Nokele 2017: 84) or orientational: HAPPY IS UP in *high* or ontological: EMOTION IS FIRE in the case of *snuffed out* in *The/ high/ spirits/ with/ which/ we/ left/ Pretoria/had/ been/ snuffed out/ by/ its/ stern/ atmosphere* (Nokele 2017: 79). As Nacey et al. (2019: 61) write, MIPVU requires the researchers to disclose the mappings of the lexical units while deciding on their contextual meanings (target domains), on the basic meanings (the source domains) while deciding if a lexical unit is used metaphorically.

2.6 L1 Influence in L2 Idiom Production

In the previous section we have seen that MIPVU analyses the metaphoric use of individual words in general. However, the second major concept around which the present thesis revolves is L1 influence in L2 idiom production. In the light of the first sentence of this paragraph, idioms as entire structures are out of the scope of MIPVU, as it breaks down idioms into their constituent words to be analyzed word-by-word on grounds of idiom decomposability to speakers (cf Steen et al. 2010: 81). In the literature, one can find different expressions used to refer to idioms, for example *figurative expression, linguistics metaphor, metaphorical linguistic expression*. On grounds of the cognitive linguistic views of Langlotz (2006c: 90), in my thesis idioms are bipartite semantic structures including a literal and a figurative meaning. I add that such structures need to be multi-word, fixed to some extent and known to the language users of a language. For example, in its literal sense, *throw a spanner into the works*, describes a scene which belongs to the domain of operating a machine (Langlotz 2006b: 90). The non-literal meaning has a different and more abstract mental formulation: cause a problem to prevent something from happening (Langlotz 2006b: 90). The lexical constituents encode part of a literal source-domain to establish a concrete conceptual background to model the abstract target-domain of the idiomatic meaning (Langlotz 2006b: 90). Put differently, the scene of *throwing a spanner into the works* results in a concrete conceptual scenario relative to which one can conceptualize the more abstract ACTION OF CAUSING PROBLEMS TO HINDER DEVELOPMENT (Langlotz 2006b: 90).

As hinted earlier, conceptual metaphors motivate idioms (Kövecses 2006: 121). Motivation means that we understand why an idiom has the meaning it has with a view of the literal meaning (Langlotz 2006a: 45). However, not all idioms are motivated, namely display

some link between the literal and non-literal meaning to enable one to interpret the idiom sensibly (Dobrovol'skij and Piirainen 2018: 9-10). As Dobrovol'skij and Piirainen (2018: 10) state, the following types of idiom motivation exist: Semantic motivation, syntactic motivation, motivation based on textual knowledge, and index-based motivation.

It is the field of semantic motivation where metaphors play an important role in motivating idioms. Semantic motivation includes three subtypes: metaphors, symbols, and coercion (Dobrovol'skij and Piirainen 2018: 10). The mutually non-exclusive subcategories of metaphors may be complex schema mappings (ARGUMENT IS WAR), image-schema mappings (containers, paths, linear scales, etc.), one-shot rich-image mappings (no system of concepts is being mapped: *dunk a donought with hand* vs *dunk a basketball with hand*), and Aristotle's metaphor, following the principle SOMETHING IS WHAT IT HAS SALIENT PROPERTIES OF[5] (*Man is a wolf*) (Lakoff 1987b: 194-195).

Symbols differ from metaphors in terms of the manner they motivate the idioms: symbolic motivation uses the symbolic function of a constituent (Dobrovol'skij and Piirainen 2018: 10). For example, to see the non-literal meaning of *to keep the wolf from the door* 'to ward off starvation or financial ruin; to maintain oneself at a minimal level', we need to rely on our knowledge of the conventional and symbolic meaning of *wolf*: it symbolizes danger, which is specified in the idiomatic meaning as starvation or financial ruin (Dobrovol'skij and Piirainen 2018: 16).

As Dobrovol'skij and Piirainen (2018: 10) posit, coercion utilizes the lexical polysemy of the idiom and motivates the relation between the literal and figurative meaning of the expression. Consequently, the former causes one to perceive the literal meaning and the second to realise the idiomatic meaning (Dobrovol'skij and Piirainen 2018: 10). For instance, *to turn on the waterworks* 'to start crying, especially deliberately, in order to make someone do what you want' includes *water*, which means water as a substance and water as tears. The literal form of the idiom forces one to think of the literal meaning. In order to understand the idiomatic meaning, the non-literal meaning of *water* is to be presumed. Therefore, the semantic link is based on the lexical ambiguity of *water* and on paying attention to the role of the structure in dissolving the ambiguity (Dobrovol'skij and Piirainen 2018: 19).

Syntactic motivation of idiom is based on the syntactic structure of the idiom and its typical interpretations rather than on logical coherence (Dobrovol'skij and Piirainen 2018: 22). The examples of similes, such as *as plain as a pikestaff* 'very obvious' and *as dead as a doornail* 'absolutely dead' illustrate this concept (Dobrovol'skij and Piirainen 2018: 22). All

[5] Capital letters in the original.

constructions of this type intensify the actual meaning and often contain expressions like ‘very’ or ‘absolutely’ (Dobrovol’skij and Piirainen 2018: 22). Alliteration, rhyme or rhythm may characterize such idioms (Dobrovol’skij and Piirainen 2018: 22). Similarly to them, Benczes (2019: 153) also posits that alliteration and rhyme may motivate expressions, including idioms. Benczes (2019: 7) proposes that the sound form does influence meaning, a phenomenon termed as *phonological motivation*. She defines this term “as the phonological conditions that lead to a non-arbitrary relationship between (1) form and meaning; and (2) form and form” (Benczes 2019: 7), where “form” means the sound form of a word. She uses Radden and Panther’s (2004) semiotic approach to demonstrate her theory (Benczes 2019: 7). The first type of relation can work bidirectionally, forming sound-meaning pairs due to perceived coincidental similarities (Benczes 2019: 9-10). Sound forms may motivate meaning, for example in the cases of onomatopoeia (*cuckoo, meow*), and meanings sound forms, illustrated by for example consonant clusters (phonesthemes) such as [sp] in words where it stands in the word-initial position, for instance in spy, spew, spit, often assuming a negative connotation (Benczes 2019: 8). The relationship between form and form refers to the observation that the sounds of a word influences those of another (Benczes 2019: 9). Alliteration in compounds is an example to this, for example *belly button* demonstrate this, where alliteration determined the choice of *belly* over *tummy* (referring to Benczes 2010: 222, Benczes 2019: 9). Similarly, rhyming compounds like *snail mail* gained popularity after the start of the post-email era, possibly due to the rhyme with *snail* (referring to Benczes 2013, Benczes 2019: 10), invoking slowness, despite clear conceptual differences (cf Benczes 2019: 10). Alliteration and rhyme may motivate not only compounds, but also binomial structures, idiomatic expressions, proverbs, and slogans (Benczes 2019: 153). These linguistic devices not only emphasize expressions but also aid in their correct interpretation and memory retention (referring to Benczes 2013, Benczes 2019: 146-147). Additionally, phonological motivation facilitates faster processing and acceptance of new expressions (referring to Bybee 2010: 60–1, Benczes 2019: 147)), while providing a playful, informal tone in word combinations (referring to Benczes 2013, Benczes 2019: 147). She analyses the role of rhythm from the point of view of first language acquisition only and within the framework of child-directed-speech (Benczes 2019: 37).

In the case of idiom motivation based on textual knowledge, one derives the idiom’s structure from an existing text and one must have appropriate information about the text to understand the connection with the idiom (Dobrovol’skij and Piirainen 2018: 23-24). For example, *the Trojan Horse* ‘a concealed danger; an enemy concealed within someone or

something that attacks the group or organisation he/she belongs to' obtains its motivation from a well-known allusion from Homer's *Iliad* and is either unknown (opaque) to speakers or motivated by textual knowledge (Dobrovol'skij and Piirainen 2018: 24). This type of motivation excludes semantic motivation and relies on knowledge of the story behind it (Dobrovol'skij and Piirainen 2018: 24).

Unlike the two previous types, index-based motivation does not rely on semantic or syntactic similarity or cultural convention, but on phonetic associations or general principles of pragmatics (Dobrovol'skij and Piirainen 2018: 26). Indexation refers to pointing to a symptom or feature rather than similarity or convention (Dobrovol'skij and Piirainen 2018: 26). There are two types of indexations: phonetic and conceptual (Dobrovol'skij and Piirainen 2018: 26). Phonetic indexation relies on sound features while conceptual indexation relies on the conceptual organization of the expression as a whole (Dobrovol'skij and Piirainen 2018: 26). An example of phonetic indexation is the German idiom *den heiligen Ulrich anrufen* (to call on the Holy Ulrich) which means 'to vomit', and the sound complex ['ulriç] is associated with vomiting sounds. An example of a conceptually indexed idiom is *is the Pope a Catholic?*, which is motivated by the absurdity of the literal interpretation of the words (Dobrovol'skij and Piirainen 2018: 26-27). This idiom "is used as an answer to a question in order to say that the answer is obvious and definitely "yes" '(Dobrovol'skij and Piirainen 2018: 27).

Having discussed the CMT terminology relevant to this work and discovered the correlation between the technical terms, now we may proceed to describe the factors influencing idiom processing. As mentioned earlier, I briefly describe four models on idiom processing: Idiom diffusion model, Graded Salience Hypothesis, Dual Idiom Representation, and the Literal Salience Model. These are all related to offline idiom research, as my thesis concentrates on offline experiments. Therefore, I do not discuss online theories like Literal Plausibility (Cieślicka 2015) here.

The four hypotheses exhibit various degrees of sensitivity to L1-L2 difference in idiom comprehension. Liontas' Idiom Diffusion Model states that language learners rely on the literal meanings of words when presented without context. While it does not explicitly address L1-L2 differences, the model implies that learners may approach idioms similarly regardless of their native languages. The second model, the Graded Salience Hypothesis proposed by Giora, acknowledges that cultural and linguistic backgrounds influence salience. Different backgrounds can lead to variations in the salience of idiomatic meanings. For example, idioms related to specific cultural experiences may be more salient to native

speakers compared to non-natives. Abel's Dual Idiom Representation model suggests that native speakers encounter idioms more frequently than non-natives. This frequency difference can impact the reliance on lexical and conceptual entries for understanding idioms. Non-natives may need to rely more on constituent words and conceptual entries due to less exposure to idiomatic expressions. The Literal Salience Model, an extension of the Graded Salience Hypothesis, suggests that language learners prioritize the literal meaning of L2 idioms, even if they are familiar with their figurative meanings. Although it does not openly address L1-L2 differences, this model underscores a potential shared processing pattern among L2 learners.

In addition to different points of view regarding L1-L2 difference, these models also offer different perspectives on how language learners understand idiomatic expressions. The Idiom Diffusion Model has two stages: prediction and confirmation/replacement. Learners initially rely on literal meanings without context and then accept or discard inferred meanings. The Graded Salience Hypothesis considers salience, influenced by factors like conventionality and frequency. Salient meanings are readily accessible, while nonsalient meanings require more processing. The Dual Idiom Representation model suggests idioms vary in decomposability and storage. Native speakers encounter idioms more frequently, while non-native learners rely on lexical and conceptual entries. The Literal Salience Model builds on the Graded Salience Hypothesis. Learners prioritize literal meaning before considering figurative meaning in rich contexts. These models our understanding regarding idiom comprehension, considering literal/figurative meanings, salience, decomposability, and experience.

2.6.1 Idiom Diffusion Model

Liontas' (2002) two-stage idiom diffusion model states that when trying to understand idioms, language learners usually resort to the literal meanings of the words constituting the idioms when presented without context - this is the prediction phase (Liontas 2002: 182). Then, after a gradual elimination of the interpretations possible, the learners accept or discard the meanings they inferred in the confirmation or replacement, reconstructive phase (Liontas 2002: 182).

2.6.2 Graded Salience Hypothesis

The graded salience hypothesis proposes that the salience of meanings associated with words, phrases, or sentences is not uniform but rather influenced by several factors (Giora 2002:

490). According to Giora (2002), it is the salience of an idiom which determines whether one processes the figurative or literal meaning first in idiom comprehension (Giora 2002: 490).

Salient meanings are those that are both encoded in the mental lexicon and possess prominence due to their conventionality, frequency, familiarity, or prototypicality (Giora 2002: 490). These meanings are readily accessible and one immediately recognizes them upon encountering a linguistic stimulus; on the other hand, nonsalient meanings, such as conversational implicatures constructed on the spot, require additional inferential processes and substantial contextual support for one to understand them (Giora 2002: 490-491).

The salience of meanings can vary based on different contexts and individuals. For example, in urban societies, one considers the conventional and frequently encountered meaning of *bank* as a financial institution salient, while its riverside meaning is less-salient (Giora 2002: 491). Similarly, for individuals heavily immersed in internet culture, the nonliteral meaning of surf holds greater salience compared to its literal meaning (Giora 2002: 491).

Giora (2002: 491) goes on to mention that cultural and linguistic backgrounds also play a role in salience. The "territorial" sense of The West Bank would be more salient for Israelis and Palestinians, who have a direct connection to the region, whereas it may have less salience for Canadians. This demonstrates how one's familiarity and experiential knowledge can influence the prominence of a meaning.

Moreover, salience extends to idiomatic expressions and irony (Giora 2002: 491). A less familiar idiom, such as *The goose hangs high*, may have a more accessible literal meaning, composed of salient meanings derived from its constituents, while its idiomatic meaning may be less accessible. Similarly, a familiar and conventional ironic phrase, like *Very funny* or *Big deal*, can have two equally salient literal and ironic interpretations.

Furthermore, the graded salience hypothesis accounts for innovative uses of conventional expressions (Giora 2002: 491). For instance, the phrase *read my lipstick*, a modification of the fixed expression *read my lips*, can have several salient interpretations, including the literal meaning related to *read my lipstick* and ironic meanings questioning the credibility of the speaker due to their "femininity." As we can see, the way of interpreting them varies in their salience and is determined by the frequency of exposure and experiential familiarity with the specific meaning.

In sum, according to the graded salience hypothesis (cf. Giora 2002: 491, referring to Gernsbacher 1984 and Giora, in press), meanings vary in salience degree rather than being an all-or-nothing phenomenon. Salient meanings, encoded in the mental lexicon and influenced

by factors like conventionality, frequency, familiarity, and prototypicality, are readily accessible when encountering a linguistic stimulus. In contrast, less-salient meanings lag behind and require additional cognitive processes and contextual support for comprehension.

2.6.3 Dual Idiom Representation

Abel (2003: 330) offers another model: dual idiom representation model (DIR). DIR has four assumptions, two of which refer to the lexical/linguistic level of the idioms, the third to their conceptual level, and the fourth to L1 and L2 mental lexicons. First, this model implies that idioms have a spectrum of decomposability, and the degree of their decomposability determines how one stores the idioms in the mind (Abel 2003: 342-343). Non-decomposable idioms need a separate entry in the mental lexicon, whereas it represents decomposable idioms through the entries of their constituent units (Abel 2003: 343). Second, in addition to decomposability, Abel (2003: 344-345) suggests that the higher the frequency of an idiom for the learner, the more likely it is that it will have its entry in the lexicon, in the case of both decomposable and non-decomposable idioms. Third, if a decomposable idiom has no lexical entries, the language learner will activate their conceptual level (Abel 2003: 347). This implies that the lexical level represents the literal meaning of the idiom, while the conceptual level represents its figurative meaning. And fourth, native speakers encounter idioms more frequently than non-natives; and, consequently, non-natives usually must rely on the lexical entries of the constituent words and conceptual entries more often than the natives (Abel 2003: 348).

2.6.4 Literal Salience Model

As an improvement of Graded Salience Hypothesis, this model states that the literal meaning of an L2 idiom is the first step for language learners when they try to understand the idiom, even if they are familiar with its figurative meaning and the idiom context is rich; they attempt the figurative meaning only as the second step (Cieślicka 2006a: 116). Cieślicka (2006a) analyses the differential availability of L2 literal and figurative meanings in terms of idiomatic expressions as L2 learners process them.

2.7 Summary and Conclusion

To conclude this chapter, we can see, in addition to the theoretical background, the difference between metaphors and idioms as used in this thesis. We have seen that researchers usually handle metaphors as semantic mappings between source and target domains. Metaphors are,

therefore, a type of motivation for idioms. Words used metaphorically are words used sometimes creatively, whose metaphorical interpretation is necessary to understand the non-literal meaning of the word. Idioms are multi-word, somewhat fixed structures, generally known to the speakers of a language, and have literal and non-literal meanings. Having discussed four major idiom theories, we may see that in many cases it is the literal meaning that serves as the primary clue to the learners. Individual differences, however, do exist in this respect, since, as, for example Giora's (2002) Graded Salience Model posits, any aspect salient enough of the idiom including its literal meaning may be helpful to the learner in processing it.

Building on the examination of metaphors and idioms as key elements of language that require both literal and non-literal interpretation, we now go on to discuss Second Language Acquisition (SLA) in terms of figurative language use. While metaphors and idioms are a specific linguistic challenge for learners, SLA research delves into the complex cognitive and social processes of the acquisition of these phenomena. As a result, we can better understand how learners handle such linguistic challenges and improve their language proficiency.

3 Figurative Language Use in Second Language Acquisition

3.1 Introduction

Since this work examines the use of metaphor and idioms in English by Hungarian language learners, it is essential to discuss issues related to second language acquisition. Therefore, the purpose of this chapter is to briefly explore the development of second language acquisition based on the literature. First, I discuss the Contrastive Analysis Hypothesis, including criticisms and proposed remedies. Second, I explore the Error Analysis, including explanations of errors and various error taxonomies. Third, I survey the application of the Contrastive Error Analysis methods in language teaching. Fourth, I briefly summarize the evolution of SLA over the past few decades with special attention to topical SLA questions. Fifth, I review the existing literature on second language acquisition, focusing on research related to teaching and learning idioms and metaphors. The chapter concludes with a summary.

3.2 The Contrastive Analysis

Fries (1945) formulated a fundamental idea that served as a cornerstone of the Contrastive Analysis, asserting that comparing L1 and L2 would lead to highly efficient teaching and learning materials (Fries 1945: 9). Lado (1957) further developed this concept, proposing that systematic comparison between the native language and the target language could predict which elements of the foreign language would be most challenging to learn (Lado 1957: vii, 2). His methodology involves a systematic comparison of the mother tongue and the second language across phonology, morphology, and syntax, and even extends to comparing the cultures associated with the two languages (Lado 1957: 1-2). Conclusions drawn from these comparisons highlight differences and similarities between L1 and L2, emphasizing their potential utility in language teaching and learning (Lado 1957: 2). The basic hypothesis of the Contrastive Analysis posits that language learners acquire elements more easily when they are similar between their native and target languages, whereas elements that differ are more challenging (Lado 1957: 2). Regarding difficulty, Lado (1957) notes that deceptive cognates and vocabulary items with partial overlaps between languages can pose significant challenges in language learning (Lado 1957: 84-85). I discuss these issues in Section 3.5 in detail.

Several other researchers also believed in the language teaching potentials of the Contrastive Analysis. Wardhaugh (1970) posited that contrasting two language systems had

been very popular in language teaching in terms of developing the best teaching materials (Wardhaugh 1970: 123). Dezső and Nemser (1972) argued that the problems of contrastive linguistics are also related to linguistic typology and that studies in this field can be significant for general linguistic theory (Dezső and Nemser 1972: 30) and the role of linguistics in foreign language teaching (Dezső and Nemser 1972: 34). They identified a theoretical goal, which was to use the results of contrastive analyses to formulate principles to explain the specificities of foreign language learning (Dezső and Nemser 1972: 36). Linguists felt that the Contrastive Analysis could be useful in education, to help with curriculum planning, textbook writing and to help teachers develop more effective teaching strategies (cf Dezső and Nemser 1972: 41-43).

One can divide the Contrastive Analysis into two parts: Theoretical Contrastive Analysis and Applied Contrastive Analysis (cf Budai[6] 2010: 166). The former is a purely language-typological, general, and areal linguistic approach, but the latter should be a tool in language teaching (Budai 2010: 166). The term *transfer* is an important concept in the Applied Contrastive Analysis. This term means „the influence resulting from the similarities and differences between the target language and any other language that has been previously acquired" (Biró 2007: 24, referring to Odlin, 1989: 27). Wardhaugh (1970) posits that the strong version of the Contrastive Analysis Hypothesis results in the capability of predicting learner difficulties in language learning (cf Wardhaugh 1970: 126). His hypothesis has a strong and weak version; the former considers predictions about the challenges of learning a second language essential, but the latter views them as possible but not necessary (Wardhaugh 1970: 127). Predictions are based solely on the L1-L2 comparison in the strong version, but the weak version relies on linguistic interference evidence and its use to explain L1-L2 similarities and differences (Wardhaugh 1970: 126). In other terms, the weak version analyzes the recurring errors that a learner makes in their output due to interference (Wardhaugh, 1970: 123). Out of the two, the weak version proved to be more feasible in practice; even Wardhaugh (1970) considered the strong version of CAH as "unrealistic and impracticable" (Wardhaugh 1970: 124).

In the same year, however, Oller and Ziahosseiny (1970) proposed a third version of CAH. They revised the two versions of CAH and formulated the following vantage points: The strong version posits that the greatest challenge arises when there is a substantial

[6] Due to the fact that his observations regarding the Contrastive Analysis and the Contrastive Error Analysis are related to the Hungarian-English language pair, I consider Budai's remarks especially important from the viewpoint of my work.

difference between the native and target language, suggesting that knowledge of the native language hampers learning the target language, particularly at points of significant difference (Oller and Ziahosseiny 1970: 185). On the other hand, the weak version recognizes that errors in the target language often reflect patterns of the native language but dismisses any real interference (Oller and Ziahosseiny 1970: 185). It argues that knowledge of the L1 does not obstruct learning the target language, with most difficulty occurring where the greatest difference exists (Oller and Ziahosseiny 1970: 185). A more moderate version of the CAH, aligned with the principle of stimulus generalization, proposes that learning is based on categorizing abstract and concrete patterns according to perceived similarities and differences (Oller and Ziahosseiny 1970: 185-186). Confusion may arise where patterns are minimally distinct in form or meaning in one or more systems, while correct generalization may occur where patterns are functionally or perceptually equivalent (Oller and Ziahosseiny 1970: 186). This version suggests that learning sounds, sequences, and meanings is most challenging where subtle distinctions are required, either between the target and native language or within the target language (Oller and Ziahosseiny 1970: 186); therefore, the two researchers posit that the moderate version of the Contrastive Analysis Hypothesis can explain both intralingual errors (Oller and Ziahosseiny 1970: 186, referring to Richards 1970) and interlingual errors (Oller and Ziahosseiny 1970: 186, referring to Selinker 1969a, 1969b). At this point, these terms need explanation; I discuss error types further in section 3.3. Mother tongue has its influence on interlingual errors, while intralingual errors are independent of the mother tongue and result from the properties of the target language (Richards 1971: 205). The following two examples include solutions by Hungarian native speakers learning English. The error in this example is interlingual: *under that tree *under **the** that tree* (Budai 2010: 221, 1979: 186). Here, an unnecessary addition of the determiner *the* is the error, which is due to the L1 (cf Budai 2010: 221). An intralingual error is present in this example: *... he offered <u>to lend</u> him more. *... he offered <u>giving</u> him more* (Budai 2010: 252). The error is the result of wrong selection, i.e. the use of Gerund (*giving*) instead of the To-infinitive *to lend* (cf Budai 2010: 252). The same intralingual errors can be found in learners who are learning the same target language but have a different mother tongue background, which explains why some types of errors are actually due to a feature of the target language such as grammar, vocabulary, etc. (cf Richards 1971: 205). Also, the moderate version of CAH predicts a higher prevalence of intralingual errors than interlingual ones due to "greater similarities between structures within a single language than" across languages (Oller and Ziahosseiny 1970: 186). Furthermore, it anticipates a decrease in the frequency of interlingual errors relative to intralingual ones

during the learning process, given the continuous adjustment in the learner's knowledge (Oller and Ziahosseiny 1970: 186). As the student acquires more knowledge of the target language, there is less need for adding any L1 item to the L2 knowledge, reducing the likelihood of confusions across the two language systems (Oller and Ziahosseiny 1970: 186).

However, the Contrastive Analysis Hypothesis faced some criticism from the viewpoints of its empirical, theoretical and practical aspects (Ellis 1992: 27). The empirical critique focused on doubts about the Contrastive Analysis's ability to predict errors (Ellis 1992: 27), with subsequent studies challenging the generalizability of earlier findings (Ellis 1992: 28, referring to Dulay 1973 and Dulay and Burt 1973, 1974a). Dulay and Burt (1973) established four error types of psycholinguistic origin: (1) interference-like errors, which reflect L1 structure and are not found in the L1acquisition data; (2) first language developmental errors, which do not reflect L1 structure but are found in L1 acquisition data; (3) ambiguous errors, which are neither interference-like nor developmental; (4) unique errors, which do not reflect L1 structure and also not found in L1 acquisition data (Ellis 1992: 28, referring to Dulay and Burt 1973). Dulay and Burt (1973) compared the occurrences of these error types in several articles on language transfer with one another, and the interference error ratio in their study was only 3 per cent, while other studies ranged mainly between 31 and 36 per cent (Ellis 1992: 28-29, referring to Dulay and Burt 1973). As Ellis (1992) writes, empirically validating the Contrastive Analysis Hypothesis has been challenging due to the absence of widely accepted criteria for identifying grammatical utterances resulting from language transfer, and it is especially problematic to distinguish interference errors from developmental ones (Ellis 1992: 29).

The Contrastive Analysis Hypothesis received some criticism. Theoretical criticisms included the following: (1) the critique of behaviourist language learning by Chomsky in 1959; (2) examining the link between the Contrastive Analysis-predicted "difficulty" and error; and (3) addressing linguistic challenges in the Contrastive Analysis, including "translation equivalence" and accommodating learner variability (Ellis 1992: 30).

Chomsky's (1959) critique targeted behaviourism, asserting that extrapolating from animal behaviour studies, as Skinner did, could not explain human language learning (Ellis 1992: 30). The Contrastive Analysis is in fact linked to the behaviourist view that language learning is largely related to the development of habits (Lado 1957: 58). Linguists dismissed terms like "stimulus," "response," "analogy," "imitation," and "reinforcement" for their inability to account for language creativity and real-world learning observations (Ellis 1992: 30). Originally focused on first language acquisition, these critiques extended to second

language acquisition (SLA), challenging the interference assumption that L1 habits intrude into the L2 system (Ellis 1992: 30). Beyond behaviourism, objections emerged against the Contrastive Analysis Hypothesis, questioning the equivalence of "difference" with "difficulty" and "difficulty" with "error." (Ellis 1992: 31). Empirical and theoretical challenges undermined the assumed link between difficulty and error (Ellis 1992: 31).

The linguistic foundation of the Contrastive Analysis also faced criticism, particularly for lacking a theoretical basis for "translation equivalence." (Ellis 1992: 31). Many deemed comprehensive analysis, incorporating pragmatic and linguistic aspects, necessary (Ellis 1992: 31).

The Contrastive Analysis received criticisms for neglecting variability analysis (Ellis 1992: 32, referring to Sridhar 1981). Addressing learner variability in the Contrastive Analysis gained importance, emphasizing the need to predict non-linguistic and linguistic contexts for transfer errors (Ellis 1992: 32). The final set of criticisms questions the practical value of the Contrastive Analysis for language teachers (Ellis 1992: 32). If the majority of learner errors are not due to interference, its utility has limitations compared to initial expectations (Ellis 1992: 32). Other doubts include superficial predictions that merely confirm teachers' common experiences and the claim that presenting both similar and dissimilar items challenge the rationale of the Contrastive Analysis; also, the original argument that it guides item selection for teaching weakened (Ellis 1992: 32).

A significant pedagogical concern arises from evolving views on the role of error in language learning (Ellis 1992: 32). While the Contrastive Analysis aimed to prevent errors, changing attitudes see error as positive evidence of ongoing hypothesis testing, and this challenges the need for a teaching program solely focused on error prevention, which questions the necessity of the Contrastive Analysis (Ellis 1992: 33). The answer depends on the importance assigned to explaining the causes of errors (Ellis 1992: 33). However, a formal Contrastive Analysis may not be necessary for identifying instances of L1 interference, and identification is a less potent use of the Contrastive Analysis compared to prediction (Ellis 1992: 33). Critics also formulated concerns regarding the everyday pedagogical use of the Contrastive Analysis. Dressler (1972: 288) states that contrastive linguistics has not yet analysed the written and/or spoken contexts of sentences and that, without such contexts, one is unable to make well-founded decisions about for example the aspect of the sentence or articles when the learner has to translate a sentence (cf Dressler 1972: 289).

As response to the criticisms, the Contrastive Analysis hypothesis underwent three significant developments (Ellis 1992: 33). First, it was acknowledged that the anticipated

difficulty from the Contrastive Analysis could be avoidance rather than error (Ellis 1992: 33). Schachter (1974) presented the evidence supporting avoidance induced by the first language (1974) (Ellis 1992: 33, referring to Schachter 1974). Investigating relative clauses produced by adult L2 learners from various language backgrounds, she found that Chinese and Japanese learners, whose first languages lack English-like relative clauses, made fewer errors (Ellis 1992: 33, referring to Schachter 1974). In contrast, Persian and Arabic learners, with first languages resembling English in relative clause structure, made more errors (Ellis 1992: 33, referring to Schachter 1974). However, Schachter (1974) noted that Chinese and Japanese students made fewer attempts at using relative clauses, predicting the extent to which they avoided using such structures (Ellis 1992: 33-34, referring to Schachter 1974). Bertkau (1974) also found Japanese students scored lower in relative clause comprehension compared to Spanish learners (Ellis 1992: 34, referring to Bertkau 1974). These studies suggested that the learner's L1 played a definite role in both production and reception of L2, without the predicted "difficulty" resulting in "errors" as per the Contrastive Analysis (Ellis 1992: 34). Ellis (1992) concludes that the Contrastive Analysis is capable of predicting (1) avoidance of structures and (2) comprehension errors, rather than production errors (Ellis 1992: 34). In a later work, Schachter (1970: 205) regards the strong version as an *a priori*, while the weak one an *a posteriori* method. Ellis (1999) posits that just a few errors stem from language transfer as per the weak version, and the Contrastive Analysis is an *a posteriori* rather than an *a priori* method (cf Ellis 1999: 308, referring to Wardhaugh 1970).

Secondly, empirical evidence revealed that interference was more probable when there was partial similarity between first and second language items, contrasting with situations of total difference (Ellis 1992: 33). The Contrastive Analysis Hypothesis posited that learning difficulty stems from interference from old habits when learning new habits (Ellis 1992: 34). The expectation was that difficulty (and errors) would positively correlate with the magnitude of the distance between languages (Ellis 1992: 34). However, Lee (1968) reported little interference from his English mother tongue when learning Chinese, suggesting that differences in language structures were a factor (Ellis 1992: 34, referring to Lee 1968). Interference seems more likely when there is a "crucial similarity measure" between the first and second languages (Ellis 1992: 34). Wode (1976, 1978) observed interference in L2 acquisition of English negatives and interrogatives from German, occurring at specific developmental points with mirrored structures (Ellis 1992: 34, referring to Wode 1976, 1978). Jackson (1981) and Zobl (1983a) similarly noted errors when there were both similarities and contrasts between equivalent items or structures in the two languages (Ellis 1992: 34-35,

referring to Jackson 1981 and Zobl 1983a). While the need for "relative similarity" aligns with transfer theory, James (1980) emphasizes that interference is greatest with a certain degree of similarity and decreases with "neutral resemblance." (Ellis 1992: 35, referring to James 1980). Identifying when L1 interference occurs in specific contexts requires precise understanding of the "crucial similarity measures," involving a complex balance of psychological and linguistic factors, a challenge not addressed by the traditional Contrastive Analysis (Ellis 1992: 35). We can see that L1 interference is context-dependent, occurring in some situations but not in others and that the task for SLA research is to precisely determine the "crucial similarity measures" that can reliably predict or explain when interference occurs (Ellis 1992: 35). This challenge is intricate, involving a careful balance between psychological and linguistic factors—a dimension that the traditional Contrastive Analysis did not deal with (Ellis 1992: 35).

Thirdly, a crucial recognition emerged: linguists acknowledged that error was a multi-factor phenomenon, with interference interacting intricately with other factors (Ellis 1992: 33). The initial research challenging the role of L1 in SLA, such as Dulay and Burt (1973), assumed that an error resulted from either interference or other factors like developmental processing (Ellis 1992: 35, referring to Dulay and Burt 1973). Instead, we should say that errors may have variable causes, with no single, invariable factor (Ellis 1992: 35). Hatch (1983a) delves into the influence of 'naturalness' factors and interference in SLA, concluding that both factors often play a role in phonology and morphology, while naturalness factors may dominate in higher language levels like syntax and discourse (Ellis 1992: 35, referring to Hatch 1983a). Caden et al. (1975) noted in their study of Spanish learners acquiring L2 English that all learners followed the same developmental route in negatives (Ellis 1992: 36, referring to Caden et al. 1975). Although 'no + V' seemed like interference from Spanish, it was more likely a developmental feature induced by 'naturalness' factors (Ellis 1992: 36). The presence of a developmental pattern in the learner's L1 could extend the use of a specific pattern (Ellis 1992: 36). They suggested that learners confirmed the pattern through L1 knowledge, which prolonged its usage (Ellis 1992: 36). A more advanced structure, due to continued attention to input data, replaced a confirmed pattern (Ellis 1992: 36). In SLA, three sets of factors are likely involved: universal factors related to the organization of natural languages, specific factors about the learner's L1, and specific factors about the L2 (Ellis 1992: 36). A multi-factor approach necessitates understanding the relationships between these factors in acquiring various L2 items (Ellis 1992: 36). Gass (1980) proposes that universal factors determine the general learning outline, and language-specific considerations come into

play only where universal factors are indeterminate (Ellis 1992: 36, referring to Gass 1980: 180). The role of the first language, as suggested by researchers like Gass (1980), is complex, with interference being relevant only when linked to non-interference factors (Ellis 1992: 36).

The Contrastive Analysis hypothesis lost favour as it became evident that CA could neither predict nor explain a significant number of errors. (Ellis 1992: 37). This led researchers to explore alternative explanations for Second Language Acquisition (SLA), moving away from the behaviourist perspective of language learning as habit-formation (Ellis 1992: 37). Instead, a more mentalist approach gained popularity, acknowledging the learner's active contribution (Ellis 1992: 37). Viewing SLA as a process where the learner actively engages involves attributing strategies to the learner for organizing L2 data and utilizing existing knowledge (Ellis 1992: 37). The concept of *strategy* contradicts the behaviourist focus on observable events but aligns with a cognitive view of language learning (Ellis 1992: 37). The key question became how the behaviourist notion of *interference* could be reframed as a learner *strategy*. (Ellis 1992: 37). Sridhar (1981) notes that *interference* and *strategy* are not incompatible; the learner's L1 knowledge can be an input into hypothesis generation (Ellis 1992: 37, referring to Sridhar 1981).

Corder (1978b) proposes reframing 'interference' as a learner 'strategy', as he suggests that the learner's L1 may facilitate the learning process of L2 by helping progress more rapidly along the 'universal' route when the L1 is similar to the L2 (Ellis 1992: 37, referring to Corder 1978b). 'Interference' errors result from 'borrowing,' where learners use their L1 to compensate for insufficient target language resources (Ellis 1992: 37). In addition to Corder's (1978b) proposal, which redefines 'interference' as 'intercession,' viewing it as a communication strategy (Ellis 1992: 37), Krashen (1981a) also suggests using the L1 as a resource for initiating utterances when learners lack sufficient acquired knowledge of the target language (Ellis 1992: 37, referring to Corder 1978b and Krashen 1981a).

Strategies, including L1 knowledge, are inputs for cognitive views of SLA (Ellis 1992: 37). Scholars like McLaughlin (1978a) and Taylor (1975) argue that employing the L1 reflects a general psychological process, which is relying on previous knowledge to enhance new learning (Ellis 1992: 37-38, referring to McLaughlin 1978a and Taylor 1975). While the behaviouristic notion of 'interference' may be discardable, 'intercession,' rooted in the learner's active role in SLA, remains crucial for a comprehensive theory of SLA (Ellis 1992: 38).

In the exploration of "translation equivalence", the Contrastive Analysis must encompass not only linguistic differences but also pragmatic contrasts, considering stylistic

uses, form-function relationships, and communicative networks (Ellis 1992: 38). Contrastive Pragmatics addresses the ways speakers use languages, with roots in Lado's (1957) work on cultural differences in language usage (Ellis 1992: 38, referring to Lado 1957). Sajavaara (1981b) suggests the Contrastive Analysis should reference communicative networks rather than solely linguistic parameters (Ellis 1992: 38, referring to Sajavaara 1981b). Riley (1981) proposes various approaches, including contrasting linguistic realizations of a specific function or examining different functions served by the same linguistic structure (Ellis 1992: 38, referring to Riley 1981).

An essential question arises: to what extent are communicative parameters universal or language-specific (Ellis 1992: 38) James (1981) questions the universality claims of communicative functions, arguing that if they are universal, there may be no need for 'Contrastive Pragmatics' due to the absence of language differences in usage (Ellis 1992: 38, referring to James 1981).

The Contrastive Pragmatics not only compares communicative functions across languages but also explores how different languages express the same functions (Ellis 1992: 38). While communication systems may have universal elements, there exist obvious differences in how languages realize the same functions, especially in formal expressions of polite requests (Ellis 1992: 38). It is crucial to know the specific situations and conditions in which learners transfer the manifestations of a function from their native language (L1) to their utilization in the second language (L2). (Ellis 1992: 38-39). Schachter and Rutherford (1979) conducted a study in this issue, and they observed errors in the English of Chinese and Japanese learners, which American teachers diagnosed as confusion between active and passive voice (Ellis 1992: 39, referring to Schachter and Rutherford 1979). Schachter and Rutherford (1979) argued that these errors reflected the sentence structure of Chinese and Japanese, emphasizing a 'topic-comment' structure transfer (Ellis 1992: 39, referring to Schachter and Rutherford 1979). As the Contrastive Analysis increasingly considers pragmatic issues, it has the potential to regain both its theoretical foundation and practical value for language teachers (Ellis 1992: 39).

3.3 The Error Analysis

The Error Analysis emerged in the 1970s, replacing the original Contrastive Analysis in the study of errors (Ellis 1999: 47). The Contrastive Analysis aimed to predict learner errors by identifying linguistic differences between their L1 and L2 (Ellis 1999: 47). It assumed errors resulted from interference when learners transferred L1 habits to the L2, and interference as

the result from the difference between L1-L2 habits (Ellis 1999: 47-48). The Error Analysis became prominent as this assumption faced a number of questions (Ellis 1999: 48). Unlike the Contrastive Analysis, which focused on fully-formed languages, the Error Analysis introduced a methodology for examining learner language, making it a suitable starting point for studying L2 acquisition (Ellis 1999: 48).

Before proceeding with the discussion of learner errors, we need to remember that there are several aspects of making a distinction between errors in terms of L1 and L2, mainly interlingual and intralingual errors (cf Richards 1971: 205), as discussed in section 3.2. However, Budai (1979) states that there are four sources – therefore types – of errors: L1 interference may be either direct or indirect; interference within the L2; and L3 influence (cf Budai 1979: 180)[7]. What Selinker (1969a, 1969b) and Richards (1970) regard as interlingual and intralingual errors, respectively (Oller and Ziahosseiny (1970: 186, referring to Selinker 1969a, 1969b and Richards 1970) are the results of direct L1 interference and interference within the L2, respectively, in Budai's (1979) taxonomy. Section 3.2 has illustrated and explained the latter two phenomena. The indirect Hungarian L1 interference is the cause of this error: *I have heard you <u>have given up</u> / you <u>gave up</u> smoking. *I have heard that <u>you had given up</u> smoking.* (Budai 2010: 237). The majority of the instances of using Present Perfect is rendered with the Past in Hungarian; therefore, the learner glided the tense as if the superordinate clause had included a Past Tense verb[8] (cf Budai 2010: 237). We may say that the indirect interference of L1 is the L1 influence triggered by the fact that the target language forces the learner to use a structure which is foreign to the L1 (cf Budai 2006: 14). The indirect L1 interference and the L2 interference are difficult to distinguish (Budai 1979: 188). The interference of L3 on L2 is exemplified here in terms of a German L3 in the case of a Hungarian L1 and English L2: instead of *to the factory*, the learner wrote *to the *fabrik* (cf Budai 2010: 267). In the case of this type of interference, some L3 feature interferes with the L2 structure, as illustrated by the example.

Richards (1971: 205) is looking for answers to the question of which types of intralingual and developmental errors occur while learning English. Developmental errors reflect the learner's hypotheses about English, and these hypotheses are based on limited, i.e., classroom and textbook experiences (Richards 1971: 206). From intralingual errors, he identifies the general characteristics of rule learning, which can be (1) over-generalisation

[7] Budai (1979: 180) states that there are are additional sources of errors: (1) lack of language aptitude and (2) that of hard work, as well as (3) inattentiveness and superficiality, but these factors are out of my scope of research.

[8] Another remark may be that both Hungarian sentences may include Past.

(application of already known phenomena to new situations, for example in: **he can sings*); (2) ignorance of rule restrictions (analogous application of a previously learned rule to a new situation, as in **I made him to do it*); (3) incomplete application of a new rule: **He opening the door.*; and (4) false concepts hypothesised as here: **he is speaks French,* where *is* may be regarded as the marker of present tense: (Richards 1971: 206-11).

Corder (1967: 166-167), draws our attention to a difference between error and mistake. The former is systematic and the fault of competence, while the latter is unsystematic and the result of faulty performance (Corder 1967:166-167). Mistakes are therefore not and should not be part of the Error Analysis (Ellis 1999: 51, cf Corder 1967: 167). Ellis (1999: 48) outlined the steps of the Error Analysis research: (1) collecting speech samples from language learners, (2) identifying errors, (3) describing errors, (4) explaining errors, (5) evaluating errors according to their severity. In fact, according to Corder (1973), it is the differences between the interlanguage and its target language counterpart that one needs to explore (Corder 1973: 275). He classifies these differences between interlanguage and target language into four categories, thereby distinguishing four main types of errors: (1) omission, as in *I was told: there is bus stop* (*the* missing before *bus*); (2) addition, as in *I have a great difficulty in …* (*a* added); (3) selection of an incorrect element, as in *Hier müssen Sie nicht rauchen* "You do not have to smoke here" (*müssen* 'have to' instead of *dürfen* 'may'[9]); and (4) misordering *J'aime le café beaucoup* "I like a lot coffee" (*beaucoup* 'a lot' should follow *J'aime* 'I like'[10]) (Corder 1973: 277). In the next step, Corder (1973) maps these types of errors onto the different linguistic units: phonology, grammar and lexis (Corder 1973: 278-280). There are cases when an error fits into more than one error type (cf Corder 1973: 279). In order to answer the question of why errors occur, the Error Analysis can be linked to psycholinguistics and/or language learning theory. It also points to individual differences between learners, since not everyone has the same intelligence, memory or motivation, and the importance of the state of the moment (tiredness, distraction, etc.).

Some additional, important concepts belong to studying the method of the Error Analysis: interlanguage and fossilization. Selinker (1972) introduced Interlanguage Theory, suggesting that language learners develop a unique linguistic system, an "interlanguage", which is neither their native language nor the target language (Selinker 1972: 214). This phenomenon has been labelled in a number of ways: idiosyncratic dialect, interlingua, approximative system, learner's language (Hong 1980: 12, referring to Corder 1971, James

[9] The translation and comments are mine.
[10] The translation and comments are mine.

1971, Nemser 1971, and Henzeli 1975, respectively). This transitional system represents the learner's evolving linguistic rules and structures. Selinker (1972) stated that the basis of interlanguage was the linguistic output of the language learners while they attempted to apply L2 norms (Selinker 1972: 222). Selinker (1972) identified several processes contributing to the formation of this interlanguage, including language transfer, training effects, learning strategies, and overgeneralization of target language rules (Selinker 1972: 215).

Another important concept in the context of the Error Analysis is fossilisation (Selinker 1972: 215). This phenomenon means that a linguistic form or rule other than the target language becomes permanently fixed in the interlanguage system of the language learner (cf Selinker 1972: 215). Moreover, these fossilised elements remain despite any further input or language training in the target language (cf Selinker 1972: 215).

3.4 The Contrastive Error Analysis Methods and Their Use

Corder (1973) has pointed out that the Error Analysis can interact with other fields (such as psycholinguistics or pedagogy) in order to identify the causes of errors, in addition to identifying the types of error. However, it does not mention whether it is possible for the Error Analysis and the Contrastive Analysis to interact.

Budai (2006) discusses this latter possibility, and he argues that one can use the Contrastive Analysis and the Error Analysis separately; the Contrastive Analysis may remain outside the scope of language teaching and the Error Analysis should limit itself to error correction (Budai 2006: 6). "If, however, Contrastive Analysis is really to serve the teaching of a foreign language, it must meet Error Analysis somewhere; and Error Analysis, if it is really to be analysis, cannot avoid Contrastive Analysis." (Budai 2006: 6).

Budai (2006) also defines the essential features of the Contrastive Error Analysis: it is in fact a form of the Error Analysis, which we may use to identify and then correct an error made by the learner and can also be of help in foreign language teaching (Budai 2006: 8). In fact, the Contrastive Analysis is a kind of causal investigation, since it assumes that most of the mistakes made are based on a conflict between the rules of the mother tongue and those of the foreign language or target language. The aim of the Contrastive Error Analysis is therefore to make foreign language teaching more conscious, even if it cannot be a directly-integrated part of the teaching materials (since most of the language books used in Hungary are produced outside the Hungarian language area) (Budai 2006: 8). The Contrastive Error Analysis is not an indirectly-involved element in the process of teaching a foreign language, but directly through the activity of the language teacher; with the competence one may expect

from them, language teachers themselves are the initiators and the managers of the Contrastive Error Analysis work (Budai 2006: 9). Teachers should gradually involve their students in the work of the Contrastive Error Analysis, giving them an increasing autonomy both in the classroom and at home (Budai 2006: 9).

Regarding the pedagogical use of The Contrastive Error Analysis, the first way to find the cause of an error is to use the Contrastive Analysis, because the Contrastive Error Analysis assumes that most errors are the result of interference in the mother tongue and/or the target language (Budai 2010: 175-176). The Contrastive Error Analysis may also turn to psychology to identify sources of error other than the linguistic cause of the error, or to psychology or pedagogy to identify factors other than interference, in which case the methods of psychology or pedagogy can be immediately applied to avoid a contrastive comparison (Budai 2010: 176). It is important to note that the Contrastive Error Analysis does not control for the error probabilities predicted by the Contrastive Analysis, but analyses the errors that actually occur (Budai 2010: 176). It does not rule out hypotheses, higher level generalisations and conclusions, but neither does it hope to find out what is going on in our minds when we learn or communicate in a foreign language (Budai 2010: 176). In fact, it is teachers and learners who do the Contrastive Error Analysis, as they are the most interested participants in foreign language teaching (Budai 2010: 176).

3.5 Evolving Paradigms in Second Language Acquisition

Second Language Acquisition (SLA) is a dynamic and evolving field that has undergone significant transformations in recent years, driven by technological advances, shifts in pedagogical approaches, and an enhanced understanding of cognitive processes. Ellis (2021) delineates five distinct phases in the history of SLA (Walter 2023: 28). The first phase, during the 1960s and 1970s, was heavily influenced by first language acquisition (L1A) studies, which revealed consistent patterns in how learners acquired language forms (Walter 2023: 28). The second phase, termed the “expansion period” by Ellis (2021), occurred in the 1980s and saw researchers exploring diverse theories and phenomena, including language transfer, linguistic universals, and Universal Grammar (UG), as well as pragmatics, input, and interaction (Walter 2023: 28). Subsequent phases—identified by Ellis (2021) as the cognitive revolution, the social turn, complex dynamic systems theory (CDST), and the multilingual turn—highlight the evolving nature of SLA (Walter 2023: 28).

The cognitive revolution in SLA emerged from growing dissatisfaction with behaviorist theories and the rise of cognitive psychology (Walter 2023: 28). Chomsky’s

critique of Skinner's *Verbal Behavior* (1957) played a pivotal role in this shift, challenging behaviorist models and leading to the poverty of the stimulus argument and the concept of universal grammar (Thomas 2002, Walter 2023: 28). This reconceptualization of language as a complex symbolic system influenced both linguistic theory and pedagogy, although some advances in cognitive science were not fully integrated into linguistic analysis (Walter 2023: 29, referring to Seuren 2004). Cognitive approaches also inspired instructional methods such as cognitive code learning (CCL) and the Silent Way, which offered distinct approaches to grammar and language learning (Walter 2023: 29-30). Despite criticism, particularly of the Silent Way's unconventional methods, these approaches gained traction, especially among beginners (Walter 2023: 30, referring to Gyi 1994 and Varvel 1979).

Cognitive perspectives continue to shape SLA, exemplified by the Entrenchment-and-Conventionalization Model (EC-model), which originates from usage-based, cognitive-linguistic, and socio-cognitive approaches (Verspoor and Schmid 2024: 88, referring to Barlow and Kemmer 2000, Bybee 2010, Croft 2009, Kretzschmar 2015, and Langacker 1988). The EC-model emphasizes the dynamic and variable nature of language systems, with language development understood as a process of usage, conventionalization, and entrenchment (Verspoor and Schmid 2024: 88). Additionally, the Noticing Hypothesis suggests that conscious attention to language forms is crucial for learning, implying that teachers should design activities to help learners focus on the forms they need to acquire (Suvorov 2022: 140, referring to Schmidt 1990).

Interdisciplinary advances, such as computational models like Rumelhart and McClelland's (1985) parallel distributed processing, further enriched SLA research by providing biologically plausible representations of language (Walter 2023: 31). The emergence of embodied cognition, which integrates the body as part of the cognitive system, also influenced language learning methods like Total Physical Response (TPR), where physical actions reinforce learning (Walter 2023: 32, referring to Asher 1969a, 1969b; Ratcliffe and Tokarchuk 2020).

Other cognitive-based paradigms in SLA, such as input processing (VanPatten 2004), interaction and negotiation of meaning (Gass 2017), the output hypothesis (Swain 1993), and processability theory (Pienemann 1998), have also contributed to the broader communicative approach in language teaching (Walter 2023: 33). However, the dominance of cognitive approaches has led to the marginalization of alternative perspectives, underscoring the need for a more balanced integration of cognitive and social dimensions in SLA research (Walter 2023: 33).

The field of SLA underwent a significant "social turn" following Firth and Wagner's (1997) critique, which emphasized the role of social forces in language learning (Walter 2023: 34). This shift prompted a transition from a learner-centered to a person-centered approach (Walter 2023: 34, referring to Benson 2019) and led to reanalyses of existing theories, such as Swain's (2000) revision of the output hypothesis (Walter 2023: 34). Sociocultural theory (SCT), rooted in Vygotsky's work, also gained prominence, influencing research on concepts like dynamic assessment and the zone of proximal development (ZPD) (Walter 2023: 35, referring to Dunn and Lantolf 1998). Despite some criticism of SCT's generalizability, its impact on classroom communities and practices has been significant (Walter 2023: 35, referring to Zuengler and Miller 2006).

The ensuing debates between cognitive and social perspectives in SLA highlighted the need for more integrated approaches. Scholars like Larsen-Freeman (2007) and Atkinson (2002) proposed frameworks that bridge cognitive and social dimensions, advocating for a more holistic understanding of language acquisition (Walter 2023: 36). As SLA continues to evolve, there is growing acceptance of a unified approach that acknowledges the contributions of both perspectives (Walter 2023: 36-37, referring to Ortega 2011). However, this period of theoretical reorganization has also revealed a disconnect between SLA researchers and language practitioners, highlighting the need for greater collaboration to ensure that theoretical insights inform classroom practice (Walter 2023: 37).

The most recent shift in SLA, known as the multilingual turn, reflects a paradigm shift that challenges the traditional focus on native speakers as the ideal model for learners. This shift emphasizes the development of multilingual identities and recognizes the value of diverse linguistic practices (Walter 2023: 37). By moving away from the monolingual standard, educators can better support learners in achieving their linguistic goals and navigating both monolingual and multilingual contexts (Walter 2023: 38). As SLA research continues to prioritize multilingualism, learner agency, and identity, future developments may increasingly focus on supporting teachers within a more enriched tradition of SLA research (Walter 2023: 38-39).

Current trends in SLA highlight a broader understanding of language learning that integrates social, cognitive, and technological factors. There is a growing recognition of individual learner differences, such as autonomy, motivation, and identity, and their impact on language acquisition (Taylor 2022: 164). Additionally, advancements in neuroscience and technology, such as neuroimaging studies and AI-driven tools like Automatic Speech Recognition (ASR) and gamification are contributing to more effective teaching methods

(Taylor 2022: 166; Bueno-Alastuey and Gómez-Lacabex 2022: 167; Cornillie 2022: 247). The integration of technology into language learning, particularly through mobile-assisted language learning (MALL) and online platforms, is reshaping the field and providing learners with personalized and adaptive experiences (Hubbard 2022: 21, 25). As SLA continues to evolve, the field is moving towards more holistic and personalized approaches, recognizing the complex interplay of social, cognitive, and technological factors in language learning.

3.6 Idiom/metaphor Teaching in Second Language Acquisition

Although Lennon (2008: 51) posits that the Contrastive Analysis ignored the cultures of language users in its comparison of languages from the viewpoints of phonemes, grammar, and – to certain extent – vocabulary, we may see some examples of using the Contrastive Analysis to analyse L1-L2 idioms in the literature. Lennon's statement might be somewhat surprising, as Lado (1957: 110) even suggested comparing the cultures of the L1 and L2 with each other. Moreover, Dobrovol'skij and Piirainen (2022: 147), referring to other works, highlight that only a few studies on "phraseological false friends[11]" between different languages have been written, including German-Russian (Rajxštejn 1980), French and German (Ettinger 1994, 2012), English and Polish (Szpila 2000), English and Slovene (Vrbinc and Vrbinc 2014), and German and Dutch (Piirainen 1999), and others (Piirainen 2004a) (Dobrovol'skij and Piirainen 2022:147). Such works necessitate some comparison of the expression pairs.

In addition to the list of works on idioms, a contrastive analysis of idioms across languages, such as the work by Alousque (2011) may be added, whose paper includes a valuable comparative analysis of cross-linguistic equivalence regarding English, Spanish, and French idiomatic expressions. Her analysis identifies three primary types of equivalence: full equivalence, partial equivalence, and non-equivalence (Alousque 2011: 114).

Full equivalence occurs when idioms are identical in meaning, structure, and imagery across languages (Alousque 2011: 114). An example is the expression *tighten one's belt*, which appears in Spanish as *apretarse el cinturón* ("tighten one's belt"[12]) and in French as *se serrer la ceinture* ("tighten one's belt"), both maintaining the same literal and figurative

[11] Phraseological false friends are idiom pairs with analogous constituents and the same images but significantly different non-literal meanings, cf Dobrovol'skij and Piirainen (2022: 90). An example to this is the following idiom pair: the English *to throw dust in/into someone's eyes* 'to confuse (someone) or take his attention away from something that one does not wish him to see or know about' and the Russian *пускать пыль в глаза кому-л.* "to throw dust in/into one's eyes" 'trying to impress other people, show oneself or his/her position in a much better light than it really is' Dobrovol'skij and Piirainen (2022: 90).

[12] The English translations of the Spanish and French idioms are mine.

meaning (Alousque 2011: 114). Similarly, interlingual loans[13] as *headhunter* is translated as *cazatalentos* ("talent hunter") in Spanish and *chasseur de têtes* ("hunter of heads") in French, all preserving the same concept (Alousque 2011: 115). Idioms rooted in shared metaphors, such as *be in seventh heaven*, also reflect common cultural or metaphorical bases across these languages, appearing as *estar en el séptimo cielo* ("be in seventh heaven") in Spanish and *être au septième ciel* ("be in seventh heaven") in French (Alousque 2011: 115).

Partial equivalence means idioms that convey the same meaning but differ in structure or imagery (Alousque 2011: 116). For instance, *a bolt from the blue* appears as *algo caído del cielo* ("something fallen from the sky") in Spanish and *c'est tombé du ciel* ("it's fallen from the sky") in French, both of which introduce additional verbal elements absent in English (Alousque 2011: 116). Similarly, *cost an arm and a leg* diverges into *costar un ojo de la cara* ("cost an eye from the face") in Spanish and *coûter les yeux de la tête* ("cost the eyes from the head") in French, where the imagery shifts from limbs to facial features. (Alousque 2011: 117). Even familiar phrases like *it's a piece of cake* manifest different cultural references, as seen in Spanish (*es pan comido* – "it's eaten bread") and French (*c'est du gâteau* – "it's cake"), where the underlying metaphors draw from distinct everyday experiences (Alousque 2011: 118).

Non-equivalence emerges when idioms have no direct counterpart in another language due to cultural context or symbolic differences (Alousque 2011: 118). The English phrase *golden handshake* has no equivalent in Spanish or French, while the French *pendre la crémaillère* ("hang the chimney hook," meaning to hold a housewarming party) finds no direct English counterpart (Alousque 2011: 118). Symbolic variations can also create non-equivalence, as seen in the English expression *feel blue* ('feel sad') and the French *rire jaune* ("laugh yellow," meaning to force a laugh or be dishonest) (Alousque 2011: 118-119). Even culturally charged expressions like *take a French leave* have divergent counterparts: Spanish *despedirse a la francesa* ("say goodbye in the French way") and French *filer à l'anglaise* ("slip away in the English way"), each reflecting mutual stereotypes held by these cultures (Alousque 2011: 119-120).

Phraseological false friends[14] represent a particularly intriguing case of non-equivalence, where idioms with similar appearances diverge significantly in meaning (Alousque 2011: 120). Cognitive semantics explains these differences through variations in

[13] Alousque (2011) borrows this term from Wotjak (2000) and Corpas (2003).
[14] Alousque (2011) borrows this term from Dobrovol'skij and Piirainen (2005); see also Dobrovol'skij and Piirainen (2022).

conceptual metaphors, imagery bases, and the figurative meanings of core constituents (Alousque 2011: 120). For example, the English idiom *set on one's high horse*" is rooted in the metaphor pride is up, while its French counterpart *monter sur ses grands chevaux* ("get on one's high horses") is based on anger is up (Alousque 2011: 120). Similarly, *my ears are buzzing* in English evokes an annoying sound, while *tes oreilles ont dû siffler* ("your ears must have been ringing") in French alludes to people talking about the speaker (Alousque 2011: 120-121). The idioms *burn the candle at both ends* and *brûler la chandelle par les deux bouts* ("burn the candle at both ends") share imagery but diverge in meaning: overwork in English versus waste in French (Alousque 2011: 121). Finally, somatic idioms reveal differences in cultural values, where curiosity, intuition, generosity, and goodness are prioritized differently across languages Alousque 2011: 121). For example, *be nosey* and *avoir du nez* ("have a nose") refer to curiosity and intuition, respectively (Alousque 2011: 121).

In the previous paragraphs, we have seen possibilities of using the Contrastive Analysis regarding L2 idioms and metaphors. The Error Analysis, and the Contrastive Error Analysis may also prove useful in terms of understanding the acquisition of L2 idioms and/or metaphors. In the Contrastive Error Analysis, such expressions are implicitly treated as different collocations of languages; this is what we can see in Budai (2010: 264-265), who briefly discusses some collocations that include English-Hungarian idiomatic examples, for instance *green with envy - sárga az irigységtől, turn the air blue - káromkodik, mint egy kocsis*. In the literature, the Contrastive Analysis Hypothesis and Error Analysis are still in use today mostly in the context of language learning errors in phonology (cf Lennon 2008: 54), e.g., Kissová (2020), Abdelgadir (2021), Bamigbade and Raji (2022), Abdelreheem (2023), and Alotaibi (2023). Commonly, the two models are considered as a suitable tool to detect and remedy the aforementioned errors.

Unlike the learning and acquiring of L2 idioms and metaphors in the framework of the Contrastive Analysis, Error Analysis or Contrastive Error Analysis, the acquisition of word meanings, for example cognates, false cognates, and non-cognates, is an issue which is better investigated, for instance by Marecka et al. (2020), Mulík et al. (2019), Otwinowska et al. (2020), and Otwinowska and Szewczyk (2019). For example, Otwinowska and Szewczyk (2019) examined the acquisition of different word types - cognates, false cognates, and non-cognates - in second language (L2) learning. Irrespective of linguistic typology or word-borrowing, cognates are words that are similar in form and meaning across different languages (Otwinowska and Szewczyk 2019: 974, referring to Friel and Kennison 2001, and

Jarvis 2009). False cognates, also known as interlingual homographs, are words displaying only formal similarity but different L1 and L2 meanings (Otwinowska and Szewczyk 2019: 974-975). Non-cognates are words with different forms and semantic similarity (Otwinowska and Szewczyk 2019: 979). English-Polish examples are *antagonism-antagonizm* ('antagonism'), *revision-rewizja* ('search'), *excursion-wycieczka* ('excursion') (Otwinowska and Szewczyk 2019: 979). Relative to non-cognates, cognates were easier to translate than false cognates (Otwinowska and Szewczyk 2019: 986). Moreover, learners learnt cognates with more ease than false cognates. (Otwinowska and Szewczyk 2019: 986). Cognates benefited from the fact that the subjects had remembered that cognates shared similar forms and meanings, streamlining their acquisition process (Otwinowska and Szewczyk 2019: 987). Conversely, false cognates demanded learners to initially discern their deceptive resemblance to L1 words before associating them with their true L2 meanings, resulting in lower learnability (Otwinowska and Szewczyk 2019: 987). Otwinowska and Szewczyk (2019) also scrutinized the impact of factors i.e., the frequency of L1 equivalents and orthographic similarity on learnability. Interestingly, L1 frequency failed to significantly affect the translation of cognates[15] or false cognates[16] (Otwinowska and Szewczyk 2019: 986-987). Orthographic similarity, however, did influence cognates' learnability, with greater similarity correlating with easier acquisition, especially among proficient L2 learners (Otwinowska and Szewczyk 2019: 987). Nonetheless, orthographic similarity did not significantly affect false cognates' learnability, defying expectations, an issue warranting further investigation (Otwinowska and Szewczyk 2019: 988).

Regarding the teaching of idioms outside the frameworks of the three SLA models, I discuss a recent paper here. Tormo et al. (2023) taught and tested L2 Spanish idioms among native English speakers, who were young adults (Tormo et al. 2023: 1644-1645). The researchers worked with retroactive and proactive prompts (Tormo et al. 2023: 1641). The first means that the learner had to hypothetize about the link between the literal and non-literal meanings of the idioms after having seen the correct answers, while proactive treatment asked the subjects to guess the non-literal meaning of the idioms from their literal meanings (Tormo et al. 2023: 1641). Both treatments proved to be highly efficient (Tormo et al. 2023: 1659). Later in my thesis, we will see that the retroactive treatment is very similar to my motivation

[15] As the frequencies of L1-L2 cognates showed a high correlation, this may have made them indistinguishable from each other in the regression model (Otwinowska and Szewczyk 2019: 987-988).
[16] Since the frequencies of L1-L2 false cognates displayed a weak correlation in the regression model, the influence of frequency was excluded by the researchers (Otwinowska and Szewczyk 2019: 987).

test and the proactive to my predictability test. This implies that one may use for idiom teaching what the researchers used for testing.

3.7 Summary and Conclusion

Having examined the evolving paradigms in Second Language Acquisition, which integrate cognitive, social, and technological dimensions, we now turn our attention to a more focused linguistic analysis. In Chapter 4, we explore the use of metaphors in Hungarian and English, shedding light on their conceptualization, cultural influences, and embodiment. This chapter investigates whether language proficiency affects metaphor use, categorizing studies based on their analysis of source and target domains. This transition from the broad to the specific underscores the intricate connections between language learning theories and practical linguistic analysis.

After the survey and discussion of some of the old and recent SLA literature relevant to my thesis, I make some conclusions. First, my idiom testing includes idiom pairs sharing the same, similar, or different forms and meanings. Therefore, I assume that the L2 acquisition of cognates, false cognates, and non-cognates is similar to that of L1-L2 idiom pairs. Second, for the purposes of my thesis, the theory of the Contrastive Error Analysis may be the most useful, since I assume that the crosslinguistic difference of L1-L2 idiomatic expressions leads to learner errors and mistakes that one needs to identify. Although the theoretical background of my thesis is cognitive linguistics, I presume that my conclusions facilitate my work in the thesis.

4 A General Contrastive Study on English – Hungarian L2 Metaphors

4.1 Introduction

This chapter delves into the intricate topic of metaphor variation, exploring how metaphors differ across languages and cultures, with a special attention to metaphors used in Hungarian and English. The primary focus is on understanding the factors that contribute to these variations, such factors being conceptualization, productivity, cultures, and embodiment. Another aim is to see whether language proficiency may have any influence on metaphor use. By examining a wide range of studies, the chapter aims to uncover the underlying mechanisms that shape the use and interpretation of metaphors in different linguistic and cultural contexts.

The literature review in this chapter attempts to provide a comprehensive analysis of the existing research on metaphor variation. The goal is to synthesize findings from various studies to create a clearer picture of how metaphors function across different languages and cultures. By systematically reviewing the data and observations related to specific source and target domains, the chapter seeks to highlight both the universal aspects of metaphorical thinking and the culturally specific variations that emerge.

Discussing the data and observations per source and target domains is crucial for several reasons. First, it allows for a more detailed understanding of how particular metaphors are conceptualized differently across languages. By focusing on specific domains, we can see how variations in metaphor use reflect broader cultural and cognitive differences. Second, this approach helps in identifying patterns of metaphor usage that may be consistent across languages, as well as those that are unique to specific linguistic communities. Finally, by categorizing the discussion in this way, the chapter can more effectively compare and contrast the various influences – be they cultural, cognitive, or social – that shape metaphorical language.

4.2 Source and Target Domains

Before discussing conceptualization, metaphor productivity, culture and embodiment, we need to review the literature from the viewpoint of frequently-used source and target domains in terms of Hungarian and English. I display the works, source domains, and examples in Table 1. Then, I proceed with an explanatory discussion.

Paper	Source domain	Example
Benczes and Ságvári (2018b)	BATTLEFIELD	(Hungarian) *Na mi van veled Pistám? Hát, küzdünk az élet küzdőterén…*(English) 'What's up with you, my dear Pista? Well, we're all fighting on life's battlefield…' Benczes and Ságvári (2018b 572)
Brdar and Brdar-Szabó (2017)	MOVING ENTITY	(Hungarian) *Rohamosan közeledik a Karácsony.* (English) 'Christmas is approaching apace' Brdar and (Brdar-Szabó 2017: 200)
Csábi (2004)	SEEING	(English) *open the eyes of someone* – (Hungarian) 'felnyitja valaki szemét' PART(up)-open-3rd PERS somebody(-POSS) eye-POSS-ACC (Csábi 2004: 134)
Cserép (2013)	HORSE	(Hungarian) *dolgozik, mint egy ló* (English) 'work like a horse' (Cserép 2013: 128)
Csillag (2006, cf 2014),	(CLEAN) SHEET	(Hungarian) *fehérlelkű* (English) 'white-spirited/ white-souled/ having a white soul', (Hungarian) *fehérre mos valakit (vád/gyanú alól)* (English) 'wash someone white (from under charge/suspicion)' (Csillag 2006: 25-26)
Kovács (2007)	GAMBLING/CHESS/DOMINO	(Hungarian) *Hihetetlenül magasak voltak a tétek* ('The stakes were incredibly high.'[17]) cf (English) *The stakes are high for Sony* (Kovács 2007: 116)
Kövecses (2005a)	UP	(Hungarian) *Ez a film feldobott.* (this the film up-threw-me) (English') This film gave me a high.' / 'This film made me happy' (Kövecses 2005a: 37)
	LIGHT	(Hungarian) *Felderült az arca.* (up-brightened the face-his/her) (English) 'His/her face brightened up' (Kövecses 2005a: 37)
	FLUID IN A CONTAINER	(Hungarian) *Túlcsordult a szíve a boldogságtól.* (over-flow-past the heart-his/her the happiness-from) (English) 'His heart overflowed with joy' (Kövecses 2005a: 37)
	MONEY	(English) *You're wasting my time.* (Hungarian) 'Pazarlod/pocsékolod az időmet.' (Waste-2nd pers the time-poss-acc) (Kövecses 2005a: 134)

[17] The sentence translation is mine, it is not in the original source.

	JOURNEY	(English) *We're at a crossroads.* (Hungarian) 'Válaszút előtt állunk.' (crossroads before stand-1st pers pl-pres) (Kövecses 2005a: 156)
Kövecses (2015)	HAVING THE SELF TOGETHER	(Hungarian) *Szedd össze magad!* (Pick-IMP together yourself.) (English) 'Pull yourself together!' (Kövecses 2015: 61)
	OBJECT POSSESSION	(Hungarian) *Teljesen eleresztette magát.* (Completely let-go-PAST herself) (English) 'She let it all hang out.' (Kövecses 2015: 61)
Nucz (2012)	ELREJTETT TÁRGY (HIDDEN OBJECT)	(Hungarian) *szégyent takar* - (English) 'to cover shame' (Nucz 2012: 13, 19)
Schmidt and Brdar (2012) and Lakoff and Johnson (1980: 51)	(GAMBLING) GAME	(English) *life is a lottery* (Hungarian) 'az élet lutri' (Schmidt and Brdar 2012: 289)
Simó (2009)	WAR	(Hungarian) *A hetedik partihoz érkezett a nagy csata.* (English) 'The seventh game of the big battle has arrived.' (Simó 2009: 48)
Tóth-Czifra (2014)	FOOD	(Hungarian) *a szájába rág valakinek valamit* (ART.DEF mouth-POSS in-DIRECTION chew-3ND PERS someone DAT something ACC = 'to chew something into someone's mouth', i.e. (English) to explain to someone at full length what to say), (Tóth-Czifra 2014: 57)
		(English) *To have a plum in one's mouth* ('to have an accent thought typical of the English upper classes.') (Hungarian) *Úgy beszél, mintha galuska/gombóc lenne a szájában* (That way speak-3rd PERS to have as if dumplingss be-COND the mouth-POSS-LOC (English) 'she speaks as if she had dumplings in her mouth', i.e. to have a speech defect) (Tóth-Czifra 2014: 57)

Table 1. Source domains studied in contrastive English-Hungarian research

In contrastive English-Hungarian research, the experiments examined various source domains to explore the metaphorical expressions used in each language. We can see that the source domains analyzed were BATTLEFIELD, MOVING ENTITY, SEEING, HORSE, CLEAN SHEET,

GAMBLING/CHESS/DOMINO, UP, LIGHT, FLUID IN A CONTAINER, JOURNEY, HAVING THE SELF TOGETHER, OBJECT POSSESSION, (HIDDEN) OBJECT, (GAMBLING) GAME, WAR, and FOOD.

Benczes and Ságvári's (2018b) BATTLEFIELD example of *life's battlefield* highlights a pervasive metaphorical framework people use to describe the struggles and challenges they face in their daily lives. Their example illustrates this idea: *Na mi van veled Pistám? Hát, küzdünk az élet küzdőterén…*('What's up with you, my dear Pista? Well, we're all fighting on life's battlefield…') (Benczes and Ságvári 2018b: 572). This expression emphasizes the adversarial nature of human experiences, suggesting that individuals confront obstacles and overcome hardships to achieve their goals. The imagery of a battlefield evokes notions of conflict, resilience, and perseverance, emphasizing the intensity and complexity of human existence. Simó (2009) employs a similar source domain, WAR, to describe chess as in this example: *A hetedik partihoz érkezett a nagy csata* ('The seventh game of the big battle has arrived') (Simó 2009: 48). This domain reflects to the need for a highly strategical thinking in chess.

Brdar and Brdar-Szabó (2017) provide an example of a MOVING ENTITY source domain, depicting Christmas as swiftly approaching in *Rohamosan közeledik a Karácsony* ('Christmas is approaching apace') (Brdar and Brdar-Szabó 2017: 200). This metaphorical expression conveys the passage of time in a dynamic and rapid manner, suggesting the imminent arrival of a significant event. By framing time as a moving entity, this metaphor highlights the fluidity and progression of temporal experiences, inviting reflection on the fleeting nature of moments and the anticipation of future events.

Csábi's (2004) example of opening someone's eyes metaphorically represents the act of enlightening or informing someone. The following example is motivated by the domain of SEEING: *open the eyes of someone* – 'felnyitja valaki szemét' (PART(up)-open-3rd PERS somebody(-POSS) eye-POSS-ACC) (Csábi 2004: 134). This SEEING domain underscores the transformative power of knowledge, suggesting that gaining new understanding can alter one's perspective and perception of the world. By equating knowledge with vision, this metaphor emphasizes the importance of awareness and enlightenment in personal growth and intellectual development.

Cserép (2013) presents the source domain HORSE, comparing someone's work ethic to that of a horse: *dolgozik, mint egy ló* ('work like a horse') (Cserép 2013: 128). This metaphor draws on the image of a hardworking horse to convey diligence, determination, and endurance. By likening human behaviour to the steadfast and industrious nature of a horse,

this metaphor emphasizes the value of hard work and perseverance in achieving goals and overcoming challenges.

Csillag (2006) provides examples of (CLEAN) SHEET, where the colour white is associated with goodness, innocence, or honesty. Several expressions illustrate this: *fehérlelkű* ('white-spirited/white-souled/having a white soul') and *fehérre mos valakit (vád/gyanú alól)* ('wash someone white (from under charge/suspicion)') (Csillag 2006: 25-26). This metaphor reflects cultural associations with purity and cleanliness, suggesting that the colour white symbolizes moral integrity and virtuousness. By employing white as a metaphorical symbol, these expressions underscore the moral values and ethical principles embedded within cultural norms and social practices.

Kovács (2007) offers an example of a GAMBLING/CHESS/DOMINO, where high stakes are associated with significant risks or consequences. This metaphorical expression highlights the uncertainty and unpredictability inherent in gambling activities, suggesting that decisions or actions with high stakes carry substantial implications: *Hihetetlenül magasak voltak a tétek* ('The stakes were incredibly high.') (*The stakes are high for Sony* (Kovács 2007: 116). By framing life as a gamble, this metaphor underscores the role of chance and risk-taking in shaping human experiences and outcomes – even if the two sentences (*Hihetetlenül magasak voltak a tétek* and *The stakes are high for Sony*) are not a translation to each other. Similarly to Kovács (2007), Schmidt and Brdar (2012) and Lakoff and Johnson (1980) also offer examples of (GAMBLING) GAME, where one compares life to a game of chance. This example illustrates this: *life is a lottery* ('az élet lutri') (Schmidt and Brdar 2012: 289). These metaphors underscore the competitive and uncertain nature of human existence, suggesting that individuals must navigate challenges and risks akin to players in a game. By framing life as a gamble, these examples highlight the strategic thinking and resilience required to confront adversity and pursue success.

Kövecses (2005a) presents various source domains, UP/LIGHT/FLUID IN A CONTAINER, JOURNEY, and HAVING THE SELF TOGETHER/OBJECT POSSESSION, each conveying different aspects of emotional experiences or cognitive processes. UP suggests a positive emotional state or uplifted mood in 'This film gave me a high' / 'This film made me happy') (Kövecses 2005a: 37). LIGHT conveys clarity or enlightenment as in *Felderült az arca* ('His/her face brightened up') (Kövecses 2005a: 37). FLUID IN A CONTAINER represents the overflowing of emotions, such as joy or happiness: *Túlcsordult a szíve a boldogságtól* ('His heart overflowed with joy') Kövecses (2005: 37). These metaphors draw on spatial and physical concepts to metaphorically represent abstract emotions, enriching language with vivid imagery and

symbolism. Kövecses (2005a) also offers examples of JOURNEY, where one may liken life to a journey or crossroads. These metaphors underscore the idea of life as a path with various choices and transitions, suggesting that individuals navigate their experiences like travelers embarking on a journey. By framing life as a journey, these metaphors highlight the importance of decision-making and direction in shaping personal growth and development. Kövecses (2015) presents HAVING THE SELF TOGETHER/OBJECT POSSESSION related to having the self together and object possession, which convey the idea of emotional composure or control, as in: *Szedd össze magad!* ('Pick yourself together!') (Kövecses 2015: 61). These metaphors highlight the importance of self-regulation and autonomy in navigating personal experiences and relationships. The HAVING THE SELF TOGETHER domain suggests emotional stability or resilience, while OBJECT POSSESSION represents the mastery or control over one's emotions or possessions. This example is an illustration of the target domain: *Teljesen eleresztette magát* ('She let it all hang out') (Kövecses 2015: 61).

Nucz (2012) provides examples of HIDDEN OBJECT, where one conceptualizes covering shame or concealing truths as hiding objects: *szégyent takar* ('to cover shame') (Nucz 2012: 13, 19). This source domain reveals underlying cultural attitudes towards vulnerability and social norms surrounding disclosure and transparency. By equating shame or secrecy with hidden objects, these expressions underscore the social dynamics and psychological implications of concealing or revealing information.

Tóth-Czifra (2014) illustrates FOOD, where culinary imagery conveys nuances of language and social behaviour. The expression *a szájába rág valakinek valamit* ("to chew something into someone's mouth", i.e., to explain to someone at full length what to say) represents the act of explaining or imparting information, while *Úgy beszél, mintha galuska/gombóc lenne a szájában* ("She speaks as if she had dumplings in her mouth", i.e., to have a speech defect) denotes a speech pattern associated with a particular accent or style (Tóth-Czifra 2014: 57). These expressions draw on food-related experiences to illustrate cultural norms and perceptions surrounding communication and language use.

In conclusion, the diverse range of metaphorical expressions explored reflects the richness and complexity of language and culture. Metaphors serve as powerful tools for conveying abstract concepts and shaping individual and collective understanding. By examining these metaphorical expressions across different domains, we can understand better how language reflects cultural values, beliefs, and conceptualizations, enriching our understanding of human experiences and interactions.

I have briefly described the key features of source domains above. Source domains undergo a mental process, mapping, when we use them to understand target domains (Kövecses 2005a: 6). A number of such domains are included and illustrated in Table 2.

Paper	Target domain	Example
Benczes and Ságvári (2018b)	LIFE	(Hungarian) *Na mi van veled Pistám? Hát, küzdünk az élet küzdőterén…*(English) 'What's up with you, my dear Pista? Well, we're all fighting on life's battlefield…' Benczes and Ságvári (2018b 572)
Brdar and Brdar-Szabó (2017)	TIME	(Hungarian) *Rohamosan közeledik a Karácsony.* (English) 'Christmas is approaching apace' Brdar and (Brdar-Szabó 2017: 200)
Csábi (2004)	KNOWING/ATTENTION	(English) *open the eyes of someone – open someone's eyes* - (Hungarian) *felnyitja valaki szemét* (PART(UP)-OPEN-3RD PERS SOMEBODY(-POSS) EYE-POSS-ACC) (Csábi 2004: 134)
Cserép (2013)	HUMAN BEING	(Hungarian) *dolgozik, mint egy ló* (English) 'work like a horse' (Cserép 2013: 128)
Csillag (2006, cf 2014),	HUMAN SOUL/ LIVING A MORAL LIFE	(Hungarian) *fehérlelkű* (English) 'white-spirited/ white-souled/ having a white soul', (Hungarian) *fehérre mos valakit (vád/gyanú alól)* (English) 'wash someone white (from under charge/suspicion)' (Csillag 2006: 25-26)
Kovács (2007)	BUSINESS	(Hungarian) *Hihetetlenül magasak voltak a tétek* ('The stakes were incredibly high.'[18]) *cf* (English) *The stakes are high for Sony* (Kovács 2007: 116)
Kövecses (2005a)	HAPPY	(Hungarian) *Ez a film feldobott.* (this the film up-threw-me) (English) 'This film gave me a high.' / 'This film made me happy' (Kövecses 2005a: 37)
	HAPPINESS	(Hungarian) *Felderült az arca.* up-(brightened the face-his/her) (English) 'His/her face brightened up' (Kövecses 2005a: 37)
		(Hungarian) *Túlcsordult a szíve a boldogságtól.* over-flow-past the heart-his/her the happiness-from (English) 'His heart overflowed with joy' (Kövecses 2005a: 37)
	TIME	(English) *You're wasting my time.* (Hungarian) 'Pazarlod/pocsékolod az időmet.' (Waste-2nd pers the time-poss-acc) (Kövecses 2005a: 134)

[18] The sentence translation is mine, it is not in the original source.

	LOVE	(English) *We're at a crossroads.* (Hungarian) 'Válaszút előtt állunk' . (crossroads before stand-1st pers pl-pres) (Kövecses 2005a: 156)
Kövecses (2015)	ATTENTIONAL SELF-CONTROL	(Hungarian) *Szedd össze magad!* (Pick-IMP together yourself.) (English) 'Pull yourself together!' (Kövecses 2015: 61)
	SELF-CONTROL	(Hungarian) *Teljesen elereszttette magát.* (Completely let-go-PAST herself) (English) 'She let it all hang out.' (Kövecses 2015: 61)
Nucz (2012)	SHAME	*szégyent takar* - (English) 'to cover shame' *(*Nucz 2012: 13, 19)
Schmidt and Brdar (2012) and Lakoff and Johnson (1980: 51)	LIFE	(English) *life is a lottery* - (Hungarian) 'az élet lutri' (Schmidt and Brdar 2012: 289)
Simó (2009)	CHESS	(Hungarian) *A hetedik partihoz érkezett a nagy csata.* (English) 'The seventh game of the big battle has arrived.' (Simó 2009: 48)
Tóth-Czifra (2014)	IDEAS	(Hungarian) *a szájába rág valakinek valamit* (ART.DEF mouth-POSS in-DIRECTION chew-3ND PERS someone DAT something ACC = (English) 'to chew something into someone's mouth', i.e. to explain to someone at full length what to say), (Tóth-Czifra 2014: 57)
	OBSTACLES TO TALKING	(English) *To have a plum in one's mouth* ('to have an accent thought typical of the English upper classes.') (Hungarian) *Úgy beszél, mintha galuska/gombóc lenne a szájában* (That way speak-3rd pers to have as if dumplingss be-cond the mouth-poss-loc (English) 'she speaks as if she had dumplings in her mouth', i.e. to have a speech defect) (Tóth-Czifra 2014: 57)

Table 2. Target domains studied in contrastive English-Hungarian research

As we can see**,** Table 2 contains rather varied, abstract domains. It may happen that a target domain has more than one source domain (for example LIFE), but source domains may also take more than one target domain (for example FOOD in Table 1). The above table and the following discussion contain the following target domains: LIFE, TIME, KNOWING/ATTENTION, HUMAN BEING, HUMAN SOUL/LIVING A MORAL LIFE, BUSINESS, HAPPY, HAPPINESS, LOVE, ATTENTIONAL SELF-CONTROL, SELF-CONTROL, SHAME, LIFE, CHESS, IDEAS, and OBSTACLES TO TALKING. In the explanations, I discuss the complete metaphors and examples.

Benczes and Ságvári (2018b) use LIFE as the target domain in LIFE IS A BATTLEFIELD to depict individuals actively engaging in struggles and confrontations, perceiving metaphor illuminates the adversities and conflicts encountered in the journey of life, portraying it as a

constant battle against various challenges and obstacles. Their example illustrates this idea: *Na mi van veled Pistám? Hát, küzdünk az élet küzdőterén…* ('What's up with you, my dear Pista? Well, we're all fighting on life's battlefield…') (Benczes and Ságvári 2018b: 572). Similarly, Schmidt and Brdar (2012) also use this target domain in LIFE IS A (GAMBLING) GAME, but they liken it to a lottery, highlighting the unpredictable and chance-driven nature of human existence. This example illustrates this: *life is a lottery* ('az élet lutri') (Schmidt and Brdar 2012: 289). This metaphorical representation underscores the notion that life involves uncertainties and randomness, where luck or fate rather than personal control determines outcomes.

Brdar and Brdar-Szabó (2017) illustrate the metaphorical understanding of TIME as something rapidly approaching (TIME IS A MOVING ENTITY), emphasizing the imminent arrival of Christmas: *Rohamosan közeledik a Karácsony* ('Christmas is approaching apace') (Brdar and Brdar-Szabó 2017: 200). This metaphorical representation underscores the perception of time as a dynamic entity, steadily progressing towards future events or milestones, rather than merely passing by. Kövecses (2005a) also examines this target domain in TIME IS MONEY, where he depicts TIME is as a valuable commodity that one may spend, waste, or save. This is evident in the example *You're wasting my time* 'Pazarlod/pocsékolod az időmet' (Waste-2nd PERS the time-POSS-ACC) (Kövecses 2005a: 134). In this metaphor, time is a finite resource, and its usage reflects efficiency, value, and resourcefulness, paralleling the way we handle money.

Csábi (2004) explores the metaphorical usage of KNOWING or bringing ATTENTION to something by likening it to opening someone's eyes in KNOWING/ATTENTION IS SEEING. The following example is motivated by this domain: *open the eyes of someone* – 'felnyitja valaki szemét' (PART(up)-open-3rd PERS somebody(-POSS) eye-POSS-ACC) (Csábi 2004: 134). This metaphor sheds light on the process of gaining awareness or understanding, emphasizing the act of enlightening or awakening to previously unnoticed aspects or ideas.

HUMAN BEING in Cserép (2013) employs the metaphor of comparing a person's diligence or effort to that of a hardworking horse (HUMAN BEING IS HORSE). Although he does not reveal the target domain to HORSE, human being may be a potential target domain in this example: *dolgozik, mint egy ló* ('work like a horse') (Cserép 2013: 128). This metaphor emphasizes the industrious nature of individuals, drawing parallels between human behaviour and the laborious work ethic attributed to horses.

HUMAN SOUL/LIVING A MORAL LIFE in Csillag's (2006) article connects to metaphors related to morality and purity in HUMAN SOUL/LIVING A MORAL LIFE IS A (CLEAN) SHEET,

associating a white soul with goodness or innocence. A number of examples illustrate this: *fehérlelkű* ('white-spirited/white-souled/having a white soul') and *fehérre mos valakit (vád/gyanú alól)* ("wash someone white (from under charge/suspicion)") (Csillag 2006: 25-26). This metaphorical framing reflects the cultural significance of moral integrity and righteousness, portraying individuals with virtuous qualities as having a pure or untainted soul.

Kovács (2007) utilizes the BUSINESS in BUSINESS IS GAMBLING/CHESS/DOMINO, implying significant risks or rewards involved in these sentences: *Hihetetlenül magasak voltak a tétek* ('The stakes were incredibly high'[19]) and *The stakes are high for Sony* (Kovács 2007: 116). This metaphorical representation highlights the competitive and risk-laden nature of the business environment, where decisions and actions carry considerable consequences.

Kövecses (2005a) explores various metaphorical mappings for emotions, such as HAPPY and HAPPINESS (HAPPY IS UP, HAPPINESS IS LIGHT, and HAPPINESS IS A FLUID IN A CONTAINER, RESPECTIVELY), which he depicts as physical states like brightness or overflowing. The first metaphor motivates this example: 'This film gave me a high.' / 'This film made me happy' (Kövecses 2005a: 37). HAPPINESS IS LIGHT motivates this expression: *Felderült az arca*. ('His/her face brightened up') (Kövecses 2005a: 37). The last one stands for the overflowing of emotions, such as joy or happiness: *Túlcsordult a szíve a boldogságtól*. ('His heart overflowed with joy') Kövecses (2005a: 37). These metaphors embody the embodied cognition theory, where one may understand abstract concepts through bodily experiences, highlighting the close connection between emotions and physical sensations. In a more recent work, Kövecses (2015) illustrates the metaphor of ATTENTIONAL SELF-CONTROL and SELF-CONTROL as gathering oneself together in ATTENTIONAL SELF-CONTROL IS HAVING THE SELF TOGETHER, and SELF-CONTROL IS OBJECT POSSESSION, emphasizing the cognitive effort involved in regulating one's behaviour or emotions. This metaphor underscores the conscious act of pulling oneself together in moments of emotional or cognitive turmoil, implying a deliberate effort to maintain composure and control.

Nucz (2012) portrays SHAME metaphorically as covering oneself in A SZÉGYEN EGY ELREJTETT TÁRGY (SHAME IS A HIDDEN OBJECT), suggesting a desire to conceal or hide one's perceived flaws or transgressions. This metaphor highlights the instinctive reaction to shame, where individuals seek to protect themselves from judgment or scrutiny by withdrawing or concealing aspects of their identity.

[19] The sentence translation is mine, it is not in the original source.

Simó (2009) uses CHESS to symbolize strategic manoeuvring or conflict (CHESS IS WAR), underscoring the calculated moves and tactics employed in various situations. This is what one can see in *A hetedik partihoz érkezett a nagy csata* ('The seventh game of the big battle has arrived') (Simó 2009: 48). This metaphorical framing portrays life as a strategic game, where individuals must navigate complex scenarios and make strategic decisions to achieve their goals.

Tóth-Czifra (2014) presents IDEAS and OBSTACLES TO TALKING related to communication, where IDEAS ARE FOOD and IDEAS ARE OBSTACLES TO TALKING imply that sharing ideas is similar to feeding someone with information or overcoming speech impediments depicted as having a plum in one's mouth. Accordingly, the expression *a szájába rág valakinek valamit* ("to chew something into someone's mouth" , i.e., to explain to someone at full length what to say) represents the act of explaining or imparting information, while *Úgy beszél, mintha galuska/gombóc lenne a szájában* ("She speaks as if she had dumplings in her mouth", i.e., to have a speech defect) denotes a speech pattern associated with a particular accent or style (Tóth-Czifra 2014: 57).These metaphors highlight the challenges and processes involved in effective communication, emphasizing the role of language and expression in conveying thoughts and overcoming obstacles to clear communication.

As we see, these examples demonstrate the diverse range of domains used to communicate abstract concepts and experiences by mapping them onto more concrete and tangible target domains. By utilizing metaphorical expressions, individuals can convey complex ideas and emotions in relatable and vivid ways, enhancing the understanding and communication of abstract concepts

4.3 Similarities between Metaphors

4.3.1 Introduction

In this section, I discuss three criteria for analyzing similarities between English and Hungarian metaphors: conceptualization, metaphor productivity, and causes of universality and variation (or, put diffently, culture and embodiment).

Conceptualization focuses on how one conceptualizes and expresses abstract concepts through metaphorical mappings. It explores the underlying cognitive processes and mechanisms involved in metaphorical thinking across languages.

Metaphor productivity concerns the number of idioms and expressions motivated by particular conceptual metaphors, this what is the terms *productivity*, *high productivity*, *semi-*

productivity, and *non-productivity* refer to, cf Clausner and Croft (1997: 263-264). For a detailed explanation and examples, see Section 4.3.3). By comparing the metaphor productivity in different languages, one can observe commonalities and differences in the usage and prevalence of specific metaphors, shedding light on cultural and linguistic influences on metaphorical language.

Causes of universality and variation provide us with answers regarding how the factors that contribute to the universality and variation of metaphors across languages interact with each other. It explores the relationship between language, culture, and embodied experience. Universality suggests shared cognitive processes and universal human experiences, while variation highlights the influence of cultural factors and individual embodiment on metaphorical thinking.

The analysis of similarities between metaphors in terms of conceptualization, metaphor productivity, universality, and variation may be important for several reasons. First, it allows us to explore the underlying cognitive processes and mechanisms involved in metaphorical thinking across languages. Through the examination of how different languages conceptualize and express abstract concepts through metaphorical mappings, we can gain additional knowledge about the universal aspects of human cognition and the ways in which language reflects and shapes our thinking. Second, studying metaphor productivity provides us with a deeper understanding of the richness and complexity of metaphorical language. As mentioned earlier, metaphor productivity refers to the number of idioms and expressions motivated by a particular conceptual metaphor. By comparing the metaphor productivity in different languages, we can observe commonalities and differences in the usage and prevalence of specific metaphors. This analysis sheds light on the cultural and linguistic factors that influence the production and prevalence of metaphoric expressions. Third, investigating the causes of universality and variation in metaphors helps us explore the relationship between language, culture, and embodied experience. The universality of certain conceptual metaphors suggests shared cognitive processes and universal human experiences that shape the way we understand and conceptualize abstract concepts. On the other hand, the variation in metaphors across languages and cultures highlights the influence of cultural factors and individual embodiment on metaphorical thinking.

Despite the posited universality of conceptual metaphors, it may be interesting to examine linguistically unrelated languages such as English and Hungarian. It suggests that there might be underlying universal cognitive patterns that contribute to the emergence of different and similar expressions across different linguistic and cultural contexts. To conduct

such research, the role of cultural and linguistic factors in shaping metaphorical expressions needs further exploration. Therefore, it is important to understand how factors like cultural knowledge, social norms, embodiment or conceptualization influence the usage and productivity of metaphors in different languages.

Additionally, the relationship between embodiment and metaphorical thinking is a complex area that requires more research. While embodiment theory suggests that bodily experiences shape our conceptualization and understanding of abstract concepts, the exact mechanisms and the extent of embodiment's influence on metaphorical thinking are still subjects of ongoing investigation. Moreover, the categorization of metaphors based on generality, conventionality, function, and nature raises questions about the criteria used for classification and the boundaries between specific and generic metaphors. Further research can provide more nuanced understanding in connection with the classification and characteristics of different types of metaphors.

In conclusion, the analysis of similarities between metaphors in terms of conceptualization, metaphor productivity, universality, and variation broaden our understanding on the cognitive, cultural, and linguistic aspects of metaphorical thinking. While one might expect the existence of metaphoric cross-linguistic similarities based on the universality of conceptual metaphors, investigating these similarities and open questions contributes to our understanding of how language, culture, and embodied experiences shape the way we conceptualize and communicate abstract ideas.

4.3.2 Conceptualization

Several researchers have explored the distinction between common and rare metaphors in language, in terms of their frequency and distribution. Many of them have investigated the factors potentially contributing to this distinction and shed light on the conceptual and psychological implications. What follows is a summary of the results we can read in the literature.

Benczes and Ságvári (2018a, 2018b) conducted a comparison of American English and Hungarian, focusing on the language of youth. They concluded that it is the global youth culture, particularly the influence of American English, that influenced the similarity in conceptualization between the two languages. This suggests that cultural and linguistic factors play a role in shaping the prevalence of certain metaphors.

Csábi (2004) observed similarities in conceptual metaphors between unrelated languages, such as English and Chinese, and attributed them to a universal motivation for the

emergence of metaphors. She highlighted examples like HAPPINESS IS UP and HAPPINESS IS LIGHT to demonstrate the similarity in conceptualization across languages.

Kövecses (2005a) and Kövecses (2010) explored the universality of conceptual metaphors by examining physiological mechanisms and universal human experiences. He found that concepts like anger, happiness, and intensity are possibly universal due to shared physiological reactions. This means that certain metaphors have a conceptual and psychological importance across cultures.

Simó (2009, 2011) investigated the overlap of domains in English and Hungarian metaphors, noting that one conceptualized domains like CHESS, WAR, and MOVEMENT similarly in both languages. This overlapping of domains contributes to the presence of common metaphors.

Tóth-Czifra (2014) analyzed metaphors related to eating and linguistic action in English, German, and Hungarian. The findings showed both common features and differences among the languages, indicating that cultural and linguistic influences shape metaphoric expressions.

Türker (2013) compared Korean and English in terms of conceptual metaphors related to emotions. By examining metaphors of anger, happiness, and sadness, she highlighted the presence of container and opponent metaphors in both languages, similar to those found in North American English and Hungarian.

Overall, the literature suggests that the distinction between common and rare metaphors can be the result of various factors. These include the influence of cultural and linguistic factors, universal physiological mechanisms, overlapping domains, and cultural connotations. While some metaphors may be prevalent across languages due to shared human experiences and physiological mechanisms, the connotations and cultural contexts associated with them can differ.

4.3.3 Metaphor Productivity

As clarified in Section 4.3, metaphor productivity is the number of idioms motivated by a metaphor. The following papers in Table 1 and Table 2 discuss metaphor productivity: Brdar and Brdar-Szabó (2017), Csábi (2004), Cserép (2013), Kövecses (2005a, 2015), Tóth-Czifra (2014). Although this section is about similarities in terms of metaphor productivity, it is not easy to draw a clear-cut line between productivity's similarities and differences. Clausner and Croft (1997: 263-264) offer an approach to this question; the two researchers state that the productivity of a metaphor is determined by the number of metaphorical expressions it can

generate within its range of metaphorical concepts[20]. Since the numerical surveying of the productivity of metaphors is out of the scope of this work, I cover this issue only marginally. Clausner and Croft (1997: 263) establish a productivity continuum including high-productive schemas, semi-productive schemas, and unproductive expressions.

A high-productivity metaphor is for example THE CONVINCINGNESS OF AN ARGUMENT IS THE STRUCTURAL INTEGRITY OF A BUILDING is highly productive (Clausner and Croft 1997: 263).From such a metaphor, a wide range of metaphorical expressions that map concepts from the source domain (THE STRUCTURAL INTEGRITY OF A BUILDING) to the target domain (THE CONVINCINGNESS OF AN ARGUMENT) may origin (Clausner and Croft 1997: 263). For example, expressions like *we need to buttress the theory with solid argument* (Clausner and Croft (1997: 259, 264) is consistent with this metaphor.

The expression *spill the beans* is the product of a semi-productive schema (Clausner and Croft (1997: 265). This expression is related to revealing a secret, and involves a metaphorical connection with the source domain THE MIND IS A CONTAINER AND IDEAS ARE ENTITIES (Clausner and Croft 1997: 265).

Non-productivity means that there is no connection between the literal and non-literal meaning of an expression, i.e. there is an absence of schema (Clausner and Croft 1997: 270). *Loose face* is such an unmotivated example in English, but in Chinese, where the expression originates from, its motivation is probably RESPECT IS HAVING FACE (Clausner and Croft 1997: 270). As it lacks this motivation in English, RESPECT IS HAVING FACE is not productive in English.

According to Brdar and Brdar-Szabó (2017), both Hungarian and English exhibit similarities in terms of metaphor productivity. However, we need to bear in mind that, unlike Clausner and Croft (1997), they simply mean the token frequency of the metaphors, in other terms, how frequently a language user uses expressions motivated by either the Moving-time or Moving-ego metaphor (Brdar and Brdar-Szabó 2017: 199). One notable observation is that Moving-ego expressions, such as *We are approaching Christmas*, are less frequent in both languages compared to Moving-time expressions, like *Christmas is approaching* (Brdar and Brdar-Szabó 2017: 198). For instance, in Hungarian, *Rohamosan közeledik a Karácsony* - 'Christmas is approaching apace' is more common than *Lassan közeledünk a Karácsonyhoz* - "We are slowly approaching Christmas" (Brdar and Brdar-Szabó 2017: 198). Similarly, in English, *Holidays are coming* - 'Jönnek az ünnepek' is more natural than *[21] *"Az ünnepekhez*

[20] We can see that they use *schema* to refer to *metaphor*.
[21] Here, the asterisks indicate instances of collocational discrepancy, not those of ungrammaticality.

jövünk" - "We are coming to holidays" , see Chapter 4.4.3 for differences. Another example shows that *Mindjárt itt a karácsony* ('Christmas is almost here') is more frequent than **Mindjárt karácsonynál vagyunk* - ("We are almost at Christmas") (Brdar and Brdar-Szabó 2017: 200).

Csábi (2004) analyses English and Hungarian body-metaphors and collects body idioms. Csábi (2004) considers the frequently (at least three times) occurring metaphors and metonymies more likely to motivate more idioms than those occurring less than three times (Csábi 2004: 96). On that ground, we may conclude that the higher the metaphor's capacity to motivate idioms, the higher the number of idioms produced by speakers will be.

Cserép (2013) examines English and Hungarian horse idioms and posits that a certain metaphor may yield different numbers of idioms cross-linguistically and cross-culturally, despite that different cultures and languages employ the same mappings and cultures may exploit the same metaphorical mappings, but the given metaphor may have different degrees of productivity (Cserép 2013: 121).

Kövecses (2005a) introduces another specialist term, "linguistic productivity", which is a number of linguistic expressions centring around a metaphor (Kövecses 2005a: 185), therefore I regard linguistic productivity as another term for metaphor productivity. Kövecses (2005a) discusses salience in terms of metaphor productivity: Kövecses (2005a) claims that certain domains may be more salient to the speakers of a language than to those of another, which leads to difference in metaphor productivity (Kövecses 2005a: 186), therefore if a certain domain is equally salient to the speakers of for example English and Hungarian, it is likely to have a similar rate of metaphor productivity.

Tóth-Czifra's (2014) corpus-data show that the numbers of German and Hungarian mouth (n=45 and 49, respectively) and tongue expressions (n=28 and 25, respectively) approximate one another, but this is not the case when we involve English mouth and tongue idioms into the comparison: we can see 36 mouth and 19 tongue expressions (Tóth-Czifra 2014: 53). All three languages exhibit the metaphorical extension of mouth and tongue expressions beyond the domain of eating. These metaphors encompass other domains such as LINGUISTIC ACTION (Tóth-Czifra 2014: 55) and EMOTIONS (Tóth-Czifra 2014: 57-58). This extension indicates that these metaphors are productive and widely used in the languages, serving as a means of conveying meaning.

In conclusion, this chapter provides an overview of metaphor productivity, drawing from various studies. A manner of describing this productivity is the continuum proposed by Clausner and Croft (1997), who describe it through examples of highly productive and semi-

productive metaphors and unproductivity. Their observations discussed in this chapter may increase our understanding in terms of metaphor productivity in different languages, focusing on specific domains such as TIME, BODY, and ANIMALS. Their findings suggest that metaphor productivity can vary cross-linguistically and cross-culturally, influenced by factors such as salience and cultural differences.

4.3.4 Culture and Embodiment

Culture and embodiment are two entities with several overlaps; Kövecses writes about cultural-physical embodiment (for example a small child's experience in its family) and physical embodiment (for example increased blood-pressure) (Kövecses 2005a: 293). Schmidt and Brdar (2012) consider embodiment as a notion including physical, cognitive, and social embodiment Schmidt and Brdar (2012: 271). Researchers often regard culture as the cause of differences; therefore, we may say that the more similar the cultures of the languages discussed to one another, the more likely we are to find similarities between these metaphors of these languages. Embodiment means that people rely on their bodily experience when it comes to understanding and meaning (Csábi 2004: 6). Therefore, the origin of meaning is the human body, and meaning is grounded in bodily experience (Csábi 2004: 6), for example *foam at the mouth* and *habzik a szája* ("one's mouth is foaming"[22]) (Csábi 2004: 87). Kövecses also posits that universal embodiment is a potential cause of universal metaphors (Kövecses 2005a: 293). Seeing the examples of Csábi (2004: 92), *with the naked eye* and *puszta/szabad szemmel* ("with bare/free eye"[23]) we come to the conclusion that the speakers' embodied experience plays an important role in expressing their thoughts by means of a language (Csábi 2004: 86).

There can be several types of cultural similarities in terms of metaphors. There is cross-cultural similarity between English and Hungarian in terms of conventional/cultural knowledge (Csábi 2004: 95). What follows is a set of examples of similarity in conventional/cultural knowledge taken from Csábi (2004). *Wash your hands of something* – 'mossa a kezeit' ("one washes their hands"[24]) (Csábi 2004: 129) and *fall on deaf ears* – 'süket fülekre talál' ("it finds deaf ears"[25]) (Csábi 2004: 129) share the same conventional/cultural motivation. The next example, however, shows a conventional/cultural knowledge considered by Csábi (2004) as different: *your hands are tied* – 'meg van kötve a

[22] The translation is mine, it is not in the original source.
[23] The translation is mine, it is not in the original source.
[24] The translation is mine, it is not in the original source.
[25] The translation is mine, it is not in the original source.

keze' ("one's hands are tied"[26]) (Csábi 2004: 129). This example explains the difference between conventional and cultural motivation as follows: the Hungarian equivalent includes some cultural knowledge of *hand* added to the general knowledge of that body part (Csábi 2004: 38). In this case, the cultural motivation comes from the terminology of witchcraft of the past centuries, when the words "tying" and "untying" meant placing some spell on or removing it from someone, respectively (Csábi 2004: 38, referring to O. Nagy 1957/2003: 219). Personally, I believe that these explanations may be present both in the English and Hungarian cultures, so I – unlike Csábi (2004) – would not regard the conventional/cultural knowledge implied in *your hands are tied* – 'meg van kötve a keze' different in the two languages and cultures.

As I hinted earlier, Kövecses (2005a: 10) states that physical domains of experience are the most important factors (embodied experience), leading to conceptualizing nonphysical reality. He also claims that in addition to social-cultural experience, embodiment and cognitive preferences and styles also contribute to metaphor universality and variation (Kövecses 2005a: 285-286).

Taking HORSE as the source domain, Cserép (2013) investigates English and Hungarian conventional metaphors in terms of cultural similarity (Cserép 2013: 119). Relying on dictionary and corpus data, he concludes that the metaphorical equivalence between the sets of English and Hungarian images is less than expected (Cserép 2013: 127), "despite the cultural similarity of English and Hungarian" (Cserép 2013: 123). The following examples taken from Cserép (2013) illustrate the partial difference between the two languages: *charley horse - muscle cramp, izomgörcs* (Cserép 2013: 123); *Azt a lovat ütik, amelyik húz* ['That horse is beaten which pulls'], *All lay loads on a willing horse* (Cserép 2013: 123); *Ha ló nincs, jó a szamár is* ['If there is no horse, the donkey will do'], *Any port in a storm* (Cserép 2013: 123). We can see that while *charley horse*, *muscle cramp*, *izomgörcs*, and *Any port in a storm* and *Ha ló nincs, jó a szamár is* have no figurative equivalents including horse in the other language analysed, *Azt a lovat ütik, amelyik húz* and *All lay loads on a willing horse* have figurative equivalents including horse and ló. Cserép (2013) offers several explanations for this difference: 1) lack of figurative equivalent (*charley horse*), 2) domains other than horse, for example *Ha ló nincs, jó a szamár is* does not share the same metaphor with *Any port in a storm*, which implies the domain of SHIP, 3) or dictionary limitations, in other words obsolete images are usually missing from dictionaries (Cserép 2013: 123).

[26] The translation is mine, it is not in the original source.

Csillag (2014) claims that similarities between English, Hungarian and Russian morality metaphors may exist because the cultures to which these languages belong traditionally have the Bible as the source of moral reasoning (Csillag 2014: 12-13). Therefore, I suppose that cultures using the Bible as a moral, religious or legal guidance may share several metaphors regarding success and failure based on idioms and words taken from the Script, for example *hét szűk esztendő* (1 Mózes 41:27) ("seven narrow year"[27]) in Hungarian and *the seven lean years* (Genezis 41:27) in English.

Hungarian and English share conventional and cultural knowledge regarding the generic level, but cultural differences may also occur on the specific level (Csábi 2004: 86). Since generic and specific levels are terms used in describing and classifying conceptual metaphors, at this point we need to discuss them. The classification of conceptual metaphors 1) is necessary to examine them in detail and 2) includes the following criteria: generality, conventionality, function, and nature.

Conceptual metaphors can form categories according to the scale of generality, which means that generic-level metaphors are at high levels of that scale, while specific level ones occupy low levels (Csábi 2004: 15). In terms of the scale of generality, there are specific (for example LIFE IS A JOURNEY) and generic (for example events are actions) metaphors, as their names also imply, specific metaphors include specific details, and generic metaphors generic details (Kövecses 2010: 44-45). Illustrating these with event – which is a generic concept - we can talk about for example dying, burning, which are specific examples of event. In contrast to event, its specific examples imply specific information, for example death implies a human being getting old or sick, resulting in losing their lives (Kövecses 2010: 45).

In cognitive metaphor theory, conventionality[28] means how colloquial a metaphor is, to what extent one uses it in their everyday conversation and for usual purposes. Due to the high degree of entrenchment in everyday use, the use of many conceptual metaphors and figurative expressions has become natural or even chlichéd to several speakers, many of whom are unaware of the fact that they are using figurative expressions. Some examples for such conventionalized metaphors and figurative expressions include ARGUMENT IS WAR: (I *defended* my argument.), LOVE IS A JOURNEY (We'll just have to *go our separate ways*.), and THEORIES ARE BUILDINGS (We have *to construct* a new theory.) (Kövecses 2010: 34). These examples are highly conventionalized metaphors, because they are entrenched in everyday

[27] Translation mine.
[28] In semiotics, linguistics, and the philosophy of language, conventionality is the arbitrary relationship between "form" and "meaning" (Kövecses 2010: 34).

conversation very much. There are, however, unconventionalized metaphors as well. We can find such novel metaphors and their figurative expressions mainly but not exclusively in ordinary dialogues, language varieties, the language of politics, etc.: "*Life is a mirror* [my emphasis]. If you smile, it smiles back at you; if you frown, it frowns back" (William P. Magee, at a 1993 United Nations meeting) (Kövecses 2010: 36).

Function is another criterion of classifying metaphors. Cognitive function examines what the function of the metaphor in everyday people's thinking about the physical world is (Kövecses 2010: 37). On the basis of their cognitive function, conceptual metaphors are classified into three subclasses: structural, ontological, and orientational metaphors. (Kövecses 2010: 37).

In the case of structural metaphors, the source domains provide the target domains with an organized knowledge, since we understand the target domains by means of the source domains, hence the cognitive function (Kövecses 2010: 37). Frequently, it is the abstract concepts that one grasps via structural metaphors, for example time is motion, which includes two special cases, taken from (Kövecses 2010: 37-38). The first is TIME PASSING IS MOTION OF AN OBJECT (The time will *come* when …; The time has long since *gone* when …), and the second is TIME PASSING IS AN OBSERVER'S MOTION OVER A LANDSCAPE (There's going to be trouble *along the road.*; His stay in Russia *extended* over many years.).

The target concepts of the ontological metaphors are less structured than those of the structural ones (Kövecses 2010: 38). In other words, human beings experience the world "in terms of objects, substances, and containers, in general, without specifying exactly what kind of object, substance, or container is meant" (Kövecses 2010: 38). There are, however, a number of concepts that cannot be determined in such way. I display such concepts are under Target Domains in Table 3.:

Source Domains	Target Domains
Physical object	nonphysical or abstract entities (for example, the mind)
	events (for example, going to the race), actions (for example, giving someone a call)
Substance	activities (for example, a lot of running in the game)
Container	undelineated physical objects (for example, a clearing in the forest)
	physical and nonphysical surfaces (for example, land areas, the visual field)
	states (for example, in love)

Table 3. Ontological metaphors (Kövecses 2010: 39)

As we can see from these examples, the ontological metaphors enable one to demarkate concepts that are undelineated, which they can do by causing one to conceive such concept as an object, for example *my fear* (Kövecses 2010: 39). Ontological metaphors categorize abstract target concepts into general categories, for instance: OBJECTS, SUBSTANCES or CONTAINERS, such metaphors, therefore, facilitate the understanding of concepts with less delineated status (Kövecses 2010: 39). Our knowledge is, however, limited about these general categories, therefore, we cannot use them to understand the target domains; this is why the target domains of the ontological metaphors are less structured cognitively than those of the structural metaphors. (Kövecses 2010: 38).

In terms of providing target concepts with conceptual structures, orientational metaphors are less structured than ontological metaphors (Kövecses 2010: 40). Based mainly on special orientation, orientational metaphors make a group of target concepts systematic and coherent in terms of conceptualization (Kövecses 2010: 40), see Table 4. This means that positive things and the quality more are usually associated with upward and negative ones and the quality less positive with downward orientation (Kövecses 2010: 40). Similarly, POSITIVE IS CENTRAL, WHOLE, FORWARD, etc. and NEGATIVE PERIPHERAL, NOT WHOLE, BACKWARD etc.

Metaphor	Example
MORE IS UP; LESS IS DOWN	Speak *up*, please. Keep your voice *down*, please.
HEALTHY IS UP; SICK IS DOWN	Lazarus *rose* from the dead. He *fell* ill.
CONSCIOUS IS UP; UNCONSCIOUS IS DOWN	Wake *up*. He *sank* into a coma.
CONTROL IS UP; LACK OF CONTROL IS DOWN	I'm *on top* of the situation. He is *under* my control.
HAPPY IS UP; SAD IS DOWN	I'm feeling *up* today. He's really *low* these days.
VIRTUE IS UP; LACK OF VIRTUE IS DOWN	She's an *upstanding* citizen. That was a *low-down* thing to do.
RATIONAL IS UP; NONRATIONAL IS DOWN	The discussion *fell* to an emotional level. He couldn't *rise above* his emotions.

Table 4. Orientational metaphors (Kövecses 2010: 40)

The above examples illustrate the evaluative function of orientational metaphors. The opposite orientation carries the opposite evaluation, so there are bipolarity and bivalency between the two kinds of orientation (Kövecses 2010: 40).

Nature is the third way of classifying metaphors: it indicates the two sources of metaphors, human knowledge and image (Kövecses 2010: 42). There are metaphors in the case of which human knowledge maps from source domains to target domains; in other cases,

it is the elements of image-schemas that are mapped to understand the target domains – these are the image-schema metaphors (Kövecses 2010: 42). Table 5 displays are some examples:

Metaphor	Example
IN-OUT	I'm *out* of money.
FRONT-BACK	He's an *up-front* kind of guy.
UP-DOWN	I'm feeling *low*.
CONTACT	*Hold on*, please. ("Wait")
MOTION	He just *went* crazy.
FORCE	You're *driving* me insane.

Table 5. Image-schema and metaphorical extension (Kövecses 2010: 43)

We can see that image-schema metaphors are similar to the orientational metaphors. Image-schema metaphors can be merely schemas about the target unlike conceptual metaphors, which have rich knowledge structure and set of mappings between source and target domains (Kövecses 2010: 43). If we contrast journey with motion, we can see that the scheme of motion is only a starting point, while journey includes both starting and endpoints; also, journey as a source domain has a structured set of concepts (Kövecses 2010: 43-44). Another kind of image-based conceptual metaphors is image metaphors, which have several imagistic details but no image schemas (Kövecses 2010: 44). Poetry and slang use them frequently as in *A. What 'you doin'? B. Watering the plants.* (Kövecses 2010: 44). The dialogue is about urination in English slang. Kövecses (2010) gives the following analyzis of that example: "In the sentence, the person watering the plants is the person urinating, the water is the urine, the watering can is the penis, the intended goal of the action of watering is the ground where the urine is directed" (Kövecses 2010: 44). The mapping has no general structural metaphor, but an image superimposed over the other one: such metaphors are one-shot image metaphors (Kövecses 2010: 44). However, as Lechner (2021: 708) claims, "The conceptualisation of a concept, i.e., the construction of its meaning in our minds through various cognitive processes, e.g., categorization, creation of conceptual frames, metaphor, metonymy, conceptual integration, figure-background arrangement, image schema, etc., many of which can be traced back to our bodily experiences[29]". Also, as, referring to Benczes 2005a, 2005b, and 2006a, Kövecses and Benczes (2010: 199) write, the meaning of metaphor and metonymy-based noun structures may be easily illustrated and explained through the use of cognitive linguistics methods, i.e. metaphor, metonymy, and blend (also known as conceptual integration). During integration, the mapping involves two input spaces and we

[29] Translation mine.

perform the cross-space mapping between them (Fauconnier and Turner 1998b: 137). This mapping takes place between the corresponding elements of the two input spaces (Fauconnier and Turner 1998a: 269). The third space that is the abstract generic space, which maps the features of the two input spaces onto each other, this is the place of understanding (cf Fauconnier and Turner 1998b: 137-138). The fourth space is the integrated (blended) space, where the partial and selective projection of the two input spaces take place and where the generic and specific structures are (cf Fauconnier and Turner 1998b: 138). Through *This surgeon is a butcher,* which highlights the surgeon's lack of skill, we can see conceptual integration (Grady et al. 1999: 103). Conceptual blending theory suggests that an integration occurs where structures from both inputs get blended (Grady et al. 1999: 104). It borrows concepts from surgical procedures, like the patient's identity, the surgeon's identity and even the operating room's setting (Grady et al. 1999: 104). It also involves the role of a 'butcher' and carries out the corresponding tasks (Grady et al. 1999: 104). The two input spaces have some similarities in the generic space: One uses a sharp tool to perform a procedure on another entity (Grady et al. 1999: 104). The blend creates unique content by combining elements from both input spaces, as well as adopting a partial structure from each input space (Grady et al. 1999: 104). The area for slaughtering animals has a different purpose compared to the area for medical procedures (cf Grady et al. 1999: 104). In the slaughtering area, the aim is to kill the animal and remove its flesh from its bones; in the medical area, the aim is to treat and heal the patient. (Grady et al. 1999: 106). In the operating room, the tools and techniques of butchery have mixed with those of surgery, along with the people involved (Grady et al. 1999: 106). This incongruence between the butcher's methods and the surgeon's goals suggests that the butcher lacks the necessary skills (Grady et al. 1999: 106). This property of the blend is not easy to understand within the frameworks of cognitive metaphor theory, which emphasises correspondences and projections from source to target (Grady et al. 1999: 106).

Schmidt and Brdar (2012) investigate two issues: 1) in what manners can idioms based on one conceptual metaphor shared by a number of languages differ or be similar in those languages, and for what reason, 2) the idioms belonging to life is a gambling game. In this section discussing the issue of similarities in culture and embodiment, 2) is more relevant than 1), because there are almost only differences. As I mention earlier, life is a gambling GAME is a common metaphor in Croatian, English and Hungarian, although *ez lutri (Hungarian) 'this is lottery'* and *Croatian: Šanse/(izgledi) su mi slabe/male* "My chances/(outlook) are

bad/small"[30] and *The odds are against me.'* (Schmidt and Brdar 2012: 278) display some passivity, while *If you play your cards right, you can do it.* (Schmidt and Brdar 2012: 278) a degree of activity (Schmidt and Brdar 2012: 275), which may be the result of cultural differences. Türker (2013) investigates cultural (complex) metaphors, and reveals that it is the emotion metaphors that show a large extent of cross-cultural similarity (Türker 2013: 126). Türker (2013) demonstrates that conceptualization is also based on culture.

As we can see, embodiment emphasizes the influence of bodily experiences on meaning construction. It suggests that the origin of meaning is rooted in human bodily experiences, and therefore, embodied experiences play a crucial role in language expression. Moreover, universal embodiment can contribute to the existence of universal metaphors. I discussed cultural similarities and differences in metaphors in the papers reviewed, highlighting examples from English and Hungarian languages. Moreover, while there may be cross-cultural similarities in terms of conventional and cultural knowledge, specific differences can also arise due to unique cultural contexts and historical influences. Regarding the classification of conceptual metaphors based on generality, conventionality, function, and nature, one can categorize metaphors as specific or generic, conventionalized or unconventionalized, and can serve structural, ontological, or orientational functions. Additionally, metaphors can draw from human knowledge or image-schema mappings.

4.4 Differences between Metaphors

4.4.1 Introduction

The discussion of cross-linguistic differences of metaphors has the same criteria as similarities: conceptualization, metaphor productivity as well as culture and embodiment. I attempt to analyze some of cross-linguistic differences in metaphorical conceptualization, focusing on how various languages conceptualize and verbalize metaphors differently. The examination draws on foundational theories and recent research to elucidate the multifaceted ways in which metaphors are influenced by cultural, social, and cognitive factors.

Central to this discussion is the idea that metaphorical interpretation is not monolithic but rather varies according to diverse source domains and contextual influences. As established by Kövecses (2010) and elaborated upon by Benczes and Ságvári (2018a, 2018b), the selection of metaphors is shaped by both global contexts, such as cultural and historical backgrounds, and local contexts, including discourse situations. The section highlights how

[30] Translation mine.

these factors contribute to varying conceptualizations of abstract concepts like life, often illustrated through metaphors such as JOURNEY or GAME.

Additionally, I intend to discuss the role of cultural history and social background in shaping metaphorical thought. As demonstrated by the comparative analysis of Hungarian and North American English metaphors in Benczes and Ságvári (2018a, 2018b), historical experiences such as conflicts and cultural narratives significantly influence metaphorical expression. This influence extends to how metaphorical mappings and construal relationships, such as perspectivization and figure-ground alignment, contribute to cross-linguistic variations.

My analysis further examines how metaphor productivity is affected by cultural models and cognitive preferences. Differences in metaphor usage across languages, as evidenced by research from Brdar and Brdar-Szabó (2017) and Tóth-Czifra (2014), underscore the impact of language-specific idioms and the degree of alignment with universal metaphorical frameworks.

4.4.2 Conceptualization

Based on Kövecses (2010), Benczes and Ságvári (2018a) explain that one interprets target concepts through different source concepts because one source domain cannot cover all the aspects of a target domain (Benczes and Ságvári 2018a: 123). For example, one may interpret the target domain LIFE means of the following sources: JOURNEY, GAME, etc. The motivation for the speakers' selection from the source domains is complex: 1) global context (the physical, personal, cultural setting surrounding the speakers) and 2) local context (the discourse situation) influence the speakers' choice (Benczes and Ságvári 2018a: 124, referring to Kövecses 2015). These forces are the "contextual influence" (Kövecses 2015: 71) forming conceptualization all the time. Benczes and Ságvári (2018a) prove that social background influence conceptualization emergence and verbalization (Benczes and Ságvári 2018a: 144). They come to this conclusion after conducting research among Hungarian students only, but this may be the case cross-linguistically as well.

Benczes and Ságvári (2018b), Schmidt and Brdar (2009) and Kövecses (2005a) write that the cross-linguistic conceptualization of metaphors differ due to cultural history, or, using Kövecses' (2015) term, "differential memory". In terms of North American English and Hungarian, Hungarian conceptualization is strongly influenced by the huge number of battles and struggles over Hungarian history, this is why one often considers Hungarian mindset (and conceptualization) as more negative, pessimistic and passive than North American English is

(Kövecses 2005a). Due to this passivity, Hungarian may select somewhat passive domains, as the linguistic expressions in Kövecses (2005a) and Schmidt and Brdar (2009) show.

Differences in conceptualization are also known as alternative conceptualization. Csábi (2004: 101) hints that "construal relationship, phenomena like perspectivization, focus of attention, figure-ground alignment" cause differences. At this point, we must clarify these notions and the correlation between them, also adding further new terms.

As Csábi (2004: 101) puts it, perspectivization, focus of attention, and figure-ground alignment are parts of any construal, therefore there is a correlation between them. Construal relationship is the relationship between a situation and the speaker or hearer conceptualizing and portraying the situation (Langacker 1987: 487). In other words, the two main constituents of a contrual are the speaker or hearer (the conceptualizer) and the situation conceptualized.

Langacker (1987) considers figure-ground alignment fundamental in cognitive functioning and cognitive grammar (Langacker 1987: 120). Figure is a substructure which one sees as different or salient in contrast with the rest of the scene (ground), for example a white dot against a black background is likely to be regarded as the figure (Langacker 1987: 120).

Perspectivization means that the utterances of the speaker or hearer convey the speaker's or hearer's points of view. Perspective breaks down to vantage point and orientation (the two together: viewpoint) (Langacker 1987: 123). Vantage point is the physical position where the speaker or hearer views a scene, and orientation is the alignment to the axes of the visual field (Langacker 1987: 123). Depending on whether the spectator is standing on their head, they may say either *The kite is above the house.* or *The house is above the kite.* (Langacker 1987: 123).

Depending on the vantage point chosen by the speaker or hearer, they can align scenes into the foreground and background scenes (Langacker 1987: 124). The foreground is the segment of the scene where the participants of the scene are more prominent than those in the background. This increased degree of prominence exists because the foreground, as well as its participants, is physically closer to the vantage point than the background is (Langacker 1987: 124-125). Owing to this proximity, we often see the participants in the foreground as the figure and they receive the focus of attention ((Langacker 1987: 125).

Cserép (2013: 120-121) points out that there are several causes of metaphor variation: 1) different mappings between sources and targets, 2) differences regarding the value judgmenents of such mappings, 3) pervasiveness of a metaphor Boers (2003: 232), 4) some metaphors may not exist in a language, or be just unique, 5) one conceptualizes target domains with different sets of source domains, or the other way round (Cserép 2013: 121).

For example, ANGRY PERSON IS A PRESSURIZED CONTAINER is present in Chinese, Japanese and Zulu, but Chinese speakers consider anger as a gas; in Japanese, it is the abdomen where anger is; Zulu speakers regard heart as container (Cserép 2013: 121, referring to Kövecses 2006: 158).

Differences in the conceptualization of metaphors between two languages are the most salient in the case of principal metaphors (Csillag 2006: 31). The minor metaphor GOODNESS/HARMLESSNESS/HONESTY IS WHITE (there are no Hungarian equivalents of these idiomatic structures in the article, which implies the difference of this minor metaphor), is seen in Csillag's (2006:23) examples: *a white boy/son* 'good/favourite'; *a white man* 'honest'; *a white lie* 'innocent, harmless'. In addition, custom-related conceptualizations are also likely to lead to differences (Dávid 2018: 72). DISHONESTY IS FOOD is a fine example of that (Dávid 2018: 66):

(1) English: *a bad apple*, 'a dishonest person'; *Mr Bush denied all knowledge and blamed some bad apples.*
(2) Hungarian: *bűnbak*, literally: "scapegoat"

In summary, we can see that cross-linguistic differences in conceptualization can be the products of historical backgrounds and social factors. Various elements such as construal relationship, perspectivization, focus of attention, and figure-ground alignment contribute to these differences. Additionally, metaphor variation arises from diverse mappings, value judgments, metaphor pervasiveness, language-specific metaphors, and the use of different source domains for target conceptualization.

4.4.3 Metaphor Productivity

Brdar and Brdar-Szabó (2017) regards the influence of the naturalness of word selection as a factor leading to difference in productivity. Other causes for the dissimilarity regarding the frequency and acceptability of the Moving-ego and Moving-time metaphors in the languages Brdar and Brdar-Szabó (2017) analysed are "different cultural models of proactivity or passivity" (Brdar and Brdar-Szabó 2017: 210), and not sticking to "the folk model of time and its default assignment of roles of Figure and Ground in the Moving Ego metaphor (Brdar and Brdar-Szabó 2017: 210).

As we can see, **Az ünnepekhez jövünk.* 'We are coming to holidays' and **Mindjárt karácsonynál vagyunk.* 'We are almost at Christmas' include typical motion verbs (Brdar and

Brdar-Szabó 2017: 200), which resist collocating with time-nouns, this is what the asterisks indicate; their English equivalents are, however, acceptable. Put differently, this difference of acceptability lies in the fact that Moving-Ego metaphors may be less frequent in Hungarian than in English (Brdar and Brdar-Szabó 2017: 210). As a native speaker of Hungarian, I feel that *Mindjárt karácsonyhoz érünk* "We are about to arrive at Christmas"[31] or *Egyre közelebb kerülünk Karácsonyhoz* "We are getting closer to Christmas"[32] sound more natural than **Az ünnepekhez jövünk.* 'We are coming to holidays' and **Mindjárt karácsonynál vagyunk.* 'We are almost at Christmas'. Brdar and Brdar-Szabó (2017) also assume that "some combinations of motion verbs and temporal nouns do not agree with the Moving-Ego metaphor in Croatian" (Brdar and Brdar-Szabó (2017: 198). As we can see, in the case of Brdar and Brdar-Szabó (2017), there are two intuitions, 1) one is due to the disagreement between some combination of motion verbs and temporal nouns, and Moving-Ego metaphors, and 2) the other is by well-formedness. Working with corpora can support the first, investigating whether we can use one of the time and ego metaphors with a broader range of verbs than the other. I suppose that the disagreement of time and ego metaphors in 1) is present in Hungarian, too. As regards well-formedness, a questionnaire completed by native speakers of Hungarian may provide me with empirical data.

Cserép (2013), as discussed in Section 4.3.2, reveals possible causes for different cross-linguistic conceptualization, pointing out the differences of the conceptualization of ANGRY PERSON IS A PRESSURIZED CONTAINER in Chinese, Japanese and Zulu. Speakers of various languages may conceptualize the constituents of that metaphor through various entities. Therefore, for example in Chinese, there must be more idioms including gas instead of fluid or liquid than in Japanese or Zulu.

Tóth-Czifra (2014) furnishes empirical data to show that MOUTH and TONGUE mappings are more or less equally shared by the languages discussed, but Hungarian has more idioms on the basis of the cause-effect relationship between emotions and linguistic actions (Tóth-Czifra 2014: 60). She illustrates this phenomenon by the following examples:

(3) sír a szája (cry-3rd PERS DEF.ART. mouth-POSS 'someone's mouth is crying', in other words complaining without having a valid reason, slang.)
(4) *all mouth (and no trousers)* (Tóth-Czifra 2014: 52, 61).

[31] Translation mine.
[32] Translation mine.

Cross-linguistic variation also becomes apparent in the different stages of generalization that the same literal meaning can undergo in various languages. Hungarian expressions like *összefut a nyál vki szájában* ('make someone's mouth water') "the saliva runs together in one's mouth"[33]) are specific to the domain of EATING and one cannot utilize such expressions beyond it (Tóth-Czifra 2014: 58-59).

In summary, there is an intricate interplay between language, culture, and metaphor productivity. Cultural models, deviations from common conceptual models, and individual intuitions, and natural selection of words all contribute to the differences observed in metaphor usage across languages.

4.4.4 Culture and Embodiment

In Section 4.3.4, I offer a definition of embodiment and discuss embodiment. Culture and embodiment are two entities with several overlaps; Kövecses writes about cultural-physical embodiment (for example a small child's experience in its family) and physical embodiment (for example increased blood-pressure) (Kövecses 2005a: 293). In brief, culture seems to be the cause of difference, and embodiment is more likely to be the cause of universality. What follows is the examination of papers centring around a set of factors, including culture.

On the basis of Benczes and Ságvári (2018a, 2018b) one may conclude that extralinguistic factors, such as age, education, location, type of school, social standing, do make intra-linguistic conceptualization different, as it was proved by the subjects' answers. First, the elderly subjects usually gave pessimistic answers, regarding life as war/struggle, while more optimism was typical on the part of young subjects, who considered life a game (Benczes and Ságvári 2018b: 582). Second, it was the younger generation who regarded life as game, food, journey, challenge, plant and rollercoaster (Benczes and Ságvári 2018a: 121), which also supports this optimism.

In addition to social factors, the culture-specificity of idioms is largely due to historical and psychological phenomena, in other words dependence on powers beyond one's control, fatalism, two features typical of Hungarian culture (Simó 2009: 56). These features are manifest grammatically and lexically (the use of passive voice, and words like *miracle* and *unearthy* (Simó 2009: 56). Therefore, when it comes to describing a game, chess as supernatural/gambling (Simó 2009: 52) dominates the Hungarians' mindset, "the not so practical and slightly dreamy character of this nation" (Simó 2009:56). Chess as supernatural and chess as gambling are illustrated by . . . *a meggyengült sötét királyállás ellen a sötét*

[33] Translation mine.

mezőkön tud-e Péter csodát művelni. [". . . can Peter craft a miracle (work wonder) on the dark squares against the weakened black king.] and *A középjátékban Kramnyik nem sokat cicázik, mindent vagy semmit alapon indít támadást.* ["In the middle game, Kramnik is not delaying action much, he launches an all-or nothing attack."], respectively (Simó 2009:52, 53):

Different connotations, as posited by Simó (2011) when describing the use of *hidegvérrel* ("with cold blood"[34]) in Hungarian sport commentaries (Simó 2011: 2906), may also be influential. Kövecses (2005a: 158) sums these phenomena up by writing about Hungarians' passive and Americans' active attitude; a "more action-oriented versus a more passivity-oriented attitude to love and to life in general". Kövecses (2005a) focus on culture-specific issues and universal aspects giving rise to and influencing idioms and metaphors. Kövecses (2005a) places emphasis on social-cultural experience, embodiment and cognitive preferences and styles with respect to metaphors.

In general, the role of culture in creating differences and embodiment in establishing universality is important, as we can see in this segment. Social factors, historical and psychological phenomena, and connotations all contribute to the formation and understanding of idioms and metaphors. The interplay between social-cultural experience, embodiment, and cognitive preferences shapes the use of metaphorical language. Understanding these factors enhances our comprehension of how language, culture, and cognition intersect in conceptualization.

4.5 Summary and Conclusion

The chapter explores various factors contributing to metaphor variation, including perspective, metaphor productivity, culture, and embodiment. It emphasizes the significance of vantage point and orientation in shaping one's viewpoint of a scene. Metaphor conceptualization differs across languages due to mappings between source and target domains, variations in value judgments of these mappings, and the pervasiveness of metaphors in a language. The study of metaphor productivity reveals that the naturalness of word selection and cultural models of proactivity or passivity can lead to differences in the frequency and acceptability of metaphors in different languages. The adherence to folk models of time and the compatibility of motion verbs with temporal nouns also impact metaphor usage. Additionally, cultural and historical factory can influence differences in metaphorical conceptualization.

[34] Translation mine.

Culture and embodiment play crucial roles in shaping idioms and metaphors. On the basis of Kövecses (2005a) we may state that the experiential basis, the (different framings of the) source and target domains, and blending are likely to be the cause of metaphor variation (Kövecses 2005a: 130) seem to produce metaphor variation. Social-cultural experiences and cognitive preferences influence the variation in metaphorical expressions. Factors like age, education, location, and social standing can contribute to differences in conceptualization. In Hungarian culture, language use reflects historical and psychological phenomena, such as fatalism and dependence on external forces.

We have seen from the papers discussed in Sections 4.3 and 4.4 that metaphors 1) share a set of common source domains available to anyone irrespective of language, 2) differences are due to Kövecses' (20) different contextual memory, in other words it shapes the speakers' attitude in selecting the domains, 3) different contextual memory is the link between similarities and differences. We may say that metaphor variation results from a combination of universality and variability. While certain source domains are common across languages, differences arise from individual contextual memory and framing of source and target domains. Embodiment and cognitive preferences contribute to both cultural specificity and universal aspects of metaphors.

In conclusion, the studies I discussed in Chapter 4 point out the multifaceted nature of metaphor variation, influenced by factors such as perspective, metaphor productivity, culture, and embodiment. Understanding these factors is essential for comprehending the diversity and dynamics of metaphoric expressions in different languages and cultures. Further research and empirical data collection can deepen our understanding of the intricate relationship between language, culture, and cognition in metaphorical conceptualization.

5 Methodological Background to the Research

5.1 Introduction

The aim of this section is to overview the methodology used. As mentioned earlier, L1 transfer in figurative language processing is the way how the first language affects figurative processing in the second language. There are two sorts of L1 transfer: Positive or negative transfer. The first may promote L2 acquisition, while the second tends to be an obstacle to it. Transfer in idiom processing may be influenced by a number of factors. Liontas (2002: 157 referring to Kellermann 1977) covers markedness of L1 structure and L1-L2 distance. Markedness and distance together prevent the facilitative effect of transfer in similar language pairs (when L1-L2 distance is short) and the negative effect in dissimilar language pairs (in other words when the L1-L2 distance is long) (Liontas 2002: 157).

In addition to distance and markedness, task types may also influence transfer. Cieślicka (2006b: 239) claims that production tasks revealed an L1 influence more salient than the one observed after the comprehension task. This means that researchers, by means of measuring production or comprehension, may examine various extents of L1 transfers. In her paper, she provides data related to incorrect answers due to L1 transfer in production only; therefore, her statement about comprehension remains unsupported by data.

L1 transfer may be analyzed on the basis of the set of the figurative expressions used by the subjects (Lukács 2023a: 36). There are two ways of examining transfer: One may work with a corpus (or corpora), as discussed earlier, or conduct an experiment. Both methods have advantages and disadvantages as well. Corpora must be of considerable magnitude to potentially supply a significant amount of second language data (Xia 2019: 105-106). Furthermore, essays composed by students are a natural and authentic language sample that is likely to embody various figures of speech, which is advantageous if a researcher were to scrutinise the use of metaphors (Xia 2019: 10). Concordancing, applied to contrast the essays of students against those of native speakers (Xia 2019: 105), could assist us in identifying the most frequent collocations in the L2 (Xia 2019: 104). Concordancing was not used in any of my research but it may be a possible vista for my future work.

The second way of analysing transfer is testing, which measures and provides a large amount of data relevant to what the linguist wants to examine. What follows from this is that tests seem to be more efficient than working with corpora. In tests, researchers create and apply expression types, which is not done in the case of essays (Xia 2019: 106,. Additionally, tests offer the advantage of measuring both comprehension and production, while corpus

research only examines production. However, there is a potential issue with testing where instructions given to subjects may skew the data from students' L2 production; in other words, if they have to use metaphors, we potentially and inadvertently cause them to guess when they complete the task (Xia 2019: 107); therefore, subjects' actual knowledge of metaphor use remains unknown. Language use in testing is directed and restricted, depending on the figurative language the researcher wishes to analyse (Xia 2019: 107).

5.1.1 Corpora

Researchers wishing to conduct corpora experiments have a wide array of options. There exist, for example, online corpora, such as the Corpus of Contemporary American English (COCA), offering several other corpora in it; the Magyar Nemzeti Szövegtár (Hungarian National Corpus [HNC]), which comprises texts of several types (news, fiction, etc.). Other sources, such as newspapers used as corpora, were also present in such research. Some researchers I overviewed, for example Simó (2009), included into her research the following newspapers: *The New York Times*, *The Washington Post*, the online version of the Hungarian newspaper *Nemzeti Sport*, and the Hungarian website www.sporthirek.hu. Another instance was the research done by Kovács (2007), whose sources were these Hungarian, German and English economic journals from 2006: *FIGYELŐ Üzlet, Gazdaság, Társadalom, The Economist* and *Focus Money Das Moderne Wirtschaftsmagazin*.

The corpora were of two kinds: 1) in most cases, it was not the researchers themselves who had assembled the corpora, and 2) in one instance only, the researcher, Dávid (2018) used the corpus which he himself had compiled. He compiled and used his own corpus and his own corpus-based bilingual idiom dictionary and took his examples from that corpus. He wrote his dictionary in the following way: He gathered the major proportion of the material from several papers such as the *Obserwer*, *Newsweek*, *Economist*, as well as from online sources. He did not use any other corpora, but he compared the idioms that he collected with the content of idiom dictionaries. The next phase was the concept-based classification (Dávid, personal communication, April 15, 2020).

5.1.2 Dictionaries

The picture is rather varied regarding the use of types of dictionaries. Many authors I overviewed used monolingual English (both idiom and general) dictionaries, monolingual Hungarian (both idiom and general) dictionaries, and bilingual (both idiom and general) dictionaries. It is Csábi (2004:240) where we can find – with the exception of Hungarian

monolingual idiom dictionaries - all these dictionary types. The Collins Idiom Dictionary was the basis for creating the idiom database (Csábi 2004: 25), while bilingual general dictionaries and Hungarian monolingual dictionaries for providing the Hungarian equivalents (Csábi 2004: 25-26), and for analysing the idioms or idiomatical usage for example the meanings of "right" (Csábi 2004: 35). Others such as Brdar and Brdar-Szabó (2017) used none. Paradoxically, rather few used bilingual idiom dictionaries.[35] I regard bilingual idiom dictionaries as a valuable means for contrasting metaphors through the equivalents of the idioms and words. However, the most frequently used dictionaries were monolingual idiom and monolingual general dictionaries. Also, in most cases, dictionaries were not the sole means of doing research.

5.1.3 Questionnaires

In some instances, the researchers obtained data directly from subjects, in other words through a nation-wide survey (Benzes and Ságvári 2018a, Benczes and Ságvári 2018b) and students' translation (Brdar and Brdar-Szabó 2017, Kövecses 2005a). On the one hand, questionnaires are an efficient way of obtaining data from a large number of subjects simultaneously. On the other hand, validity, in other words whether the subjects' answers really reflect their actual knowledge in connection with the questions, can be problematic for several reasons. Such reasons include their inability to understand the questions, or they can even misunderstand the instructions. Also, the answers may be insincere. With these being in place, the results will be distorted. The design of the questionnaires can also distort the results for example in the case of multiple item tasks, we may unintentionally provide the subjects with important clues. Open question tasks (I regard translation as such), however, enable the subjects to (relatively) freely formulate their answers. But, as indicated by Brdar and Brdar-Szabó (2017: 192), translated sentences may be prone to "noises", interference due to parallels between two languages.

Translation, regarded as a useful device in contrastive linguistics, may also be a useful source of intuition-based empirical cognitive data (Brdar and Brdar-Szabó 2017: 192). I suppose that, from the point of view of contrasting metaphors, a problem may be that the subjects may translate idioms or idiomatic structures with literal or non-figurative equivalents. Perhaps clear instructions drawing the subjects' attention to providing figurative answers may

[35] Unfortunately, there are very few recently published printed Hungarian-English and English-Hungarian idiom dictionaries commercially available, such as Nagy (2005a, 2005b) or Kövecses (2011a, 2011b). Online Hungarian-English or English-Hungarian idiom dictionaries are also rare, and they are sometimes unreliable as sometimes neither their authors nor the authors' data collection methods can be validated.

solve this problem, but by doing so we spoil the absolutely free formulation. An example for that is the instruction to write “a most natural sounding translation” (Brdar and Brdar-Szabó (2017: 196).

5.2 Transfer

Native language influence on L2 is frequently observed in students’ written and oral production in the use of metaphorical language. Cross-linguistic influence is known in the literature as “transfer”, “native language influence”, and “interference” (Xia 2019: 29). Jarvis (2009: 102) states that lexical transfer may happen at the lemma or the lexeme level, the first being the transfer of syntactic and semantic features, and the second is that of the phonological and morphological transfer. Since I concentrate on L1 transfer in L2 words used metaphorically in the essay analysis, I examine L1 influence at the lemma level. Referring to Jordens and Kellerman (1981) Xia (2019:32) states that cross-linguistic transfer can be influenced by psychotypology (L1-L2 distance), markedness of a linguistic element, and learners’ knowledge. As a consequence, transfer can be either positive or negative (Xia 2019: 35). As mentioned above, Iaroslavtseva and Skorczynska (2017), Johansson Falck (2012), Kathpalia and Heah (2011), Littlemore et al. (2014), MacArthur (2010), and Nacey (2013) analyzed transfer metaphor production and analysed metaphors, and they did so on the level of words, phrases, or entire texts.

5.2.1 Production: Words

Johansson Falck (2012: 110) analyzed the metaphorical use of *path*, *road* and *way* in sentences. Johansson Falck (2012: 130) highlights that Swedish and British corpora show similar metaphorical use of *path*, *road*, and *way*, but Swedish students use *way* more frequently and *path* and *road* less often in English. This results in an asymmetry in use of metaphors between native speakers and proficient L2 speakers (Johansson Falck 2012: 130, 131).

5.2.2 Production: Phrases

Littlemore et al. (2014: 119-120) and Iaroslavtseva and Skorczynska (2017: 55) established the exact same metaphorical item types: open-class and closed-class, in other words open-class metaphorical items include expressions including nouns, verbs, etc., while closed-class items prepositions, conjunctions, determiners.

5.2.3 Production: Whole Texts

Searching for linguistic units used metaphorically, Littlemore et al. (2014: 120) analysed 100 ESOL exam scripts, in other words essays written in English by Greek and 100 ones by German students. MacArthur (2010: 156) analysed students' essays, students' discussion on the writing task yielding the essays (MacArthur 2010: 162). Kathpalia and Heah (2011: 274-275) examined a corpus made of speeches written by students. Nacey (2013: 128) analysed argumentative essays written in English by Norwegian L1 students and English L1 students.

5.3 Research Questions

Johansson Falck's (2012) aim was to discover how L2 speakers of English cope with differences at the level of linguistic metaphor, and to what extent the linguistic metaphor level influenced L2 metaphor processing (Johansson Falck 2012: 109). Johansson Falck's (2012: 130) assumption is that there is some Swedish L1 transfer in the English L2, and makes three observations, see Section 5.6.

Littlemore et al.'s (2014: 120) aim was to answer the following questions:

(1) In what ways does the amount of metaphor produced vary across CEFR levels A2 to C2?
(2) In what ways does the use that learners make of open-class metaphorical items resemble or differ from that which they make of closed-class metaphorical items across the different CEFR levels?
(3) In what ways does the distribution of metaphor clusters vary across CEFR levels A2 to C2?
(4) In what ways do the functions performed by the metaphors vary across CEFR levels A2 to C2 and how closely do these functions relate to the CEFR descriptors?
(5) To what extent do learners use metaphor 'incorrectly' and how is their use of metaphor affected by their L1 background?

Moreover, Littlemore et al. (2014: 140-141) define error types ranging from 1 to 5, with which they identified the degrees of L1 transfer. Also using "strict" (non-native-like phraseology classified as wrong) and "generous" (they accepted non-native-like use of words) criteria and a native speaker's proofreading (Littlemore et al. 2014: 124), they analysed 25 essays taken from each CEFR-level.

The research questions formulated by Iaroslavtseva and Skorczynska (2017: 53-54) also aimed at discovering the frequency, in other words the number of metaphors, but created by students ranging from B2-C1 level; the frequency of open- and closed class metaphorical items; metaphors used incorrectly; L1 transfer resulting in incorrect metaphors.

MacArthur (2010: 157) analyzes how metaphor awareness influences the expressive ability on part of language learners, and emphasizes the pedagogical value of metaphorical competence. We must bear in mind that in MacArthur's (2010: 158) understanding, metaphorical competence means a factor facilitating the language learners to express themselves precisely. Kathpalia and Heah (2011: 288) regard this term as a learner's strategy.

Kathpalia and Heah (2011: 274) examine student writing to identify the difficulties language learners encounter when they learn figurative language; they aimed to determine the language learners' proficiency in relation to four types of metaphorical competencies, in other words metaphor-related strategies "to avoid complete breakdown in communication" (Kathpalia and Heah (2011: 288): grammatical, textual, illocutionary, or sociolinguistic.

Nacey (2013: 138) concentrated on the distribution of metaphor types, that of the parts of speech in the metaphors (Nacey 2013: 145), and the conventionality of the metaphor-related words (Nacey (2013: 153) in the two corpora she used.

5.4 Methodology

The technique used was corpus analysis (Iaroslavtseva and Skorczynska 2017, Johansson Falck 2012, Kathpalia and Heah (2011), Littlemore et al. 2014, MacArthur (2010), Nacey 2013). Iaroslavtseva and Skorczynska (2017: 54) used 100 essays written in English by Spanish students, and two reference corpora: the British National Corpus (BNC) and the Corpus de Referencia del Español (CREA) In Johansson Falck's (2012: 115) article the sentences originated from the British National Corpus (BNC) and the Uppsala Student English Corpus (USE), the latter was a compilation of essays written by Swedish university students: the method was a corpus-based analysis of the sentences including metaphorical *path*, *road*, and *way*.

Kathpalia and Heah (2011: 276) searched manually for collocation mismatches. Regarding the way of searching, Littlemore et al. (2014) and Iaroslavtseva and Skorczynska (2017) also analysed metaphoricity in essays manually, while Littlemore et al. (2014: 121) and Nacey (2013: 70) used a modified version of MIPVU, Iaroslavtseva and Skorczynska (2017: 54) did not modify MIPVU. As we have seen in Section 2.5, MIPVU is a protocol intended to find metaphorically used lexical units. The researchers have modified it over time.

Known as MIP(VU)[36], this version – Pragglejaz (2007), MIP, and MIPVU, as well – includes the same steps (Nacey 2013: 85-112), therefore, I point out MIP(VU)'s unique traits only.

(1) Determining each lexical unit: by "lexical unit" Nacey (2013: 86) means a single word, therefore, she uses "word" and "lexical unit" as synonyms[37]; she considers multiword units such as phrasal verbs, polywords, and compounds as if they were single words on grounds of the non-decomposability of the meanings of such multiword units.

(2) Compounds (for example "*stockbroker belt*") are treated as single units in MIP(VU), because, as a whole, a compound refers to one referent only. Stress pattern is not crucial in demarcating compounds (Nacey 2013: 90-95).

(3) Proper nouns are single units in MIP(VU), when found in a dictionary (Nacey 2013: 95). This practice differs from MIPVU in that MIPVU demarcates noun phrases with proper nouns on the basis of stress pattern (Nacey 2013: 95), in other words *United Kingdom* is dealt with as two individual words on grounds that the primary stress falls on the second element according to the dictionary (Nacey 2013: 95). The other difference between MIPVU and MIP(VU) is that the second handles proper names as single units (Nacey 2013: 95). Nacey's (2013) practices regarding proper nouns and names are justified by the fact that such lexical units have only one referent (Nacey 2013: 95).

(4) Etymology's involvement in MIP(VU) is marginal, because in MIP(VU), researchers usually do not use etymological dictionaries (Nacey 2013: 83). When used, such dictionaries help in clarifing the word's basic sense (Nacey (2013: 83).

MIP(VU) emphasizes the level of words, which may be a drawback of this method since, due to the immediate context of the words, one may fail to take the overall picture into consideration (Nacey 2013: 85).

[36] Here, I make two remarks. First, Nacey put 'VU' between brackets to indicate that MIP(VU) was MIPVU's modified version she created and used. Second, Nacey (2013: 79) applied a procedure at a point in time when MIPVU was not yet completed but MIP had already been consolidated.

[37] Unless explicitly indicated differently, I use "word" and "lexical unit" interchangeably in this work.

Johansson Falck (2012) analysed metaphors, using the search terms of *path, road,* and *way* (Johansson Falck 2012: 109). Littlemore et al. (2014) also used search terms (*politician, politics, government, economy, measures, environment*) to find figurative expressions in corpora of students' essays in order to analyse metaphoricity (Littlemore et al. 2014: 121). Unfortunately, MacArthur (2010) does not reveal the technique how she identified the linguistic units used metaphorically.

Nacey (2013) used the Norwegian subcorpus of International Corpus of Learner English (abbreviated as NICLE, it includes 317 essays, 211,725 words (Nacey (2013: 131) and the Louvain Corpus of Native English Essays (LOCNESS, approximately 200,000 words) (Nacey (2013: 133). Nacey (2013: 134) selected the essays from the corpora in a way that the topic difference would be as minimal as possible.

5.5 Proficiency Level

Johansson Falck (2012), Kathpalia and Heah (2011) and Nacey (2013) do not mention the proficiency level of the writers of the essays. Littlemore et al.'s (2014) subjects had English which ranged from A1 to C2 (Littlemore et al. 2014: 117). Iaroslavtseva and Skorczynska (2017) involved students with B2 and C2 levels (Iaroslavtseva and Skorczynska 2017: 53), and so did MacArthur (2010: 158).

5.6 Findings

Johansson Falck (2012: 130) notes the similarities in the metaphorical use of *path, road,* and *way* examples between the Swedish and British corpora. However, Swedish students exhibit a higher frequency of English *'way'* expressions and lower usage of *'path'* and *'road'* expressions. This asymmetric use can be due to the influence of the Swedish word *'sätt,*' which emphasizes manner only, while *'väg'* encompasses both manner and motion (Johansson Falck' 2012: 130). Additionally, L1 influence plays a role in the understanding and usage of L2 metaphors, leading proficient speakers to interpret and employ L2 concepts differently from L2 native speakers (Johansson Falck 2012: 131).

The findings of Iaroslavtseva and Skorczynska (2017) and Littlemore et al. (2014) exhibit some similarities, despite variations in the subjects' proficiency levels. Littlemore et al. (2014) found that closed-class metaphorical items were more prevalent below B2 proficiency, while open-class items dominated at and above B2 proficiency (Littlemore et al. 2014: 142). This observation aligns with Iaroslavtseva and Skorczynska's (2017) findings, which revealed a higher usage of open-class metaphorical items by their subjects

(Iaroslavtseva and Skorczynska 2017: 57). Another shared finding is that lower proficiency levels are more susceptible to L1 influence, particularly at the B2 level (Littlemore et al. 2014: 140, Iaroslavtseva and Skorczynska 2017: 56). MacArthur (2010: 168) also supports this notion, highlighting L1 transfer in the written production of metaphors through L2 calques of L1 metaphors. Moreover, as proficiency advanced, subjects demonstrated more sophisticated metaphor usage both quantitatively and qualitatively, employing metaphors for various purposes (Littlemore et al. 2014: 142, Iaroslavtseva and Skorczynska 2017: 55).

Kathpalia and Heah (2011) assessed the metaphorical use in students' essays on the basis of different competencies. The findings revealed that grammatical competence scored the highest at 88%, followed by illocutionary competence at 84%, textual competence at 62%, and sociolinguistic competence at 19% (Kathpalia and Heah 2011: 288). This implies that grammar teaching receives the greatest emphasis in teaching collocations (including idioms and clichés), although a lexical approach would be more efficient and relevant (cf Kathpalia and Heah 2011: 281). For example, the prevention of fossilization may require the encouragement of the learners to learn the correct forms of the metaphoric expressions, which implies enhancing metaphor awareness among the learners (cf Kathpalia and Heah 2011: 288). The prevalence of metaphorical usage in L2 English texts was a result in Nacey's paper (2013: 154-155) as well, which displayed that Norwegian subcorpus texts exhibited a higher frequency of metaphorically used nouns and adjectives compared to the LOCNESS corpus.

Through these papers discussed here, we may acquire a considerable amount of knowledge about the relationship between language proficiency, L1 influence, and metaphorical competence in second language acquisition. The findings underscore the need for balanced instruction that incorporates both grammar and metaphor awareness, allowing learners to develop a more nuanced understanding and usage of metaphors in their second language.

5.7 Summary and Conclusion

Chapter 5 focuses on the methodology employed by the discussed authors to investigate L1 transfer in figurative language processing. L1 transfer refers to the influence of a person's first language on their processing of figurative language in a second language, and it can be either positive, promoting second language acquisition, or negative, acting as an obstacle to it. Factors such as the markedness of L1 structure, L1-L2 distance, and task types can influence transfer in idiom processing. We can see various methods applied, including corpus analysis,

testing, dictionaries, and questionnaires to analyze L1 transfer, each with its advantages and disadvantages.

In conclusion, this chapter details the diverse approaches examining L1 transfer in figurative language processing. The findings suggest that factors such as L1-L2 distance, markedness of L1 structure, and task types can impact the extent and nature of transfer. Corpus analysis, testing, dictionaries, and questionnaires are valuable tools for investigating L1 transfer, broadening one's knowledge on the use of metaphors and idioms by language learners. Further research in this field can deepen our understanding of L1 transfer and contribute to language acquisition and teaching practices.

6 Analyzing L1 Effect in L2 Figurative Language: Essay Analysis

6.1 Introduction

Since metaphorical language use does not necessarily connect to single words but to semantic fields and no formal feature of the words considered individually reveals the word's literal or non-literal use, corpus-based metaphor research is no easy task (Stefanowitsch 2020: 397). In this work, I select as an approach an extensive, in other words manual reading of the whole text, each word, searching for words used metaphorically, and compiled a learner corpus from the subjects' essays.

6.2 The Essay Analysis

My essay analysis investigates metaphorical errors in English compositions written by Hungarian students, aiming to identify how L1 (Hungarian) influences their use of English metaphors. The subjects studied English at the University of Nyíregyháza, Hungary. Six male and nine female students. I selected them for the essay writing at random. All the participants had Hungarian as the only L1. All had English as an L2. Their language levels per gender were as follows: 3 students with B1 (1 male, 2 females), 8 students with B2 (4 males and 4 females), 3 students with C1 (1 male and 2 females) and 1 student with C2 (1 female). 14 of them had German and one of them French as an additional L2. As they stated, these additional L2s were at a B1-B2 level.

Fifteen subjects, aged around 22 on the average, were involved using the Oxford Placement Test to establish their proficiency (B1-C2) and tasked with writing essays (Lukács 2022: 92). Using corpus analysis, I identified and classified metaphorical errors, relying on MIPVU and James (1998), to answer two key questions:

(1) What types of metaphor errors occur in L2 essays by Hungarian students at B1-C2 level?
(2) To what extent can L1 transfer explain the errors?

I used corpus analysis as the method. Relying on MIPVU and James (1998), I tried to find lexical elements which the subjects used incorrectly and, at the same time, metaphorically. The study included an essay-writing, placement test, error and metaphor identification, and error classification. In the next paragraphs, I detail these.

6.2.1 Essay Writing

During this initial phase, I tasked 15 students with composing argumentative essays (approximately 200 words each) centered around the theme "How did Covid-19 change our lives?" When instructing them to write their compositions with this theme, I deliberately avoided giving any instructions asking them, either explicitly or implicitly, to use metaphorical language. In this manner, I wanted to avoid the potential influence of the instruction on the linguistic data I aimed to obtain. Within a strict time frame of 60 minutes, the students penned their essays by hand under my direct supervision, necessitated by various factors (Lukács 2022: 92). Also, I told them not to use any dictionaries, the internet, or electronic resources during the essay-writing process. Moreover, my presence allowed for expedient resolution of any potential technical problems that could have impeded their progress.

Subsequently, I scanned, labelled, and tagged these essays (collectively amounting to 3,381 words). The next phase was to input the entire essay content into a MIPVU-template, an Excel workbook. Each individual essay resides within its own sheet, distinguished by a student-specific identifier, comprising a number, the gender initial, and age (e.g., 1 M 22). The decision to employ labels, rather than the subjects' full names, serves to uphold confidentiality principles.

In the tagging process, I employed the CLAWS Tagger, which imparts part-of-speech tags to each word and punctuation mark. Earlier I mentioned that, in MIPVU, the researcher analyzes lexical units, which are not always identical with orthographic words (cf Nacey et al. 2019: 43). The instances of this difference includes multiword lexical units, treated by MIPVU as single lexical units, which must be identified as polywords, proper nouns, compounds, and phrasal verbs (Nacey et al. 2019: 43). PoS-taggers, therefore, help the researchers in categorizing the orthographic words into such categories and in identifying the metaphorical status of a lexical unit cf Nacey et al. 2019: 45. For example, *straight away* may be tagged as a polyword (Nacey et al. 2019: 45). The tagging of the essays involved the following steps during which I:

(1) digitally converted the scanned texts into editable formats.
(2) generated rich-text versions of the essays to retain the original spelling and inflectional errors introduced by the students. Then, I saved these versions.

(3) made copies of the essays and rectified the errors in spelling and inflection before saving the files. Then, I tagged the corrected texts using the CLAWS Tagger to ensure accurate tagging.
(4) transposed the correctly tagged texts into the „token" and „Pos" columns of the template, with misspelled words adjusted in the „token" column (Lukács 2022: 93).

It is worth noting that the CLAWS Tagger has inherent limitations. It may occasionally assign incorrect tags to words, necessitating manual verification, as was the case here. Additionally, the tagger is unable to accurately tag misspelled words, hence the implementation of Step 3.

In this segment of the study, the hand-written essays presented several challenges: illegible words (indicated with question marks in brackets in the template), malformed words („lillle" instead of „little"), excessive spacing between words intended to form contracted forms („we ‘ ll"), and instances where the subject combined two words into one („forme" instead of „for me").

In short, for each student, I have the following data:

(1) The original handwritten text.
(2) The Rich-text version of the original, including spelling errors.
(3) The Rich-text version of the original, with corrected spelling.
(4) The tagged text.
(5) The tagged text analyzed in the template (Lukács 2022: 93).

6.2.2 Placement Test

As previously mentioned, I used the Oxford Placement Test, recognized for its credibility in assessing CEFR levels (Lukács 2022: 94). Just like the essay composition phase, this aspect too presented its own set of difficulties. The subjects lacked familiarity with conducting an online placement test of this nature, necessitating a concise guidance session on my behalf regarding platform usage. Another hurdle involved ensuring that the test was not completed hastily within an exceedingly short time frame, such as 10 or 15 minutes, which could potentially compromise data accuracy. My personal oversight helped circumvent this issue.

CEFR-level	Number of Students
C2	1
C1	3
B2	8
B1	3
Total	**15**

Table 6. Placement test results (Lukács 2022: 94)

6.2.3 Difficulties and Challenges in the Pilot Study

During the pilot study, I confronted three significant challenges, which I elaborate on shortly: error identification, metaphor identification, and error classification (Lukács 2022: 94). It is noteworthy that delineating what constitutes an error, a metaphor, or a specific error type is not a straightforward task, as demonstrated in the forthcoming sections. I illustrate each of these complex factors with examples extracted from the essays authored by the students.

6.2.4 Error Identification

As previously noted, I regard incorrect use of metaphorical lexical components as metaphorical errors (Lukács 2022: 94). In the specific instance depicted below, ascertaining the intended accurate form of the highlighted segment poses a challenge:

Thirdly, which is the most interesting topic is the people who afraid of this Covid-19 and those who are not. Many of them ran for the injections. It is a good option for the political parties to get votes and provoke the others. Next year is the year of the election and Covid-19 could ***help to win someone***[38]***.*** (Lukács 2022: 94)

Perhaps, the student intended one of the ensuing accurate expressions: ‘Win someone over’ or ‘someone to win’. It is evident that the structure employed by the student deviates from English norms - in the first form, the term *over* is missing from the structure, and in the second form, the word order is incorrect (Lukács 2022: 94-95).

The process of error identification necessitates at least one native speaker’s intuition. Yet, this approach alone is somewhat precarious given the fluctuating extent of stringency. For instance, Littlemore et al. (2014: 124) introduce ‘strict’ and ‘generous’ criteria (Lukács 2022: 95). The former mandates a strictly native-like phraseology for the expression under scrutiny, which is deemed the only correct form (e.g., ‘all the world’ instead of ‘the whole

[38] If a structure or word is typed in bold, italics, and underlined, it is an instance of incorrect metaphorical use.

world'). The latter encompasses non-native-like variations of expressions (referring to Littlemore et al. 2014: 124, Lukács 2022: 95).

A more objective method involves consulting corpora (Lukács 2022: 95). However, researchers must establish a threshold of expression occurrences below which they consider such instances as incorrect. For example, Iaroslavsteva and Skorczynska (2017: 54) propose that an absence of occurrences in the British National Corpus (BNC) implies non-native usage (Lukács 2022: 95). This 'zero occurrence' criterion is unequivocally objective, albeit potentially radical. The challenge lies in the possibility of other corpora containing the expression. Moreover, determining the suitable occurrence threshold is intricate due to the absence of universally satisfactory figures (Lukács 2022: 95).

In general, dictionaries prove us with valuable help in judging correctness in students' essays (Lukács 2022: 95). Nonetheless, disparities arise in the presentation of headword meanings and the occasional conflation of meanings of headwords within dictionaries, for instance the online versions of Macmillan and Longman, see Section 6.2.5.

Conclusively, a combined utilization of a native speaker's intuition, dictionaries, and corpora becomes imperative for error identification (Lukács 2022: 95). Regrettably, these three methods of error recognition lead to instances of divergence in outcomes. For example, Littlemore et al.'s (2014) instances of 'all the world' and 'the whole world' exhibit occurrences of 2.49/m and 3.73/m, correspondingly, within BNC (Lukács 2022: 95). While their 'strict' criterion deems 'all the world' as erroneous, Iaroslavsteva and Skorczynska (2017) consider it acceptable due to its inclusion in BNC (cf. Iaroslavsteva and Skorczynska 2017: 54).

The complexity of identification is compound due to situations in which the native speaker perceives an expression as correct, counter to its contradiction by a dictionary and/or a corpus (Lukács 2022: 95). Two instances illustrate this phenomenon: ***in my point of view*** and ***blindfold*** (Lukács 2022: 95). The native speaker also judging the students' mistakes accepted both expressions as proper English. However, I found them slightly unnatural in English. Seeking further clarification, I consulted the online Longman dictionary, uncovering the following information under 'point of view' (Lukács 2022: 95-96):

> (1) a particular way of thinking about or judging a situation
> scientific/**technical/business etc point of view**
> **From** an economic **point of view**, the new development will benefit the town greatly.

(2) someone's own personal opinion or attitude about something I respect your point of view, but I'm not sure I agree with you.
from somebody's point of view
From my point of view, there is no way they can win.

Grammar
Don't say: in my point of view (Longman)

It is worth noting that Longman overtly discourages the usage of 'in my point of view', yet the rationale for its avoidance remains unspecified (Lukács 2022: 96). In contrast, upon examining BNC and COCA, we come across the following statistics. BNC yields 0.03/m for the query in * *point of view*, and 0.01/m for *in my point of view*. COCA's count is 0.029/m for *in my point of view* (Lukács 2022: 96). Considering these statistics, it is evident that these expressions are infrequent among native English speakers.

The subsequent passage extracted from a student's essay features the term *blindfold*, employed in a non-literal context:

the Covid-19 is just a good device / tools for the governments to ***blindfold*** *the people in their country from their problems* (Lukács 2022: 96)

'Blindfold' is explained as follows in the online dictionaries used:

(1) **to put a blindfold over someone's** eyes (Macmillan)
to cover someone's eyes with a piece of cloth
Blindfold the prisoner! (Longman)

In this instance, the native speaker acknowledged 'blindfold' as an accurate usage. Nevertheless, native speaker intuition faces partial contradiction from Macmillan and Longman (which present only the literal sense), and iWeb (with an occurrence of 'blindfold': 0.0004/m), as well as complete contradiction from BNC and COCA (with no occurrences) (Lukács 2022: 96).

The rationale behind the native speaker approving these expressions as correct in their sentences, despite the divergence from dictionary meanings and corpus data, remains a subject of consideration (Lukács 2022: 96). One plausible explanation could be creative use (referring to Nacey 2013: 161, Lukács 2022: 96). Put differently, the student purposefully employed 'blindfold' in the provided example in a non-literal context, rendering it a non-error since errors are typically not deliberate (Lukács 2022: 96). As described by Nacey (2013:

161-167) and cited in Lukács (2022: 96), three criteria of creativity are deliberateness, novelty (when a meaning is absent from a dictionary), and value (a subjectively assessed metric signifying metaphor significance, cf. Nacey 2013: 181). Several indicators of deliberateness exist:

- Defective 'A = B' comparisons: *Juliet is the sun.*
- Extended metaphors: *Therefore the circle of life spins once again: it seems, as if we cannot stop, we demand to have all of it and then some.*
- S-quotes (frequently known as 'scare quotes'): *…thus leaving us with all sort of different impressions that needs to be sorted out and "digested".*
- Bridge metaphors: *Exercise Daily. Walk with the Lord.* (Caption on an American church marquee) (referring to Nacey 2013: 171, Lukács 2022: 96-97).

Deliberateness faces substantial critique and researchers often view it as a matter of contention due to the inherent challenge of determining intentionality in any action (Deignan 2011, Gibbs 2011, Müller 2011, as referenced in Littlemore et al. 2014: 122; referring to Littlemore et al. 2014: 122, Lukács 2022: 97). In the context of assessing metaphorical creativity in L2, deliberateness is characterized as being, „at best speculation" (referring to Hoang 2015: 44, Lukács 2022: 97).

6.2.5 Metaphor Identification

During the process of metaphor identification, I adhered to the principles outlined in MIPVU (Steen et al. 2010) regarding metaphors (Lukács 2022: 97). Referring to Steen et al. (2010), Lukács (2022: 97) details that this approach encompasses three distinct categories of metaphors: indirect (Steen et al. 2010: 10), direct (Steen et al. 2010: 57), and implicit (Steen et al. 2010: 15). Indirect metaphors involve the conceptualization of a target domain through its source domain, whereas direct metaphors encompass comparisons and counterfactual expressions (referring to Steen et al. 2010: 10, Lukács 2022: 97). Implicit metaphors occur when a pronoun refers to a linguistically figurative unit (referring to Steen et al. 2010: 26-42, Lukács 2022: 97). After perusing the entire text, the following steps must be adhered to:

(1) Segment the lexical units in the text.
(2) Utilize dictionaries to ascertain the contextual meaning of each lexical unit.

(3) Similarly, employ dictionaries to identify the fundamental meaning(s) of each lexical unit. This basic meaning tends to be specific and tangible, closely tied to sensory experiences like sight, smell, or taste.
(4) Evaluate whether the contextual and basic meanings diverge.
(5) Assess whether there is any resemblance between the contextual and basic meanings.
(6) If the answers to steps b) through e) are affirmative, then we identify a metaphor-related lexical unit (referring to Steen et al. 2010: 26-42, Lukács 2022: 97).

Despite MIPVU's intention as a dependable tool, it bears certain limitations. Defining lexical units can be intricate, as it does not always equate to „one word, one lexical unit". For this purpose, I adopted Nacey's (2013) classification, distinguishing between single words and multiple words; the latter encompasses compounds (referring to Nacey 2013: 90-91, Lukács 2022: 97), polywords — selected sequences of fixed words (referring to Nacey 2013: 88, Lukács 2022: 97) — and phrasal verbs (referring to Nacey 2013: 86, Lukács 2022: 97). Such multi-word expressions are a single lexical unit. For instance, *blindfold*[39] (compound), *because of* (polyword), and *go through* (phrasal verb) each represent a single lexical unit (Lukács 2022: 98).

Deciding if a lexical unit warrants metaphor analysis is not always straightforward. Borderline cases suggest that pinpointing metaphors involves subjective researcher judgments on the resemblance between contextual and basic meanings of lexical units. Such instances are marked as WIDLII (When In Doubt, Leave It In). Occasionally, they are omitted from analysis, labeled as DFMA (Discard For Metaphor Analysis). This variance among analysts is, however, negligible, substantiated by reliability assessments (referring to Steen et al. 2010: 59, Lukács 2022: 98).

The subsequent phase in MIPVU entails identifying and contrasting the contextual and basic meanings of lexical units (referring to Steen et al. 2010: 33-38, Lukács 2022: 98). MIPVU relies on Macmillan and Longman dictionaries for ascertaining these meanings. An additional resource employed was the VU Amsterdam Metaphor Corpus, featuring 190,000 lexical units (referring to Steen et al. 2010b, Lukács 2022: 98). I investigated the metaphorical usage using MIPVU, as illustrated below:

[39] The examples (*blindfold*, *because of*, *go through*) originate from essays writen by my subjects (Lukács 2022: 98).

*Covid-19 had a **huge** impact on all of our lives* (Lukács 2022: 98).
Macmillan has the following meanings for ‘huge’:

(1) **extremely large in size**

She arrived at the airport carrying two huge suitcases.

(1a) **extremely large in number, amount, or degree**

Many of today‘s players earn huge amounts of money from sponsorship and advertising.

The concert turned out to be a huge success.

(2) **extremely successful and well known**

The band is huge in both Britain and the US.

As mentioned before, Longman conflates the meanings of ‘huge’:

(1) **extremely large in size, amount, or degree SYN enormous**

a huge dog

huge crowds

Your room’s huge compared to mine.

These shoes make my feet look huge.

a huge amount/sum/quantity etc

huge sums of money

We are only now realizing the huge scale of the problem.

a huge loss/profit/increase etc

a huge increase in cost

a huge range/variety/selection etc

a huge range of issues

a huge success/disappointment etc

The play was a huge success.

a huge difference/gap etc

The new system has made a huge difference.

(2) **informal very popular or famous**

David Hasselhoff is huge in Germany (Lukács 2022: 98-99).

In cases where there is no disparity between the contextual and basic meanings of a term, such as ‘huge’, MIPVU principles suggest its non-metaphorical usage in the given context (Lukács 2022: 99).

The assessment of metaphoricality also hinges on the interplay between what the students intended to write and what they actually wrote. Nacey (2013) regards *spectre* metaphorical in *It is in this huge **spectre** of merchandise and inventions.* as, In Norwegian, *spekter* means ‘range’ or ‘spectrum’ (referring to Nacey 2013: 119, Lukács 2022: 99). The similarity in spelling and pronunciation likely contributed to this error. Nacey (2013) further explores the contextual meaning of *spectre* (referring to Nacey 2013: 119, Lukács 2022: 99), which corresponds to ‘the whole range of ideas, qualities, situations, etc., that are possible’ (coincidentally, the first entry for ‘spectrum’ in Macmillan). The basic meaning of *spectre* is ‘a ghost’ in Macmillan (literary). Comparing these meanings reveals a contrast, signifying the metaphorical use of *spectre* in this context according to Nacey (2013). We can see that *spectre* and *specter* mean different things in English, but, as *spectre* is an interlingual false friend (false cognate) regarding Norwegian and English, I do not consider the resulting contrast in meaning metaphorical use and would classify *spectre* as non-metaphorical with the lable DFMA.

In my pilot study, I employed the label DFMA to denote instances of incorrect word selection or misspelling, as in the case of my examples: *we could not see the **mimics** and gestures of the other people* (Lukács 2022: 99); or *Still we somehow managed to have a great, **dear** I say, friendship with our classmates* (Lukács 2022: 99). These are instances of incorrect spelling leading to using a lexical unit being non-existing in English (*mimics*) or a lexical unit existing in English (*dear*). In either cases, no underlying metaphorical use is in place in their respective contexts. *Mimics* is presumably the result of guessing in English based on native Hungarian transfer, while *dear* is an incorrect fossilization of *dare*.

6.2.6 Error Classification

As previously mentioned, the identification of transfer poses challenges. In the context of this study, errors serve as indicators of potential L1 transfer, necessitating the ability to discern whether an ungrammatical unit results from L1 influence or not. Errors manifest in various forms, as evidenced by several taxonomies, including those employed by Littlemore et al. (2014), Iaroslavtseva and Skorczynska (2017) (for a comparative overview, refer to Table 7),

Nacey (2010, 2013), which builds on James (1998)[40], as well as methodologies introduced by Jarvis and Pavlenko (2008) and Jarvis (2010).

Potentially L1-induced error types	**Littlemore et al. (2014)[41]**	**Iaroslavtseva and Skorczynska (2017)[42]**
Type 1	Errors that are not peculiar to metaphor in particular *Is everything running **smooth*** (Littlemore et al. (2014: 141).	
Type 2	Incorrect choice of a metaphorically used word *TV reporters have **wrapped** their reports in dramatic pictures* (Littlemore et al. (2014: 141).	Wrong word choice *I have an Eglish exam **in** this date* (Iaroslavtseva and Skorczynska (2017: 56). Words that exist in Spanish and are similar to some words in English, but have different meaning, in other wordsfalse friends *A touristic **destiny** due to its beaches and gastronomy* (Iaroslavtseva and Skorczynska (2017: 56). Non-native like metaphors used quite creatively by Spanish-speaking learners (not found in the BNC, but found in the CREA[43]) *The **speed** of our lives is sometimes like a Forumula 1 drifting.* (Iaroslavtseva and Skorczynska (2017: 57).
Type 3	The appropriate metaphorically used word but not used it in its appropriate form due to L1 influence *Merely causing **depressions*** (Littlemore et al. (2014: 141).	
Type 4	Errors due to incorrect phraseology, possibly reflecting L1 influence *He started as **nobody*** (Littlemore et al. (2014: 141).	

[40] Referred to by Lukács (2022: 99).
[41] In the case of these examples, the L1 was German, the L2 was English (Littlemore et al. (2014: 120).
[42] The L1 was Spanish, the L2 was English (Iaroslavtseva and Skorczynska (2017: 54).
[43] Corpus de Referencia del Español Actual (Iaroslavtseva and Skorczynska (2017: 54).

Type 5		Direct translation of the metaphoric phrase from Spanish to English, which makes no sense in English ***<u>There is no colour for me</u>***, *I prefer it in the outside*, 'no hay color' = 'there is no comparison' (Iaroslavtseva and Skorczynska (2017: 57).

Table 7. Potentially L1-induced error types of Littlemore et al. (2014) and Iaroslavtseva and Skorczynska (2017) (referred to by Lukács 2022: 101)

Table 8 contains four types of evidence for L1 transfer. Jarvis and Pavlenko (2008: 41-48) introduced the first three, and Jarvis (2010: 182) added intralingual contrasts later.

Evidence	**Comparison**	**Premise**	**Combined premise**
Intragroup homogeneity	Within-group	Group-representative behaviour	Group-based phenomenon
Intergroup heterogeneity	Between-group	Group-specific behaiour	
Cross-language congruity	Between-language	Source-like behaviour	Source-based phenomenon
Intralingual contrasts	Within language	Source-stratified behaviour	

Table 8. Types of evidence (Jarvis and Pavlenko 2008: 41-48, Jarvis 2010: 182)

Intragroup homogeneity necessitates determining the consistency with which a group of speakers performs in the source language (L1) with respect to a particular language feature, and examining if they exhibit a comparable level of consistency in their use of a corresponding feature of the recipient language (L2) (Jarvis and Pavlenko 2008:47-48). We can obtain intergroup heterogeneity by means of comparing the use of the same L2 by two or more groups of language users whose L2 knowledge is comparable, but do not have the same L1. (Jarvis and Pavlenko 2008:47-48). Crosslinguistic performance congruity requires the researcher to compare language users' performance in both L1 and L2, and to determine if their L2 performance is directly motivated by the language structures and patterns they produce in the same contexts in the L1 (Jarvis and Pavlenko 2008:47-48). Intralingual contrasts are differences displayed by learners with the same L1 in the course of learning L2 linguistic features (cf Jarvis 2010: 179). When attempting to find evidence for L1 transfer, we must combine the four types of evidence with one another whenever possible, which is necessary for methodological rigour (Jarvis 2010: 178).

I mentioned before the L1 intuition of a native speaker, which Littlemore et al. (2014) also used. Unreliable in itself, such intuition needs support of other means, which one may combine with one another. One of these is translation from L2 into L1 by other native speaker

(Nacey 2013: 221): she investigated transfer in the case of prepositions with this method. Analysing Hungarian L1 influence on English L2, the following may also be tools in the research: Native English corpora, such as BNC, COCA, L1 corpus (MNSZ2), as well as the International Corpus of Learner English (version 3, cca 5 million words), which is an L2 corpus produced by subjects of different L1s. Bilingual dictionaries (for example Országh 2003) may also help the work. There are also some papers which do not reveal any information on how they detect L1 transfer (for example Brogan and Son (2015), Ramón-Torrijos (2009), Utkina 2016).

6.3 Results and Discussion

6.3.1 Research Question 1

What types of metaphor errors occur in L2 essays by Hungarian students at B1-C2 level?

In addressing Research Question 1, the ensuing observations become apparent. Table 9 shows the quantitative data of the types of mistakes per the language levels of the subjects. To ascertain the error types I identified in the learner corpus, I leaned upon Nacey's classifications (2010, 2013), which rely on in James[44] (1998), which provided a foundation for analyzing both metaphorical and grammatical elements. The analysis revealed that many errors, although initially categorized as grammatical or lexical, involve metaphorical misuse or misinterpretation in the context of their usage. The most prevalent category of errors pertained to grammar, amounting to 33 instances (cf Lukács 2022: 100). Among these, several reflect metaphorical errors as defined by MIPVU. For example, in *I have to work with other people **in** 90% of the times*, 'Az idő 90%-á**ban** másokkal kell dolgoznom', (The time-NOM 90%-POSS-3sg **in** other-nom-3PL with must work-1SG), (B2 level), the preposition *in* is grammatically redundant but metaphorically significant. According to MIPVU, the preposition suggests a three-dimensional conceptualization of percentages, indicating a metaphorical interpretation that deviates from standard English usage. Similarly, *…improvements concerning online education **on** the long run…*, '…az online oktatást érintő fejlesztések hosszú táv**on**…' (...the online education-Acc-3SG concerning improvement-NOM-3PL long distance **on**…), (C2 level), involves a grammatical error (*on* instead of *in*), yet it also reflects metaphorical thinking rooted in a misalignment between the learners' L1 (Hungarian) and L2 (English). Subsequently, misspelling errors accounted for 7 instances. There were four instances that defied categorization into discrete groups (Lukács 2022: 100).

[44] The authors are referred to by Lukács (2022: 100).

In addition, two instances of confusion within sense relations occurred. Examples of calque, collocational errors, and grammar + spelling combined each had one instance.

While these errors vary in type, they often share a metaphorical dimension that reflects learners' conceptualizations probably influenced by their L1. What follows from this is that metaphor errors in L2 essays frequently intersect with grammatical or lexical issues. Therefore, mastering both the structural and conceptual aspects of metaphorical language use may be challenging for language learners.

6.3.2 Research Question 2

To what extent can L1 transfer explain the errors?

While striving to address Research Question 2, I gathered the following data (Lukács 2022: 100). Pertaining to CEFR levels, it is notable that mistakes are virtually omnipresent at level B2, with nearly all types of errors being manifest (with the exception of calque, which occurred solely at level B1). Additionally, I recorded the highest numbers of mistakes among B2 students. This observation is consistent with Littlemore's assertions (2014), positing that it is at level B2 where she observed the highest incidence of errors, thus rendering it particularly susceptible to L1 influence.

Types of mistakes	B1	B2	C1	C2	Total
Grammar	3	23	5	2	**33**
Misspelling	3	3	1	-	**7**
Other	1	1	2	-	**4**
Confusion of sense relations	1	1	-	-	**2**
Calque	1	-	-	-	**1**
Collocational errors	-	1	-	-	**1**
Grammar+spelling	-	1	-	-	**1**
	9	**31**	**9**	**2**	-

Table 9. Types of mistakes according to CEFR-levels (Lukács 2022: 100).

As mentioned earlier, my aim was to find lexical elements which are not simply incorrect but which are also used metaphorically. For example, 'in' is grammatically incorrect as it is not necessary in *I have to work with other people* ***in*** *90% of the times*, 'Az idő 90%-á**ban** másokkal kell dolgoznom', (The time-NOM 90%-POSS-3sg **in** other-nom-3PL with must work-1SG), (B2 level) and metaphorically used according to MIPVU as there is a contrast between its basic meaning ('used for showing where someone or something is') and contextual meaning ('used for talking about numbers and amounts') in the online version of

Macmillan.Therefore, *90%* is regarded as a 3-dimensional entity and *in* as an indirect metaphor in MIPVU. If the subjects chose a wrong preposition, I accepted it as an instance of grammatically incorrect and metaphorical use, as the preposition may have a metaphorical interpretation.

Regarding the dataset of the linguistic data, it comprises the sentences housing grammatically incorrect metaphorical lexical units (Lukács 2022: 100, 103). Alongside the student examples, I furnish their Hungarian translations, pinpointing the linguistic components that potentially stem from L1 transfer. A wellspring of such transfer lies in instances where students employed English prepositions as if they were Hungarian suffixes as observed in *I have to work with other people **in** 90% of the times*, 'Az idő 90%-á**ban** másokkal kell dolgoznom', (The time-NOM 90%-POSS-3sg **in** other-nom-3PL with must work-1SG), (B2 level); *…improvements concerning online education **on** the long run…*, '…az online oktatást érintő fejlesztések hosszú táv**on**…', (...the online education-Acc-3SG concerning improvement-NOM-3PL long distance **on**…), (C2 level); *I do not have to waste my time **with** commuting and waiting…,* 'Nem kell ingázás**sal** és várakozás**sal** pazarolnom az időmet…', (No need commuting with and waiting **with** waste-1SG the time-POSS-1SG-ACC…), (B2 level). In these cases, the prepositions and suffixes align in meaning. Grammatical errors prevail: *in* and *with* are not required in the respective structures; the subject wrote *on* instead of *in* in *on the long run.*

The ultimate instance of potential L1 transfer pertains to calquing as seen in *…we **left out** big parties…,* '…nagy bulikat **hagytunk ki**…', (...big party-ACC-3PL **omit-PAST-3PL out**…), (B1 level) where the subject transliterated a Hungarian verb into English. To encapsulate, I identified a total of four occurrences, of which two emanated from B2-level students. This reiterates the assertion that the prevalence of errors and the robustness of L1 influence are inclined to manifest at level B2. As we can see, only a minimal amount of four instances could be the effect of the Hungarian L1, underscoring the limited extent of such data.

6.4 Summary and Conclusion

After completing these comprehensive examinations of the employment of metaphors in English and the influence of L1 in essays composed by my Hungarian students, I can draw several conclusions. Primarily, in accordance with my prior remarks, it is evident that the analysis of metaphors and transfer through corpus research yields a relatively limited amount of pertinent linguistic data. As mentioned earlier, I discovered merely four instances of

ungrammatical and metaphorical usage within a corpus comprising 3,381 words. Although I recorded the gender composition of the population, the very low number of relevant linguistic data rendered it pointless to use this data. Secondly, the process of identifying these instances was notably gradual and labor-intensive, characteristic features that align with findings in existing literature, as indicated by Xia (2019: 105-106, referred to by Lukács 2022: 101). Thirdly, considering all these factors, a new avenue in this work would involve testing, a more productive approach in contrast to working exclusively with essays. This is the topic of Chapters 7 and 8.

7 Analyzing L1 Effect in L2 Figurative Language: Idiom Categories and Testing

7.1 Introduction

In Chapter 7, I explore the factors influencing idiom processing in L2. The literature identifies many of these, including L1 transfer, the textual context of the tasks for the subjects, decomposability, and familiarity. This chapter also examines the methodologies employed in studies investigating these factors. I analyze various works on figurative language comprehension and production by language learners. The subjects of these studies participated in research on understanding and producing idioms in a second language (L2). Following this review of the literature, I detail my work in the field of second language acquisition, two idiom tests, in Chapter 8. The terminology used in the literature varies among researchers, so I clarify the terminology used by different authors as needed throughout the chapter.

Before discussing the papers on idiom testing, we need to address several issues. The researchers have conducted numerous experiments involving subjects — typically in their 30s with relatively advanced L2 proficiency. However, there are limitations concerning the set of idioms analyzed and the methods applied. As Türker (2019: 141) notes, a larger number of idioms should be examined, and one should take into consideration other factors that facilitate L2 learning, such as semantic transparency, concreteness, and imageability. There are also methodological issues: both Cooper (1999: 258) and Türker (2019: 141) find the number of idioms studied to be low, and Cooper (1999: 258) additionally considers the number of subjects insufficient, though neither author specifies what they consider an appropriate number. In sum, the authors discussed here point out the material (the idioms) and the methodology of idiom testing as issues to be considered for improvement. While no absolute solutions can address these concerns, theoretical guidelines suggest that testing more idioms and including more participants would yield more accurate observations and stronger theories on factors like transfer, context influence, decomposability, and familiarity. Despite the representation of certain populations, we cannot rule out individual differences entirely. This chapter provides an overview of the idiom categories and task types used by researchers, although their experiments are often distinct and, consequently, more challenging to compare directly than my discussion may imply.

7.2 Factors Influencing Idiom Production and Understanding in L2

The purpose of this section is to provide us with a short review on the literature on L2 idiom processing. The literature views it from the perspective of a number of issues such as cross-linguistic similarity, context, decomposability and compositionality, transparency, familiarity, task type, proficiency level, and strategy. One may classify these criteria into two sets according to the degree to which they are inherent to the figurative expression. The first set includes the features connected to the idiom: cross-linguistic similarity, decomposability, compositionality, and transparency. The second group includes factors that are non-inherent, for example, familiarity, context, task type, proficiency, and strategy. It is important to note that most papers examine second language comprehension and production conjointly. Therefore, I discuss the works first in terms of comprehension and then production.

Before discussing idiom comprehension and production, we need to clarify the terms of decomposability and compositionality, transparency, and familiarity. Decomposability (isomorphism/analyzability) is perhaps the most confusing factor influencing idiom processing, as this factor is defined in a number of ways and is used as an alternative term for analyzability (cf Cieślicka 2015: 213). Decomposability and compositionality are two components in Langlotz's (2006a: 109) model on the semantic compositon of idioms:

1. *Semantic composition* = syntagmatic dimension
a. bottom-up: *compositionality*
b. top-down: *isomorphism/analyzability*
2. *Semantic extension* = paradigmatic dimension
a. bottom-up: *projection/grouping*
b. top-down: *motivation*

Table 10. Langlotz' (2006a) model on semantic composition

Semantic composition refers to the syntagmatic dimension, in other words the constituent words of an idiom. One may examine them bottom-up and top-down. Compositionality, the result of the bottom-up process, refers to the predictability of the figurative meaning through the literal meanings of the constituents in the idiom (Langlotz 2006a: 89, 111). Following Langacker (1987) and Langlotz (2006a), Cserép (2003: 68) also makes a distinction between compositionality and analyzability: the latter is determined for each idiom individually, and the former is related to the regularity of constituent words meaning: the same meaning combined in the same manner elsewhere as in the word

combination one is dealing with. We may state that if an expression is fully compositional it cannot be idiomatic.

Decomposability is a top-down process (Langlotz 2006a: 109). As Langlotz (2006a: 115) states and illustrates, this means that one may distribute the idiomatic meaning among the idiom's constituent words, as illustrated by *rock the boat* 'spoil a comfortable situation'; *rock* stands for spoiling and *boat* the comfortable situation, so this idiom is decomposable. By contrast, *be home and dry* 'having achieved success or a victory' is nondecomposable (Langlotz 2006a: 214). We must bear in mind that expressions may be both motivated and nondecomposable, such as *spin one's wheels* 'fail to achieve anything satisfactory' (Langlotz 2006a: 119).

In line with Carrol et al. (2018), decomposability is the extent to which the figurative meaning can be associated with the constituent words of the idiom, or, in simpler terms, decomposability, as described by Carrol et al. (2018: 23, 37), represents "the contribution of the individual words". Although others, such as Cieślicka (2015: 213) and Abel (2003: 338), have adopted a similar view, Carrol et al.'s (2008) directions in the rating phase of their experiment indicate that Carrol et al.'s (2018) decomposability is motivation in Langlotz's (2006a) terminology. As per the instructions provided by Carrol et al. (2018: 28) to elicit decomposability, they presented their subjects with the phrase and informed of its actual meaning. This helped them determine the decomposability of the given phrase. After the subjects had learnt what the phrase meant, the researchers asked them how easy it was for them to recognise the link between the individual words and the figurative meaning (Carrol et al. 2018: 28). This indicates that what Carrol et al.'s (2018) consider as decomposability is the same with motivation in Langlotz (2006a).

In contrast to decomposability and compositionality, transparency refers to the connection between the literal and non-literal meanings; Langlotz (2006a: 113) employs the term *motivation* to explain this relationship. For instance, the idiomatic phrase *red herring* remains ambiguous to many speakers as its literal-figurative correlation is uncertain (2006a: 45). Motivation alone is not enough to predict the idiomatic meaning of the words in an idiom based on their literal meaning alone; it is necessary for this purpose, but it is not sufficient (Langlotz 2006a: 114). In brief, motivation refers to the understanding of the connection between the non-idiomatic and the idiomatic meanings of the expression, whereas prediction involves the ability to deduce the non-literal meaning of the idiom from the non-idiomatic meaning of the words making up the idiom (Lukács 2023a: 36). In Carroll et al. (2018), transparency has the same definition as Langlotz's (2006a) predictability.

Cieślicka (2015) understands transparency differently. Drawing on Nunberg et al. (1994), Cieślicka (2015: 213) suggests that transparency means that the metaphorical motivation of an idiom can be partially deduced from a literal analysis, which in Langlotz's (2006a) terminology would be called predictability. The idiom *saw logs* is easily comprehensible due to the similarity between the sounds of sawing and snoring, as mentioned by Cieślicka (2015: 213). Nonetheless, as Cieślicka (2015: 213) points out, one cannot deduce the figurative meaning in the case of *take the gilt off the gingerbread* from the non-figurative meanings of its components.

Second language idiom transparency may be prone to the influence of different factors such as the presence of similar idioms in the mother tongue and the ability to deduce the idiomatic meaning either through the analysis of the individual elements or the overall context of the idiom (Cieślicka 2015: 216-217). We can understand transparent idioms by analyzing the literal meanings of their constituent words or the underlying figurative trope they represent; factors such as clear etymological origin, common metaphorical themes, and idiom imageability can increase transparency (Cieślicka 2015: 217). Studies have shown that transparency facilitates the recognition and comprehension of idioms (for example Irujo 1986 and Skoufaki 2009), but its impact on production tasks is less significant (Cieślicka 2015: 217). Transparent idioms are easier to comprehend even for learners who are unfamiliar with them (Cieślicka 2015: 217).

When an L2 idiom lacks a direct translation equivalent in the learner's L1 and is also opaque, comprehension becomes more challenging; in such cases, learners may rely on the literal meanings of individual constituents, but this alone may not be sufficient to derive the figurative interpretation. (Cieślicka 2015: 217-218). The presence of a supportive context, cross-language similarity, and the tendency to analyze idioms literally are factors that influence idiom processing (Cieślicka 2015: 218). In general, language learners strive for optimal relevance and often follow the path of least cognitive effort in inferring the figurative meaning of idioms (Cieślicka 2015: 218).

Having discussed the terminology of the factors influencing idiom processing in L2, we may proceed with the non-inherent ones. The processing of idioms is also influenced by familiarity, a factor that several papers, such as Abel (2003), Carrol et al. (2018), and Hubers et al. (2019) discuss. Abel (2003: 336) considers it to be the knowledge of the idiom meaning. The directions she gives suggest that familiarity in this sense involves an intuitive self-assessment, as we can see it from this instruction (Abel, 2003: 336): "For each of the following idioms, you will have to decide how well you know the meaning of the idiom.".

Titone et al. (2015: 173) use a different definition of familiarity, which refers to the frequency with which the interviewee comes across the spoken or written form of the idiom, regardless of their knowledge of the non-literal sense. But we must bear in mind that Titone et al. (2015: 173) refer to this frequency as a "subjective impression"; therefore, Titone et al.'s (2015: 173) familiarity is essentially what Hubers et al. (2019: 7) label as subjective frequency.

Referring to Baayen (1992, 1993) and Baayen and Lieber (1997), Abel (2003: 345-346) posits that frequency the objective, statistically definable occurrence. Abel (2003: 346) considers the correlation between frequency and familiarity as unidirectional, in other words subjects judge idioms that frequently occur as familiar, but familiar ones do not necessarily qualify as frequent.

In contrast to Abel (2003), Carrol et al. (2018: 28) regard 'familiarity' as the degree to which one believes they know the idiom (see also Laufer 2000: 191). Hubers et al. (2019: 7), like Carrol et al. (2018: 28), also take into account the subjective evaluation of this knowledge of the subjects. All three papers (Abel 2003: 338, Carrol et al. 2018: 28, Hubers et al. 2019: 7) rated familiarity through the use of Likert-scales as a methodology.

Having discussed the terminology used in idiom testing, I introduce how I use the technical terms in my experiments. I use familiarity to refer to the subjects' intuitive knowledge of the idiom; by motivation, I mean the ability of the subjects to see the link between the literal and the non-literal meanings of the idiom; predictability means the ability of the subjects to guess the nonliteral meaning of the idiom on the basis of the literal meanings its constituent words. I chose Likert-scales to assess each, see Section 8.6. As a consequence, my terms and techniques are very much the same as the ones used by Carrol et al. (2018) and Hubers et al. (2019).

One can assess comprehension and production using both offline and online tasks, depending on the specific analysis goals of researchers (García et al. 2015: 118). Offline tasks are tools to investigate individual language interpretation, but they may not divulge extensive information concerning language processing when employed by researchers (García et al. 2015: 118, referring to Sanford et al. 2004). As we can see in the literature, examples of offline measurement methods encompass translation into L2 (such as Cieślicka 2006a, Irujo 1986, Irujo 1993), sentence rating (Skoufaki 2009) (García et al. 2015: 120) paraphrasing (Van Lancker-Sidits 2003) (García et al. 2015: 120). Test subjects engage with tasks involving idiomatic expressions for interpretation, translation, and more (García et al. 2015: 118). Researchers need to exercise caution, as suggested by Xia (2019: 43), because certain

types of offline tasks might yield skewed results, where transfer can influence idiom types in production translation tasks. To counteract this, researchers employ sentence completion tasks (Cieślicka 2006a) and discourse completion tasks in L2 conversations (Türker 2019[45]). In contrast, online tasks gauge real-time language processing (referring to Mitchell 2004 and Swinney 1979, García et al. 2015: 118). Offline and online tasks exist on a continuum (García et al. 2015: 119). For instance, discourse completion/gap-filling tasks (e.g., Cieślicka 2006b, Irujo 1986) may occupy an intermediary position (García et al. 2015: 119). At the same place, we can read that online measures include data like speed and accuracy, while offline tasks solely quantify the extent of subjects' knowledge (referring to Bolger and Zapata 2011; García et al. 2015: 122). Discussing the contrast between receptive offline and receptive online tasks, Xia (2019: 109) underscores that offline tasks lack time constraints, whereas the researchers monitor subjects' reaction times in online tasks; from a technical perspective, offline tasks necessitate minimal apparatus (pen-and-paper tests, electronic documents, or online questionnaires), while online tasks require software and computers at a minimum (Lukács 2023a: 34). Offline tasks encompass judgment tasks, interpretation (or paraphrasing) tasks, and sentence correction (Xia 2019: 109-115). Meanwhile, online tasks encompass the lexical decision task using metaphorical expressions as priming items, self-paced reading, and maze tasks (Xia 2019: 115-120). The main focus of the present thesis is offline research.

In Chapter 7, I explore the rankings of idiom difficulty, detailing how the researchers discussed understood and used various idioms across different task types. This analysis covers both comprehension and production, providing a comprehensive look at the challenges learners face with idiomatic expressions. By examining these rankings, I intend to observe which idioms are more accessible and which pose greater difficulties, highlighting the nuances of idiom acquisition in second language learning.

7.2.1 Cross-linguistic Similarity

The correlation between a person's native language (L1) and their target language (L2) is often explained using the Parasitic Hypothesis. This theory suggests that when learners encounter new L2 words or expressions, they tend to establish connections between the L2 element and the conceptual structure of its L1 counterpart, often through translation (Cieślicka, 2015: 215). Over time, these connections gradually fade as the need for L1 assistance in retaining the L2 element diminishes (Cieślicka, 2015: 214). This phenomenon, known as Parasitic Hypothesis, is particularly useful when dealing with L1-L2 idioms that

[45] Xia's (2019:43) Cieslicka (2006) and Türker (2016) are Cieslicka (2006a) and Türker (2019) in my thesis.

share both form and meaning, as learners can map L2 idioms to their L1 equivalents (Cieślicka, 2015: 214-215).

This hypothesis becomes evident in idiom learning, especially when L1-L2 idioms directly overlap, having both figurative and literal equivalences (Cieślicka, 2015: 216). Existing literature indicates[46] that, 1) in comprehension tasks, L1-L2 idioms with similar forms and same meanings tend to score higher than idiom pairs with different forms and same meanings, and 2) in production tasks, negative L1 transfer, described as the intrusion of the mother tongue by Cieślicka (2015: 229), occurs more frequently when L1-L2 idioms share the same meaning and similar form, compared to different idioms (Cieślicka, 2015: 216). *Similar-same* idioms are particularly prone to L1 transfer because their nature makes them somewhat transparent and therefore more relatable to the learners' native language (Cieślicka 2006b: 228, 234). *Similar-same* idioms, while not as straightforward as *same-same* idioms, still maintain an extent of translatability that allows learners to draw parallels between the idioms in their L1 and L2 (Cieślicka 2006b: 227). This translatability makes it easier for learners to rely on their existing linguistic knowledge to interpret and produce these idioms (Cieślicka 2006b: 227). She assumed that transfer effects would be prominent in the production of *similar-same* idioms, and their comprehension scores would be comparable to those of the LL idioms (Cieślicka 2006b: 239). This hypothesis was confirmed by the data showing that *similar-same* idioms elicited the highest percentage of transfer-based responses in the discourse completion and translation tasks (Cieślicka 2006b: 233, 239). While the comprehension of *similar-same* idioms was comparable to that of *same-same* idioms, their production showed significant transfer effects (Cieślicka 2006b: 233, 239). The solutions provided by Cieślicka's (2006b) subjects for the English idioms were categorized into two groups according to whether they were incorrect due to L1 transfer or not (Cieślicka 2006b: 230). Instances indicating Polish L1 transfer are typed in bold, cf Cieślicka (2006b: 231), where "transfer" means using the incorrect translation of minimum one content word from the Polish idiom of its English idiomatic equivalence (Cieślicka 2006b: 230). For example, the English *same-same* idiom *loosen somebody's tongue* corresponds to the Polish *rozwiązać komuś język*, which is literally and figuratively identical with the English one (Cieślicka 2006b: 242). Direct translations such as "***untied/untangled/ resolved/unfolded***[47] *people's tongues*" (Cieślicka 2006b: 231) sound odd in English due to the overly literal transfer of the Polish structure, failing to capture its idiomatic meaning. The English idiom was incorrectly

[46] See also Tables 16-24.

translated as "*loosed people's tongues/opened their tongues"*, but these translations lack L1 influence (Cieślicka 2006b: 231). The English *similar-same* idiom, *add fuel to the fire* has the Polish idiomatic equivalent, *dolewać oliwy do ognia*, which literally translates to "*add olive to the fire"* (Cieślicka 2006b: 242). Directly using "*add **olive** to the fire*" or "*add **oil** to the fire*" (Cieślicka 2006b: 231) loses the phrase's figurative weight in English, which implies exacerbating an existing problem rather than literally adding fuel. Incorrect, not L1-induced translations were "*put some sticks to the fire/added wood to the fire"* (Cieślicka 2006b: 231). Finally, the English *different-same* idiom *keep a stiff upper lip* and its Polish idiomatic equivalent *zachować zimną krew*, literally meaning "to maintain cold blood" (Cieślicka 2006b: 242) also posed difficulties to the subjects. The English idiom was produced as "***retain cold blood***", "*stay **cold blooded***" or "***keep cold blood***" (Cieślicka 2006b: 231), which sounds overly literal and misses the structure's implication of remaining calm under pressure. Some of the subjects produced *keep a stiff upper lip* in Polish as *"stay calm/remain as cool as a cucumber/be very calm"*, but these faulty solutions do not showcase L1 transfer (Cieślicka 2006b: 231). This implies that when learners attempt to produce idioms in the second language, they often draw on similar idiomatic expressions from their first language, leading to higher transfer rates. (Cieślicka 2006b: 239).

In conclusion, the experiment suggests that the semi-transparency of *similar-same* idioms facilitates their susceptibility to L1 transfer, particularly in productive tasks. Additionally, Cieślicka (2006b: 232-233) suggests that idioms with similar forms and meanings appeared to be the most challenging for learners, resulting in more incorrect answers than different idioms in her production task. It is important that I also make a distinction between the terms *similar* and *same* in my idiom categorization, see Section 8.4. In Irujo's studies, *same-same* idioms scored highest in production, with *similar-same* idioms ranking second most difficult (Irujo, 1986: 292, 1993: 214).

Alternatively, when an L2 idiom lacks an L1 equivalent, learners may analyze the L2 idiom literally to decipher its non-literal meaning (Cieślicka, 2015: 216-217), in other terms, they rely on the decomposability of the idiom, as I discussed it earlier. It is unsurprising that *same-same* idioms are generally the easiest for learners. Cieślicka (2015: 216-217) suggests that when an idiom has an L2 counterpart with a distinct conceptual basis, learners can infer the figurative meaning from the literal meanings of the idiom constituents or the idiom's context. At the same place, we can see that transparent L2 idioms' figurative meaning can be easily identified through literal analysis, as in the case of *take the bull by the horns*, where metaphor or hyperbole can be inferred from the literal interpretation (referring to Nunberg et

al., 1994; Cieślicka, 2015: 217). Transparency may be influenced by factors like etymology (e.g., *bury the hatchet* – a symbolic act of reconciliation), common metaphor domains (e.g., *blew his top* - ANGER IS HEAT), or imageability, referring to how easily an image of the figurative meaning can be formed (e.g., *foam at the mouth* - an image of an angry person) (Cieślicka, 2015: 217). However, if an idiom is not transparent, or in other words, opaque, subjects are unlikely to identify the figurative meaning, even if the subjects have some context (Cieślicka, 2015: 217). For instance, *chew the fat* is opaque and lacks a direct Polish translation equivalent in a Polish-English context, rendering literal analysis of its constituents ineffective in deriving the intended figurative meaning (Cieślicka, 2015: 218).

7.2.2 Methodology

Exploring L1 transfer involves analyzing the figurative language used by participants. It is important to note that there are two primary approaches for studying L1 transfer: corpus research and testing. Authors and researchers have extensively covered the merits and demerits of these methods. Here, I discuss some of the main aspects briefly.

As discussed earlier, corpora need to be substantial to yield a significant amount of L2 data (Xia 2019: 105-106). Additionally, students' essays offer a genuine representation of language use and potentially encompass a diverse range of figurative expressions. This becomes advantageous when delving into metaphoric analysis.

The alternative method is testing, which quantifies and supplies the content the researcher aims to investigate – in essence, testing is a more efficient approach compared to corpus research. Unlike essays, tests categorically categorize expressions as defined by researchers (Xia 2019: 106). Moreover, tests can assess both comprehension and production, while essays only serve for production analysis. However, a challenge emerges when instructing students during testing; it could inadvertently distort the data gleaned from learners' L2 production. For instance, instructing students to employ metaphors might lead them to speculate while completing the task (Xia 2019: 107), thus concealing their actual grasp of metaphor usage. Nevertheless, tests design is appropriate for specific purposes, directing language usage and scope according to the type of figurative language under scrutiny.

In tests, production tasks can take various forms: 1) free completion, 2) completion with provided words, 3) completion in a multiple-choice format, and 4) translation (Xia 2019: 106). Among these, the free completion task most closely resembles essay writing, as students have to independently complete the task in their own words (Xia 2019: 106). While type 2

curtails students' liberty in expression, it facilitates the collection of linguistic data intended for analysis – alternatively, translation could be employed, where students produce an accurate L2 equivalent for an L1 translation (Xia 2019: 106). As alluded to earlier, tests can gauge both comprehension and production; multiple-choice tasks demand both receptive and productive knowledge to bridge the gaps (Xia 2019: 106-107). Nevertheless, these techniques have certain drawbacks. In the case of free completion, transferred figurative expressions might remain obscured (Xia 2019: 107); tasks involving provided words or multiple-choice options may prompt students to rely solely on guesswork for the figurative meaning and linguistic form of expressions (Xia 2019: 107). Another concern is that L1 translation might excessively impede L2, potentially skewing results (Xia 2019: 107).

7.2.3 A Survey of the Cross-linguistic Similarity Types Discussed in the Literature

From the point of view of L1 transfer analysis, we should remember that one can detect cross-linguistic similarity at different levels of specificity. One may compare the members of L1-L2 expression pairs to each other at the following levels: specific meaning (form/literal meaning), figurative meaning, general meaning, (linguistic form; source domain), conceptual metaphor and transparency. The term *specific meaning* refers to the literal meaning of the expressions, as understood by the vast majority of the authors, see Table 11. The term *general meaning* refers to the source domain of the expression, as this is how Charteris-Black (2002) handles the source domains, see Table 12. In the following tables and discussion, we can see the criteria and some examples of the idiom types. For an easy identification and reference, each type has a number.

Types	Specific meaning (form/literal meaning)	Figurative meaning	Examples	Researchers
1	same	same	(English) *point of view* – (Spanish) *punto de vista* "point of view" (Irujo 1986: 302)	Cieślicka (2006), Irujo (1986, 1993), Liontas (2002)
2	similar	same	(English) *to kill two birds with one stone* – (Spanish) *matar dos pájaros de un tiro* "to kill two birds from one shot" (Irujo 1986: 303)	

3	different	same	(English) *to pull his leg* – (Spanish) *tomarle el pelo* "to take to him the hair" (Irujo 1986: 303)	
4	same	different	(English) *heart goes (out) to somebody* – (Korean[48]) *maumi kata* "heart goes (out) to somebody" (Türker 2019: 135) In Korean: 'to like somebody'(Türker 2019: 135) In English: 'to have sympathy for somebody' (Türker 2019: 135)	Abdullah and Jackson (1998), Charteris-Black (2002), Türker (2019)
5	different	different (L2-only)	(English) *it's not my cup of tea* (the figurative meaning can only be rendered literally in Hebrew) (Laufer 2000: 188)	Abdullah and Jackson (1998), Laufer (2000), Türker (2019)
5a			Transparent idiom [(English) *turn your back on* – (Malay) *cakap besar* "speak big" 'exaggerate') Charteris-Black (2002: 131)]	Charteris-Black (2002), Zibin (2016)
5b			Opaque idiom [(English) *wring your hands* – (Malay) *kecil hati* "small liver*"* 'to feel hurt') (Charteris-Black 2002: 132)]	

Table 11. Idioms grouped according to specific and figurative meanings, and transparency

[48] There are only transliterated forms of the Korean idioms in (Türker 2019).

Specific meaning refers to the literal meaning of the L1-L2 idioms, see Table 11. The criteria used by the authors are form/literal meaning and figurative meaning. The literal meaning may be *same*, *similar* or *different*, while the figurative meaning *same* or *different* only. L1-L2 idioms may share the same literal and figurative meaning (Type 1). They may have similar literal and the same figurative meaning (Type 2). Similar form or literal meaning means that the literal meaning of some constitutive words in the L1-L2 idiom pair differ. For example, *with*, *stone* and *de* and *tiro* in *to kill two birds with one stone – matar dos pájaros de un tiro* "to kill two birds from one shot" (Irujo 1986: 303) display that. Also, the expressions may be different in terms of literal meaning and have the same figurative meaning (Type 3), or the other way round (Type 4). L1-L2 idioms may be different in literal and figurative meanings (Types 5-5b). There are L2 idioms used by L2 natives and usually learners with a potentially high command of the L2 but such idioms lack any L1 idiomatic equivalents; therefore, if an idiom exists in L2-only (Type 5), both the form/literal meaning and figurative meanings are different in L1. Due to the fact that a Type 5 L2 idiom has neither a literal nor a non-literal L1 equivalent, we cannot compare it to any L1 idiomatic equivalent, see for example *it's not my cup of tea*, the figurative meaning of which can only be expressed literally in Hebrew (Laufer 2000: 188). Type 5 idioms have two subtypes, 5a and 5b. This distinction is used to refer to whether a Type 5 idiom is classified as transparent (5a) or opaque (5b) by the author discussed. If no such distinction is in place, I classify the type of idiom as Type 5. Type 5a is illustrated by the English *turn your back on* and the Malay *cakap besar* ("speak big", 'exaggerate'), taken from Charteris-Black (2002: 131). He maintains their potential to be transparent, as one may easily access them through a culturally neutral knowledge (Charteris-Black 2002: 117-118), see also the conceptual bases of these idioms in *Table 12*. The English metaphor motivating *turn your back on* is NOT FACING IS REJECTING, and that of the Malay one is BEHAVIOURAL ATTRIBUTES ARE MATERIAL ATTRIBUTES (Charteris-Black 2002: 131), two metaphors that are not related to just one specific culture. Type 5b, however, indicates opaque idioms. The English *wring your hands* and the Malay *kecil hati* ("small liver", 'to feel hurt') are potentially opaque, as the English idiom refers to culture-specific gesture (Charteris-Black 2002: 118, 132), while the Malay has the metaphor THE STATE OF THE FEELINGS IS THE MATERIAL STATE OF A VITAL ORGAN (Charteris-Black 2002: 114).

Types	General meaning (linguistic form; source domain)	Figurative meaning	English	Malay	Conceptual basis
1	same	same	(English) *a broken heart* (Charteris-Black 2002: 129)	(Malay) *patah hati* – "broken liver" 'To feel very upset' (Charteris-Black 2002: 129)	THE STATE OF THE FEELINGS IS THE MATERIAL STATE OF A VITAL ORGAN (Charteris-Black 2002: 129)
2	different	different	(English) *turn your back on* (Charteris-Black 2002: 131)	(Malay) *cakap besar* – "speak big" 'exaggerate' (Charteris-Black 2002: 131)	Eng: NOT FACING IS REJECTING Malay: BEHAVIOURAL ATTRIBUTES ARE MATERIAL ATTRIBUTES (Charteris-Black 2002: 131)

Table 12. Idioms grouped according to general and figurative meanings, and conceptual basis

Table 12 shows two types taken from Charteris-Black's (2002) typology. Earlier I mentioned that Charteris-Black (2002) uses the term *source domain* to refer to the literal meaning of an idiom pair. The literal meaning is *same* in Type 1, despite the fact that *broken heart* and *patah hati* "broken liver" have different nouns. As by *conceptual basis*, Charteris-Black (2002) sometimes means *conceptual metaphor*, the literal meaning is sometimes understood, somewhat uniquely, as the source domain. For instance, the source domain in *broken heart* and *patah hati* is THE STATE OF THE FEELINGS IS THE MATERIAL STATE OF A VITAL ORGAN (Charteris-Black 2002: 129); therefore, he considers *broken heart* and *patah hati* to have the same literal meaning by Charteris-Black (2002). In other terms, we can see that Charteris-Black (2002) regards L1-L2 expression pairs with words belonging to the same source domain of a wide scope of meaning as expression pairs sharing the same literal meaning. *Heart* and *hati* ('liver') are two different organs, but they belong to the source domain of THE MATERIAL STATE OF A VITAL ORGAN. This is why this phenomenon is termed as *general meaning*.

I illustrate the second type in the table with the English *turn your back on* (Charteris-Black 2002: 131) and the Malay *cakap besar* ("speak big" 'exaggerate') (Charteris-Black 2002: 131), which, seemingly at least, are not related to each other in any sense. The English expression belongs to Charteris-Black's (2002) Type 5, which means transparent idioms with

different linguistic forms and different conceptual bases, and, as such, the interpretation of such idioms is carried out through the subjects' culturally neutral knowledge (Charteris-Black 2002: 117-118).

Having discussed general meaning, we turn our attention to specific meaning. This meaning, however, as we have seen, refers to the actual literal meaning of an expression pair. I illustrate specific meaning in Table 13.

Types	**Specific meaning (literal meaning)**	**Figurative meaning**	**Conceptual metaphor**	**Examples**	**Conceptual metaphor of the examples**
1	same	same	same	(English) *You're wasting my time*. vs (Hungarian) *Pazarlod/pocsékolod az időmet* (Kövecses 2005a:134).	TIME IS MONEY (Kövecses 2005a:134).
2	different	same	same	(English) *I don't have the time to give you.* vs (Hungarian) *Nincs időm a számodra* (Kövecses 2005a:134).	TIME IS A VALUABLE COMMODITY (Kövecses 2005a:134)
3	different	same	different	(English) *I don't have the time to give you.* vs (Hungarian) *Nem tudok rád időt szakítani* (Kövecses 2005a:134).	Eng: TIME IS A VALUABLE COMMODITY; Hun: TIME IS A SOLID MASS OR OBJECT (Kövecses 2005a:134-135)
4	different	different	different	(English) *Precocious pet!* vs (Hungarian) *Korán érő kelepce* [=trap]*!* (Kövecses 2005a:141)	Eng: THE OBJECT OF DESIRE IS A (DOMESTIC) ANIMAL; Hun: THE DESIRABLE PERSON IS A TRAP/LOVE IS A TRAP (Kövecses 2005a:141)
5	different	same (by means of literal meaning)	no metaphor	(English) *I don't have enough time to spare for that.* vs (Hungarian) *Nincs vesztegetni való időm (erre). / Nincs rá fölösleges időm.* (Kövecses 2005a:136).	*time to spare* is expressed metaphorically in English, but apparently literally in Hungarian (Kövecses 2005a:136)

Table 13. Idioms grouped according to specific and figurative meanings, and conceptual metaphors

Table 13 presents Kövecses' (2005a) classification with specific and general meaning, and it contains the criterion of conceptual metaphor. Kövecses (2005a) deals with metaphors, which may be expressed by single words as well; therefore, literal meaning lacks *similar* in Kövecses' (2005a) classification in the case of one-word metaphors, for example *time* and *idő* in *I don't have the time to give you* and *Nem tudok rád időt szakítani*, respectively (Kövecses 2005a:134-135). In this case, *time*, which has the same literal meaning as *idő*, is used metaphorically: time is a valuable commodity (Kövecses 2005a: 134-135). *Idő* has the following metaphor: time is a solid mass or object (Kövecses 2005a: 135). In a similar vein, the words *pet* and *kelepce* are also used metaphorically in *Precocious pet!* and *Korán érő kelepce* [=trap], but the two words have different literal meanings (Kövecses 2005a:141). In other terms, it is not the entire figurative expression what we must regard as a metaphorically-used item, but only some constituents of them, which are typically single words.

Type 5 idioms may be more complicated in comparison with the previous types. As we can see, even though Hungarian lacks a direct translation equivalent of *I don't have enough time to spare for that* due to syntactic reasons, it can achieve a semantically equivalent translation by utilizing the verb *veszteget* (meaning "to waste/lose") as shown in *Nincs vesztegetni való időm (erre)* (Kövecses 2005a: 136). Moreover, translating it into Hungarian can employ a sentence that is partially metaphorical and partially seemingly literal, as exhibited by *Nincs rá fölösleges időm.* ("I have no superfluous time for this.") (Kövecses 2005a: 136). The metaphorical aspect arises from the translation of *I don't have*, while the seemingly literal aspect arises from the translation of *time to spare*. (Kövecses 2005a: 136). In this case, the translation of the latter phrase remains literal, indicating that a seemingly nonmetaphorical word conveys a meaning that one expresses metaphorically in English (Kövecses 2005a: 136). Therefore, *Nincs vesztegetni való időm (erre)* and *I don't have enough time to spare for that* have different literal meanings, the same figurative meaning, and the same conceptual metaphor (Kövecses 2005a: 136). On the other hand, *Nincs rá fölösleges időm* and *I don't have enough time to spare for that* display the same literal meaning, the same figurative meaning and the same conceptual metaphor in the case of *I don't have*; and different literal meanings, but the same figurative meaning, and no metaphor in the case of *time to spare* (Kövecses 2005a: 136). Kövecses (2005a: 136) uses the terms *apparently literal* and *apparently nonmetaphorical* to refer to *fölösleges idő* ('time to spare') and considers it as a structure without a conceptual metaphor at that stage of his argumentation. But, in a subsequent stage, Kövecses (2005a: 144-145) points out that *fölösleges idő*, which may seem to be literal and nonmetaphorical, is "only metaphorical"

(Kövecses 2005a: 145), as he writes that we may comprehend *fölösleges idő* only if we consider time "as some kind of valuable resource of which we can have enough, much, little, or more than enough. If we have more than enough, we can spare it. This is what the Hungarian expression means (Kövecses 2005a: 145)". Also, if we conceptualize *fölösleges idő* as metaphorical, there is a metaphor motivating it, cf Kövecses (2006: 193-194).

Conceptual metaphors motivate expressions as well, and they are a criterion in Table 14, which offers the most viewpoints applied in the papers according to which L1-L2 idiom pairs one may investigate. In addition to literal meaning, figurative meaning, and transparency, Table 14 includes conceptual metaphor, thus containing a total of five types.

Types	**Specific meaning (form/literal meaning)**	**Figurative meaning**	**Examples**	**Researchers**
1	same	same	(English) *point of view* – (Spanish) *punto de vista "*point of view" (Irujo 1986: 302)	Cieślicka (2006), Irujo (1986, 1993), Liontas (2002)
2	similar	same	(English) *to kill two birds with one stone* – (Spanish) *matar dos pájaros de un tiro* "to kill two birds from one shot" (Irujo 1986: 303)	
3	different	same	(English) *to pull his leg* – (Spanish) *tomarle el pelo* "to take to him the hair" (Irujo 1986: 303)	
3a			Same metaphor [(English) *smoke pours out of someone's ears* – "seven apertures produce smoke*"* 'to fume with anger']*(*Chen and Lai 2014: 319)	Chen and Lai (2014), Deignan et al. (1997), Aradi (2019)

3b			Different metaphor [(English) *smolder* – "produce-contained-gas" 'feel sulky')] (Chen and Lai 2014: 319)	
4	same	different	(English) *to have the heart; to have a heart; to have heart* – (Korean) *maumi issta* "to have the heart; to have a heart; to have heart" (Türker 2019: 135) In Korean: 'to be willing to do something' (Türker 2019: 135). In English: (1) *to have a heart* 'to be kind and compassionate' (Türker 2019: 135); (2) *to have the heart* 'to have the courage to do something' (Türker 2019: 135)	Abdullah and Jackson (1998), Charteris-Black (2002), Türker (2019)
5	different	different (l2-only)	(English) *it's not my cup of tea* (the figurative meaning can only be rendered literally in Hebrew) (Laufer 2000: 188)	Abdullah and Jackson (1998), Laufer (2000), Türker (2019)
5a			Transparent idiom [(English) *turn your back on* – (Malay) *cakap besar* "speak big" 'exaggerate' (Charteris-Black	Charteris-Black (2002), Zibin (2016)

		2002: 131)]	
5b		Opaque idiom [(English) *wring your hands* – (Malay) *kecil hati* "small liver*"* 'to feel hurt' (Charteris-Black 2002: 132)]	

Table 14. Idioms grouped according to cross-linguistic similarity

Comparing Table 11 with Table 14, we can see that Table 14 reveals that Type 3 idiom pairs with different literal meanings/forms and the same non-literal meanings may share the same metaphor (3a) or have different metaphors (3b). Similarly to the transparency-opacity categorization of 5a and 5b, this type of classification was done by the researchers discussed here. As we can see, several authors examine translation equivalents, but L2-only idioms (Abdullah and Jackson (1998), Chen and Lai (2014), Dong (2014), (Laufer 2000), and Türker (2016 and 2019)), and false friends (Carrol et al. 2018, Charteris-Black 2002). Researchers with three idiom types (same, similar, and different) consider the sameness of L1-L2 figurative meaning as constant. Expressions being the same in this regard may differ only in their literal meanings or linguistic forms, supposing both source and target domains are disregarded.

The tables presented here demonstrate a meticulous expansion of idiom classification, each subsequent table adding new dimensions and criteria to provide a more comprehensive understanding of idiomatic expressions. This progressive elaboration is necessary to help one understand the complex nature of L1-L2 idiom comparison. Initially, Table 11 lays the groundwork by focusing on the most straightforward and immediately comparable aspects of idioms: their specific literal and figurative meanings. This basic classification is essential for initial understanding and comparison, setting a clear foundation for further analysis. Then, Table 12 broadens the scope by introducing the concept of general meanings or source domains. This addition acknowledges that one can understand idioms deeper, more abstractly, where different literal expressions may still share the same underlying concept. By considering the source domains, it shows how idioms that might differ in specific literal terms can still reflect the same general conceptual basis.

Table 13 delves deeper by incorporating conceptual metaphors, which are crucial for understanding the cognitive and cultural dimensions of idioms. Conceptual metaphors reveal the underlying cognitive structures that shape our understanding of various concepts. This classification highlights that idiomatic expressions are not just linguistic constructs but also reflect deeper cognitive processes and cultural patterns, offering a richer understanding of the cognitive and cultural nuances involved in idiom usage.

Finally, Table 14 is the most comprehensive, incorporating all previous criteria (specific meaning, general meaning, and conceptual metaphor) and adding the dimension of transparency. Transparency refers to how easily one can infer the meaning of an idiom from its components. By including transparency and cross-linguistic similarity, this table provides a holistic framework that captures the full complexity of idiomatic expressions, particularly in bilingual or multilingual contexts. It reflects not just the linguistic and cognitive aspects but also the ease with which learners and speakers of different languages can understand and use idioms.

As we can see, each layer of complexity added to the tables reflects a deeper understanding of the linguistic, cognitive, and cultural dimensions of idioms. This step-by-step elaboration ensures that all relevant aspects of idiomatic expressions are considered, providing a comprehensive and nuanced framework for studying idioms across languages. This meticulous and detailed approach not only enriches our understanding of idiomatic expressions but also enhances our ability to teach, learn, and use idioms effectively.

In the remaining part of this chapter, I present a tentative ranking of idiom difficulty, focusing on different idiom types in relation to task type and proficiency level. This analysis considers both comprehension and production aspects, aiming to compare results from various studies. The rankings provided are based on straightforward quantities, such as means or numbers of correct answers, as measured by researchers, unless explicitly indicated otherwise. It is important to note that these rankings do not necessarily reflect statistical significance, but rather give an overview of how learners at different proficiency levels typically understand and produce idioms.

Table 15 displays the difficulty rankings of the idiom types used in comprehension, with the easiest on top of each row. With the same idiom types used, the rank of difficulty is the same in Cieślicka (2006b), Irujo (1986), Liontas (2002), Charteris-Black (2002) and Zibin (2016). There is a partial sameness in Türker (2016) and Abdullah and Jackson (1998), since

the former did not use the *same-different* category. Irrespective of task types[49], *same-same* idiom pairs proved to be the easiest for the subjects in most cases (Abdullah and Jackson 1998, (Cieślicka 2006b, Charteris-Black 2002, Deignan et al. 1997, Irujo 1986, Liontas 2002, Türker 2016, and Zibin 2016). *Similar-same* pairs are the second easiest group (Cieślicka 2006b, Charteris-Black 2002, Irujo 1986, Liontas 2002, and Zibin 2016); and *same-different* is the third occurrence in the first row (Dong 2014). Again, irrespective of the task types, we may see some patterns of idiom type occurrences. In the same vein, Charteris-Black (2002) and Zibin's (2016) *different-different (transparent)*, *different-different (opaque)*, and *same-different* pattern is not the same as Abdullah and Jackson's (1998) *different-different* and *same-different*, since Abdullah and Jackson (1998) did not work with transparency. The pattern of *same-same*, *similar-same*, and *different-same* is comparatively frequent (Cieślicka 2006b, Charteris-Black 2002, Irujo 1986, Liontas 2002, and Zibin 2016). Another pattern is *same-same*, *different-same*, and *different-different* (Abdullah and Jackson 1998, and Türker 2016). As there is no ranking in Aradi (2019), and since she does not establish any explicit idiom types or categorization, she is missing from the table. She did not establish any idiom types; she made a distinction on the basis of source domains and linguistic form (Aradi (2019: 22).

	Translation into L1 (Cieślicka 2006b)	**Definition of meantime** (Cieślicka 2006b)	**Definition of meaning** (Irujo 1986, Liontas 2002)	**Multiple-choice task** (Irujo 1986)	**Multiple-choice task and translation** (Abdullah and Jackson 1998)	**Translation into L1** (Abdullah and Jackson 1998)	**Multiple-choice task** (Charteris-Black 2002, Zibin 2016)	**Multiple-choice task** (Dong 2014)	**Translation into L1** (Türker 2016)
1.	*same-same*	*same-same*	*same-same*	*similar-same*	*same-same*	*same-same*	*same-same*	*same-same*	*same-same*
2.	*similar-same*	*similar-same*	*similar-same*	*same-same*	*different-same*	*different-same*	*similar-same*	*different-same*	*different-same*
3.	*different-same*	*different-same*	*different-same*	*different-same*	*different-different*	*different-different*	*different-same*	*similar-same*	*different-different*
4.					*same-different*	*same-different*	*different-different (transparent)*	*same-different*	
5.							*different-different (opaque)*	*similar - different*	
6.							*same-different*		

Table 15. The rank of difficulty (comprehension, easiest first, advanced)

Although I have not found any reference made regarding the role of task types in comprehension in the literature, Table 15 and Table 16 display different rankings of idiom

[49] Task types and their potential role in comprehension and production are discussed in Section 7.2.8.

types per task types. The following authors' results display significant difference between the idiom types: Chen and Lai (2014: 324), Charteris-Black (2002: 121-122), Irujo (1986: 294), Irujo (1993: 212), Laufer (2000: 192), Türker (2016: 37), Türker (2019: 137) in her post-test, and Zibin (2016: 5). On this ground, I presume that task type and proficiency may influence idiom type ranking in comprehension, as is discussed in Sections 7.2.8 and 7.2.9.

	Multiple-choice task (Dong 2014)	**Translation into L1** (Chen and Lai 2014)	**Translation into L1** (Türker 2019) pre-test	**Translation into L1** (Türker 2019) post-test
1.	*same-same*	*same-same*	*same-same*	*different-different*
2.	*different-same*	*different-same* (same metaphor)	*different-different*	*same-same*
3.	*similar-same*	*different-same* (different metaphor)	*same-different*	*same-different*
4.	*similar-different*	*different-different*		
5.	*same-different*			

Table 16. The rank of difficulty (comprehension, easiest first, intermediate)

Table 16 shows the ranking made at the intermediate level. Here, we can see only little regularity. *Same-same* was the easiest for the subjects of Dong (2014), Chen and Lai (2014) and in the pre-test in Türker (2019); *different-different* proved to be the most difficult in Chen and Lai (2014). *Same-different* was the most difficult type in Dong (2014), and Türker (2019); as the latter's aim and methodology were different than those of the first, I discussed Türker (2019) in Sections 7.2.7 and 7.2.8.

Comparing Table 15 with Table 16, we can see that the last two types have different rankings at Dong (2014) at both advanced and intermediate levels: *same-different* and *similar-different* for the advanced and *similar-different* and *same-different* for the intermediate students. Chen and Lai (2014) worked with intermediate subjects and involved metaphors. Chen and Lai's (2014) idiom ranking is similar to that of Deignan et al. (1997), who also included metaphors in their study, but their subjects were advanced learners of English. In this case, at least, proficiency does not seem to have any influence on idiom comprehension.

Table 17 is a ranking of the idiom types based on the answers of advanced subjects. Laufer (2000: 191) determined translation in the instructions of her elicitation test, asking the subjects to translate the Hebrew idiom in brackets in any way they wanted. The following task here is an example: *The bilateral treaty talks have made no real progress because the parties are reluctant to …. (lasim et ha-klafim al ha-shulxan)*. In English, the idiomatic or non-idiomatic translation of the Hebrew structure between brackets could be given as an answer: *lay the cards on the table* or *reveal the true intentions*, respectively (Laufer 2000: 191). There is some difference between Laufer's (2000) two groups, also seen in Table 22 and Table 23.

The idiom rankings are different in the case of the advanced subjects (*different-same*, *same-same*, *similar-same*, and *different-different*) and that of the intermediate ones (*same-same*, *different-same, different-different,* and *similar-same*). The difference lies in the different nature of *similar-same* and *different-same* idioms (Laufer 2000: 193). Learners at different language levels tended to avoid using expressions that they did not know completely (L2-only) or partly (*similar-same*), cf Laufer (2000: 195). Despite the fact that Irujo (1993: 207) also investigated avoidance, her idiom rankings remained the same. Abdullah and Jackson (1998: 89) worked with 80 idioms, in other words 20 cognate idioms (*same-same*), 20 false cognates (*similar-same*), 20 idioms with pragmatic equivalents (*different-same*[50]), and 20 idioms with no first-language counterparts (*different-different*) to be translated into the L1. Their finding was that in the production task (L1-L2 translation), cognate idioms were the highest scoring items (Abdullah and Jackson 1998: 91-92) and false cognates scored the lowest (Abdullah and Jackson 1998: 92-93); therefore, it seems likely that false cognates have the strongest negative transfer in production.

	Translation into L2 (Abdullah and Jackson 1998)	**Translation into L2** (Irujo 1986, Irujo 1993)	**Translation into L2** (Cieślicka 2006b)	**Discourse completion/Gap-filling** (Cieślicka 2006b)	**Cued completion** (Charteris-Black 2002)	**Fill-in translation** (Laufer 2000)
1.	*same-same*	*same-same*	*same-same*	*same-same*	*same-same*	*different-same*
2.	-	*similar-same*	*different-same*	*different-same*	*different-same*	*same-same*
3.	*different-same*	*different-same*	*similar-same*	*similar-same*	*different-different (tr)*	*similar-same*
4.	*same-different*	-		-	*similar-same*	*different-different*
5.	*different-different*	-		-	*different-different (o)*	-
6.	-	-		-	*same-different*	-

Table 17. The rank of difficulty (production, easiest first, advanced)

Regarding the tendency of the idiom types, we can see an idiom ranking in the Discourse completion/Gap-filling task in Table 18 totally different from the Discourse completion/Gap-filling task in Table 17. Idiom pairs with different figurative meanings proved to be easier for the subjects than those with the same non-literal meanings, especially in the post-test (Türker 2019). This may be due to the fact that she worked with intermediate

[50] Although the authors regard the L1-L2 figurative meaning of this type as "similar", they give the exact same sentence ('to make a bad situation worse') twice to illustrate the "similar" figurative meaning: (English) *to add insult to injury*, (Syrian) *jazidu'l tini bal'lah* (Abdullah and Jackson 1998: 86). Therefore, I consider the figurative L1-L2 meaning in this type as "same".

subjects (Türker 2019: 135), who must have relied on the L1. Knowing that intermediate subjects rely more on L1 and their proficiency level is lower, it is surprising that it is the problematic and difficult types (where L1 leads to a negative transfer) that yield higher scores.

	Discourse completion/Gap-filling (Türker 2019)		**Fill-in translation** (Laufer 2000)
	pre-test	**post-test**	
1.	*different-different*	*different-different*	*same-same*
2.	*same-different and same-same*	*same-different*	*different-same*
3.		*same-same*	*different-different*
4.			*similar-same*

Table 18. The rank of difficulty (production, easiest first, intermediate)

Similarly in comprehension, I presume that task type and proficiency may influence idiom type ranking in production, too.

In order to examine L1 influence on L2 idiom processing, the researchers discussed in connection with idiom testing used L1-L2 idiom pairs, established on grounds of the extent of similarity of literal forms/meanings and figurative meanings, and labelled them as, for example, *same-same*, *similar-same*, *different-same*. In this work, I adopted this practice. Therefore, in my thesis, *same-same* refers to L1-L2 idiom pairs sharing the same literal forms/meanings and same figurative meanings, *similar-same* to similar literal forms/meanings and same figurative meanings, *different-same* to different literal forms/meanings and same figurative meanings, and *different-different* to different literal forms/meanings and different figurative meanings.

7.2.4 Decomposability and Compositionality

This section covers what the works I have examined reveal us about decomposability and compositionality. The first concept, described as a top-down process by Langlotz (2006a: 109), involves the distribution of the idiomatic meaning among the constituent words. An example of decomposability is the idiom *rock the boat*, where *rock* represents spoiling and *boat* symbolizes the comfortable situation (Langlotz 2006a: 115). Compositionality, as defined by Langlotz (2006a: 16), refers to the derivation of the overall meaning of an expression by combining the literal meanings of its individual components. As Cieślicka (2015: 227-228) posits, decomposability has no role in online L2 idiom processing. There is only one offline study, Carrol et al. (2018: 32), who revealed a powerful influence on the part of decomposability, but as I mentioned earlier, they consider decomposability as

transparency. Cieślicka (2015: 228) refers to one of her online studies (Cieślicka 2010: 163) which revealed no influence in online production. However, no researchers in the literature which I surveyed investigated the role of decomposability in off-line production.

7.2.5 Transparency

In this part, we can see what role transparency plays in idiom processing. Regarding comprehension, the more transparent an idiom is the higher the scores of the subjects of the tasks are (cf for example Charteris-Black 2002: 126-127 and Irujo 1986: 293). Irujo (1986) does not reveal anything about how she decided on transparency, and she does not explicitly define it. Charteris-Black (2002: 125-126), however, states that there is no statistically significant difference between transparent and opaque idioms. Charteris-Black (2002: 114) analyzed transparency and opacity in *L2-only transparent* and *L2-only opaque* expressions. As discussed in Section 7.2.1, an idiom is opaque if a subject probably cannot identify the figurative meaning of the idiom (cf Cieślicka 2015: 217). In her study, Skoufaki (2009: 26) asked her subjects to indicate the rate of transparency of the idioms presented to them on a 7-point Likert-scale, then the subjects were supposed to guess the meanings of the idioms. Skoufaki's (2009: 30) results state that highly transparent idioms received significantly more correct answers and low-transparency idioms significantly more incorrect answers. Steinel et al. (2007: 478) revealed that higher degrees of transparency did influence the comprehension scores, in other words the more transparent an idiom was the more likely the subject would understand it.

Much like its influence on comprehension, we can see a parallel trend in production scores as well (Charteris-Black 2002: 126, Irujo 1986: 293, Irujo 1993: 213). Citing several researchers (Irujo 1986, Steinel et al. 2007, and Yorio 1989), Cieślicka (2015: 217) asserts that transparency plays a facilitating role in idiom production. However, as a counterpoint, Steinel et al. (2007: 478) discovered that heightened degrees of transparency did not notably impact production scores.

7.2.6 Familiarity

As discussed in Section 7.2, the concept of familiarity is delineated through various perspectives. For instance, Carrol et al. (2018: 28) characterize familiarity as the degree to which an individual perceives their understanding of an idiom's meaning. This section delves into the results and observations provided by the existing literature regarding the significance of familiarity.

In terms of comprehension, familiarity is described as a factor enhancing idiom comprehension in a number of articles (for example Abdullah and Jackson 1998: 85 referring to Cronk and Schweigert 1992, Titone et al. 2015: 173, Carrol et al. 2018: 32). Decomposability, transparency, and familiarity closely interconnect with one another in the sense that familiarity affects decomposability and transparency (Carrol et al. 2018: 40). In short, if an expression is unknown to the subjects, its transparency and decomposability gain importance (Carrol et al. 2018: 26, 32). Unlike in comprehension, no researchers in the literature I surveyed analyzed the role of familiarity in production.

7.2.7 Context

In this part, I discuss those researchers who analyze the role of context. One may categorize the context used in these papers into the following quantitative types: minimal clause without contextual clues, rich sentence context, (Cooper 1999[51]), limited, in other words the extent of a dialogue (Türker 2016), short text or paragraph (Türker 2016, Piasecka 2006). Türker (2016: 32) and Suñer (2018: 502) selected their sentences form corpora. Suñer (2018) does not reveal the extent of the context used. With Cooper's (1999) exception, all these researchers employed tasks with and without context. Türker (2019: 134-135) conducted her experiment on idiom learning, with the focus on the interaction between L1 and context. She analysed the effects of context in addition to L1 transfer. Liontas (2002) states that the absence of context leads to an increase in L1 influence, in other words lower scores, see Table 19.

Comprehension measurement involved three techniques: idiom recognition test, translation from L2 into L1 (Türker 2016) and paraphrasing (Suñer 2018). Türker (2016: 33) applied a decontextualized task, a task with some context, and one with elaborate context. She analysed the interaction of L1 effect and context in second language input, asking the subjects to provide the meaning of L2 idioms. Türker's (2016: 41) finding is that L2 learners are not so likely to rely on their mother tongue, irrespective of the similarity of the mother tongue and second language idioms, provided they have elaborate contexts for the L2 idioms. This means that L2 learners use different strategies when they have enough context than in the cases when they do not. Suñer (2018: 503) asked the subjects to provide the meaning, in other words to paraphrase the idioms and/or provide the L1 equivalents of the idioms. His results suggest that context helps L2 learners in understanding idioms, especially if the idioms are conceptually similar to or conceptually different from their counterparts in the other language

[51] As Cooper (1999) was interested primarily in strategies, he is discussed in Section 7.2.10.

(Suñer 2018: 506). Regarding formal distance, the presence or lack of context did not result in any significant difference of the scores (Suñer 2018: 506-507). We must bear in mind Suñer's somewhat unique way of using "conceptual" and "form". In Suñer's (2018: 503) paper, the term *conceptual distance* refers to the degree of similarity between the conceptual domains (source and target) of the idioms; for example, (German) *mit einem Fuß im Grabe stehen* (literally "to stand with one foot in the grave") and (French) *avoir un pied dans la tombe* ('to have one foot in the grave') include the same concepts, so they are conceptually identical. However, the German idiom is an intransitive, while the French is transitive, so they display "formal distance" Suñer's (2018: 503). This term means the degree of similarity between the literal meanings of the idioms. The extent of "formal distance" is illustrated by the German idiom *auf die Tube drücken* (literally "to press the tube" = 'to step on the gas') and the French *appuyer sur le champignon* (literally "to press on the champignon") (Suñer 2018: 503). Regarding the two idioms, we need to take into consideration two points. First, both expressions use verbs with a prepositional object, and these verbs are not reflexive verbs as indicated in Suñer (2018: 503) (personal communication with Ferran Suñer, 4 November, 2024). The examples *auf die Tube drücken* and *appuyer sur le champignon* are not reflexive in the strict grammatical sense, as they do not contain any morphological markers i.e. reflexive pronouns such as *sich* in German or *se* in French, which would denote a true reflexive construction (cf Kemmer 1993: 44). Second, both expressions are morphosyntactically similar; therefore, the formal distance between the German and French idiom is small (Suñer (2018: 503) and personal communication with Ferran Suñer, 4 November, 2024).

Liontas' (2002: 163-164) experiment involved a context (with a length of a dialogue or narrative) and the same idioms as in the first phase, and the subjects had to provide the meaning of the idioms. The comprehension results show a significant improvement in the average scores when context was an element in the experiment (Liontas 2002:167, 172), as we can see in Table 19:

Category	**without context**	**with context**
Type 1	75.233	90.85867
Type 2	47.73	75.52533
Type 3	25.436	67.82067

Table 19. The scores of Liontas' (2002) idiom types: with and without context

Table 19 above presents comprehension scores from an experiment conducted by Liontas (2002), which examined how well second-language (L2) learners understood idioms under varying conditions. The scores reflect the average comprehension accuracy for each idiom type under two distinct conditions. In the without context condition, idioms were presented in isolation, with no accompanying narrative or dialogue to aid interpretation. Conversely, in the with context condition, idioms were embedded within a narrative or dialogue, providing contextual cues that could assist learners in grasping the meaning. The considerable improvement in scores when the subjects had some context suggests that learners benefited from these contextual cues, likely using them to infer the meanings of idioms more effectively. On the basis of his results, Liontas (2002) found that L2 learners are likely to rely on their L1 if they have no context, which is in line with Türker's (2016) findings on context.

Türker's (2016: 27) aim was to discover whether L1 conceptual knowledge and L1 linguistic knowledge had any influence on L2 metaphor acquisition. In Türker's (2016: 32) experiment, the participants' main task was to give L1 equivalents of 54 Korean metaphorical expressions for ANGER, HAPPINESS and SADNESS. As we have seen, Türker (2016: 31) established 3 types of metaphors, whose corresponding L1-L2 expressions differ 1) formally only, 2) formally and conceptually, and 3) neither formally nor conceptually. Regarding context, Türker's (2016) findings show that the amount of context influences L1's role (Türker 2016: 41), in other words the more elaborated the context is, the smaller L1 transfer is, and vice versa.

Türker's 2016 paper is different from her article published in 2019. One difference between the two papers is that Türker (2016) investigated metaphor comprehension, while Türker (2019) idiom learning and teaching. Türker (2016) shows that L2 learners tend to use L1 knowledge if they have no context with metaphors. Meanwhile, according to Türker (2019), idioms taught with context scored higher points in the post-test than in the pre-test in all idiom types and all task types (Türker 2019: 139, 141). The difference between the scores was due to the treatment (Türker 2019: 139) and task types (Türker 2019: 141). Production, interpretation and meaning tasks (a 12-question test each) were the pre-test and post-test (Türker 2019: 137). The difference between the scores implies that L2 learners did not use their L1 knowledge in understanding L2 idioms. The subjects' English varied: in Türker (2016), all had an advanced level (Türker 2016: 34), while in her more recent paper, the students' level was intermediate (Türker 2019: 135).

To summarize context-related comprehension, we can see that the papers discussed here have the same conclusion: the more elaborate the context, the easier the comprehension of the idioms is. Moreover, context may help the subjects in recognizing the idioms. This also has pedagogical implications, as we can see in Türker (2019). In general, L2 learners tend to rely more on L1 if their task includes no context (Liontas 2002: 177, Türker 2016: 41).

The role of context in production was analyzed by Piasecka (2006) and Türker (2019). As mentioned earlier, Piasecka (2006) had two translation tasks, the first of which had a dialogue-level context (Piasecka 2006: 252). Moreover, the 23 idioms used were formally similar and conceptually motivated (Piasecka 2006: 252), which is type *similar-same* in my idiom categories. Piasecka's (2006) paper reveals that the type of eliciation test affects the answers, for example tests with contexts facilitate idiom production more than discrete item tests.

L2 idiom production was measured on the basis of context by Türker (2019). In that paper, the subjects had to do a gap-filling task (Türker 2019: 144): they had a fill-in-the-gap task in a paragraph (Türker 2019: 136). Before writing these tasks, however, the subjects were taught the idioms in context (Türker 2019: 136). The results show that when not presented with context, the participants were more successful in the case of crosslinguistically equivalent idioms (Türker 2019: 140). In contrast, L2 learners are not so likely to rely on their mother tongue, irrespective of the similarity of the mother tongue and second language idioms, provided they have elaborate contexts for the L2 idioms; in other words, L2 learners have different strategies when they have enough context than in the cases when they do not (Türker 2019: 141). This latter observation is in line with what Türker (2016: 41) says in an earlier paper about the role of context.

Concluding context-related production, one sees that context facilitates production (Piasecka 2006: 256), as we have seen it for context-related comprehension as well. Based on the articles reviewed, we may say that context facilitates the production and comprehension differently: when context was absent, equivalent idioms yielded the highest scores in production and comprehension, but with context, the idiom types cross-linguistically similar or different were the easiest for the subjects. However, the data in Table 19 contradicts this general observation, as its data display no variation of idiom categories on the basis of the presence of context.

7.2.8 Task Type

The experiments reviewed yielded various difficulty ranks of idiom types. I mentioned earlier that task type is another factor that influences idiom comprehension and production, as I detail it in the next sections on task type influence on comprehension and production.

To illustrate the influence of the task types on idiom comprehension, I present two tables. Table 20 shows the idiom type ranking after experiments with advanced subjects, and Table 21 the order after working with intermediate ones.

	Translation into L1 (Cieślicka 2006b)	**Definition of meaning** (Cieślicka 2006b)	**Definition of meaning** (Irujo 1986, Liontas 2002)	**Multiple-choice task** (Irujo 1986)	**Multiple-choice task and translation** (Abdullah and Jackson 1998)	**Translation into L1** (Abdullah and Jackson 1998)	**Multiple-choice task** (Charteris-Black 2002, Zibin 2016)	**Multiple-choice task** (Dong 2014)	**Translation into L1** (Türker 2016)
1.	*same-same*	*same-same*	*same-same*	*similar-same*	*same-same*	*same-same*	*same-same*	*same-same*	*same-same*
2.	*similar-same*	*similar-same*	*similar-same*	*same-same*	*different-same*	*different-same*	*similar-same*	*different-same*	*different-same*
3.	*different-same*	*different-same*	*different-same*	*different-same*	*different-different*	*different-different*	*different-same*	*similar-same*	*different-different*
4.					*same-different*	*same-different*	*different-different (transparent)*	*same-different*	
5.							*different-different (opaque)*	similar - different	
6.							*same-different*		

Table 20. The rank of difficulty (comprehension, easiest first, advanced)

Regarding task types, we can find some variation except for meaning definition, which was the task in Irujo (1986), Liontas (2002), and Cieślicka (2006). Multiple choice task was the most widely-used task and the idiom types display only a few instances of tendencies. *same-same* and *similar-same* follow each other in this order in Charteris-Black (2002), Dong (2014), and Zibin (2016). Reading shows total variation in its ranking of idiom types. Translation is, however, rather consistent. Abdullah and Jackson (1998) and Türker (2016) have the same first three types (*same-same*, *different-same*, and *different-different*). Translation into L1 (Cieślicka 2006b) and definition of meaning (Cieślicka 2006b, Irujo 1986, Liontas 2002) share the same order: *same-same*, *similar-same*, and *different-same*.

	Multiple-choice task (Dong 2014)	**Translation into L1** (Chen and Lai 2014)	**Translation into L1** (Türker 2019) pre-test	**Translation into L1** (Türker 2019) post-test
1.	*same-same*	*same-same*	*same-same*	*different-different*
2.	*different-same*	*different-same* (same metaphor)	*different-different*	*same-same*
3.	*similar-same*	*different-same* (different metaphor)	*same-different*	*same-different*
4.	similar-different	*different-different*		
5.	*same-different*			

Table 21. The rank of difficulty (comprehension, easiest first, intermediate)

Table 21 presents the ranking made at the intermediate level. The subjects had to do only two task types, multiple-choice task (Dong 2014) and translation into L1 (Chen and Lai 2014, and Türker 2019). Here, we can only see that *same-same* was the easiest in Chen and Lai (2014), Dong (2014) and Türker's (2019) pre-test. Türker (2019: 137), however, focussed on idiom learning, this is why she had a pre-test, treatment, and post-test.

I found very little stated about the influence of task types on idiom production in the literature. According to Cieślicka (2006b), task type constitutes no difference in this respect regarding her results (Cieślicka 2006b: 234). Her statement, however, contradicts what we can see from the production results gathered from the literature.

We can see that in Table 22 is that the same idiom types have different rankings, depending on the task type the researcher used. For example, translation into L2 and the same idiom types were used by Irujo (1986, 1993) and Cieślicka (2006b), but the idiom ranking differs between the two authors. Another difference is that Laufer (2000) and Irujo (1993) had a different methodology, in other words they measured idiom avoidance depending on L1-L2 similarity (Laufer 2000: 189, Irujo 1993: 207). Laufer (2000: 191) determined translation in the instructions of her elicitation test.

	Translation into L2 (Abdullah and Jackson 1998)	**Translation into L2** (Irujo 1986, Irujo 1993)	**Translation into L2** (Cieślicka 2006b)	**Discourse completion/Gap-filling** (Cieślicka 2006b)	**Cued completion** (Charteris-Black 2002)	**Fill-in translation** (Laufer 2000)
1.	*same-same*	*same-same*	*same-same*	*same-same*	*same-same*	*different-same*
2.	-	*similar-same*	*different-same*	*different-same*	*different-same*	*same-same*
3.	*different-same*	*different-same*	*similar-same*	*similar-same*	*different-different (tr)*	*similar-same*
4.	*same-different*	-		-	*similar-same*	*different-different*
5.	*different-different*	-		-	*different-different (o)*	-
6.	-	-		-	*same-different*	-

Table 22. The rank of difficulty (production, easiest first, advanced)

Interestingly, the same methods have different idiom rankings. For example, discourse completion and fill-in translation in Table 22 have idiom rankings different from the one in Table 23.

	Discourse completion/Gap-filling (Türker 2019)		**Fill-in translation** (Laufer 2000)
	pre-test	**post-test**	
1.	*different-different*	*different-different*	*same-same*
2.	*same-different and same-same*	*same-different*	*different-same*
3.		*same-same*	*different-different*
4.			*similar-same*

Table 23. The rank of difficulty (production, easiest first, intermediate)

As pointed out in earlier, I suppose that task type and proficiency may influence idiom type ranking in both production and comprehension. The studies indicate that different task types, such as translation, multiple-choice, and definition-based tasks, impose varying cognitive demands on learners. For comprehension, tasks requiring L1 translation or offering multiple-choice options yield the most consistent idiom rankings, particularly with idioms that are more straightforward or familiar, such as *same-same* idioms (those that retain both meaning and metaphor between L1 and L2). Tasks like these are less cognitively taxing, correlating with higher success rates across proficiency levels and underscoring how task simplicity facilitates easier idiom comprehension.

In idiom production, task type exerts an even greater influence. Production-based tasks, such as cued completion, discourse completion, and fill-in translation, require learners to retrieve and apply idioms actively rather than simply recognizing them, as in comprehension tasks. As a result, idiom difficulty rankings vary widely depending on the production task used, revealing how learners respond differently to active retrieval demands. Advanced learners typically perform better on these production tasks compared to their intermediate counterparts, who struggle more with idioms lacking direct L1 equivalents. This distinction indicates that in production tasks, idioms that align more closely with the learner's L1 structure are typically easier to produce across proficiency levels, showing a clear correlation between task type and idiom production success. Especially in production tasks like fill-in translation display differing rankings based on whether the idiom is literal, figurative, or structurally akin to the learner's native language.

Proficiency level itself also influences idiom comprehension and production. Advanced learners consistently perform better across both comprehension and production

tasks, particularly when dealing with idioms that are metaphorically similar to those in their L1. By contrast, intermediate learners display greater difficulty with figurative or opaque idioms, often labeled *different-different* types, unless these idioms are presented in recognition-based tasks such as multiple-choice. Here, the correlation between proficiency and task performance becomes clear: higher proficiency allows learners to interpret and produce idioms with lower transparency or greater deviation from the L1, whereas intermediate learners generally perform better on idioms that closely mirror the structure or meaning found in their L1, particularly in tasks demanding less active recall.

Overall, there is a strong correlation between task type, proficiency, and idiom difficulty. Simpler tasks and higher proficiency levels tend to facilitate better comprehension and production of idioms. Advanced learners generally perform well across tasks, particularly on production tasks involving idioms similar to the L1. Idioms with close L1-L2 similarity (those with similar metaphors or meanings) tend to be easier to both comprehend and produce across all levels, highlighting L1-L2 similarity as a central factor in idiom learning success. Thus, task type and proficiency together form a predictive framework for understanding idiom difficulty, with easier tasks and higher proficiency contributing positively to idiom comprehension, while idioms resembling the L1 prove generally more manageable to learners regardless of their proficiency level.

7.2.9 Proficiency Level

In general, we may see that less proficient subjects rely more on L1 in terms of comprehension (for example in Carrol et al. 2018, Suñer 2018, and Türker 2016). Similarly, while measuring idiom production, we can observe the same phenomenon (for example in Irujo 1993 and Laufer 2000). In the next two sections, a short discussion on comprehension and production from the point of view of proficiency follows.

The reliance on the L1 in the case of comprehension varies depending on the proficiency level of the learners. For more proficient learners (L1 English speakers), familiarity with idioms played a significant role in their comprehension (Carrol et al. 2018: 35). In the case of English idioms, familiarity with the idiomatic expressions allowed L1 English speakers to retrieve their meanings directly, regardless of their transparency (Carrol et al. 2018: 35). In this sense, familiarity with idioms in the L1 contributed to better comprehension (Carrol et al. 2018: 35). On the other hand, for less proficient learners (non-native speakers), familiarity is still important in comprehension but to lesser extent than in the case of native speakers (Carrol et al. 2018: 35). Lack of familiarity with idioms – especially

without any context – poses challenges for non-native speakers, as they have to rely on semantic analysis skills to infer the meanings (Carrol et al. 2018: 36). Therefore, less proficient learners rely on their L1 more than their more advanced peers do when they need to comprehend idioms unknown to them. But, as implied in the previous paragraph about native speakers, the more L1 idioms an L2 learner knows, the more likely it is that they rely on the L1 to retrieve the meanings of idioms directly (Carrol et al. 2018: 39). Less proficient learners may rely on both familiarity and transparency to comprehend idioms which they do not know (Carrol et al. 2018: 39).

Suñer's (2018) results suggest that participants with a higher proficiency level have a statistically significant advantage in correctly answering idiom comprehension questions compared to those with a lower proficiency level. Therefore, we may infer that more proficient learners rely less on their mother tongue and exhibit better comprehension of idioms (Suñer 2018: 507-508).

In another paper we can see that both more proficient and less proficient learners rely on their mother tongue in the case of figurative language comprehension in a second language (Türker 2016: 41). L1 conceptual and linguistic knowledge, as well as L1 frequency, have an impact on L2 figurative language comprehension (Türker 2016: 41). These factors have the strongest effect when metaphorical expressions have no context (Türker 2016: 41-42). In such cases, learners pay more attention to linguistic form and access their L1 conceptual knowledge when they cannot rely on the relationship between context and metaphorical expressions (Türker 2016: 42).

In sum, the reliance on L1 in comprehension varies based on learners' proficiency levels. For proficient L1 English speakers, familiarity with idioms directly aids comprehension, regardless of transparency. Less proficient non-native speakers also rely on familiarity but to a lesser extent, facing challenges without context. More advanced learners with greater L1 idiom knowledge are more likely to rely on L1 for idiom comprehension. Higher proficiency levels correlate with better idiom comprehension. In figurative language comprehension, both proficient and less proficient learners rely on L1. L1 conceptual and linguistic knowledge, along with frequency, influence L2 comprehension, particularly when presented without context. In such cases, learners prioritize linguistic form and access L1 conceptual knowledge when context is absent.

Irujo's (1993: 215) study shows that less proficient learners rely more on transfer from their first language as a strategy when they do not know an idiom. It is possible that the transfer strategy they use produces correct responses (Irujo 1993: 215). Also, more proficient

learners can be better at paraphrasing idioms due to their greater command of English (Irujo 1993: 215).

Similarly to those of Irujo (1993), Laufer's (2000) results underscore that the reliance on the mother tongue (L1) in the case of idiom production varies depending on the proficiency level of the learners. On the basis of Laufer (2000: 193), less advanced learners (1st-year) more on their first language compared to more advanced learners (2nd/3rd-year) when it comes to the use of idioms. The results show that there is a significant difference in the number of idioms used by the two proficiency groups, suggesting that less advanced learners tend to avoid or use fewer idioms that are more challenging to translate or differ from their L1 (Laufer 2000: 193). In contrast, more advanced learners show a higher usage of idioms across all categories (Laufer 2000: 193). In connection with the causes of difficulties in producing idioms, Laufer (2000: 194) mentions the following (referring to Levenston 1979). For example, when an L2 word is polysemous but not polysemous in their L1, learners may find it unreasonable (Laufer 2000: 194). Similarly, when idiomatic expressions are partially translatable, learners may avoid them due to potential confusion caused by their partial similarity (referring to Cornell 1999 Laufer 2000: 194). What follows from these observations is that advanced L2 learners may rely less on their mother tongue for idiom production.

In sum, we can say that more proficient language learners rely less on their native language for production. Less proficient learners use transfer from their first language as a strategy when encountering unfamiliar idioms. Although they may not know the correct English idioms, their transfer strategy produces correct responses. Proficient learners excel at paraphrasing idioms due to their stronger English skills. The reliance on the native language in idiom production varies depending on proficiency level. Less advanced learners rely more on their first language compared to more advanced learners. Advanced learners demonstrate a higher usage of idioms across categories. Difficulties in producing idioms may arise from polysemy differences between L2 and L1, as well as partially translatable idiomatic expressions. Consequently, advanced L2 learners rely less on their native language for idiom production.

7.2.10 Strategy

On the basis of the papers discussed below, we can see that strategy is frequently determined by the type of idioms. Put differently, it is not strategy that determines idiom processing, but

the other way round. Therefore, learners select those strategies that they deem to be the most appropriate for processing the idiom.

In connection with comprehension, Cooper (1999: 238) analysed the on-line processing strategies employed by non-native speakers of English. The idioms had context ranging from one to two sentences (Cooper 1999: 240). It was hypothetized that the role of context might be influential in idiom processing (Cooper 1999: 241). Also, a number of other factors were listed, such as the literal meaning of the idioms, the meaning of a particular word in the idiomatic phrase, the student's background knowledge and experience, a L1 expression (Cooper 1999: 241). Cooper (1999) used only tasks with some context, Cooper (1999: 240-241), used idiom recognition test (IRT) and think-aloud protocols (the subject had to report their thoughts simultaneously as they comprehended the idiom). He conducted the interview separately with each subject, using 20 idioms embedded in a two-three-sentence context, applying think-aloud protocol, in other words the subject was asked to tell how he inferred the meaning he said – what strategy they used (Cooper 1999:241,256-257, cf 261-262). In rank order the successful strategies resulting in correct answers were 1) guessing from the context to find the non-literal meaning, 2) relying on the literal meaning of the idiom, relying on the background knowledge, 3) referring to an L1 idiom as a key to the meaning of the English idiom, and 4) other strategies (Cooper 1999: 252). Cooper (1999: 250) revealed that non-native speakers of a language may rely on their L1 if the L2 idiom is similar or identical with its L1 equivalent.

Deignan et al.'s (1997: 353) goal was to find out whether the students had any difficulties in translating English metaphors into Polish, and if so, what types of metaphors were more problematic than others during the translation. They examined the figurative expressions according to the metaphor types in Table 24:

Category	**Example**	**Linguistic form**	**Conceptual metaphor**
Type 1	*cement* and *cementowac, cement a personal/business relationship*	same	same
Type 2	*half-baked* and *niedojrzaly* (unripe)	different	same
Type 3	*sweep off one's feet and zauroczyc (*charm, cast a spell)	different	different
Type 4	*grill* 'interrogate' as *maglowac* (mangle)	similar	different

Table 24. Deignan et al.'s (1997: 354) metaphor types

Deignan et al.'s (1997: 355) result is that the strategies used by the subjects were rather varied: long fixed expressions proved to be difficult to translate, and idioms without direct or semantically similar L1 equivalents were the most difficult to comprehend.

Liontas (2002) conducted experiments with and without any context for his idioms. Liontas' (2002: 176) zero-context experiment displays that various idiom types required different strategies on the subjects' part and level of familiarity with the vocabulary involved. (Liontas 2002: 178). *same-same* idioms[52] were generally understood directly through the mediation of their L1 translation equivalents (Liontas 2002: 178), while *similar-same* and *different-same* idioms required more cognitive processing and a shift from translation-based strategies to guessing and manipulating the literal meaning of the idiom Liontas (2002: 176). After the full context experiment, he observed that language learners used strategies such as relying on lexical knowledge, guessing from the context (Liontas 2002: 179), personalizing the situation, and utilizing context to interpret the idioms, the last strategy being the most popular among the subjects (Liontas 2002: 180). Context has a facilitative role, but learners may not always grasp the exact meaning (Liontas 2002: 180). The presence of some context improved the performance of many subjects (Liontas 2002: 180). As Liontas (2002: 181) states, *different-same* idioms are challenging and context-dependent.

Similarly to Liontas (2002), Cieślicka (2006b) also aimed to explore what strategies her subjects used when they tried to comprehend their idioms. Prior knowledge or familiarity with idioms is relatively low across all groups of idioms (Cieślicka 2006b: 237). This is the distribution which we can see in the case of reference to the person/action/event denoted by the literal meaning of the idiom: this strategy is less common but still present for all groups of idioms (Cieślicka 2006b: 238). Literal-based image strategy is more prevalent for *same-same* idioms compared to *similar-same* and *different-same* idioms (Cieślicka 2006b: 238). Again, the subjects handled *same-same* idioms with the strategy of reference to or association with idioms in Polish is more frequently than in the case of *similar-same* and *different-same* idioms (Cieślicka 2006b: 238). Guessing based on literal analysis is more common for *different-same* idioms than for *similar-same* or *same-same* idioms (Cieślicka 2006b: 237-238). Analogy between literal and figurative senses is a frequently used strategy, especially for *same-same* and *similar-same* idioms (Cieślicka 2006b: 238). Some responses cannot be classified into any strategy type; therefore, these are labelled as the combination of the aforementioned strategies (Cieślicka 2006b: 238). The subjects used such combinations in the case of

[52] Liontas (2002: 158) uses the following abbreviations: LL, SLL, and PLL. In the taxonomy I use, these are *same-same*, *similar-same*, and *different-same* expressions, respectively. Cf Cieślicka (2006b: 228).

different-same expressions (Cieślicka 2006b: 237). What we can infer from these observations is that learner strategies may vary with the type of the expression.

Summing up this section, we see that learners employ various strategies for comprehending idioms. According to Cooper (1999), successful strategies include guessing the non-literal meaning from context, relying on the literal meaning and background knowledge, and referring to L1 idioms. Deignan et al. (1997) found that learners struggled with translating long fixed expressions and idioms without L1 equivalents. Liontas (2002) discovered that learners relied on lexical knowledge, contextual guessing, personalizing the situation, and utilizing context to interpret idioms. Cieślicka (2006b) noted strategies such as referencing the literal meaning, using analogies between literal and figurative senses, and combining multiple strategies. Typically, strategies varied depending on the type of idiom. Also, very frequently, the subjects relied on their mother tongue: if it did not include any L1 equivalent, usually they could not understand the L2 idiom.

Irujo's (1986: 294) study reveals two categories of the strategies used by the participants to produce idioms: first and second language strategies. The first category includes the interference from L1: For example, *put your leg in your mouth* may be an instance of interference from the similar equivalent Spanish idiom *meter la pata* ("to put in the leg") (Irujo 1986: 219). This interference resulted in the incorrect use of a translation of a content word from a Spanish idiom. Also, the direct translation of an L1 idiom that would not have been the correct answer (Irujo 1986: 295). For example, *it was by the clouds* (a direct translation of *estaba por las nubes, meaning really expensive*) for *costo un ojo de la cara* ("it cost an eye of the face"), when the expected idiom was *it cost an arm and a leg* (Irujo 1986: 295).

Second language strategies include overgeneralizing from L2 meaning: Participants were able to comprehend the meaning of idioms in the second language by generalizing from the meaning in their first language if the form of the idiom was identical or similar (Irujo 1986: 219). For example, *put your leg in your mouth* may be not only an instance of interference, but also an overextension of the English word *foot* (Irujo 1986: 219).

Substituting words with similar meanings in idioms is another strategy (*"swallow it hook, cord, and sinker"*) (Irujo 1986: 295). Collocating antonyms in idioms ("*come low or high water"*) and mixing English idioms ("*put something fast on her"*, where *to pull a fast one* is confused with *to put something over on her*) are two other instances (Irujo 1986: 295). Using incomplete idioms ("*cost an arm"* for *cost an arm and a leg*), providing an English idiom different from the expected one (either an acceptable equivalent (*I've had it* for *I'm fed*

up) or an unacceptable nonequivalent (*play all my cards* does not mean the same as *put my cards on the table*) are also second language strategies used by the subjects (Irujo 1986: 295). Finally, using figurative expressions that are not well-known idioms (*a nail in the backyard* for *a needle in a haystack*) and using non-idiomatic routine formulas (*what's wrong with her?* for *what's bugging/eating her?*) were also instantiated by the subjects (Irujo 1986: 295).

The study also suggests the possibility of investigating whether the use of L1 and L2 strategies in producing idioms varies according to the proficiency level of the learners (Irujo 1986: 295). The article does not provide a detailed breakdown of the distribution of strategies among advanced and less advanced subjects. However, previous research had shown that less proficient learners tended to use more L1 strategies, while more proficient learners use more L2 strategies (referring to Taylor 1975, Jarujumpol 1984, and Poulisse, Bongaerts, & Kellerman 1984, Irujo 1986: 295). However, in the article, there was no correlation between proficiency (as measured by TOEFL score) and the amount of interference evident in each subject's production of idioms (Irujo 1986: 295).

In a more recent paper of hers, Irujo (1993: 215) states that introspective data, for example subject's comments would have been necessary to identify the production strategies used in her experiment, as without such data, we do not know the exact reason why some students provided no answer (potential reasons can be: due to not knowing the idiom, due to uncertainty, and so on). Without such data, we can only infer from the results of the production task about the strategies. Referring to Tarone (1977) regarding production strategies, Irujo (1993: 215) writes that topic avoidance must have taken place in the case of 1.1 per cent of the answers, when the subjects did not even aim to translate the paragraph. She assumes that message abandonment took place in 2.1 per cent of the cases, when the translation included gaps (Irujo 1993: 215). The third assumption is that literal translation must have occurred in 2.7 per cent of the cases, when the form of the idiom translated into English was incorrect (Irujo 1993: 215). The most extensive group of non-idiomatic alternatives to idioms, consisting of both literal and figurative phrases, accounting for 27%, could be seen as examples of paraphrasing (Irujo 1993: 216). However, the sub-categories of paraphrase defined by Tarone (1977), such as approximation, word coinage, and circumlocution, do not apply to the results of Irujo (1993), as the subjects did not exemplify the use of those specific sub-categories (Irujo 1993: 216).

The participants' actions in Irujo's (1993) study do not align precisely with the definitions of avoidance and paraphrase found in the literature on communication strategies

(Irujo 1993: 216). This discrepancy stems from the inherent definition of communication strategy itself (Irujo 1993: 216). As outlined by Tarone (1977), communication strategies are employed when speakers intend to communicate a particular meaning but perceive a lack of linguistic or sociolinguistic resources to do so; however, when it comes to idioms, there is always an alternative non-idiomatic approach available to convey the same meaning, rendering the use of communication strategies unnecessary (Irujo 1993: 216).

Despite the fact that Irujo (1993) does not provide specific information about the distribution of strategies among the subjects according to proficiency, we may hypothesize that those having a higher level of English relied more on positive transfer and successfully use idioms, while less advanced learners may have resorted to avoidance or rely on literal translations and paraphrases to express the intended meaning.

Based on Laufer's (2000: 193), we can see that that avoidance of idioms is more frequent with less advanced learners, as the mean numbers of idioms used in each idiom type for 1st-year learners and 2nd/3rd-year learners reveal a difference in the mean values for idioms across the proficiency levels. For example, in the case of Type 2 idioms (partially translatable idioms), the mean for 1st-year learners is 0.87, while for 2nd and 3rd-year learners, it is 1.71 (Laufer 2000: 193). This indicates that less proficient learners avoided using type 2 idioms more frequently compared to their more advanced peers. In addition, the figures in Laufer (2000: 193) show the comparison of idiomatic responses between the 1st-year and 2nd and 3rd -year students: The mean number of idioms used by 1st -year learners is 6.92, while for 2nd and 3rd -year learners, it is 9.23. This difference is statistically significant, suggesting that less advanced learners avoid using idioms more frequently (Laufer 2000: 193). Therefore, based on these figures, we can conclude that avoidance of idioms is more frequent with less advanced learners.

Piasecka (2006: 254) observes that distribution of strategies between 1st-year students and 2nd-year students differs depending on whether the production task had context or not. In the production task with context (Task 1), for 1st -year students, the most frequent strategy was "Non-idiom", followed by "No answer", "Exact L1-L2 translation"[53], "Another L2 idiom", and "Partial translation" (Piasecka 2006: 254). On the other hand, for 2nd -year students, the most frequent strategy was "Exact L1-L2 translation", followed by "No answer", "Non-idiom", "Partial translation", and "Another L2 idiom" (Piasecka 2006: 254).

In the production task without context (Task 2), the distribution of strategies was somewhat similar between the two groups as both 1st -year students and 2nd -year students had

[53]We must bear in mind that these labels categorize subject answers, not idioms, see Piasecka (2006: 252).

"No answer" as the most frequent strategy (Piasecka 2006: 254). This was followed by "Partial translation" for 1st -year students and "Exact L1-L2 translation" for 2nd -year students; the subsequent rankings for both groups were "Non-idiom" and "Another L2 idiom" (Piasecka 2006: 254).

In general, the strategies used by the two groups were similar, with variations in the order of frequency depending on the task and the presence of context. Both groups commonly resorted to non-responses or incomplete answers, suggesting the difficulties faced by learners in producing idiomatic expressions.

Charteris-Black's (2002) study exhibits a range of strategies potentially used by his subjects to generate idiomatic expressions in the cued completion task, as he did not investigate the strategies of the cued completion task explicitly. These strategies included relying on conceptual knowledge, finding linguistic equivalents, adapting grammatical forms, and relying on cultural knowledge. The effectiveness of these strategies varied depending on the type of idioms the researchers used.

For idioms with a shared conceptual basis and equivalent linguistic form (Type 1), participants found it easier to rely on their existing knowledge of the expressions. They primarily utilized their conceptual knowledge and linguistic equivalence strategies to produce accurate idioms (Charteris-Black 202: 122). In the case of idioms with similar linguistic form and equivalent conceptual basis (Type 2), participants encountered some difficulties (Charteris-Black 202: 122). While they still relied on conceptual knowledge, they also needed to adapt the linguistic form to fit the context lexically and grammatically (cf Charteris-Black 2002: 122-123). Therefore, grammatical adaptation strategies must have been more crucial in producing correct responses (cf Charteris-Black 2002: 123). Idioms with equivalent linguistic form and different conceptual basis (Type 3) posed a challenge for participants (Charteris-Black 2002: 123). Here, literal translation may have been the strategy selected by some subjects, as they were searching for suitable equivalents – but to little avail (Charteris-Black 202: 123). Also, the subjects may have wanted to supply an idiom they deemed to be frequent, as this idiom type contained infrequent idioms (cf Charteris-Black 2002: 123-124). For idioms with different linguistic form but shared conceptual basis (Type 4), participants performed with relative ease, Type 4 ranking 2nd to Type 1 (Charteris-Black 2002: 124). The subjects probably relied on linguistic equivalence strategies, namely, on literal translation (Charteris-Black 2002: 125). In Section 7.2.3, I briefly described Charteris-Black's (2002) Type 5. Such figurative units (transparent idioms with different linguistic form and different conceptual basis) interpreted with culturally neutral knowledge (Charteris-Black 2002: 117-

118) were relatively easy for participants to produce (Charteris-Black 2002: 125-126). The subjects may have drawn upon their general knowledge, cf Charteris-Black (2002: 126). On the other hand, idioms rooted in culture-specific knowledge (opaque idioms with different linguistic form and different conceptual basis: Type 6) posed challenges, particularly for participants unfamiliar with the specific cultural references (Charteris-Black 2002: 126). Charteris-Black (2002: 126) concludes that idioms with different forms and different conceptual bases are likely to be more difficult for the second language learners.

To sum up the results on idiom production strategies, we can see two general trends. In general, the results of the experiments conducted on idiom production indicate that less advanced learners tend to rely on L1 strategies, avoidance, and literal translation, while more advanced learners utilize L2 strategies and idiomatic expressions more effectively. Moreover, the selection of strategies also tends to depend on the idiom type a learner needs to cope with. Irujo (1986) identified two categories of strategies used by participants in producing idioms: first language (L1) and second language (L2) strategies. L1 strategies involved interference from the participants' native language, resulting in incorrect translations or direct translations of L1 idioms. L2 strategies included overgeneralizing L2 meanings, substituting words with similar meanings, collocating antonyms, mixing English idioms, using incomplete idioms, providing different English idioms, using figurative expressions not known as idioms, and using non-idiomatic routine formulas. The study suggests that the use of L1 and L2 strategies may vary according to learners' proficiency levels. In addition, Irujo (1993) notes that without introspective data, the exact reasons for students' lack of response in producing idioms cannot be determined. However, we can make some assumptions regarding topic avoidance, message abandonment, and literal translation. The article also discusses the discrepancy between the participants' actions and the definitions of avoidance and paraphrase found in the literature on communication strategies, particularly in the case of idioms. Laufer (2000) found that less advanced learners tended to avoid using idioms more frequently compared to more advanced learners. This is in line with what Piasecka (2006) observed: the distribution of strategies differed between 1st-year and 2nd-year students depending on the presence of context in the production task. Piasecka's (2006) first-year (less proficient) subjects tended to provide non-idiomatic responses and partial translations, while the more advanced second-year students answered by means of direct translations from their native language in more cases than their less advanced peers. Charteris-Black (2002) identified various strategies used by subjects in generating idiomatic expressions, including relying on conceptual knowledge, finding

linguistic equivalents, adapting grammatical forms, and relying on cultural knowledge. The effectiveness of these strategies varied depending idiom types.

7.3 Summary and Conclusion

In Chapter 7, I discussed several articles centering around the factors potentially influencing the figurative language processing in the L2. From the points of view of idiom comprehension and idiom production, I systematically discussed the methodologies used in the literature. Moreover, as mentioned in Section 7.2, I detailed the intrinsic and extrinsic factor regarding idiom processing. The intrinsic ones are cross-linguistic similarity, decomposability, compositionality, transparency, and familiarity; extrinsic are context, task type, proficiency level, and strategy.

The chapter also discusses the ranking of idiom types based on their difficulty in comprehension and production tasks. Table 15 presents the difficulty rankings of idiom types in comprehension, with *same-same* pairs being the easiest and *different-different* pairs being the most difficult. Table 16 shows the rankings at the intermediate level, where the rankings differ slightly. These mean that task type and proficiency may influence the ranking of idiom types in comprehension.

In production, Table 17 displays the rankings of idiom types based on advanced subjects' answers. *same-same* pairs ranked as the easiest, while *different-same* pairs the most difficult. The works discussed also mention the difference between rankings for advanced and intermediate subjects in Table 22 and Table 23, indicating that proficiency level affects the avoidance of certain idiom types in production tasks. In sum, we can see that task type and proficiency can influence the ranking of idiom types in both comprehension and production tasks.

In terms of comprehension, according to Cieślicka (2015), decomposability does not play a role in online L2 idiom processing. Only one offline study by Carrol et al. (2018) posits that decomposability has a significant influence, although they equate decomposability with transparency. Regarding production, Cieślicka (2015) mentions one of her online studies that found no influence of decomposability in online production. However, the role of decomposability in offline production remained out of the scope of the researchers whom I examined.

Regarding comprehension, we may see that the transparency of an idiom plays a significant role in its scores. Charteris-Black (2002) and Irujo (1986) indicate that more transparent idioms tend to receive higher scores. But, Charteris-Black (2002) also states that

there is no statistically significant difference between transparent and opaque idioms. Skoufaki (2009) found that highly transparent idioms received more correct answers, while low-transparency idioms received more incorrect answers. Steinel et al. (2007) also revealed that higher degrees of transparency had a positive influence on comprehension scores. Concerning idiom production, the results of the papers reviewed suggest that transparency also affects the scores. Charteris-Black (2002) and Irujo (1986, 1993) display that more transparent idioms tend to have higher production scores. Cieślicka (2015) supports this view, referring to Irujo (1986, 1993), Steinel et al. (2007), and Yorio (1989). As a counterexample, Steinel et al. (2007) found that higher degrees of transparency did not have a significant impact on production scores.

During idiom comprehension, familiarity is a factor that enhances idiom comprehension. Several articles, including Abdullah and Jackson (1998), Titone et al. (2015), and Carrol et al. (2018), mention familiarity as a factor influencing comprehension. These studies observe that if an idiom is familiar to the subjects, it contributes to better comprehension. Familiarity closely relates to decomposability and transparency, as familiarity can affect the level of decomposability and transparency of an idiom. Carrol et al. (2018) highlight the interconnectedness of decomposability, transparency, and familiarity, stating that when an expression is unknown to the subjects, the importance of its transparency and decomposability increases. As for production, the literature I examined does not provide any analysis or information regarding the role of familiarity.

As regards comprehension, the measurement techniques used in the studies include for example idiom recognition tests, translation from L2 into L1, and paraphrasing. Türker (2016) conducted experiments with different levels of context and found that L2 learners are less likely to rely on their L1 when provided with elaborate context for L2 idioms. Suñer (2018) asked subjects to paraphrase idioms and provide L1 equivalents, and the results showed that context helps L2 learners in understanding idioms, especially when the idioms are conceptually similar or different from their counterparts in the other language. Liontas (2002) also found that comprehension scores improved significantly when context was involved in the experiment. In general, the studies argue that the more elaborate the context, the easier it is for L2 learners to comprehend idioms.

Talking about production, Piasecka (2006) used translation tasks with dialogue-level context and found that tests with contexts facilitated idiom production more than discrete item tests. Türker (2019) measured L2 idiom production using a gap-filling task with context. The results showed that L2 learners were more successful in producing cross-linguistically

equivalent idioms when not presented with context. However, when provided with elaborate contexts for L2 idioms, L2 learners were less likely to rely on their L1 and used different strategies. Similar to comprehension, context was found to facilitate production in general. In summary, context helps both the comprehension and production of idioms. The presence of elaborate context helps L2 learners in understanding and producing idioms more accurately. The role of context differs depending on the specific task and the relationship between the idioms in L1 and L2.

I also discussed the influence of task types on idiom comprehension and production. The basis of the rankings of idiom types is different task types and the difficulty levels of the subjects (advanced and intermediate).

Table 20 shows the rankings of idiom types in terms of comprehension difficulty for advanced subjects. The task types used varied, but meaning definition was very common in a number of experiments, such as Irujo (1986), Liontas (2002), and Cieślicka (2006). Multiple-choice tasks were also popular, and there were only a few tendencies observed in the rankings of idiom types. The order of *same-same* and *similar-same* remained consistent across Charteris-Black (2002), Dong (2014), and Zibin (2016), while reading tasks displayed more variation. However, translation tasks showed a relatively consistent ranking. Abdullah and Jackson (1998) and Türker (2016) had the same top three types: *same-same*, *different-same*, and *different-different*. The translation into L1 (Cieślicka 2006b) and definition of meaning (Cieślicka 2006b, Irujo 1986, Liontas 2002) shared the same order: *same-same*, *similar-same*, and *different-same*. Table 21 presents the rankings of idiom types for intermediate subjects. The experiments involved only two task types: multiple-choice tasks (Dong 2014) and translation into L1 (Chen and Lai 2014, and Türker 2019). The results show that *same-same* was the easiest in Chen and Lai (2014), Dong (2014), and Türker's (2019) pre-test. Türker (2019) focused on idiom learning and conducted a pre-test, treatment, and post-test.

Moving on to idiom production, very little information is available about the influence of task types on idiom production in the literature. Cieślicka (2006b) mentioned that task type does not make a difference in her results. However, the production results gathered from the literature, as shown in Table 22, indicate that the same idiom types have different rankings depending on the task type used. For example, translation into L2 yielded different rankings between Irujo (1986, 1993) and Cieślicka (2006b). Laufer (2000) and Irujo (1993) had different methodologies, and their rankings were influenced by L1-L2 similarity and idiom avoidance. Laufer (2000) used translation in her elicitation test, allowing subjects to provide idiomatic or non-idiomatic answers. The rankings of idiom types differed between advanced

and intermediate subjects in Laufer's (2000). Table 23 demonstrates the rankings of idiom types in production based on different task types and proficiency levels (intermediate). Discourse completion/gap-filling tasks (Türker 2019) and fill-in translation tasks (Laufer 2000) produced different rankings. In conclusion, task type and proficiency level may have an impact on the rankings of idiom types in both comprehension and production. The specific task types used in studies can lead to variations in the rankings of idiom difficulty.

In general, the reliance on the native language (L1) in idiom comprehension and production varies based on the proficiency levels of language learners. In terms of comprehension, native speakers of English rely heavily on their familiarity with idioms, allowing them to directly retrieve the meanings of idiomatic expressions regardless of their transparency (Carrol et al. 2018: 35). Familiarity with idioms in the L1 contributes to better comprehension for these learners. On the other hand, less proficient non-native speakers still rely on familiarity to some extent but face challenges in comprehending unfamiliar idioms, especially without any context. They rely more on semantic analysis skills and tend to rely on their L1 to infer the meanings of unknown idioms (for example in Carrol et al. 2018, Suñer 2018, and Türker 2016). However, as non-native speakers become more proficient and acquire more L1 idioms, they are more likely to rely on their L1 to retrieve the meanings of idioms directly. Less proficient learners may also rely on both familiarity and transparency to comprehend unfamiliar idioms.

In terms of production, more proficient learners tend to rely less on their L1 (for example in Irujo 1993 and Laufer 2000). They demonstrate a lower reliance on transfer from their L1 as a strategy when encountering unknown idioms. More proficient learners have a better command of English and are able to paraphrase idioms effectively. On the other hand, less advanced learners tend to rely more on their L1 in idiom production. They may avoid or use fewer idioms that are challenging to translate or differ from their L1 (Laufer 2000). This avoidance is the result of factors such as polysemous differences between the L2 and L1 words and the partial translatability of idiomatic expressions. Advanced L2 learners, however, demonstrate a higher usage of idioms across categories and rely less on their L1 for idiom production.

Based on the papers discussed, we may observe that the strategies used for processing and producing idioms vary depending on the type of idiom and the proficiency level of the learners. Regarding comprehension strategies, Cooper (1999) found that successful strategies for comprehending idioms include guessing the non-literal meaning from context, relying on the literal meaning and background knowledge, and referring to L1 idioms. Deignan et al.

(1997) discovered that learners struggled with translating long fixed expressions and idioms without L1 equivalents. Liontas (2002) found that learners relied on lexical knowledge, contextual guessing, personalizing the situation, and utilizing context to interpret idioms. Cieślicka (2006b) noted strategies such as referencing the literal meaning, using analogies between literal and figurative senses, and combining multiple strategies. The type of idiom influenced the strategies employed by learners.

In terms of production strategies, Irujo (1986) identified two categories: first language strategies and second language strategies. First language strategies involved interference from the learner's native language, leading to incorrect translations or direct translations of L1 idioms. Second language strategies included overgeneralizing from L2 meaning, substituting words with similar meanings, collocating antonyms, mixing idioms, using incomplete idioms, and using non-idiomatic expressions. The use of L1 and L2 strategies in idiom production may vary based on the learners' proficiency level.

The studies by Irujo (1986) and Laufer (2000) suggest that less advanced learners tend to rely more on L1 strategies, avoidance of idioms, and literal translations or paraphrases to express the intended meaning. Advanced learners, on the other hand, are more likely to use L2 strategies and successfully incorporate idioms into their language production. Laufer (2000) also found that avoidance of idioms is more frequent among less advanced learners. In conclusion, the type of idiom and the proficiency level of learners influence the strategies employed for comprehending and producing idioms. Learners select strategies that they deem most appropriate based on their understanding of the idiom and their language proficiency.

This section provides a comprehensive overview of the hypotheses tested, the results obtained, and the observations gained from the pilot and major studies on idiom production. It highlights the significance of variables such as motivation, predictability, and proficiency levels in influencing idiom production across different categories. Moreover, it underscores the complexities involved in understanding the nuances of idiomatic expressions in the context of second language acquisition. Moving forward to the next chapter, the exploration of the role of Hungarian in idiom production in English aims to examine the role of the above-mentioned variables in terms of language transfer. This examination consists of a pilot and a main idiom testing. Following the completion of their evaluation, the aim is to enhance our understanding of the intricate dynamics of idiomatic language use and its implications for language teaching and learning strategies.

8 The Role of Hungarian in Idiom Production in English

8.1 Introduction

In this chapter, I discuss the correlation between the production averages and the motivation and the predictability of the idioms used in the pilot and main studies to make an attempt to prove my hypotheses. These hypotheses (see Section 8.3) collectively aim to clarify the roles of idiom transparency (i.e. motivation and predictability) in the case of producing idioms averaged as familiar to the subjects. It is important to bear in mind that when I use the term "motivation" or "motivated", I mean the extent to which the link between the figurative and literal meanings of the idiom is seen by the subjects. The two terms invariable refer to such idiom motivation and not to the subjects' personal motivation to do some task. In general, I suppose that such familiar idioms with higher motivation and/or predictability levels yield higher production averages than familiar idioms with lower motivation and/or predictability averages. Besides these, I assume that higher proficiency levels result in higher idiom production averages. I display and analyze the data of the entire pool of the subjects. Then, I describe the results per language levels. The results, which may be counterintuitive sometimes, are in line with the literature, and, also the hypotheses receive substantial support from the data. Before that, I establish the link between metaphors and idioms on the basis of the literature.

8.2 The Connection between Metaphors and Idioms

As discussed in Section 2, metaphors provide the motivational foundation for many idioms, in other words, what makes an idiom meaningful in its non-literal sense is its metaphor or metaphors. Conceptual metaphor theory proposes that we understand abstract concepts by using metaphors to relate them to more concrete and familiar experiences (Lukács 2023b: 75)[54].

It is important to note that one does not necessarily map all elements of the source domain onto the target domain, but only selected ones based on the current context (Lechner 2023: 27). One chooses and maps multiple aspects of the source domain to their corresponding aspects of the target domain (Lechner 2023: 27). A source domain can establish mental access to more than one target domains (Lechner 2023: 27). For instance, one uses TRAVEL to comprehend other abstract concepts (Lechner 2023: 27). The *scope of source* refers to the set of target domains that a single source domain can mentally access (Lechner

[54] Unless explicitly indicated differently, the citations in Section 8.2 originate from Lukács (2023b), pages 75-76.

2023: 27). According to Kövecses (2006: 117), traditional theories have stated the basis of metaphor as the similarity between two concepts, but embodiment has a more significant role in Cognitive Metaphor Theory. However, Lechner (2023: 28) argues that cognitive linguistics does not require a real similarity between the two concepts in a conceptual metaphor. According to researchers in the field (referring to Kövecses 2015, Lechner 2023: 28), conceptual metaphors can be based on real or perceived similarity, analogy, or correlation of bodily experiences between the source and target domains. Referring to Lakoff-Johnson (1980), Lechner (2023: 28-29) writes that, as per this perspective, a conceptual metaphor can be motivated by real or perceived similarity, correlation, which could be regarded as an *experiential basis*.

After a general discussion of the issue in general, we can see that one may think of several metaphors as the motivation of even the same idiom. Section 8.7 includes an analysis of the metaphors motivating the idioms in the pilot and main studies. We need to bear in mind that metaphor analysis is by no means exclusive. Now, we proceed with the idiom experiments.

8.3 Aim

My study aims to enrich our understanding of the determinants affecting the production of English idioms among Hungarian students, a language pair that Aradi (2019) investigated in a in a small-scale inquiry. She wanted to see whether L1 metaphorical (conceptual) fluency affects L2 idiom understanding, and if so, to what extent it was noticeable through a recognition judgement test (Aradi 2019: 25). First, a familiarity-rating of a number of idioms took place, and the ones rated by her advanced-level subjects as less familiar idioms, which received 2s and 3s on a 5-grade Likert-scale, were considered as potential target items (Aradi 2019: 22). The final selection based on translatability into the L1 (the L2 idiom has an L1 idiomatic equivalent with the same or similar meaning), and a noticeable conceptual or formal difference between the L1 and L2 idioms as it was deemed to cause cross-linguistic influence (Aradi 2019: 22). The recognition test, which was a highly-contextualized multiple-choice task, measured the subjects' capability to judge the context-appropriateness and idiomaticity of the L2 expressions (Aradi 2019: 18). The alternatives included the correct idiom, the mirror translation of the Hungarian equivalent, a distractor English idiom, and, optionally, the subjects may have given their own answers (Aradi 2019: 22). Correct answers scored the highest and the mirror translation answers the second highest (Aradi 2019: 18). Her results

indicate that conceptual transfer seemed to influence the subjects' judgmenent of L2 idioms even if they had a rich context (Aradi 2019: 25).

Furthermore, only a handful of researchers have explored offline idiom production in the Hungarian-English language direction. I conducted a pilot study and a main study to investigate the role of Hungarian in the production of English idioms by Hungarian students. In the course of the pilot, I aimed to identify any issues with the instructions or technical aspects of the test. Both studies had the following aims. First, I intended to remove from the initial set of idioms those which the subjects rated as unfamiliar to them, in order to exclude the influence of unfamiliarity. Second, I wanted to know which of the intuitively categorized *L2-only transparent* and *L2-only opaque* idioms the subjects would rate as transparent or opaque in terms of motivation and predictability in both the pilot and the main tests. As the literature posits, we may measure transparency from the points of view of motivation and predictability. Therefore, the next aim of the pilot and main studies was to ascertain which of the idioms intuitively categorized into the *L2-only transparent* and *L2-only opaque* groups the subjects would rate as *L2-only transparent* in terms of motivation, *L2-only transparent* in terms of predictability, *L2-only opaque* in terms of motivation, and *L2-only opaque* in terms of predictability. In other words, what I intuitively established as *L2-only transparent* and *L2-only opaque* is a set of four idiom conditions. Another objective was to test in both studies the following hypotheses:

H 1: If the motivation of the idioms considered as familiar (with average scores over 4) is high (with average scores over 4), they will score higher in all idiom categories in the idiom production task than the less-motivated idioms (with average scores of 4 or below).

H 2: If the predictability of the idioms considered as familiar (with average scores over 4) is high (with average scores over 4), they will score higher in all idiom categories in the idiom production task than the less-predictable idioms (with average scores of 4 or below).

H 3: If the idiom motivation is high (with average scores over 4) in the case of the familiar idioms (with average scores over 4), the average production scores will be high (over 0.5) in all idiom categories and at all proficiency levels.

H 4: If the idiom predictability is high (with average scores over 4) in the case of the familiar idioms (with average scores over 4), the average production scores will be high (over 0.5) in all idiom categories and at all proficiency levels.

In order to prove these hypotheses, I excluded the idioms unfamiliar to the students from the set of 50 English idioms, as mentioned above, in both idiom tests. In this way, I potentially eliminated the influence of unfamiliarity. The tasks prepared for the pilot and the main study included only the idioms whose averages were over 4 in the familiarity scale in the pilot and the main study, respectively.

The pilot study provided me with an opportunity to discover any pitfalls or difficulties regarding the instructions of the test. Fortunately, the subjects' feedbacks revealed that the instructions were easy for them to understand and they had no difficulties regarding the technical aspects of the test.

8.4 Material

On grounds of the cognitive linguistic views of Langlotz (2006c: 90), in my thesis idioms are bipartite semantic structures including a literal and a figurative meaning. I add that such structures need to be multi-word, fixed to some extent and known to the language users of a language.

Taking into consideration the literature and the categories of idioms outlined in Section 7.2.3, I have opted for the subsequent L1-L2 idiom pair types: *same-same*, *similar-same*, *different-same*, *different-different (transparent)*, and *different-different (opaque)* (see Table 25). The differentiation between Types 5a and 5b was exclusively investigated by Charteris-Black (2002) and Zibin (2016). I have chosen these categories with the intent of exploring potential Hungarian influence on the production of English figurative language. As an initial phase, I conducted a pilot study, which I expound upon in the ensuing sections.

I categorized the 50 English-Hungarian expression pairs into five idiom categories. I established the English-Hungarian idiom pairs on the basis of the congruence of their literal and figurative meanings. The syntactic structure within these idiom pairs differs, as opting for pairs with identical syntax would likely have imposed significant limitations on idiom selection.

Conventionally, the researchers in the literature use short terms (*same-same*, *similar-same*, *different-same*, *L2-only transparent*, and *L2-only opaque*) to identify idiom types, see Table 25:

Idiom types	**Literal meaning/form**	**Figurative meaning**	**Example**	
			English (L2)	**Hungarian (L1)**
same-same	same	same	*a lone wolf*	*magányos farkas*
similar-same	similar	same	*a bull in a china shop*	*elefánt a porcelánboltban*
different-same	different	same	*from the horse's mouth*	*első kézből*
L2-only transparent	different	different (L2-only tr.)	*food for thought*	*elgondolkodtató téma*
L2-only opaque	different	different (L2-only op.)	*a hot potato*	*kényes téma*

Table 25. The idiom types chosen for the production experiments (pilot and main)

Same-same refers to expressions where the literal meaning (form) and figurative meanings are the same, e.g. in *a lone wolf - magányos farkas*. *similar-same* indicates idioms where the literal meaning of the idiom differs in one word or two, but the figurative meaning is the same, e.g. in *a bull in a china shop – elefánt a porcelánboltban. different-same* means that the literal meaning differs across the L1 and L2 but the figurative meaning is the same, e.g. in *from the horse's mouth - első kézből. L2-only transparent* includes expressions existing in English only as an idiom and I considered transparent before the subjects' judgements, e.g. in *food for thought - elgondolkodtató téma. L2-only opaque* consists of items being idiomatic only in English and perceived as opaque before the subjects' ratings, e.g. in *a hot potato - kényes téma.* The two L2-only groups lack corresponding idiomatic equivalents in the native language (Lukács 2023a:37) and I had previously set them up according to my intuitions. In the pilot and main experiments, however, I calculated on the basis of the subjects' ratings in terms of transparency and familiarity.

To compile the idioms, I drew them from idiom dictionaries and reference materials that were created using corpora, ensuring that the idioms would be recognizable to the study participants. I collected the English idioms from the electronic versions of the Cambridge Idioms Dictionary (2nd edition) and the Collins COBUILD Idioms Dictionary (4th edition). Correspondingly, the Hungarian idiomatic counterparts of the English idioms are from the

dictionaries titled *Angol és amerikai kifejezések szótára* [A Dictionary of English and American Idioms in Hungarian] and *Angol-magyar idiómaszótár* [English - Hungarian dictionary of idioms]. Additionally, I consulted the online version (www.szotar.net) of the *Angol-Magyar szótár* [A Concise English-Hungarian Dictionary]. For the sources of the idioms, see Appendix A. For the English idioms, along with their corresponding idiomatic Hungarian counterparts (if available), as used in the testing, along with their glossed forms, see Appendix B. In terms of glossing methodology, I adhered to the approach outlined by Dékány (2011). *Appendix C* includes the abbreviations I employed for glossing.

8.5 Data Norming

As discussed in Section 7.2.4, the authors reviewed did not examine decomposability in offline tasks in L2 research. Considering the role of decomposability in offline tasks in L1 research, decomposability may play a role "when people read sentences containing idioms normally for comprehension and no overt semantic decision is required" (Titone and Libben 2014: 489). Therefore, I consider the role of familiarity and transparency.

As we have read in Section 7.2.5, the authors have various understandings of what they mean by familiarity. What they exactly mean by this term may be decided on the basis of their instructions to their subjects. The methods for measuring familiarity are of various kinds. Typically, it is measured through definition-tests or Likert-scales. The second method measures the intuitive familiarity (subjective knowledge) of the idioms, rather than the actual one. The first measures the real idiom knowledge on the subjects' part.

I measured familiarity, motivation and predictability with 7-point Likert scales. Since the sample sizes of the pilot and main studies (n=30 and n = 50, respectively) were large (cf Hunyadi and Vita 2008: 29), I chose a 7-point scale. To characterise the idioms, I had to assign a threshold value above which they were known, motivated or predictable. On the 7-point scale, 4 is the arithmetic mean (average). Half of 7 is 3.5. I felt that the average of 4 was too low to characterise the idioms as familiar, motivated or predictable. Therefore, I chose a threshold value of 4, above which an idiom could be more reliably evaluated based on the three variables. Moreover, I assumed that the subjects would display a high level of heterogeneity for familiarity, motivation and predictability. Also, the value of 4 is an abstraction, and it is in the upper half if we consider that half of 7 is 3.5; therefore, I assumed that it would be appropriate for the majority of the subjects surveyed. For the three variables, I handled a value rated above 4 as familiar, motivated (motivation-transparent) or predictable

(predictability-transparent). For a value of 4 or lower, the idiom was unfamiliar, unmotivated (motivation-opaque) or unpredictable (predictability-opaque).

As mentioned before, I measured familiarity using a 7-point Likert-scale. The instructions are a slightly adapted version of Carrol et al.'s (2018: 28):

How familiar are the following 50 idioms to you? Please, indicate it on this scale. If you do not know an idiom at all, select 1. If you know an idiom and can understand it well, select 7.

Transparency has various understandings, as we have read in Section 7.2.5. In my idiom testings, I measure it in two senses. The first is the extent to which the figurative meaning is clear to the subjects on the basis of the literal meanings of the constituent words in the idiom (predictability). The second is the degree to which the subjects see the link between the non-figurative and the figurative meaning of the idiom (motivation). I measured each aspect with a 7-point Likert-scale, and the participants are the same as in the experiment.

The aim of the predictability-test is to determine which idioms can be classified as transparent or opaque. In terms of scoring, Skoufaki (2009: 26) classified the idioms the mean of which was 3.5 or higher as "transparent", while the ones under 3.5 "opaque" on a 7-point transparency scale. In the predictability test 1 meant 'The figurative meaning cannot be guessed at all' and 7 'The figurative meaning can be completely guessed' . Similarly, in my motivation test, 1 meant 'No connection between the literal and idiomatic meaning' and 7 'The connection between the literal and idiomatic meaning is very clear' . In my motivation and predictability tests, as mentioned above, any idiom averaging above 4 is "transparent", and below or 4 "opaque". The predictability-test in my experiments has the following instructions, inspired by Carrol et al. (2018: 28):

The figurative meanings of idioms may or may not be clear from the literal meanings of their constituent words. For example, the figurative meaning of *hold your tongue* ('to remain silent') is probably easy to guess based on the literal meaning of *hold your tongue*, while the figurative meaning of *to hit the sack* ('to sleep') is probably difficult to guess based on the literal meaning of *to hit the sack*. Please rate to what extent the figurative meanings of the following 50 idioms can be guessed on the basis of its literal meaning.

In the motivation-test, the subjects saw the figurative meanings of the idioms. The relevant instructions of my idiom tests are as follows (cf Carrol et al. 2018: 28):

The connection between the figurative meaning and the literal meaning of the idiom may or may not be clear to see. For example, such connection is easy to see in *to skate on thin ice*

(‘do something risky’) based on the literal meaning of *to skate on thin ice*, because a thin layer of ice may break under you as you skate on it. However, it is probably difficult to see the relation in *to kick the bucket* (‘die’). Please rate to what extent you can see the connection between the figurative and literal meanings of the following 50 idioms.

I measured familiarity, motivation, and predictability with students, as Carrol et al. (2018: 26) did, because, like they, I intended to investigate the effect of these factors on the idiom production of a given group of speakers. I also did not annotate the idioms used in the experiment with annotators because I assumed that if annotators annotated the idioms and others performed the production test, the motivation and predictability values of the annotators’ group would be associated with the production value of the subjects, i.e. I wanted to avoid what I thought were half-measures. Furthermore, for the C1-native English speaker annotators, the idioms would probably have been more familiar, and motivation and predictability would have been more evident for the idioms than for the subjects who had only been learning English for a few years. However, the question arises as to the reliability of the familiarity, motivation, and predictability data provided by the naïve, lay language users in my experiment. While it is true that I introduced the concepts of *familiarity*, *motivation*, and *predictability* to the subjects through example tasks and brief descriptions in the test instructions, we can treat the judgments associated with these three variables only as naïve, lay data. Even if these are lay data, these figures may support or negate my hypotheses and intuitions.

8.6 Method and Procedure

The first goal of the pilot and main studies was to measure the subjects’ English idiom production. I selected the subjects in each subgroup at random. The subjects studied English at the University of Nyíregyháza, Hungary. In the idiom testings, the gender ratio was not recorded, as I did not aim to compare the results of the male and female subjects with each other in any manners. No gender-based comparison was done in the experiment of Carrol et al. (2018) either, which was the main inspiration for my idiom tests.

I worked with two experimental groups (pilot study, n = 30; main study, n = 50), which I divided into two smaller groups (the first and the second 50 per cent of the groups), where the numbers of the members were the same. The number of the participants in the pilot study was 30, which is regarded as a large sample (cf Hunyadi and Vita 2008: 29), and there were 50 students involved in the main experiment. I assessed production and familiarity for all participants, while I evaluated motivation and predictability for the first and second 50

percent of participants, respectively. The tasks had no time constraints. In both experiments, I involved only expressions averaged as familiar into the calculations. I determined the language proficiency levels with an online programme, English Radar, a few days after the completion of the three-item test (Lukács 2023a: 39-40). I display the proficiency levels from the pilot and main studies in Sections 8.6.1.1 and 8.6.3.1, respectively. Both experiments had the following steps.

First, every participant wrote the production task (cued-completion task with short context). There was no time limit not only for the production task but for the entire experiment either. The next step was measuring intuitive familiarity with a Likert-scale involving all the subjects. Third, rating transparency (predictability) with a Likert-scale was done next, when I involved 50 per cent (in test version A: Appendix D, Appendix E, and Appendix F), and the other 50 per cent of the subjects (in test version B: Appendix D, Appendix E, and Appendix G) did the Likert-scale on transparency (motivation).

The source of the example sentences is various idiom dictionaries. Inspired by Charteris-Black (2002: 119-120), I applied a cued-completion task (production task) with short context. To prevent the subjects writing alternative answers, I had provided them with a word from the expression in brackets as a clue and the Hungarian equivalent was also there in the instructions. The clued completion task (production task) is seen in Appendix D. The guidelines for conducting the completion test were as follows:[55]

Using an English idiom in your answer, please complete the following 50 sentences in a way that your answer includes **the bold word in brackets**. Write only the missing English idiom on the line. Your answer should be the English equivalent of the Hungarian expression seen in square brackets. For example: *This exercise is usually good fun and can help …for a new, and perhaps rather anxious, group.* **(ice)** [megtöri a jeget]. The answer is: break the ice.

An example:

He was also somewhat of … , never marrying. **(wolf)** [magányos farkas]

Ensuring that the subjects provided idiomatic responses was of utmost importance. To guide their responses in this direction, I incorporated prompts into the tasks: an English term enclosed in parentheses from the English idiom, and the corresponding Hungarian idiomatic equivalent enclosed in square brackets. The assessment of idiom production involved three

[55] Unless explicitly indicated differently, the task examples in Section 8.6 are from Lukács (2023a), pages 38-39.

evaluators, whose L1 was Hungarian, and their English L2 was at C2 level. The scoring principle was the same as determined by Charteris-Black (2002: 119). If an evaluator deemed the subject's response non-idiomatic, it received a score of 0 points. Instances of literal or paraphrased answers were evaluated as 0 points. In cases where the answer exhibited grammatical or formal errors but the evaluator considered it as an attempt at idiomatic expression, the answer received 0.5 points. If an evaluator deemed a response both idiomatic and grammatically/formally correct, it received 1 point. I used the average of the scores from the three evaluators in the further calculations of production.

Following the production task, the assessment transitioned to evaluating familiarity. The familiarity rating functioned as a mechanism to identify unfamiliar idioms. I regarded idioms with an average rating exceeding 4 as familiar. The familiarity evaluation included solely the idiom itself, without any context, and a 7-point Likert-scale for rating. Appendix E includes the entire familiarity test. The instructions for the intuitive familiarity assessment were as follows:

How familiar are the following 50 idioms to you? Please, indicate it on this scale. If you do not know an idiom at all, select 1. If you know an idiom and can understand it well, select 7.

An example:

a lone wolf

1 = Not familiar at all
[…]
7 = Completely familiar

Similarly to the approach taken with familiarity, a 7-point Likert-scale was employed to gauge motivation and predictability. In both motivation and predictability assessments, I provided the subjects with no contextual information; only the dictionary definitions of the idioms were present for the measurement. Motivation pertains to the degree of connection seen between the literal and figurative meanings. For the motivation test, see *Appendix G*. The task was as follows:

The connection between the figurative meaning and the literal meaning of the idiom may or may not be clear to see. For example, such connection is easy to see in *to skate on thin ice* ('do something risky') based on the literal meaning of *to skate on thin ice*, because a thin layer of ice may break under you as you skate on it. However, it is probably difficult to see

the relation in *to kick the bucket* (‘die’). Please rate to what extent you can see the connection between the figurative and literal meanings of the following 50 idioms.

An example:

a lone wolf
Figurative meaning: A lone wolf is an independent person who likes doing things on their own, rather than doing them with other people.

1 = The connection between the figurative and literal meanings cannot be seen at all.
[…]
7 =. The connection between the figurative and literal meanings can be clearly seen.

The task evaluating predictability aimed to gauge the level at which individuals could infer the figurative meaning from the literal interpretation. Appendix F shows the predictability test. The instructions for this task were as follows:

The figurative meanings of idioms may or may not be clear from the literal meanings of their constituent words. For example, the figurative meaning of *hold your tongue* (‘to remain silent’) is probably easy to guess based on the literal meaning of *hold your tongue*, while the figurative meaning of *to hit the sack* (‘to sleep’) is probably difficult to guess based on the literal meaning of *to hit the sack*. Please rate to what extent the figurative meanings of the following 50 idioms can be guessed on the basis of its literal meaning.

An example:

the black sheep of the family
Figurative meaning: If you describe someone as the black sheep of the family, you mean that the other people in their family disapprove of them and consider their behaviour to be bad.

1 = The figurative meaning cannot be guessed at all.
[…]
7 = The figurative meaning can be completely guessed.

Before going on to discuss the results of the pilot and the main study, I feel it important to describe, in a detailed manner, how I carried out the calculations necessary. The pilot and the main study had the same design. In-group idiom familiarity was a major principle in each experiment. Before performing the calculations for the experiment, I selected the data for the two pilot and main experiments according to the following procedure.

Previously, I had formulated four hypotheses per experiment and tried to verify them with calculations. Hypotheses 1 and 2 applied to the group as a whole. The entire group performed the production test and the familiarity rating of a set of 50 English expressions. Then one part of the group rated the motivation, while the other part rated the predictability of the idioms. I used for further analysis only the production averages of idioms judged to be familiar at the group level. Also, I removed the A-level subjects and data from the figures due to the very low number of items, to prevent the data from being too fragmented. Therefore, the calculations for Hypotheses 1 and 2 include production averages of idioms which both B and C level subjects rated as familiar. The averages of the idiom motivation and predictability are also based on the judgments given by both B and C level subjects.

However, Hypotheses 3 and 4 investigate the relationship between production and motivation and between production and predictability along the linguistic levels. Here I had to consider language levels B and C separately as two subgroups within the one I examined in Hypotheses 1 and 2. Here, I took into account the production, the idioms they know, and the separate motivation and predictability data for the two language levels B and C, respectively. That is, I counted only the production averages of idioms rated as familiar to B-language level speakers and only the motivation or predictability data rated by B-language level speakers. In the same vein, I calculated with only the production averages of idioms rated as familiar to C-language level speakers and only the motivation or predictability data rated by C-language level speakers. Similarly to the entire group discussed in the previous paragraph, only a proportion of B-level subjects rated motivation as the rest rated predictability. Also, one part of C-level subjects rated motivation because the other C-level subjects rated predictability.

8.6.1 The Pilot Study

In this section, I describe the pilot study in detail. First, I briefly describe the subjects, then the results of the experiment. I discuss the results in Section 8.7.

8.6.1.1 The Subjects

The pilot study enlisted the participation of 30 young adult participants, whom I selected at random. From a statistical standpoint, this sample size classifies as substantial (Hunyadi and Vita 2008: 29). Their language proficiency levels distributed as follows: A (beginner, n = 3), B (intermediate, n = 15), and C (advanced, n = 12). The assessment tool employed was English Radar, an online instrument designed for gauging language proficiency. Given that English Radar comprises 12 levels (A1.1, A1.2, A2.1, A2.2, B1.1, B1.2, B2.1, B2.2, C1.1,

C1.2, C2.1, and C2.2), I opted to consolidate the language levels in order to ensure a sufficient dataset for each level. For instance, I aggregated levels A1.1-A2.2 under level A. I had previously assumed that beginner level subjects would have a low knowledge of idioms and would score low on the production task. After I assessed the subjects' language levels, I saw that the number of beginners was very low compared to the other two in both the pilot and the main experiments. For this reason, and because of my assumption above, I removed the A-level data from the two experiments before further calculations.

8.6.1.2 Results

Here, I discuss the results of the pilot study. To prove my hypotheses, I needed to carry out a number of calculations, but I had to work with carefully-filtered data. To illustrate the results, I use bar charts (see Figures 1-6). We can see a charts displaying the production average results of the pilot. The vertical scale shows the production averages per idiom type. The horizontal axis displays the idiom categories (*same-same*, *similar-same*, *different-same*, *L2-only transparent*, and *L2-only opaque*) I used in the experiments, and the coloured bars display the four filter conditions I applied to select the data for the calculations. Therefore, I filtered each idiom type according to being transparent or opaque according to motivation and predictability. In the case of each hypothesis, I briefly explain the results giving examples.

8.6.1.2.1 Hypotheses 1 and 2

H 1: If the motivation of the idioms considered as familiar (with average scores over 4) is high (with average scores over 4), they will score higher in all idiom categories in the idiom production task than the less-motivated idioms (with average scores of 4 or below).

Our first hypothesis posits that if the motivation behind idioms considered familiar, as indicated by average scores above 4, is high, they will exhibit higher scores across all idiom categories in the idiom production task compared to less-motivated idioms, with average scores of 4 or below. There is a positive Pearson correlation: ($r = 0.206$[56], $p = 0.000$) between the production average and motivation, indicating that as motivation increases, the production average tends to increase as well[57]. The significance level ($p = 0.000$) confirms that this correlation is statistically significant, meaning it is unlikely to be due to chance. The Pearson correlation between language level and production average is very weak ($r = 0.029$, $p = 0.301$) and not statistically significant. This implies that language level does not have a meaningful

[56] Correlation is significant at the 0.01 level.
[57] Appendix N includes the Pearson and Spearman's rho correlations.

impact on the production average as rated by the raters. The relationship between language level and motivation average is also very weak and not statistically significant (Pearson correlation: r = 0.018, p = 0.645). This indicates that language level does not significantly affect motivation. When we measure the Spearman's rho correlations, we can see that there is a positive correlation between the production average and motivation (Spearman's rho =0.179[58], p = 0.000), indicating that higher motivation is associated with a higher production average. The significance level (p = 0.000) confirms that this correlation is statistically significant. The correlation between language level and production average is very weak and not statistically significant (Spearman's rho = 0.042, p = 0.143). This implies that language level does not have a meaningful impact on the production average. The relationship between language level and motivation is also very weak and not statistically significant (Spearman's rho = 0.034, p = 0.375), indicating that language level does not significantly affect motivation.

H 2: If the predictability of the idioms considered as familiar (with average scores over 4) is high (with average scores over 4), they will score higher in all idiom categories in the idiom production task than the less-predictable idioms (with average scores of 4 or below).

The second hypothesis proposes that if the predictability of idioms considered familiar, with average scores above 4, is high, they will exhibit higher scores across all idiom categories in the idiom production task compared to less-predictable idioms, with average scores of 4 or below. There is a moderate positive Pearson correlation: r = 0.265[59], p = 0.000 between the production average and predictability. This suggests that higher predictability is associated with a higher production average. The strong significance (p = 0.000) underscores the reliability of this relationship. The Pearson correlation between language level and production average is very weak (r = 0.029, p = 0.301) and not statistically significant. This implies that language level does not have a meaningful impact on the production average as rated by the raters. There is a very weak and non-significant negative correlation between language level and predictability according to the Pearson correlation (r = - 0.035, p = 0.414), suggesting that language level does not play a significant role in predictability. According to the Spearman's rho calculation, there is a moderate positive correlation between the production average and

[58] Correlation is significant at the 0.01 level.
[59] Correlation is significant at the 0.01 level.

predictability (r = 0.229[60], p = 0.000), suggesting that higher predictability connects to a higher production average. The strong significance (p = 0.000) indicates that this relationship is statistically reliable. There is a very weak and non-significant negative correlation between language level and predictability (Spearman's rho = -0.030, p = 0.485), suggesting that language level does not play a significant role in predictability.

Althouth the correlation between language level and motivation/predictability is out of the scope of my thesis, such figures may be sources of important implications. The data analysis reveals critical observations concerning the relationships between language level, motivation, and predictability. In the pilot study, the connection between language level and motivation is extremely weak, with a Pearson correlation of 0.018 (p = 0.645) and a Spearman's rho of 0.034 (p = 0.375), as we have seen. Both correlations are statistically insignificant, underscoring that language level does not significantly influence motivation. Similarly, the relationship between language level and predictability is negligible, as evidenced by a Pearson correlation of -0.035 (p = 0.414) and a Spearman's rho of -0.030 (p = 0.485). These findings indicate no substantial impact of language level on predictability within the pilot group.

In the following paragraphs, I analyze the data. Figure 1 shows the data relevant to the two hypotheses. First, I examine the motivation-transparent and motivation-opaque data, then I continue with predictability-transparent and predictability-opaque results. Using this principle of demonstration, I describe each idiom type.

[60] Correlation is significant at the 0.01 level.

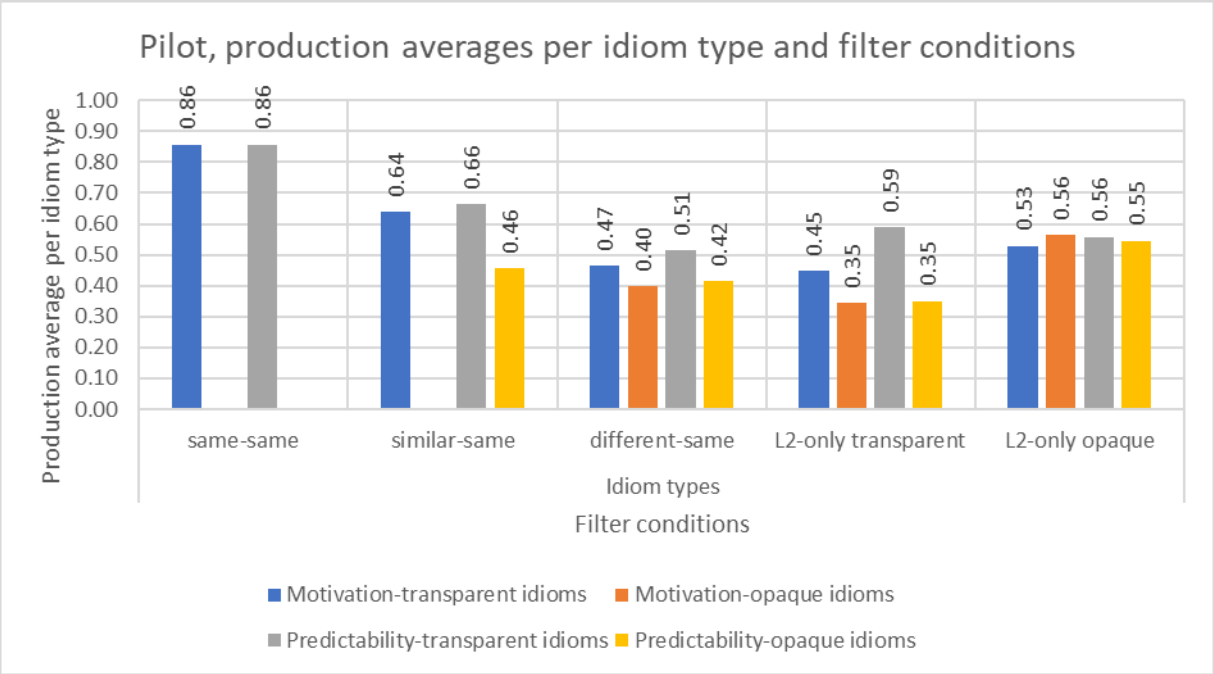

Figure 1. Pilot, production averages per idiom type and filter conditions

In the realm of motivation-transparent idioms, *same-same* idioms exhibit a high production average of 0.86[61]. This figure, i.e. production average, is the average of the scores which the three raters gave for subjects answers to the cue completion task (production task) of the respective idiom type and in the respective condition. The example *a lone wolf* demonstrates the *same-same* category, showing a production average of 0.88, a familiarity average of 6.89, a motivation average of 7.00, and a predictability average of 6.92. This high predictability suggests that the subjects find this idiom easy to produce, likely due to its transparency and direct metaphorical meaning.

Similar-same idioms have a production average of 0.64, demonstrating moderate production efficiency. In this category, we find idioms like *the blind leading the blind*, which shows a slight decrease in averages compared to the *same-same* example, with a production average of 0.85, a familiarity average of 6.22, a motivation average of 6.53, and a predictability average of 6.92. Although these figures still exhibit high predictability, their slightly lower familiarity and motivation scores indicate that they may require more cognitive effort to produce.

We observe a more significant drop in metrics with *different-same* idioms. These idioms, with a production average of 0.47, are less commonly successful. For instance, *bite*

[61] I rounded the numeric data of the pilot study to two decimals. Appendix H shows the actual results.

off more than you can chew demonstrates a production average of 0.51, a familiarity average of 4.30, a motivation average of 6.20, and a predictability average of 5.92.

For the subjects, *L2-only transparent* idioms show a production average of 0.45, indicating lower familiarity. For L2 learners, transparent idioms such as *food for thought* show a production average of 0.32, a familiarity average of 4.04, a motivation average of 4.87, and a predictability average of 3.75. Despite being relatively transparent, this idiom remains challenging due to its lower predictability.

L2-only opaque idioms have a production average of 0.53. The *L2-only opaque* idioms, such as *rub shoulders with someone* present the greatest challenge, with a production average of 0.49, a familiarity average of 4.59, a motivation average of 4.27, and a predictability average of 2.33. The opaqueness of these idioms results in significantly lower predictability and motivation, underscoring the complexities L2 learners encounter with idiomatic expressions that lack clear metaphorical or literal connections.

Motivation-opaque idioms present a different picture. *different-same* idioms have a production average of 0.40, reflecting lower production. An idiom in this category and condition, *from the horse's mouth* shows a production average of 0.38, a familiarity average of 4.07, a motivation average of 2.07, and a predictability average of 1.58. These idioms pose more of a challenge for production due to their more abstract or less commonly encountered nature. The reduced motivation and predictability metrics indicate increased difficulty in using these idioms.

L2-only transparent idioms show a production average of 0.35, indicating even less familiarity. An example *meet your Waterloo* shows slightly higher production (0.43) and familiarity (4.33) but lower motivation (3.53) and predictability (2.75). These scores highlight the difficulties L2 learners face with idioms, even when these idioms are relatively transparent in meaning.

Interestingly, *L2-only opaque* idioms in this condition have a production average of 0.56, suggesting that despite their opacity, the subjects produce them relatively better compared to other opaque idioms. *A hot potato* demonstrates higher production (0.72) and familiarity (4.78) but lower motivation (3.33) and predictability (3.25). The opaqueness of these idioms results in lower predictability and motivation, underscoring the complexities L2 learners encounter with idiomatic expressions that lack clear metaphorical or literal connections.

In the predictability-transparent idiom condition, *same-same* idioms again exhibit a high production average of 0.86. The example *a lone wolf* illustrates this category, showing a

production average of 0.88, a familiarity average of 6.89, a motivation average of 7.00, and a predictability average of 6.92. This high predictability suggests that the subjects find this idiom easy to produce, likely due to its transparency and direct metaphorical meaning.

Similar-same idioms have a production average of 0.66, indicating moderate production. In this category, we find idioms like *the blind leading the blind.* This category shows a slight decrease in averages compared to the *same-same* idioms, with a production average of 0.85, a familiarity average of 6.22, a motivation average of 6.53, and a predictability average of 6.92. Although these idioms still exhibit high predictability, their slightly lower familiarity and motivation scores indicate that they may require more cognitive effort to interpret.

We observe a more significant drop in metrics with *different-same* idioms such as *bite off more than you can chew*. This category demonstrates a production average of 0.51, a familiarity average of 4.30, a motivation average of 6.20, and a predictability average of 5.92. The reduced familiarity and predictability suggest that these idioms, while still metaphorically coherent, pose more of a challenge for production due to their more abstract or less commonly encountered nature.

L2-only transparent idioms show a production average of 0.59. The example *the dos and the donts* shows a production average of 0.57, a familiarity average of 4.33, a motivation average of 6.00, and a predictability average of 6.17. It is likely that its transparency aids in production.

Meanwhile, *L2-only opaque* idioms maintain a reasonable level of production, with a production average of 0.56, despite their opacity. *Mean business* represents is an *L2-only opaque* idiom, with a production average of 0.54, a familiarity average of 4.70, a motivation average of 5.20, and a predictability average of 5.08. These moderate scores indicate that while it is less transparent, it still maintains a reasonable level of predictability.

In general, predictability-opaque idioms pose significant challenges. *similar-same* idioms have a production average of 0.46, indicating lower production. For instance, *cost an arm and a leg* shows a production average of 0.46, a familiarity average of 4.48, a motivation average of 4.87, and a predictability average of 3.58. The lower scores across all metrics reflect the idiom's complexity and reduced predictability.

Different-same idioms show a production average of 0.42, reflecting even less familiarity. *From the horse's mouth* illustrates a *different-same* idiom with a production average of 0.38, a familiarity average of 4.07, a motivation average of 2.07, and a

predictability average of 1.58. This idiom exhibits the lowest scores, indicating significant difficulty in production and predictability.

L2-only transparent idioms, with a production average of 0.35, suggest significant difficulty in production among L2 learners despite their transparency. For L2 learners, *food for thought* represents a transparent idiom with a production average of 0.32, a familiarity average of 4.04, a motivation average of 4.87, and a predictability average of 3.75. Despite its relative transparency, this idiom remains challenging due to its lower predictability.

However, *L2-only opaque* idioms, with a production average of 0.55, are relatively better produced compared to other opaque idioms. *A hot potato* demonstrates an *L2-only opaque* idiom with a production average of 0.72, a familiarity average of 4.78, a motivation average of 3.33, and a predictability average of 3.25. The opaqueness of this idiom results in lower predictability and motivation, underscoring the complexities L2 learners encounter with idiomatic expressions.

The data reveal that L2 learners find motivation-transparent and predictability-transparent idioms easier to produce. *same-same* idioms consistently show high production averages across both motivation and predictability conditions, highlighting their familiarity and ease of production. *Similar-same* idioms have moderate production averages, indicating that while they are somewhat predictable and familiar, they are less familiar and the subjects produce them less successfully compared to *same-same* idioms. *Different-same* idioms exhibit lower production averages, suggesting greater difficulty in production, possibly due to their less direct metaphorical meanings.

Among L2 learners, transparent idioms tend to be better produced, as indicated by higher production averages for *L2-only transparent* idioms under predictability-transparent conditions. However, opaque idioms still present significant challenges, with lower production averages reflecting this difficulty.

On the basis of the data of the pilot study, we may conclude the following regarding Hypothesis 1 and 2. Hypothesis 1 posited that idioms with higher motivation ratings (averaging over 4) would achieve higher production average scores across all categories compared to less motivated idioms (averaging 4 or below). Analysis revealed a significant positive Pearson correlation ($r = 0.206$[62], $p = 0.000$) between production averages and motivation, indicating that higher motivation corresponds to increased production proficiency. Spearman's rho also confirmed this relationship ($r = 0.179$[63], $p = 0.000$). Idioms categorized

[62] Correlation is significant at the 0.01 level.
[63] Correlation is significant at the 0.01 level.

as *same-same* consistently demonstrated elevated production averages, aligning with their high motivation scores (averaging around 7.00).

Similarly, Hypothesis 2 proposed that idioms rated as more predictable (averaging over 4) would exhibit higher average production scores compared to less predictable idioms (averaging 4 or below). The data supported this hypothesis with a moderate positive Pearson correlation (r = 0.265[64], p = 0.000) between production averages and predictability. Spearman's rho analysis corroborated these findings (r = 0.229[65], p = 0.000). Idioms categorized as *same-same* again showed superior production averages, reflecting their high predictability scores (averaging around 6.92).

Overall, both hypotheses received substantial support from the data, highlighting the critical roles of motivation and predictability in idiomatic expression production and production. The findings underscored that idioms rated as more motivated and predictable are more likely to be effectively produced d across and second language learner contexts.

8.6.1.2.2 Hypotheses 3 and 4

H 3: If the idiom motivation is high (with average scores over 4) in the case of the familiar idioms (with average scores over 4), the average production scores will be high (over 0.5) in all idiom categories and at all proficiency levels.

Our third hypothesis examines the impact of high idiom motivation, with average scores over 4, specifically in the context of familiar idioms. It predicts that such high motivation levels will result in average production scores exceeding 0.5 across all idiom categories and proficiency levels. At language level B, there is a significant positive Pearson correlation between the production average and motivation (r= 0.202[66], p = 0.001)[67]. This suggests that higher motivation is associated with a higher production average, and the p-value confirms this relationship is statistically significant. At language level C, there is a significant positive correlation between the production average and motivation as revealed by the Pearson correlation (r = 0.222[68], p = 0.000), suggesting that higher motivation connects to a higher production average. The statistical significance (p-value) confirms this relationship. The results from both language levels B and C consistently demonstrate significant positive

[64] Correlation is significant at the 0.01 level.
[65] Correlation is significant at the 0.01 level.
[66] Correlation is significant at the 0.01 level.
[67] Appendix O includes the Pearson and Spearman's rho correlations.
[68] Correlation is significant at the 0.01 level.

correlations between the production average and motivation. This underscores the importance of motivation in enhancing production outcomes.

One can make the following observations. First, higher motivation is consistently associated with better production performance. At language level B, the Pearson correlation is significant (r = 0.202[69], p = 0.001). At language level C, the Pearson correlation is slightly stronger (r = 0.222[70], p = 0.000). Second, the analysis indicates that motivation plays a crucial role in improving production performance. Strategies aimed at enhancing these factors are likely to yield significant improvements in production outcomes.

Using Spearman's rho correlation, we can say that, at language level B, there is a significant positive correlation between the production average and motivation (Spearman's rho = 0.174[71], p = 0.004), suggesting that higher motivation is associated with a higher production average. The p-value indicates this relationship is statistically significant. In terms of language level C, there is a significant positive correlation between the production average and motivation (Spearman's rho = 0.160[72], p = 0.005), suggesting that higher motivation connects to a higher production average. The p-value confirms this relationship is statistically significant. The results from both language levels B and C consistently show significant positive correlations between the production average and motivation. This reinforces the importance of these factors in influencing production outcomes.

One can make the following observations. In terms of motivation, higher motivation is consistently associated with better production performance. At language level B, the correlation is significant (Spearman's rho = 0.174[73], p = 0.004). At language level C, this correlation is slightly lower but still significant (Spearman's rho = 0.160[74], p = 0.005). In general, the analysis highlights that idiom motivation is crucial for higher production performance. Strategies aiming to select idioms with high levels of motivation can significantly improve production outcomes.

H 4: If the idiom predictability is high (with average scores over 4) in the case of the familiar idioms (with average scores over 4), the average production scores will be high (over 0.5) in all idiom categories and at all proficiency levels.

[69] Correlation is significant at the 0.01 level.
[70] Correlation is significant at the 0.01 level.
[71] Correlation is significant at the 0.01 level.
[72] Correlation is significant at the 0.01 level.
[73] Correlation is significant at the 0.01 level.
[74] Correlation is significant at the 0.01 level.

Lastly, our fourth hypothesis focuses on the influence of high idiom predictability, with average scores over 4, within the realm of familiar idioms. It predicts that such high predictability levels will lead to average production scores surpassing 0.5 across all idiom categories and proficiency levels. At language level B, a significant positive Pearson correlation exists between production average and predictability (r = 0.200[75], p = 0.000), indicating that higher predictability is associated with a higher production average. At language level C, there is a significant positive Pearson correlation between production average and predictability (r = 0.285[76], p = 0.000). This indicates that higher predictability is strongly associated with a higher production average, and the relationship is statistically significant. The results from both language levels B and C consistently demonstrate significant positive correlations between the production average and predictability. This underscores the importance of predictability in enhancing production outcomes.

We can see that higher predictability connects to better production performance. At language level B, the Pearson correlation is significant (r = 0.200[77], p = 0.000). At language level C, the correlation is even stronger (r = 0.285[78], p = 0.000). The analysis indicates that predictability plays a crucial role in improving production performance. Strategies aimed at enhancing these factors are likely to yield significant improvements in production outcomes.

When we apply Spearman's rho correlation, we can say that, at language level B, there is a significant positive correlation between production average and predictability (r = 0.174[79], p = 0.002), indicating that higher predictability is associated with a higher production average. The statistical significance of the p-value confirms this relationship. In terms of language level C, there is a significant positive correlation between production average and predictability (Spearman's rho = 0.208[80], p = 0.009), indicating that higher predictability is associated with a higher production average. The significance of the p-value confirms this relationship. The results from both language levels B and C consistently show significant positive correlations between the production average and predictability. This reinforces the importance of these factors in influencing production outcomes.

As regards predictability, higher predictability links to better production performance. At language level B, the correlation is significant (Spearman's rho = 0.174[81], p = 0.002). At

[75] Correlation is significant at the 0.01 level.
[76] Correlation is significant at the 0.01 level.
[77] Correlation is significant at the 0.01 level.
[78] Correlation is significant at the 0.01 level.
[79] Correlation is significant at the 0.01 level.
[80] Correlation is significant at the 0.01 level.
[81] Correlation is significant at the 0.01 level.

language level C, the correlation is stronger and significant (Spearman's rho = 0.208[82], p = 0.009). The analysis highlights that predictability is crucial for enhancing production performance. Strategies that aim to ensure predictability can significantly improve production outcomes.

In the following paragraphs, I analyze the data relevant to B-level subjects. Figure 2 shows the results. First, I examine the motivation-transparent and motivation-opaque data, then I continue with predictability-transparent and predictability-opaque results. Using this principle of demonstration, I describe each idiom type.

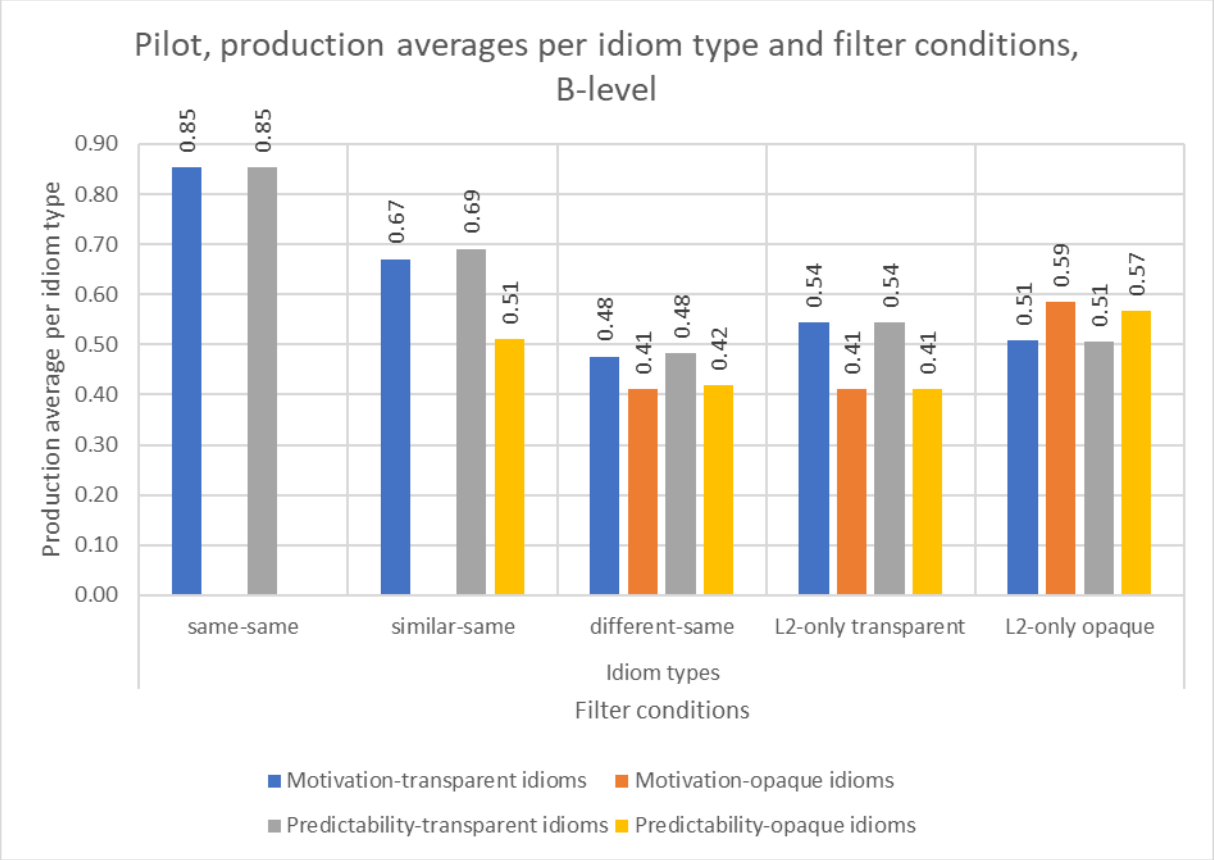

Figure 2. Pilot, production averages per idiom type and filter conditions, B-level

Motivation-transparent idioms demonstrate consistent interpretability across several conditions. For instance, they show high values in idiom categories like *same-same* (0.85)[83] and *similar-same* (0.67), indicating a strong consistency in interpretation when linguistic elements remain unchanged or are similar.

The idioms belonging tot he *same-same* category yielded an overall 0.85 production average. In this category, exemplified by the idiom *a lone wolf*, the data show that it has a

[82] Correlation is significant at the 0.01 level.
[83] I rounded the numeric data of the pilot study to two decimals. Appendix I shows the actual results.

high average production score (0.84), indicating frequent use in communication. It also earns a high familiarity rating (6.93), indicating widespread recognition and production. It scores notably high in capability of linking literal and non-literal meanings (7.00), suggesting a strong production of its figurative usage. Moreover, it maintains a high predictability rating (6.88), implying consistent production of its meaning from its components or context.

Similarly, in *similar-same* category reached a value of 0.67 production average. For example *the blind leading the blind*, the average production score remains robust (0.82), familiarity scores slightly lower (6.07), indicating slightly less recognition compared to *a lone wolf*. Capability of linking literal and non-literal meanings also scores lower (6.29), suggesting a moderately strong production of its figurative usage. However, predictability remains high (6.88), indicating consistent production despite variations in context.

In contrast, in the *different-same* category (production average: 0.48), represented by *bite off more than you can chew*, the data indicate a lower average production score (0.56), indicating less frequent use in communication. Familiarity scores are notably lower (4.07), suggesting it is less widely recognized compared to the previous idioms. However, capability of linking literal and non-literal meanings scores moderately high (6.14), indicating a solid production of its figurative usage despite its lower frequency. Predictability also scores lower (5.75), suggesting some variability in production depending on context.

In the *L2-only transparent* category, we can see that its production average is 0.54. In the case of *pull strings*, the data indicate a moderate average production score (0.54) and familiarity (4.60), suggesting moderate frequency and recognition in communication contexts. Capability of linking literal and non-literal meanings scores lower (5.00), indicating a somewhat weaker production of its figurative usage. Predictability remains moderate (4.88), indicating some variability in interpretation despite its transparency.

Lastly, we can see that the *L2-only opaque* category yielded a production average of 0.51. An example from this category is *rub shoulders with someone* whose data show a lower average production score (0.51) and familiarity (4.67), indicating less frequent use and recognition compared to other idioms. Capability of linking literal and non-literal meanings scores lower (4.29), suggesting a weaker production of its figurative usage. Predictability scores notably lower (2.25), indicating significant variability and difficulty in interpreting its meaning solely from its components or context, particularly in a second language context.

In contrast, motivation-opaque idioms, whose meanings are less transparent and rely more on prior knowledge or cultural familiarity, exhibit more variable interpretability across different conditions. They show lower values overall compared to motivation-transparent

idioms, in *different-same* idioms (0.41) and *L2-only transparent* expressions (0.41) or in *L2-only opaque* idioms L2 (0.59).

In the *different-same* category, which yielded a production average of 0.41, includes the idiom *from the horse's mouth* the data reveal a lower average production score (0.44), indicating less frequent use in communication. The familiarity rating averages at 4.60, suggesting moderate recognition among speakers. However, the motivation score is notably low (1.86), indicating a weaker rationale or purpose behind its usage. Predictability also scores low (1.50), suggesting significant variability in production the idiom's figurative meaning from its literal components or context.

The *L2-only transparent* category also obtaining a production average of 0.41, we can see the example of *meet your Waterloo,* the data of which show a moderate average production score (0.40) and familiarity rating (4.27), suggesting a moderate level of use and recognition in contexts where English is not the first language (L2). The motivation score is higher (3.29), indicating a clearer rationale or purpose for using this idiom. However, predictability remains moderate (2.75), indicating some variability in interpreting its figurative meaning solely from its literal components or context.

In contrast, the *L2-only opaque* category (0.59), a representative of which is *a hot potato,* shows a higher average production score (0.81), indicating more frequent use despite being accessed in a second language (L2). The familiarity rating is 4.87, suggesting a moderate level of recognition. The motivation score (2.86) indicates a moderate rationale for its usage. However, predictability scores slightly higher (3.13) compared to the other L2 categories, suggesting some ability to interpret its figurative meaning despite being less transparent in nature.

Similarly, predictability-transparent idioms, which are predictable based on their literal components, mirror the trends observed in motivation-transparent idioms. They maintain high interpretability in categories *same-same* (0.85) and *similar-same* (0.69), reflecting their consistency in meaning across these contexts. *different-same* category idioms reached a production average of 0.48, *L2-only transparent* 0.54, and *L2-only opaque* 0.51.

In the *same-same* category, with a production average of 0.85, includes *a lone wolf,* the data show a high average production score (0.84), indicating frequent use in communication. It also boasts a high familiarity rating (6.93), suggesting widespread recognition and production among speakers. The capability to link literal and non-literal meanings scores exceptionally high (7.00), indicating a strong ability to produce the figurative

usage of the idiom. Moreover, it maintains a high predictability rating (6.88), suggesting consistent interpretation of its figurative meaning from its literal components or context.

The next idiom type, *similar-same*, yielded 0.69 as production average. This category involves the idiom *the blind leading the blind*, the data reveal a robust average production score (0.82), indicating its frequent use in communication contexts. The familiarity rating is slightly lower (6.07), suggesting somewhat less recognition compared to *a lone wolf*. However, the capability to link literal and non-literal meanings remains high (6.29), indicating a strong ability to produce its figurative usage. Predictability scores are equally high (6.88), indicating consistent production despite variations in context.

In the *different-same* category, with a production average of 0.48, has *bite off more than you can chew* as an example, whose data show a lower average production score (0.56), indicating less frequent use in communication. Familiarity scores are notably lower (4.07), suggesting that the subjects less widely recognized it compared to the previous idioms. However, the capability to link literal and non-literal meanings scores moderately high (6.14), indicating a solid production of its figurative usage despite its lower frequency. Predictability also scores lower (5.75), suggesting some variability in production depending on context.

In the *L2-only transparent* category, whose production average was 0.54, we can see that its example, *pull strings*, has a moderate average production score (0.54) and familiarity rating (4.60), suggesting moderate use and recognition in communication contexts where English is not the first language (L2). The capability to link literal and non-literal meanings scores lower (5.00), indicating a somewhat weaker ability to produce its figurative usage. Predictability remains moderate (4.88), suggesting variability in interpreting its figurative meaning solely from its literal components or context.

Lastly, in the *L2-only opaque* category we can see a production average of 0.51. This type includes *mean business*, the data show a lower average production score (0.41) and familiarity rating (4.07), indicating less frequent use and recognition compared to other idioms. The capability to link literal and non-literal meanings scores similar (5.00), suggesting a moderate ability to produce its figurative usage. However, predictability scores higher (5.88) compared to the other L2 category, indicating some ability to interpret its figurative meaning despite being less transparent in nature.

Predictability-opaque idioms, however, demonstrate greater variability in production, with lower values in general. *Similar-same* idioms in this condition yielded a production average of 0.51. *Different-same* idioms had a production average of 0.42 and *L2-only transparent* 0.41, though showing a slight increase in type *L2-only opaque* (0.57).

In the *similar-same* category, we can see a production average of 0.51. *Cost an arm and a leg* instantiates this type, and the data of this idiom reveal a moderate average production score (0.51), indicating moderate use in communication. The familiarity rating averages 4.93, suggesting moderate recognition among speakers. Its capability to link literal and non-literal meanings scores relatively high (5.86), indicating a strong ability to produce its figurative usage. However, predictability scores lower (3.50), suggesting variability in interpreting its meaning from its literal components or context.

In contrast, the *different-same* category has a production average of 0.42. An example here is *from the horse's mouth* shows a lower average production score (0.44), indicating less frequent use. Familiarity scores are moderate (4.60), indicating moderate recognition. However, its capability to link literal and non-literal meanings scores low (1.86), suggesting a weaker production of its figurative usage. Predictability also scores low (1.50), indicating significant difficulty in interpreting its meaning solely from its literal components or context.

The *L2-only transparent* category yielded an average of 0.41. Specifically, *meet your Waterloo* indicates a moderate average production score (0.40) and familiarity rating (4.27). Its capability to link literal and non-literal meanings scores moderately (3.29), indicating a moderate production of its figurative usage. Predictability remains moderate (2.75), suggesting some variability in interpretation based on its literal components or context.

Finally, in the *L2-only opaque*, whose production average is 0.57, includes *a hot potato*, the data of which show a higher average production score (0.81), indicating more frequent use in L2 contexts. Familiarity ratings are moderate (4.87), indicating moderate recognition. Its capability to link literal and non-literal meanings scores moderately (2.86), suggesting a reasonable production of its figurative usage despite being less transparent. Predictability scores slightly higher (3.13) compared to other L2 categories, indicating some ability to interpret its meaning based on its context.

In the following paragraphs, I analyze the data relevant to C-level subjects, see Figure 3. First, I examine the motivation-transparent and motivation-opaque data, then I continue with predictability-transparent and predictability-opaque results. Using this principle of demonstration, I describe each idiom type.

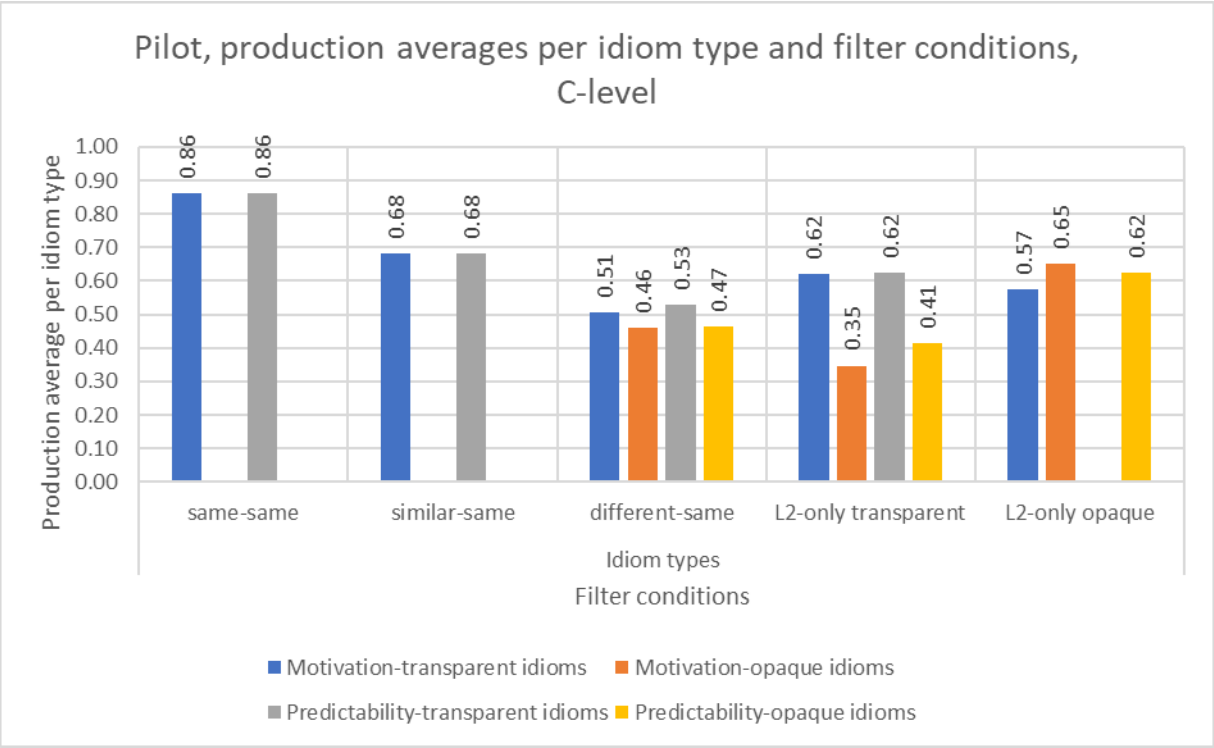

Figure 3. Pilot, production averages per idiom type and filter conditions, C-level

Beginning with idioms characterized by transparent motivation in the *same-same* category, where expressions share identical semantic properties or usage patterns, the data shows a high score of 0.86. This indicates a consistent interpretation and production of these idioms within uniform contexts. An example from this category, *a lone wolf*, exhibits a high production average of 0.93, indicating frequent usage in communication. It also has a high familiarity average of 6.83, suggesting widespread recognition among language users. The motivation and predictability averages are notably high at 7.00 each, underscoring the clear and easily understood figurative meaning of the idiom.

In the *similar-same* category, where idioms exhibit similar semantic features but may vary slightly in usage, the score remains high at 0.68, reflecting continued semantic coherence across idiomatic expressions in comparable contexts. An idiom from this category, *the blind leading the blind*, maintains a slightly lower production average of 0.87. While still commonly used, it exhibits a familiarity average of 6.42, indicating a relatively widespread but slightly less universal recognition compared to the *same-same* example. The motivation and predictability averages are slightly lower but still substantial, at 6.75 and 7.00 respectively, reflecting a coherent figurative meaning that aligns closely with their literal interpretation.

Regarding the *different-same* category, which contrasts idioms with dissimilar semantic properties but similar usage contexts, the score decreases to 0.51. For instance, *bite off more than you can chew,* exhibits a lower production average of 0.44, suggesting less frequent use in comparison to the previous categories. The familiarity average of 4.58 indicates moderate recognition among language users. However, the motivation and predictability averages are notably lower at 6.25 each, indicating greater variability in interpretation and production of their figurative meanings across different contexts.

Considering second language learners (L2), idiomatic expressions categorized as *L2-only transparent* achieve a score of 0.62, reflecting a relatively accessible production for learners. *Food for thought*, an example, exhibits a production average of 0.49, indicating moderate usage frequency. The familiarity average of 4.17 suggests a moderate level of recognition, while the motivation and predictability averages of 4.88 and 5.50 respectively highlight a moderately clear and predictable figurative meaning, designed to aid production for learners.

L2-only opaque expressions categorized scored 0.57 in the production test. For instance, *rub shoulders with someone* maintains a production average of 0.47. However, it exhibits a familiarity average of 4.50, indicating moderate recognition. The motivation average of 4.25 suggests a somewhat less transparent figurative meaning, while the predictability average of 2.50 indicates challenges in anticipating the intended meaning, posing greater difficulty for second language learners.

Turning to idioms characterized by opaque motivation, in the *different-same* type, these expressions score 0.46. This lower score indicates greater variability or ambiguity in their figurative intent within similar semantic contexts. An example is *by the skin of your teeth*, which exhibits a production average of 0.42, indicating relatively infrequent usage compared to other categories. The familiarity average is 4.08, suggesting moderate recognition among language users. However, the motivation average is notably low at 2.50, indicating a less transparent figurative meaning. Similarly, the predictability average is 2.00, reflecting challenges in anticipating the intended meaning of these idioms across varied contexts.

In the *L2-only transparent* category, motivation-opaque idioms achieve a score of 0.35, suggesting a comparable level of interpretive variability despite semantic similarities. *Meet your Waterloo*, an example from this category, demonstrates a production average of 0.46, indicating moderate frequency of use. The familiarity average stands at 4.42, suggesting moderate recognition among learners. However, the motivation average is 3.75, indicating a

somewhat clearer but still moderately transparent figurative meaning. Predictability averages 2.75, highlighting some challenges in fully anticipating the intended meaning within L2 contexts.

Notably, in the *L2-only opaque* type, opaque idioms score 0.65, indicating a propensity for significant variations in figurative interpretations across contexts where semantic differences are pronounced. For example, *a hot potato* maintains a production average of 0.60, its familiarity average is 4.67, indicating moderate recognition among learners. Its motivation average is 3.75, suggesting a somewhat less transparent figurative meaning compared to transparent idioms. Predictability averages 3.50, indicating difficulties in predicting the intended meaning, posing greater challenges for second language learners.

Regarding predictability, transparent idioms under the *same-same* type score 0.86, aligning closely with their literal interpretations in uniform contexts. *A lone wolf*, for example, has a production average of 0.93, a familiarity average of 6.83, suggesting widespread familiarity among the subjects. Both the motivation and predictability averages stand notably high at 7.00 each, highlighting the clear and easily understood figurative meaning associated with this idiom in consistent contexts.

In the *similar-same* type, predictability remains high at 0.68, demonstrating reliable interpretive consistency within semantically similar contexts. *The blind leading the blind* yielded a production average of 0.87, its familiarity average is 6.42, indicating substantial recognition among language users. The motivation average of this idiom is 6.75, reflecting a coherent figurative meaning closely aligned with literal interpretation, while the predictability average remains high at 7.00.

Under the *different-same* category, predictability decreases slightly to 0.53, indicating a moderate level of predictability despite varying semantic contexts. An instance, *bite off more than you can chew*, exhibits a lower production average of 0.44, its familiarity average is 4.58, suggesting moderate recognition among language users. However, its motivation average is relatively high at 6.25, indicating a clearer figurative meaning despite varying semantic contexts. The predictability of this idioms averages 6.25.

In the *L2-only transparent* category, predictability reaches 0.62, indicating a higher level of consistency in interpretive outcomes despite significant semantic differences. *Food for thought* demonstrates a production average of 0.49. The familiarity average stands at 4.17, suggesting a moderate level of recognition among learners. The motivation average is 4.88, indicating a reasonably clear figurative meaning intended to aid production. Predictability

averages 5.50, highlighting a moderate level of consistency in interpretation within L2 learning contexts.

Conversely, opaque idioms in terms of predictability score 0.47 under the *different-same* type, reflecting challenges in anticipating their figurative meanings within similar semantic contexts. For example, *by the skin of your teeth* shows a production average of 0.42, a familiarity average of 4.08, suggesting moderate recognition among language users. However, both the motivation and predictability averages are notably lower at 2.50 and 2.00 respectively, indicating a less transparent figurative meaning and challenges in anticipating their intended interpretation across different contexts.

In the *L2-only transparent* category, predictability drops 0.41, suggesting a comparable level of unpredictability despite semantic similarities. *Meet your Waterloo* demonstrates a production average of 0.46. Its familiarity average stands at 4.42, suggesting a moderate level of recognition among learners. The motivation average is 3.75, indicating a somewhat clear figurative meaning aimed at aiding production. Predictability averages 2.75, suggesting some difficulty in consistently predicting the intended meaning within L2 learning contexts.

In the *L2-only opaque* category, predictability is 0.62 again, indicating a higher level of consistency in interpretive outcomes despite significant semantic differences. An example from this category, *a hot potato*, maintains a production average of 0.60. The familiarity average of the idiom is 4.67, indicating moderate recognition among learners. The motivation average is 3.75, indicating a somewhat less transparent figurative meaning compared to transparent idioms. Predictability averages 3.50, suggesting challenges in predicting the intended meaning, posing greater difficulty for second language learners.

The study conducted a thorough analysis to evaluate Hypothesis 3, which suggests a positive relationship between idiom motivation score averages and production score averages across different language proficiency levels (B and C). At language level B, a significant Pearson correlation ($r = 0.202$[84], $p = 0.001$) and Spearman's rho ($r = 0.174$[85], $p = 0.004$) both support the hypothesis, indicating that higher levels of motivation are associated with improved production outcomes. Similarly, at language level C, stronger correlations (Pearson correlation = 0.222[86], $p = 0.000$; Spearman rho = 0.160[87], $p = 0.005$) highlight an even clearer positive relationship between motivation and production proficiency. The analysis of

[84] Correlation is significant at the 0.01 level.
[85] Correlation is significant at the 0.01 level.
[86] Correlation is significant at the 0.01 level.
[87] Correlation is significant at the 0.01 level.

motivation-transparent and motivation-opaque idioms further substantiates these findings, demonstrating that easily interpretable idioms tend to yield higher average production scores, underscoring the critical role of motivation in idiomatic proficiency.

Moving to Hypothesis 4, which focuses on the influence of predictability on average production scores, the study found significant positive Pearson correlations at both language levels (B: r = 0.200[88], p = 0.000; C: r = 0.285[89], p = 0.000). These results confirm that idioms with higher predictability scores generally lead to better production outcomes across various idiom categories and proficiency levels. The study's emphasis on predictability-transparent idioms further reinforces this, illustrating that clarity in idiom meaning increases average production scores significantly.

In conclusion, the findings robustly support both Hypothesis 3 and Hypothesis 4, highlighting the pivotal roles of motivation and predictability in shaping idiomatic production proficiency. Strategies aimed at increasing motivation and enhancing predictability are thus crucial for improving idiomatic competence across diverse linguistic contexts and learner proficiency levels.

8.6.2 A Comparison of the Results of B and C-levels

Having carried out the analyses of the pilot study, I offer a comparison of the results of the two language levels. At the B-level proficiency, idioms with higher motivation, characterized by clear and easily interpretable meanings, exhibit a positive correlation with average production scores. The Pearson correlation coefficient (r = 0.202[90], p = 0.001) and Spearman's rho (r = 0.174[91], p = 0.004) both confirm this relationship. Learners at this level benefit significantly when idioms have transparent meanings, as these contribute to improved production proficiency. Conversely, at the C-level proficiency, the correlation between average motivation scores and average production scores strengthens. The Pearson correlation coefficient (r = 0.222[92], p = 0.000) and Spearman's rho (r = 0.160[93], p = 0.005) indicate a clearer positive relationship. This suggests that idioms with higher motivation not only enhance production proficiency but do so more prominently as learners progress to higher proficiency levels. The findings underscore the increasing importance of clear idiomatic meanings in shaping production proficiency among advanced learners.

[88] Correlation is significant at the 0.01 level
[89] Correlation is significant at the 0.01 level.
[90] Correlation is significant at the 0.01 level.
[91] Correlation is significant at the 0.01 level.
[92] Correlation is significant at the 0.01 level.
[93] Correlation is significant at the 0.01 level.

Similarly, predictability plays a crucial role in idiomatic proficiency at both B-level and C-levels. At the B-level, idioms that are more predictable in their usage demonstrate a significant positive correlation with average production scores (Pearson correlation = 0.200[94], p = 0.000). This indicates that learners benefit when they can anticipate the figurative meanings of idiomatic expressions based on their contextual and linguistic cues. At the C-level, the correlation between predictability averages and average production scores becomes more pronounced. The Pearson correlation coefficient (r = 0.285[95], p = 0.000) suggests a stronger link between predictability and proficiency outcomes. This implies that as proficiency level increases, learners rely more on idioms that are not only transparent but also predictable in their usage contexts. Predictability becomes a critical factor in achieving higher average production scores among proficient language learners.

Comparing B-level and C-level results reveals notable differences in how motivation and predictability influence idiomatic proficiency. While both proficiency levels benefit from idioms with clear motivations and predictable meanings, these factors exert a more significant impact at the C-level. Learners at the advanced level demonstrate heightened sensitivity to idiomatic nuances, preferring expressions that are both clear in meaning and predictable in usage.

The comparative summary of idiomatic expression production averages at language levels B and C reveals distinct patterns across different idiomatic types and filter conditions, see Figure 2 and Figure 3. In the *same-same* type, participants at language level B show production averages of 0.85 for both motivation-transparent and predictability-transparent idioms, while those at language level C show slightly higher averages of 0.86 for both types. In the *similar-same* category, language level B participants achieve a production average of 0.67 for motivation-transparent idioms, 0.69 for predictability-transparent idioms, and 0.51 for predictability-opaque idioms. At language level C, the averages increase slightly to 0.68 for both motivation-transparent and predictability-transparent idioms.

For the *different-same* type, language level B participants reach a production average of 0.48 for both motivation-transparent and predictability-transparent idioms, 0.41 for motivation-opaque idioms, and 0.42 for predictability-opaque idioms. At language level C, participants achieve averages of 0.51 for motivation-transparent idioms, 0.46 for motivation-opaque idioms, 0.53 for predictability-transparent idioms, and 0.47 for predictability-opaque idioms.

[94] Correlation is significant at the 0.01 level.
[95] Correlation is significant at the 0.01 level.

Under the *L2-only transparent*, language level B participants attain production averages of 0.54 for both motivation-transparent and predictability-transparent idioms, and 0.41 for both motivation-opaque and predictability-opaque idioms. At language level C, the averages increase to 0.62 for both motivation-transparent and predictability-transparent idioms, while motivation-opaque idioms drop to 0.35 and predictability-opaque idioms remain at 0.41.

In the L2-*only opaque* type, language level B participants achieve production averages of 0.51 for both motivation-transparent and predictability-transparent idioms, 0.59 for motivation-opaque idioms, and 0.57 for predictability-opaque idioms. Language level C participants, however, show higher averages of 0.57 for motivation-transparent idioms, 0.65 for motivation-opaque idioms, and 0.62 for predictability-opaque idioms.

Overall, participants at language level C consistently demonstrate higher production averages across most conditions. This indicates a higher skill of using idiomatic expressions compared to participants at language level B. Observations like these may aid language educators in selecting and/or compiling their tasks intended for language learners of different proficiency levels.

8.6.3 The Main study

In this section, I describe the main experiment. I provide a brief account on the subjects and discuss the results in Section 8.7. For further reference, this idiom testing is referred to as main study or main idiom testing not only on grounds of the increased number of the participants, but also that of the different purposes the pilot and main studies.

The primary purpose of the pilot study (in addition to testing the four hypotheses) was to identify methodological pitfalls of the test, refine the questions and confirm that the tasks were understandable and clear for all participants. Since a smaller population was used in the pilot, this allowed for optimisation of the test set before finalising it with a larger and more representative population.

The aim of the main study was to find actual answers to the research hypotheses and to obtain statistically meaningful results that may potentially be generalized. The interaction between the pilot and the main experiment aims to increase the reliability of the research. This allowed the me to conduct the main experiment without such concerns The difference between the two phases is that while the pilot study placed more emphasis on preparation, the main experiment focused on testing the research hypotheses and obtaining actual results.

8.6.3.1 The Subjects

There were 50 randomly-selected subjects (young adults) involved in the main study. Similarly to the pilot study, this is a large sample, as well (cf Hunyadi and Vita 2008: 29). They had the following language levels: A (beginner, n = 5), B (intermediate, n = 22), and C (advanced, n = 23). Similarly to the pilot study, I used English Radar this time as well to measure language proficiency. The principle of simplifying the 12 levels of English Radar was the same as in the case of the pilot study. Also, the calculations related to the main study do not include the data of A-level subjects, as mentioned in Section 8.6.1.1.

8.6.3.2 Results

In the following paragraphs, I attempt to explore to what extent my hypotheses prove true. I follow the same principles of data demonstration as I did in section 8.6.1.2. First, I discuss the Pearson and Spearman's rho correlations between the variables of the hypotheses, then I analyse the data.

8.6.3.2.1 Hypotheses 1 and 2

H 1: If the motivation of the idioms considered as familiar (with average scores over 4) is high (with average scores over 4), they will score higher in all idiom categories in the idiom production task than the less-motivated idioms (with average scores of 4 or below).

First, I aimed to see the correlation between the factors of the hypothesis. In terms of production average and language level, the Pearson correlation coefficient is 0.044, indicating a very weak positive relationship[96]. This correlation is not statistically significant (p = 0.153), suggesting that the language level of individuals does not significantly predict their production average as rated by others. Regarding the Pearson correlation, there is a strong positive correlation (r = 0.788[97], p = 0.000) between the production average and motivation, which is statistically significant. This indicates that higher motivation is associated with higher production averages. Idioms with high levels of motivation tend to result in higher production averages. Language level and motivation have the Pearson correlation of 0.026, showing an extremely weak positive relationship that is not statistically significant (p = 0.543). Therefore, the language level does not have a meaningful impact on motivation levels.

[96] Appendix P includes the Pearson and Spearman's rho correlations.
[97] Correlation is significant at the 0.01 level.

The most notable Pearson correlation is between production average and motivation (r = 0.788[98], p = 0.000), highlighting motivation as a critical factor in influencing performance outcomes. Enhancing motivation could lead to significant improvements in performance as rated by others. The weak and statistically insignificant correlations between language level and production average and motivation suggest that language proficiency alone does not heavily influence overall performance or motivational levels.

Data analysis reveals the correlations between production performance, language proficiency, motivation, and predictability. The findings underscore motivation as a key driver of high performance, while language proficiency plays a minor role in influencing performance predictability. Production these dynamics can help in designing interventions and policies to enhance productivity and performance predictability through targeted motivational strategies.

Another type of correlation, Spearman's rho, also displays significant correlations. Production average and language level display the Spearman correlation coefficient of 0.014, indicating an extremely weak positive correlation, which is not statistically significant (p = 0.651), suggesting that there is no meaningful relationship between language level and production average. There is a statistically significant moderate positive correlation (Spearman's rho = 0.525[99], p = 0.000) between production average and motivation. This indicates that higher motivation is associated with higher production averages. This underscores motivation as a main factor in performance outcomes. Regarding language level and motivation, the correlation shows an extremely weak positive relationship that is not statistically significant (Spearman's rho = 0.015, p = 0.724). Thus, language level has no significant impact on motivation.

H 2: If the predictability of the idioms considered as familiar (with average scores over 4) is high (with average scores over 4), they will score higher in all idiom categories in the idiom production task than the less-predictable idioms (with average scores of 4 or below).

First, I explored what correlation exists between the variables. Pearson correlation shows that there is a substantial, significant positive correlation (r = 0.674[100], p = 0.000) between production average and predictability. This implies that individuals with higher production

[98] Correlation is significant at the 0.01 level.
[99] Correlation is significant at the 0.01 level.
[100] Correlation is significant at the 0.01 level.

averages are likely to be connected to more predictable idioms. Language level and predictability display the Pearson correlation coefficient of 0.099[101], indicating a weak positive relationship but a significant one (p = 0.026). This suggests a slight tendency for higher language levels to be associated with more predictable idioms, but the relationship is weak. According to the Spearman's rho calculations, a moderate positive correlation (r = 0.424[102], p = 0.000) exists between production average and predictability. This suggests that individuals with higher production averages tend to be associated with more predictable idioms. Language level and predictability has the Spearman's rho correlation coefficient of 0.089[103], p = 0.045, indicating a weak positive relationship and statistical significance. This suggests a slight tendency for higher language levels to be associated with more predictable idioms, but the relationship is relatively weak.

In the next paragraphs, I analyze the data in Figure 4. First, I examine the motivation-transparent and motivation-opaque data then the predictability-transparent and predictability-opaque results. Using this principle of demonstration, I describe each idiom type.

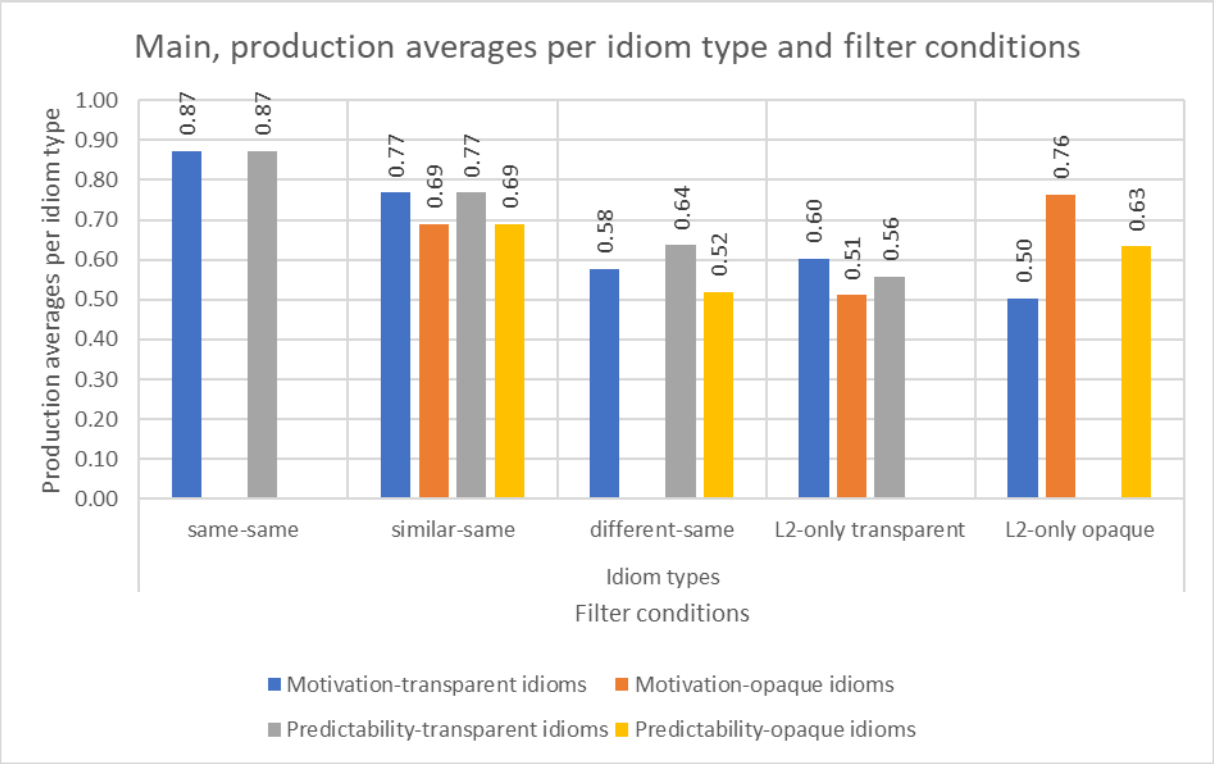

Figure 4. Main, production averages per idiom type and filter conditions

[101] Correlation is significant at the 0.05 level.
[102] Correlation is significant at the 0.01 level.
[103] Correlation is significant at the 0.05 level.

Starting with motivation-transparent idioms, we observe varying levels of production across the different idiom categories. Idioms categorized as *same-same* exhibit the highest production rate at 0.87[104], indicating a strong production when the components within the idiom are identical in form and meaning. An example to this idiom type, *a lone wolf*, has a high production average of 0.91, indicating strong familiarity with the idiom's usage in language. Its familiarity average stands at 6.42, suggesting that this idiom is well-known and frequently encountered. Motivation, which gauges the clarity of the idiom's meaning, averages 6.35, indicating a relatively transparent meaning. Predictability, at 6.32, suggests that the idiom's meaning can be reliably inferred from its components.

Similar-same idioms follow closely at 0.77, suggesting a slightly lower but still robust production level. The example *the blind leading the blind* exhibits a production average of 0.85. The familiarity average of 6.11 suggests a high degree of recognition. Motivation and predictability averages of 6.00 and 6.32, respectively.

The production decreases for *different-same* idioms (0.58), implying that when the components differ in form but share the same meaning, production becomes more challenging. An example from this category, *break your back* shows a lower production average of 0.52. The lower familiarity average of 4.27 indicates that this idiom is less commonly known or used. Motivation and predictability averages of 4.39 and 4.00, respectively.

L2-only transparent idioms show moderate production levels, with a score of 0.60. An idiom belonging to this category, *pull strings*, has the production average of 0.60, indicating a moderate level of production. The familiarity average of 4.09 suggests that this idiom is less familiar compared to native language idioms. Motivation averages 5.22, indicating a relatively clearer meaning despite being in a second language context, and predictability averages 4.64.

The production average of *L2-only opaque* idioms exhibit the lowest production at 0.50, indicating the most difficulty in production when both the idiom and its components are opaque in meaning. The only example here is *mean business*, whose production average is 0.50, has a familiarity average of 4.02, scored a 4.43 motivation average, and yielded a predictability average of 3.86.

In contrast, motivation-opaque idioms, which are more obscure in their origin and meaning, exhibit lower overall production rates compared to motivation-transparent idioms. *Similar-same* idioms still lead with an average production score of 0.69. An example, *bury the*

[104] I rounded the numeric data of the main study to two decimals. Appendix J shows the actual results.

hatchet, has a production average of 0.69, indicating a moderate level of production. The familiarity average of 5.00 suggests that this idiom is moderately well-known. However, the motivation and predictability averages of 4.00 each indicate that the meaning of this idiom, while somewhat clear and predictable, may require context or additional cognitive effort to fully grasp.

The *L2-only transparent* category averaged at 0.51. The only example, *food for thought*, has a production average of 0.51, suggesting a lower level of production. The familiarity average of 4.02 indicates that this idiom is less familiar in a second language context. Motivation and predictability averages of 3.74 and 4.27, respectively,

L2-only opaque idioms exhibit the highest production among motivation-opaque idioms, scoring 0.76, potentially indicating that idioms that are opaque both in motivation and in the second language context may rely more on rote memorization or exposure for production. The only example is *pull someone's leg*, which has a production average of 0.76. The familiarity average of 5.31 suggests that this idiom is relatively well-known in a second language context. However, the motivation average of 3.70 and predictability average of 2.23 indicate that the meaning of this idiom is less clear and predictable, potentially requiring familiarity or cultural knowledge for production.

Turning to predictability-transparent idioms, which may be more predictable in their meaning due to linguistic or contextual clues, the production rates generally mirror those of motivation-transparent idioms. *Same-same* idioms lead with a high production rate of 0.87. An idiom belonging to this category is *a lone wolf*, which has a high production average of 0.91, indicating strong production and frequent usage. The familiarity average of 6.42 suggests that this idiom is widely recognized. Motivation, with an average of 6.35, indicates a clear and easily understandable meaning, while predictability, at 6.32, reinforces the consistent production derived from the idiom's components.

Similar-same idioms have a production average of 0.77. An idiom from this category, *the blind leading the blind* yielded a production average of 0.85, indicating robust production similar to *same-same* idioms. The familiarity average of 6.11 suggests a high level of recognition. Motivation averages 6.00, indicating a clear meaning, while predictability remains high at 6.32, suggesting that the idiom's meaning is reliably inferred from its components despite slight variations.

Different-same idioms exhibit a moderate production rate of 0.64, suggesting that while predictability aids production, variations in form still impact production. The only example, *sell like hot cakes* has the production average of 0.64, indicating a moderate level of

production. The familiarity average of 4.91 suggests that while recognized, this idiom may not be as universally known as the previous categories. Motivation averages 5.30, indicating a reasonably clear meaning derived from its components, while predictability at 4.77 suggests some variability in production due to differences in form despite shared meaning.

L2-only transparent idioms, similar to *L2-only transparent* idioms under motivation-transparent conditions, show moderate production at 0.56. An example, *food for thought*, shows a production average of 0.51, suggesting a moderate level of production in a second language context. The familiarity average of 4.02 indicates that this idiom is less familiar compared to native language idioms. Motivation averages 3.74, indicating a less transparent meaning, while predictability at 4.27 suggests moderate predictability in production the idiom's meaning within the second language context.

Predictability-opaque idioms, characterized by their less predictable meanings, present distinct challenges in terms of production across various categories and filtering conditions. In the *similar-same* category, predictability-opaque idioms achieve a production rate of 0.69. This moderate level of production suggests that while these idioms maintain identical forms and meanings within their components, their less transparent meanings introduce ambiguity or require additional contextual clues for interpretation. For example, *bury the hatchet* has a production average of 0.69, indicating moderate production. The familiarity average of 5.00 suggests a reasonable level of recognition among users. However, the motivation and predictability averages of 4.00 each indicate that the meaning of this idiom may not be immediately transparent or predictable, potentially requiring contextual clues or additional familiarity to fully grasp its intended meaning.

Moving to the *different-same* category, predictability-opaque idioms exhibit a production rate of 0.52. This lower rate indicates greater difficulty in production idioms that share similar but not identical components. The variability in form and the less predictable nature of their meanings contribute to the decreased production observed in this category. *Break your back* shows a production average of 0.52. The familiarity average of 4.27 suggests that this idiom is less widely known. The motivation average of 4.39 and predictability average of 4.00 indicate that while the meaning of this idiom may be somewhat clear from its components, variations in form contribute to challenges in production.

Lastly, predictability-opaque idioms within the *L2-only opaque* category achieve a production rate of 0.63. This rate is relatively higher compared to other predictability-opaque categories, indicating that despite their opaque meanings, these idioms may benefit from familiarity or repeated exposure in language learning contexts, although they still present

significant challenges in production. *Mean business* yielded a production average of 0.50, indicating moderate production within a second language context. The familiarity average of 4.02 suggests that this idiom is moderately recognized among second language speakers. The motivation average of 4.43 and predictability average of 3.86 indicate that while the meaning may be somewhat clear, there is still a degree of opacity or unpredictability associated with production this idiom, particularly in a non-native language context.

The study explored the influence of motivation and predictability on the production proficiency of idiomatic expressions, confirming significant correlations with average production scores across various conditions and proficiency levels. Regarding motivation (Hypothesis 1), a strong positive Pearson correlation (r = 0.788[105], p = 0.000) was found between higher motivation scores and superior production outcomes. Spearman's rho analysis (rho = 0.525[106], p = 0.000) reinforced these results, highlighting motivation's robust predictive power in idiomatic production performance. In contrast, language proficiency demonstrated negligible correlations with production averages (Pearson correlation = 0.044, p = 0.153; Spearman rho = 0.014, p = 0.651), suggesting motivation as a more influential determinant of proficiency.

Regarding predictability (Hypothesis 2), the study also found substantial evidence supporting its role in idiomatic production. Pearson correlation analysis revealed a strong positive relationship (r = 0.674[107], p = 0.000) between predictability averages and average production scores, indicating that idioms with clearer, more predictable meanings tended to yield higher average production scores. Spearman correlation (rho = 0.424[108], p = 0.000) corroborated these findings across different measurement approaches. Moreover, while language proficiency showed a statistically significant but weak positive Pearson correlation with predictability (r = 0.099[109], p = 0.026), its impact was overshadowed by the influence of predictability itself.

The data of the main study, however, paints a slightly different picture regarding predictability in comparison with the pilot study. Here, a weak positive correlation exists between language level and predictability, with a Pearson correlation of 0.099[110] (p = 0.026) and a Spearman's rho of 0.089[111] (p = 0.045), both being statistically significant. This

[105] Correlation is significant at the 0.01 level.
[106] Correlation is significant at the 0.01 level.
[107] Correlation is significant at the 0.01 level.
[108] Correlation is significant at the 0.01 level.
[109] Correlation is significant at the 0.05 level.
[110] Correlation is significant at the 0.05 level.
[111] Correlation is significant at the 0.05 level.

suggests a slight but notable tendency for higher language levels to be associated with more predictable idioms. While the correlation is weak, its statistical significance suggests that it is consistent enough not to be attributed to random variation. This weak correlation between predictability and idiom production may be unexpected for several reasons. Intuitively, we might expect a clearer relationship between language proficiency and predictability, as more proficient individuals are generally expected to display more consistent and reliable performance due to their stronger linguistic foundation. However, the low correlation value implies that language proficiency alone does not account for much of the variability in predictability. Other factors, perhaps individual differences in cognitive processing, task familiarity, or contextual elements of the study, may play a stronger role in influencing predictability than language level does.

In contrast to the weak correlation with predictability, the correlation between language level and motivation remains extremely weak and statistically insignificant in the main study, with a Pearson correlation of 0.026 ($p = 0.543$) and a Spearman's rho of 0.015 ($p = 0.724$). Both correlations are statistically insignificant, meaning there is no reliable association between language proficiency and idiom motivation. This result is somewhat surprising, because higher levels of idiom motivation are often considered a key factor in idiom production. In addition, one might expect that as language proficiency improves, learners would develop a better understanding of how figurative language operates, including the ability to recognize the semantic connections within idioms. However, the data here does not support that assumption. This lack of correlation suggests that proficiency in language does not necessarily equate to a greater ability to perceive the semantic links in idioms. This finding could imply that understanding idiomatic motivation relies on factors other than language proficiency alone, such as cultural knowledge, familiarity with specific idioms, or exposure to figurative language use, rather than on overall linguistic ability. In other words, learners with similar language levels might vary widely in their ability to recognize and interpret idiomatic expressions due to differences in these other areas.

In summary, the study's findings strongly support hypotheses regarding the positive impacts of motivation and predictability on idiomatic average production scores. Transparent idioms generally outperformed opaque ones in production and production tasks, underscoring the benefits of clear and predictable meanings in idiomatic proficiency. These results suggest implications for language learning and teaching strategies, advocating for targeted interventions that enhance motivation and address predictability factors to improve idiomatic competence effectively.

8.6.3.2.2 Hypotheses 3 and 4

H 3: If the idiom motivation is high (with average scores over 4) in the case of the familiar idioms (with average scores over 4), the average production scores will be high (over 0.5) in all idiom categories and at all proficiency levels.

Our third hypothesis examines the relationship between high idiom motivation, familiar idioms, and average production scores across different proficiency levels. It suggests that high motivation levels, among familiar idioms with scores over 4, will result in average production scores exceeding 0.5 across all idiom categories and proficiency levels.

In terms of B-level subjects, production average and motivation reveal that their Pearson correlation coefficient is 0.772[112], p = 0.000, indicating a strong positive relationship[113]. Higher motivation is strongly associated with higher production averages. With regard to production average and motivation, the Pearson correlation coefficient is 0.753[114],p = 0.000, indicating a strong positive relationship as regards the C-level subjects. Higher motivation is strongly associated with higher production averages.

The strong correlation I observed with Pearson correlation between production average and motivation in the case of B-level subjects is in place if I analyze it with Spearman correlation (r= 0.450[115]), p = 0.000, indicating a moderate positive relationship, this correlation is statistically significant. Higher motivation is moderately associated with higher production averages. Regarding C-level subjects, production average and motivation reveal a Spearman correlation coefficient of 0.479[116], p = 0.000, indicating a moderate positive relationship. Higher motivation is moderately associated with higher production averages.

[112] Correlation is significant at the 0.01 level.
[113] Appendix Q includes the Pearson and Spearman's rho correlations.
[114] Correlation is significant at the 0.01 level.
[115] Correlation is significant at the 0.01 level.
[116] Correlation is significant at the 0.01 level.

H 4: If the idiom predictability is high (with average scores over 4) in the case of the familiar idioms (with average scores over 4), the average production scores will be high (over 0.5) in all idiom categories and at all proficiency levels.

Finally, our fourth hypothesis examines the impact of high idiom predictability among familiar idioms on average production scores across different proficiency levels. It proposes that high predictability levels, among familiar idioms with scores over 4, will result in average production scores exceeding 0.5 across all idiom categories and proficiency levels.

Regarding the B-level subjects, production average and predictability have the Pearson correlation coefficient of 0.623[117], also indicating a strong positive relationship and statistical significance (p = 0.000). This suggests that higher production averages belong to more predictable idioms. In terms of C-level subjects, production averages and predictability have the Pearson correlation coefficient of 0.556[118], p = 0.000, indicating a strong positive relationship and statistical significance. This suggests that higher production averages are associated with more predictable idioms.

In the case of B-level subjects, production average and predictability have the Spearman correlation coefficient of 0.391[119], p = 0.000, also indicating a moderate positive relationship and statistical significance. This suggests that higher production averages are associated with more predictable idioms. A similarly important correlation exists at C-level too, as the production average and predictability showcase a Spearman correlation coefficient of 0.238[120], indicating a weak positive relationship and statistical significance (p = 0.001). This suggests that higher production averages have a small association with more predictable idioms.

In the following paragraphs, I analyze the data relevant to B-level subjects, see Figure 5. First, I examine the motivation-transparent and motivation-opaque data, then I continue with predictability-transparent and predictability-opaque results. Using this principle of demonstration, I describe each idiom type.

[117] Correlation is significant at the 0.01 level.
[118] Correlation is significant at the 0.01 level.
[119] Correlation is significant at the 0.01 level.
[120] Correlation is significant at the 0.01 level.

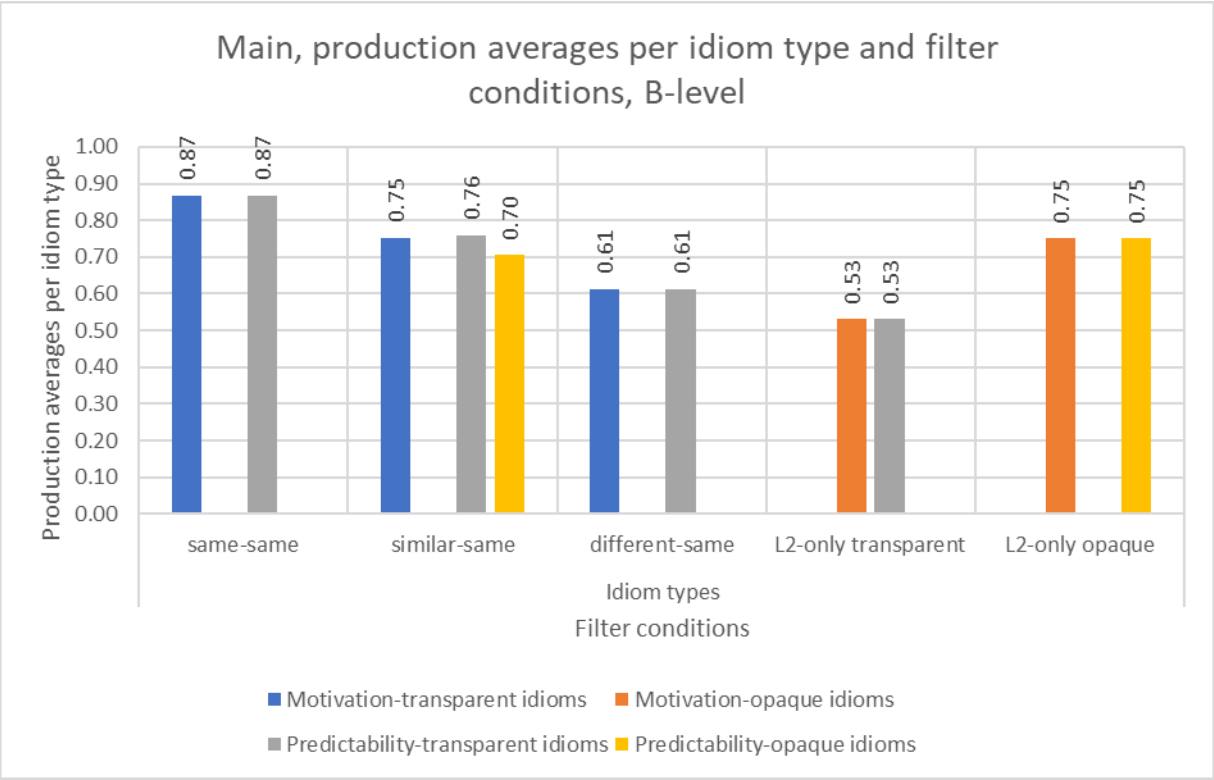

Figure 5. Main, production averages per idiom type and filter conditions, B-level

For motivation-transparent idioms, average production scores under different filter conditions demonstrate a clear trend. *Same-same* idioms have a production average of 0.87[121]. An example, *a lone wolf,* exhibits the highest production average at 0.93, suggesting that learners find it easy to produce this idiom accurately. Familiarity average is at 6.36, indicating a high level of recognition and frequency of use. The motivation average is 6.56, reflecting the ease with which learners can infer the meaning from its components. Predictability average is 6.46, showing that learners find the meaning of the idiom easily anticipated.

In the case of *similar-same* idioms, the production average decreases to 0.75. *The blind leading the blind* presents the production average of 0.80, indicating a moderate level of ease in producing this idiom. The familiarity average is 5.68, showing a reasonable level of recognition. The motivation average is 5.78, indicating that learners can infer the meaning with some effort. The predictability average is 6.08, suggesting that the meaning is fairly anticipated by learners.

Production average is 0.61 for *different-same* idioms. This suggests that learners benefit from greater similarity between L1 and L2 idioms in terms of production. The only example in this category, *sell like hot cakes* , shows the lowest average production scores

[121] I rounded the numeric data of the main study to two decimals. Appendix K shows the actual results.

among the three categories. The production average is 0.61, indicating difficulty in accurate production. The familiarity average is 4.82, reflecting a lower level of recognition and frequency of use. The motivation average is 5.22, showing some challenge in inferring the meaning. The predictability average is 4.31, suggesting that learners find it hard to anticipate the meaning of this idiom.

For motivation-opaque idioms, where meanings are not easily inferred from their components, the average production scores present an interesting contrast. Learners show higher production for *L2-only opaque* idioms, with a score of 0.75. Only one idiom belongs to this category, *pull someone's leg*, which shows higher average production scores compared to *L2-only transparent* idioms. The production average is 0.75, indicating moderate ease in producing this idiom. The familiarity average is 5.27, reflecting a higher level of recognition and frequency of use. The motivation average is 4.00, indicating some challenge in inferring the meaning. The predictability average is 2.23, suggesting that learners find it hard to anticipate the meaning of this idiom.

L2-only transparent idioms averaged at 0.53. *Food for thought* is the only example, which presents relatively low average production scores. The production average is 0.53, suggesting learners find it challenging to produce this idiom accurately. The familiarity average is 4.05, indicating a moderate level of recognition and frequency of use. The motivation average is 2.22, showing significant difficulty in inferring the meaning from its components. The predictability average is 4.46, suggesting that learners find the meaning somewhat anticipatable. This counterintuitive result may indicate that when learners cannot rely on transparency, they might employ more contextual or usage-based strategies that enhance production.

Predictability-transparent idioms, whose meanings can be anticipated, exhibit a similar trend to motivation-transparent idioms. The highest average production score of 0.87 occurs in the *same-same* category. For example, *a lone wolf* demonstrates high average production scores. The production average is 0.93, indicating that learners find it easy to produce this idiom accurately. The familiarity average is 6.36, reflecting a high level of recognition and frequency of use. The motivation average is 6.56, showing that learners can easily infer the meaning from its components. The predictability average is 6.46, indicating that learners find the meaning of the idiom easy to anticipate.

Production average is 0.76 for *similar-same* idioms. As an example, *the blind leading the blind* presents slightly lower average production scores compared to *same-same* idioms. The production average is 0.80, suggesting moderate ease in producing this idiom. The

familiarity average is 5.68, indicating a reasonable level of recognition. The motivation average is 5.78, showing that learners can infer the meaning with some effort. The predictability average is 6.08, suggesting that the meaning is fairly anticipated by learners.

Different-same idioms have a production average of 0.61. The only example, *sell like hot cakes,* shows the lowest average production scores among the three categories. The production average is 0.61, indicating difficulty in accurate production. The familiarity average is 4.82, reflecting a lower level of recognition and frequency of use. The motivation average is 5.22, indicating some challenge in inferring the meaning. The predictability average is 4.31, suggesting that learners find it hard to anticipate the meaning of this idiom.

The production average of *L2-only transparent* idioms was 0.53. The only example, *food for thought,* presents relatively low average production scores. The production average is 0.53, suggesting learners find it challenging to produce this idiom accurately. The familiarity average is 4.05, indicating a moderate level of recognition and frequency of use. The motivation average is 2.22, showing significant difficulty in inferring the meaning from its components. The predictability average is 4.46, suggesting that learners find the meaning somewhat anticipatable.

Predictability-opaque idioms, whose meanings are harder to anticipate, follow a pattern similar to motivation-opaque idioms. The average production score for *similar-same* idioms is 0.70. The example *bury the hatchet* shows the production average of 0.70, indicating moderate ease in production. The familiarity average is 5.23, reflecting a reasonable level of recognition and frequency of use. The motivation average is 4.11, indicating some challenge in inferring the meaning. The predictability average is 4.00, suggesting learners find the meaning less anticipated.

L2-only opaque idioms score slightly higher at 0.75. *pull someone's leg* shows higher average production scores compared to *L2-only transparent* idioms. The production average is 0.75, indicating moderate ease in producing this idiom. The familiarity average is 5.27, reflecting a higher level of recognition and frequency of use. The motivation average is 4.00, indicating some challenge in inferring the meaning. The predictability average is 2.23, suggesting that learners find it hard to anticipate the meaning of this idiom. This consistency with motivation-opaque idioms suggests a broader trend where opaque idioms might aid production by necessitating a deeper engagement with the language context.

In the following paragraphs, I analyze the data relevant to C-level subjects, see Figure 6. First, I examine the motivation-transparent and motivation-opaque data, then I continue

with predictability-transparent and predictability-opaque results. Using this principle of demonstration, I describe each idiom type.

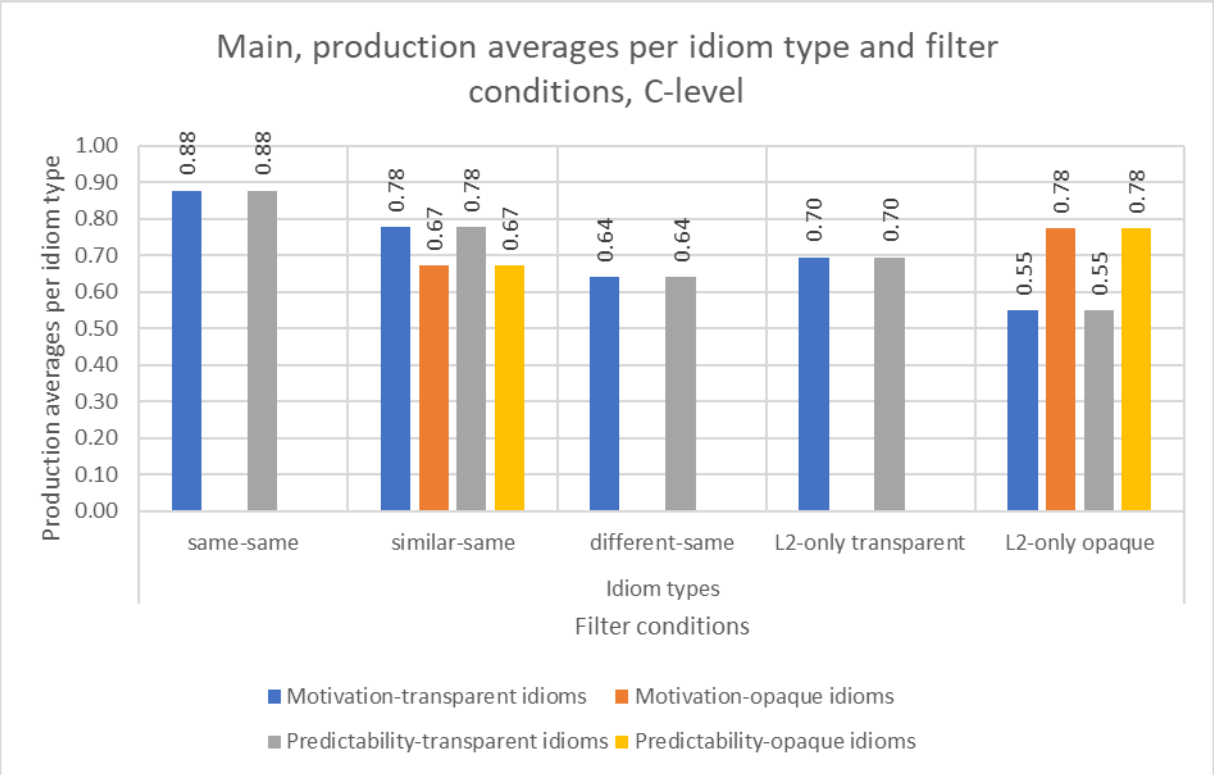

Figure 6. Main, production averages per idiom type and filter conditions, C-level

Starting with motivation-transparent idioms, the data indicates a high value of 0.88 in the *same-same* category. This suggests a strong alignment when idioms share the same structure and meaning in both languages. For the *same-same* type, the idiom *a lone wolf* demonstrates a production average of 0.89, suggesting it is frequently used. It also has high familiarity (6.48), motivation (6.21), and predictability (6.11) averages. This indicates that this idiom is well-understood and easily predicted in its usage.

In the *similar-same* category, the value slightly decreases to 0.78, showing a moderate level of similarity. In the *similar-same* condition, *the blind leading the blind* has a slightly higher production average of 0.90. Its familiarity average is 6.52, motivation average is 6.14, and predictability average is 6.67. The data indicates that this idiom is very familiar and highly predictable, although the motivation behind it is marginally less clear compared to the *same-same* idiom.

The *different-same* category, where the structure differs but the meaning remains, shows a further drop to 0.64. This type includes *break your back* with a lower production average of 0.62, reflecting less frequent use. This idiom has lower familiarity (4.70),

motivation (4.36), and predictability (5.22) averages. These figures suggest that when the structure differs but the meaning remains, production and predictability decrease significantly.

When we consider the *L2-only transparent* idioms, the value is 0.70, indicating a high level of producibility. In this category, *pull strings* shows a production average of 0.70. It has moderate familiarity (4.43), motivation (5.50), and predictability (5.44) averages. The transparency in the second language helps in production, though familiarity is not as high as the *same-same* and *similar-same* idioms.

The *L2-only opaque* type shows the lowest value of 0.55, reflecting the challenges in production idioms that are less transparent. This type includes *mean business,* which has the lowest production average of 0.55. It also shows lower familiarity (4.39), motivation (4.07), and predictability (4.44) averages. This indicates significant challenges in production and predicting this idiom due to its opacity in the second language.

For motivation-opaque idioms, the *similar-same* category reveals a lower value of 0.67, indicating difficulty when the idioms share similar structures and identical meanings. Here, the idiom *bury the hatchet* has a production average of 0.67, indicating moderate usage. Its familiarity average of 4.78 suggests it is recognized to some extent but not extensively known. The motivation average is 3.93, implying that the underlying rationale behind the idiom's meaning is not very clear to most speakers. The predictability average is 4.00, reflecting that, even with structural similarity, the idiom's meaning remains relatively difficult to infer due to its opacity in motivation.

The *L2-only opaque* type increases to 0.78. In this category, *pull someone's leg* shows a higher production average of 0.78, suggesting it is more commonly used than *bury the hatchet*. The familiarity average is 5.35, indicating it is more widely recognized. However, the motivation average is lower at 3.50, highlighting a less clear production of the reasoning behind the idiom's meaning. The predictability average is significantly low at 2.22, underlining the substantial challenges in predicting and production this idiom in a second language due to its opaque motivation.

Predictability-transparent idioms exhibit similar patterns to motivation-transparent idioms. The *same-same* category shows a high value of 0.88, demonstrating strong predictability. For the *same-same* type, the idiom *a lone wolf* shows a production average of 0.89, indicating it is commonly used. The familiarity average stands at 6.48, suggesting it is widely recognized. With a motivation average of 6.21, the idiom's underlying meaning is clear, and a predictability average of 6.11 reflects its straightforwardness in interpretation.

The *similar-same* category holds a value of 0.78. This category includes *the blind leading the blind* which has a slightly higher production average of 0.90. Its familiarity average of 6.52 indicates it is even more well-known than *a lone wolf.* The motivation average is 6.14, and the predictability average is 6.67, the highest among the categories, suggesting that this idiom is easy to predict and produce despite minor structural differences.

Different-same shows 0.64, indicating predictability decreases with structural variation. In this category, *break your back* displays a lower production average of 0.62, implying less frequent use. The familiarity average drops to 4.70, indicating it is not as well-known. The motivation average is 4.36, showing a less clear production of its meaning, and a predictability average of 5.22 suggests that structural differences impact its ease of prediction.

L2-only transparent idioms have a value of 0.70. As an illustration, *pull strings* has a production average of 0.70, reflecting moderate use. The familiarity average is 4.43, indicating moderate recognition. The motivation average is 5.50, suggesting a relatively clear production of its meaning, and a predictability average of 5.44 indicates it is fairly easy to interpret in a second language due to its transparency.

L2-only opaque idioms drop to 0.55, showing a significant decline in predictability when idioms are less transparent. In this category, *Mean business* has the lowest production average of 0.55. The familiarity average is 4.39, showing moderate recognition. The motivation average of 4.07 reflects a lower clarity of the idiom's meaning, and a predictability average of 4.44, the lowest among all the idiom types, highlights the significant challenges in predicting and production this idiom in a second language due to its opacity.

For predictability-opaque idioms, the *similar-same* type again shows a value of 0.67, reflecting predictability issues. For the *similar-same* category, the idiom *bury the hatchet* has a production average of 0.67, indicating moderate usage. The familiarity average is 4.78, suggesting it is somewhat known but not widely recognized. The motivation average is 3.93, implying that the underlying meaning is not very clear. The predictability average is 4.00, showing that despite structural similarity, the idiom remains difficult to predict and produce due to its opacity.

The *L2-only opaque* type shows a value of 0.78. In this category, *pull someone's leg* exhibits a higher production average of 0.78, indicating it is more frequently used compared to *bury the hatchet*. The familiarity average is 5.35, reflecting a higher level of recognition. However, the motivation average drops to 3.50, indicating a less clear production of the idiom's meaning. The predictability average is notably low at 2.22, highlighting significant

challenges in predicting and production this idiom in a second language context due to its opacity.

The study investigates Hypotheses 3 and 4 regarding the impact of motivation and predictability on idiom average production scores across different proficiency levels and idiom categories. Hypothesis 3 posits that higher motivation levels among familiar idioms will lead to higher average production scores. The analysis reveals a robust support for this hypothesis. Among B-level subjects, there is a strong positive correlation between production averages and motivation, with Pearson correlation coefficients of 0.772[122] (p = 0.000), indicating a substantial association. Similarly, for C-level subjects, the Pearson correlation coefficient of 0.753[123] (p = 0.000) further supports this finding. When considering non-linear relationships with Spearman correlation, correlations of 0.450[124] (p = 0.000) for B-level subjects and 0.479[125] (p = 0.000) for C-level subjects affirm the positive relationship between motivation and average production scores, albeit with varying strengths.

Moving to Hypothesis 4, which examines the correlation between predictability and average production scores, the study finds strong empirical support. Both B-level (Pearson correlation coefficient = 0.623[126], p = 0.000) and C-level subjects (Pearson correlation coefficient = 0.556[127], p = 0.000) demonstrate a significant positive relationship between predictability and production averages. Spearman correlations of 0.391[128] for B-level subjects (p = 0.000) and 0.238[129] for C-level subjects (p = 0.001) further underscore this relationship across different proficiency levels and idiom categories.

In summary, the data robustly supports both hypotheses. High motivation levels among familiar idioms correlate positively with higher average production scores, and similarly, high predictability among familiar idioms also correlates positively with average production scores. These findings emphasize the significant influence of motivation and predictability on idiom production success across various linguistic contexts and learner proficiency levels.

[122] Correlation is significant at the 0.01 level.
[123] Correlation is significant at the 0.01 level.
[124] Correlation is significant at the 0.01 level.
[125] Correlation is significant at the 0.01 level.
[126] Correlation is significant at the 0.01 level.
[127] Correlation is significant at the 0.01 level.
[128] Correlation is significant at the 0.01 level.
[129] Correlation is significant at the 0.01 level.

8.6.4 A Comparison of the Results of B and C-levels

This study undertook a comparative analysis of idiom average production scores among B-level and C-level language learners, focusing on the influential factors of motivation and predictability. The findings highlight nuanced differences in how these factors impact idiom production across varying proficiency levels. In the following paragraphs, I aim to focuss on a language-level-based comparison of the results.

Motivation emerged as a significant determinant of idiom average production scores in both B-level and C-level subjects. Among B-level participants, a robust Pearson correlation coefficient of 0.772[130] (p = 0.000) underscored a strong positive relationship between motivation levels and production averages. The Spearman's rho coefficient further substantiated this observation (r= 0.450[131], p = 0.000), affirming that higher motivation distinctly correlated with enhanced idiom production proficiency. Similarly, in the case of C-level learners, the Pearson correlation coefficient of 0.753[132] (p = 0.000) indicated a similarly strong association between motivation and average production scores, albeit marginally higher than in their B-level counterparts. This suggests that while motivation significantly enhances idiom production across proficiency levels, higher language proficiency might slightly amplify its impact.

I examined the influence of predictability on average production scores as well, revealing notable distinctions between B-level and C-level subjects. For B-level learners, a Pearson correlation coefficient of 0.623[133] (p = 0.000) indicated a robust positive relationship between predictability and production averages. Spearman correlation further supported this finding with a coefficient of 0.391[134] (p = 0.000), highlighting predictability as a crucial factor in facilitating higher average production scores at lower proficiency levels. Conversely, C-level subjects exhibited a slightly weaker positive correlation, with a Pearson coefficient of 0.556[135] (p = 0.000) and Spearman coefficient of 0.238[136] (p = 0.001). This suggests that while predictability remains influential, its impact diminishes as proficiency levels advance, possibly indicating a shift towards more varied linguistic strategies in idiom production.

The comparative summary of idiomatic expression production averages for participants at language levels B and C in the main study reveals distinct patterns across

[130] Correlation is significant at the 0.01 level.
[131] Correlation is significant at the 0.01 level.
[132] Correlation is significant at the 0.01 level.
[133] Correlation is significant at the 0.01 level.
[134] Correlation is significant at the 0.01 level.
[135] Correlation is significant at the 0.01 level.
[136] Correlation is significant at the 0.01 level.

different idiomatic types and filter conditions. At language level B, participants in the *same-same* category show production averages of 0.87 for both motivation-transparent and predictability-transparent idioms. In the *similar-same* type, they achieve 0.75 for motivation-transparent idioms, 0.76 for predictability-transparent idioms, and 0.70 for predictability-opaque idioms. Under *different-same*, both motivation-transparent and predictability-transparent idioms have production averages of 0.61. For *L2-only transparent*, participants show production averages of 0.53 for both motivation-opaque and predictability-transparent idioms. In the *L2-only opaque* type, production averages reach 0.75 for both motivation-opaque and predictability-opaque idioms.

At language level C, participants in the *same-same* category show production averages of 0.88 for both motivation-transparent and predictability-transparent idioms. In the *similar-same* type, both motivation-transparent and predictability-transparent idioms achieve production averages of 0.78, while motivation-opaque and predictability-opaque idioms reach 0.67. Under *different-same*, both motivation-transparent and predictability-transparent idioms have production averages of 0.64. For the *L2-only transparent*, production averages are 0.70 for both motivation-transparent and predictability-transparent idioms. In the *L2-only opaque* category, both motivation-transparent and predictability-transparent idioms show production averages of 0.55, while motivation-opaque and predictability-opaque idioms reach higher averages of 0.78.

Participants at language level C consistently outperform those at level B. In the *same-same* type, level C participants achieve slightly higher production averages of 0.88 compared to 0.87 at level B. In the *similar-same* category, level C participants show higher production averages of 0.78 for both motivation-transparent and predictability-transparent idioms, compared to 0.75 and 0.76 respectively at level B. For predictability-opaque idioms, level C participants show lower averages (0.67) compared to level B participants (0.70). Under *different-same*, level C participants achieve higher production averages of 0.64 for both motivation-transparent and predictability-transparent idioms, compared to 0.61 at level B. For *L2-only transparent*, level C participants perform better, with production averages of 0.70 for both motivation-transparent and predictability-transparent idioms, compared to 0.53 at level B. In the *L2-only opaque* type, level C participants show a production average of 0.55 for both motivation-transparent and predictability-transparent idioms, lower than the 0.75 average at level B. However, for motivation-opaque and predictability-opaque idioms, level C participants outperform those at level B with averages of 0.78 compared to 0.75.

Overall, language level C participants demonstrate that C-level subjects produced idioms more successfully, consistently achieving higher production averages across most filter conditions compared to participants at language level B.

The study's findings underscore the pedagogical implications for language learning and teaching strategies. Emphasizing idiom motivation factors can significantly enhance idiom production proficiency across all proficiency levels. Tailoring instructional materials to include idiomatic expressions with higher predictability can notably benefit learners at lower proficiency levels, whereas incorporating diverse linguistic contexts becomes crucial for learners at higher proficiency levels. For example, Improving idiom motivation can help learners at all levels better understand and produce idioms by strengthening the link they perceive between an idiom's literal imagery and its figurative meaning. For instance, consider the idiom *the black sheep of the family.* Teachers can explain the literal image of a black sheep and that of a family, helping learners connect the figurative meaning to its imagery. For beginner (B-level) learners, this approach can reduce abstraction and make idioms easier to remember, while advanced (C-level) learners might benefit from exploring other idioms with similarly strong figurative links or by comparing such idioms to expressions in their native languages. The results indicate that B-level subjects benefit from focusing on idioms that have higher predictability, i.e. they can predict the non-literal meaning from the literal one. Therefore, another example may be selecting idioms which have high levels of predictability to help lower-proficiency learners grasp idioms more intuitively and apply them confidently. For example, idioms like *a lone wolf* have fairly transparent meanings when presented with supporting visual aids or contextual clues.

For more advanced learners, introducing idioms in diverse linguistic and cultural contexts can deepen idiom motivation, encouraging learners to develop nuanced understandings of idioms where literal and figurative links may be more abstract or complex. For instance, the idiom *burn the candle at both ends*'s literal meaning is unrelated to its figurative use, advanced learners can explore how this phrase is used across various contexts, such as in stories, humorous anecdotes, or casual conversations, to better understand its cultural connotations and metaphorical origins. This approach helps C-level learners appreciate idioms that rely on less direct semantic connections. For B-level learners, instructional materials that focus on idioms with high predictability and clear, literal-to-figurative links (like *the icing ont he cake*) can improve both understanding and confidence in using idiomatic expressions. Whichever of these tasks one chooses they must bear in mind

that idiom motivation and idiom predictability may vary from learner to learner, this is why I rated familiarity separately per pilot and main idiom tests.

In conclusion, while motivation and predictability distinctly contribute to idiom production score averages among both B-level and C-level language learners, their relative impact varies with proficiency. These observations facilitate targeted educational measures aiming to improve idiomatic competence across diverse learner groups and proficiency levels.

8.6.5 Idiom Experiments: A Discussion and Conclusion

Both the pilot study and the main study investigated the influence of motivation and predictability on averages of idiom production across different proficiency levels and idiom categories. Despite differences in scale and specific methodologies, both studies enable one to have some understanding about how these factors impact learners' ability to produce idiomatic expressions in a second language context.

In both studies, motivation emerged as a significant determinant of idiom production proficiency. The pilot study provided initial evidence with moderate to strong positive correlations between motivation levels and average production scores among B-level subjects. This proved to be true in the main study as well, which reported similar findings with robust correlations (Pearson correlation = 0.772[137], p = 0.000 for B-level, 0.753[138], p = 0.000 for C-level). These results underscore the consistent influence of motivation across studies, suggesting that learners who are more motivated tend to engage more deeply with idioms, leading to improved production abilities. Both studies align with theoretical frameworks emphasizing motivation's pivotal role in language learning outcomes.

Similarly, both studies highlighted the importance of predictability in idiom production proficiency. The pilot study indicated positive correlations between predictability and average production scores, reflecting the benefits of idioms with clear and anticipated meanings for learners. The main study also found strong positive correlations between predictability and production averages (Pearson correlation = 0.623[139], p = 0.000 for B-level, 0.556[140], p = 0.000 for C-level). These findings support cognitive theories suggesting that transparent linguistic structures facilitate more accurate and fluent production.

While the pilot study provided some preliminary understanding of the relationship between motivation, predictability, and idiom production, the main study expanded on these

[137] Correlation is significant at the 0.01 level.
[138] Correlation is significant at the 0.01 level.
[139] Correlation is significant at the 0.01 level.
[140] Correlation is significant at the 0.01 level.

findings with a larger sample size and more detailed analysis across various idiom categories and proficiency levels. The main study's comprehensive approach allowed for a deeper understanding of how these factors operate across different linguistic contexts and learner groups. Additionally, the main study's inclusion of Spearman correlations provided further nuance, revealing non-linear relationships and highlighting potential differences in how motivation and predictability impact learners at varying proficiency levels. In both the pilot and main studies, level C participants achieve slightly higher production averages in most types and conditions than B-level subjects. This improvement is notable across types *same-same*, *similar-same*, and *different-same*, and extends to *L2-only transparent* and *opaque*. These findings underscore the pedagogical implications for language learning and teaching strategies. Emphasizing idioms with higher predictability and motivation can enhance proficiency at lower levels, while providing diverse linguistic contexts benefits learners at higher levels. Tailoring instructional materials to these findings can effectively boost idiomatic competence across varying proficiency levels.

Cieślicka (2015: 216-217) proposes that in cases where an idiom has an L2 counterpart rooted in distinct conceptual foundations, learners can deduce the figurative meaning from the literal meanings of the idiom constituents or the contextual cues. Moreover, figurative meanings of transparent L2 idioms can be readily identified through literal analysis (referring to Nunberg et al., 1994; Cieślicka, 2015: 217). As mentioned earlier, transparency is prone to the influence of etymology, common metaphorical domains or imageability (Cieślicka, 2015: 217). However, when an idiom is opaque, one is unlikely to grasp its figurative meaning even with contextual clues provided (Cieślicka, 2015: 217).

Generally, the wider the cross-linguistic distance is the lower the production averages were; in other words, subjects with lower proficiency tend to rely more on L1 in idiom production (cf Irujo 1993: 215, Laufer 2000: 195). But, higher language levels do not necessarily mean higher production averages and has no significant correlation with either motivation or predictability. Higher motivation and/or predictability values postulate higher production averages, (Charteris-Black 2002: 126, Irujo 1986: 298, Irujo 1993: 213); transparency facilitates idiom production (Cieślicka 2015: 217).

Same-same idioms have consistently proven to be the easiest for subjects across various studies, as documented by Abdullah and Jackson (1998), Cieślicka (2006b), Charteris-Black (2002), and Irujo (1986, 1993). The scores for the similar-same group are surprising given the high average production score indicated in the data for the second hypothesis, especially in the main study. Existing literature, as mentioned earlier, indicates

that in production tasks, negative L1 transfer, described as the intrusion of the mother tongue by Cieślicka (2015: 229), is more prevalent when L1-L2 idioms share the same meaning and similar form (Cieślicka, 2015: 216). In my experiments, *same-same* idioms yielded the highest production averages, which is in line with the literature's findings and included only motivation-transparent and predictability-transparent idioms.

Cieślicka (2006b: 232-233) suggests that idioms with similar forms and meanings appear to pose the greatest challenge for learners. Similarly, in Irujo's studies, *similar-same* idioms ranked as the second most difficult idiom category (Irujo, 1986: 292, 1993: 214). Table 23 illustrates that this category presented the most difficulty for subjects across almost all idiom productions, irrespective of task type, as indicated by Cieślicka (2006b), Charteris-Black (2002), and Laufer (2000). However, this category ranked as the second easiest in Irujo (1986, 1993). For *similar-same* idioms, the literature suggests that an analogy between literal and figurative senses is frequently employed, particularly for *same-same* and *similar-same* idioms (Cieślicka 2006b: 238). It is likely that subjects relied on motivation or predictability when writing production test. In my experiments, the second most successful idiom category was the *similar-same* type, especially in the motivation-transparent and predictability-transparent conditions.

Regarding the *different-same* category, as previously mentioned, idioms with lower motivation average values exhibited lower production averages in the pilot study compared to idioms with higher motivation average values. The *different-same* category displayed negligible differences: 0.45 for motivated idioms and 0.46 for less motivated idioms. It is observable in Table 23 and Table 24 that this category ranks as the second easiest for subjects across almost all cases of idiom production regardless of task type, as noted by Abdullah and Jackson (1998), Cieślicka (2006b), and Charteris-Black (2002). According to Laufer (2000), this category posed the least difficulty for advanced and the second least for less-advanced subjects (Laufer 2000:193). Predictability-transparent idioms proved to be the most successful items in my experiments. Motivation-transparent expressions were only the second most successful.

When an L2 idiom lacks an equivalent in L1, learners tend to process the L2 idiom literally to discern its non-literal meaning (Cieślicka, 2015: 216-217). In addition to this argument, this phenomenon may have other causes as well. If the score is higher for opaque, it may be that previous English classes have taught this category. In selecting the idioms, I have taken into account idioms that are common to native English speakers. At the same time, it is also important to know how familiar the idioms I used in the research are for the Hungarian

learners of English involved in my work, that was why I measured familiarity. For example, individual interest may lead someone to learn idioms better than their language level would suggest. The media they watch may also contain idioms that could be transliterations of English expressions. As we can see in Figure 1, the production results of motivation-opaque and predictability-opaque idioms in the *L2-only opaque* type approximate those of the motivation-transparent and predictability transparent ones. They even exceeded them in the case of B and C-level subjects in the pilot, as we can see it in Figure 2 and Figure 3, respectively. In the main study, that idiom category has really high production averages, see Figure 4, Figure 5, and Figure 6.

Following the data analysis of the two idiom tests, I made the following observations regarding language level, motivation, and predictability. Across both the pilot and main idiom testings, the relationship between language level and motivation remains extremely weak and statistically insignificant. The Pearson and Spearman correlations in the pilot study are 0.018 ($p = 0.645$) and 0.034 ($p = 0.375$), respectively, while in the main test, they are 0.026 ($p = 0.543$) and 0.015 ($p = 0.724$). These findings suggest that language level does not have a meaningful impact on motivation.

In the pilot study, the relationship between language level and predictability appears very weak and not statistically significant, with Pearson and Spearman correlations of -0.035 ($p = 0.414$) and -0.030 ($p = 0.485$), respectively. This indicates no significant impact of language level on predictability within the pilot group. However, in the main study, a weak but statistically significant positive correlation exists between language level and predictability. The Pearson correlation is 0.099[141] ($p = 0.026$) and the Spearman correlation is 0.089[142] ($p = 0.045$). This suggests a slight tendency for higher language levels to be associated with more predictable idioms, though the relationship is relatively weak.

The data consistently show that language level does not significantly influence motivation, implying that efforts to improve motivation might need to focus on other factors beyond language proficiency. In contrast, there is evidence in the main study of a weak but significant positive relationship between language level and predictability, suggesting that while language proficiency may link slightly to more predictable idioms, its impact is not strong. This finding could be particularly useful in contexts where predictability is crucial, such as in educational settings.

[141] Correlation is significant at the 0.05 level.
[142] Correlation is significant at the 0.05 level.

In conclusion, both the pilot study and the main study underscore the critical roles of motivation and predictability in idiomatic production proficiency among second language learners. They provide consistent evidence that higher motivation levels enhance learners' engagement and comprehension of idiomatic expressions, leading to improved production abilities. Moreover, idioms with clear and predictable meanings facilitate smoother production processes, offering learners more confidence and accuracy in their usage. These findings have important implications for language teaching and learning practices, advocating for instructional approaches that foster motivation and expose learners to idiomatic expressions with transparent meanings. By targeting these factors effectively, educators can enhance learners' idiomatic competence across different proficiency levels, supporting more robust language acquisition outcomes.

8.7 The Metaphors in the Idioms

Although taking the similarity between the motivation of the English-Hungarian expression pairs into consideration in the course of establishing the idiom categories was not among the criteria of my work, it is worth analysing such motivational distance in terms of L1 influence. What follows next is an attempt to provide the metaphors motivating the English and Hungarian expressions. We need to bear in mind that the idiom classification provided here is by no means exhaustive, as one may associate idioms with several metaphors and/or metonymies. An example to this is from Cserép (2001: 183): *get a lot of stick*, which obtains its motivation from the metonymy INSTRUMENT FOR ACTION and the metaphor ACTIONS ARE TRANSFERS (cf Lakoff 1993: 216). Similarly, *the black sheep of the family* and *a család fekete báránya* ("the black sheep of the family") may be motivated (referring to Goatly 2006, Rasekh and Ghafel 2011: 220), HUMAN IS SHEEP (referring to Goatly 2006, Rasekh and Ghafel 2011: 220). Also, different metonymies may motivate that expression: ANIMAL STANDS FOR HUMAN and BLACK SHEEP STANDS FOR HUMAN (Rasekh and Ghafel 2011: 220), BLACK IS BAD (referring to Ruiz 2007 and Maalej 1999, Rasekh and Ghafel 2011: 220). Here, I sometimes provided more than just one possible motivation for the expressions. Some idioms, as we can see in the next paragraphs to come, may have orientational and ontological metaphors as well. As the current thesis places the emphasis on motivation by metaphors, metonymies stand out of the scope of my work. Yet, in the following idioms and metaphors discussed, we find some examples in the cases of which a metonymy-based metaphor or metonymic motivation exists. For a descriptive explanation on the metaphors potentially motivating the idioms, see Appendix L and Appendix M.

As mentioned, the categories included rely on metaphoric and cross-linguistic distance. Appendix L contains five metaphoric categories. Idioms that share the same source and target domain metaphors have the label *same metaphors*. The table has an empty category for idioms with the same source domains (*same source domains*); the experiment involved no such idiom. Idioms that share the same target domain but may have different source domains belong to the *same target domain* category. Idioms that do not share the same source or target domains are members of *different metaphors*. Idioms that are unique to the second language (L2) and do not have an equivalent metaphor in the first language (L1) represent *only L2 metaphor*. The latter category is not identical with the intuitive L2-only labels, which one can see in Appendix B. Again, we need to bear in mind that it was not my intuition what was the basis of selecting idioms according to transparency, but the actual rating of the subjects. Also, one has to be cautious not to confuse these metaphor categories with the idiom categories; there are overlaps between them, though.

Appendix L and Appendix M offer some metaphoric explanation and categorization of the idiomatic expressions in English and Hungarian. Many idioms across English and Hungarian rely on the same metaphors, demonstrating a universal aspect of human cognition. For instance, idioms like *a lone wolf - magányos farkas* ("lone wolf") and *the black sheep of the family - a család fekete báránya* ("the black sheep of the family") reflect the metaphor human features are animal features. Both cultures use animal characteristics to describe human traits. Similarly, expressions such as *below the belt - övön aluli* ("below the belt") share the metaphor BAD IS DOWN, illustrating a common way of how language users conceptualize moral transgressions as being physically lower. These shared metaphors reveal that, despite linguistic and cultural differences, people perceive and interpret their experiences in remarkably similar ways. This universality fosters mutual understanding and empathy across cultures, providing a foundation for effective communication.

While many idioms share the same metaphors, notable differences underscore cultural specificity. For example, the idiom *cost an arm and a leg* lacks a direct equivalent in Hungarian, pointing to unique cultural expressions that arise from different historical, social, and linguistic contexts. Unique idioms like *be the best/greatest thing since sliced bread*, which does not have a Hungarian counterpart, highlight how certain concepts or emphases are culturally bound and specific to communities.

Some idioms reflect different metaphors but target the same conceptual domains, offering alternative ways of viewing similar ideas. For example, *break your back - agyondolgozza magát* and *cut things fine - hajszálra kiszámít(va tesz) valamit* ("calculates

something to a hair/does something calculating it to a hair") demonstrate this phenomenon. Although they use different metaphors: negative development is disintegration versus negative development is a harmful force, these ultimately communicate a shared understanding of effort and precision.

This variation within shared domains highlights the flexibility and creativity of human language. Different cultures can arrive at similar conclusions or understandings through diverse metaphorical pathways, enriching the tapestry of global communication. For language learners and translators, understanding the literal meanings of words alone is not enough. They must also grasp the underlying metaphors that shape idiomatic expressions. Recognizing that ISSUES TO BE DEALT WITH ARE PHYSICAL OBJECTS helps learners and translators navigate idioms like *bite off more than you can chew* - *túl nagy fába vágja a fejszéjét* ("hits a too big tree with their axe"), even when direct translations are not possible. Focusing on these metaphorical frameworks enables educators and translators to foster deeper comprehension and more accurate translations. This approach bridges cultural gaps and enhances cross-cultural communication.

In sum, the analysis of idioms in English and Hungarian reveals a rich interplay of universal metaphors and cultural specificities. Shared human experience gives rise to common metaphorical expressions, while unique linguistic variations reflect different cultural backgrounds. Understanding these patterns enriches our appreciation of language and culture, equipping us with the tools to navigate the complexities of cross-cultural communication effectively. By delving into the metaphors underlying idiomatic expressions, we uncover the profound connections that bind human thought across different languages. This exploration not only deepens our understanding of linguistic phenomena but also highlights the power of metaphor as a universal tool for making sense of the world.

9 Summary and Conclusion

In my work, I explored various factors that influence metaphoric language use in English by Hungarian subjects. I approached this issue through essay analysis and idiom testing. The first method yielded only little results, while the second proved to be more substantial. Idiom production among second language (L2) learners may be influenced particularly by transparency (motivation and predictability), familiarity, task types and proficiency. These factors play crucial roles in determining how effectively learners can use idiomatic expressions. Generally, the findings in the literature are in line with my observations, which emphasize the correlation between these factors and their impact on learners' ability to produce idioms in English.

Transparent idioms, whose meanings are easier to infer, tend to yield higher averages of the production scores. Familiarity with idioms significantly enhances comprehension, as evidenced in studies by Abdullah and Jackson (1998), Titone et al. (2015), and Carrol et al. (2018). This familiarity closely relates to decomposability and transparency, directly affecting learners' ability to grasp idiomatic meanings.

Task types also significantly influence idiom comprehension and production. Common methods include meaning definition, multiple-choice, translation, and paraphrasing. The rankings of idiom types in terms of difficulty vary depending on the task and the proficiency level of the learners, as shown in the works of Irujo (1986), Liontas (2002), and Cieślicka (2006). Less proficient learners rely more heavily on their L1 for idiom comprehension and production, employing strategies such as semantic analysis and literal translations. In contrast, more proficient learners demonstrate better paraphrasing skills and idiomatic usage, relying less on their L1. Although my research did not analyze the influence of the idiom context in great detail, the literature frequently posits that context plays a crucial role in aiding both comprehension and production of idioms. Research by Liontas (2002), Türker (2016, 2019), and Suñer (2018) highlights that providing learners with rich contextual information reduces their reliance on their first language (L1) and enhances their performance on idiom tasks in the second language (L2).

Paradoxically, the results of the idiom testings indicate that proficiency has a negligible impact on idiom production in the L2. As Lukács (2023:44) states, the lack of a significant correlation between language level and idiom production is not as counterintuitive as it may appear, as, for example, there may be non-native speakers of English who have a relatively strong command of the language, but this does not necessarily entail an ability to

use English idioms. In an idiom study similar to my idiom tests, pre-intermediate subjects had higher scores in a gap-filling task than the intermediate ones (Tran 2013: 26, 28). Tran (2013: 28) offers the explanation that the intermediate subjects' poor performance may be due to their lack of familiarity with idioms. This may have happened in the case of many individuals in my testings, too. I add that different levels of motivation and predictability also had their influence on idiom production, as we have seen earlier in the data analyses of my tests.

Motivation and predictability emerge as crucial factors in idiom production proficiency. Higher motivation correlates strongly with better engagement and improved production score averages, while predictability, or the clarity of an idiom's meaning, facilitates more accurate and fluent production. Both my pilot and main studies confirm that learners with higher motivation and predictability levels exhibit enhanced idiom production abilities.

In conclusion, the study underscores the critical roles of motivation and predictability in idiomatic production proficiency among L2 learners. Transparent and predictable idioms facilitate smoother production processes, offering learners more confidence and accuracy. These findings may have important implications for language teaching and learning practices, advocating for instructional approaches that foster motivation and expose learners to idiomatic expressions with transparent meanings. By effectively targeting these factors, educators can enhance learners' idiomatic competence across different proficiency levels, thereby supporting more robust language acquisition outcomes.

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11 Appendices

Appendix A. Abbreviations of idiom sources

AÉAKSZ	Magay, Tamás. (1999). *Angol és amerikai kifejezések szótára.* [A Dictionary of English and American Idioms in Hungarian]. Akadémiai Kiadó.
AMI	Nagy, György. (2007). *Angol-magyar idiómaszótár: Angol és amerikai szókapcsolatok.* [English-Hungarian Dictionary of Idioms: British and American English]. Akadémiai Kiadó.
AMN	Országh, László and Magay, Tamás. (2004). *Angol-magyar nagyszótár.* [English-Hungarian Dictionary]. Online version
AMSZ	Magay, Tamás. (2021). *Angol-magyar szótár.* [A Concise English-Hungarian Dictionary]. Online version
CCID	*Collins COBUILD Idioms Dictionary* (2020). HarperCollins Publishers
CID	*Cambridge Idioms Dictionary* (2006). online version
EIIU	MacCarthy, Michael and O'Dell, Felicity. (2017). *English idioms in use. Intermediate.* Cambridge
MAEN	Lázár, A., Péter and Varga, György. (2021). *Magyar-angol egyetemes nagyszótár.* [Hungarian-English Universal Dictionary]. Online version
WOYI	Anderson, Sandra and Peltret, Cheryl. (2014). *Work on your idioms.* COLLINS

Appendix B. Idiom list

Idiom category	ID.	English idiom	Hungarian idiomatic equivalent, if any, and its glossed form
same-same	1	*a lone wolf*	*magányos farkas*
			lone wolf
	2	*the black sheep of the family*	*a család fekete báránya*
			the family-NOM black sheep-POSS
	3	*take something to heart*	*szívére vesz valamit*
			heart-POSS-SUBLAT takes something-ACC
	4	*drink someone under the table*	*az asztal alá iszik valakit*
			the table under drinks someone-ACC
	5	*read between the lines*	*olvas a sorok között*
			reads the lines between
	6	*below the belt*	*övön aluli*
			belt-SUP below-i
	7	*burn the candle at both ends*	*két végén égeti a gyertyát*
			two end-POSS-SUP burns the candle-ACC
	8	*try your wings*	*a szárnyait próbálgatja*
			the wings-POSS-ACC tries
	9	*the tip of the iceberg*	*a jéghegy csúcsa*
			the iceberg-NOM tip-POSS
	10	*on the same wavelength*	*egy hullámhosszon van valakivel*
			a wavelength-SUP is someone-COMIT
similar-same	11	*the blind leading the blind*	*vak vezet világtalant*
			blind-NOM leads sightless-ACC
	12	*a drop in the ocean/bucket*	*csepp a tengerben*
			drop-NOM the sea-INESS
	13	*a bull in a china shop*	*elefánt a porcelánboltban*
			elephant-NOM the china shop-INESS
	14	*back the wrong horse*	*rossz lóra tesz*
			wrong horse-SUBLAT puts
	15	*bury the hatchet*	*elássa a csatabárdot*
			PRT-digs the battleaxe-ACC
	16	*the icing on the cake*	*hab a tortán*
			foam-NOM the cake-SUP
	17	*cost an arm and a leg*	*egy vagyonba kerül valami*
			a fortune-SUBLAT costs something-NOM
	18	*break someone's heart*	*megszakad a szíve valamitől*
			PRT-breaks the heart-POSS-NOM something-ABLAT
	19	*draw the line at*	*meghúzza a határt*
			PRT-draws the border-ACC

	20	*add fuel to the fire*	*olajat önt a tűzre*
			oil-ACC pours the fire-SUBLAT
different-same	21	*from the horse's mouth*	*első kézből*
			first hand-ELAT
	22	*by the skin of your teeth*	*hajszálon múlik*
			hair-SUBLAT depends
	23	*bite off more than you can chew*	*túl nagy fába vágja a fejszéjét*
			too big tree-ILLAT cuts the axe-POSS-ACC
	24	*break your back*	*agyondolgozza magát*
			brain-SUP works him/herself-ACC
	25	*be walking on air*	*repülni tudna a boldogságtól*
			fly could the happiness-ABLAT
	26	*go round/around in circles*	*mindig ugyanoda lyukad ki*
			always to there punches-PRT
	27	*cut things fine*	*hajszálra kiszámít(va tesz) valamit*
			hair-SUBLAT calculates/calculating does something-ACC
	28	*let the cat out of the bag*	*eljár a szája*
			PRT-walks the mouth-NOM
	29	*sell like hot cakes*	*viszik. mint a cukrot*
			take, like the sugar-ACC
	30	*cross your mind*	*megfordul a fejében valami*
			PRT-turns the head-POSS-INESS something-NOM
L2-only transparent	31	*food for thought*	*elgondolkodtató téma*
			thought-provoking topic
	32	*meet your Waterloo*	*kudarcot vall*
			failure-ACC admits
	33	*the dos and don'ts*	*utasítások*
			instructions
	34	*pull strings*	*protekciót vesz igénybe*
			protection-ACC takes need-ILLAT
	35	*have an axe to grind*	*csak a maga hasznát nézi*
			only the profit-POSS-ACC looks
	36	*put/set the cat among the pigeons*	*nagy riadalmat kelt*
			big panic-ACC raises
	37	*be the best/greatest thing since sliced bread*	*a legjobb dolog a világon*
			the best thing-NOM the world-SUP
	38	*come up in the world*	*meggazdagodik*
			PRT-becomes rich
	39	*have a bone to pick with someone*	*elszámolnivalója van valakivel*

			something to settle-POSS-NOM has someone-COMIT
	40	*somebody's heart sinks*	*elcsügged*
			PRT-gets discouraged
L2-only opaque	41	*a hot potato*	*kényes téma*
			sensitive topic
	42	*rub shoulders with someone*	*összejár valakivel*
			PRT-goes someone-COMIT
	43	*touch and go*	*bizonytalan*
			uncertain
	44	*with flying colours*	*kitűnő eredménnyel*
			excellent result-INST
	45	*keep something under your hat*	*titokban tart valamit*
			secret-INESS keeps something-ACC
	46	*mean business*	*komolyan beszél*
			earnestly talks
	47	*have a soft spot for someone/something*	*szeret valakit*
			likes someone-ACC
	48	*bring the house down*	*felállva tapsol a közönség*
			standing applaudes the audience-NOM
	49	*move the goalposts*	*menet közben változtat a szabályokon*
			on the way changes the rules-SUBLAT
	50	*pull someone's leg*	*ugrat valakit*
			jumps someone-ACC

Appendix C. Glossing abbreviations

ABLAT	Ablative case
ACC	Accusative case
COMIT	Comitative case
ILLAT	Illative case
INESS	Inessive case
INST	Instrumental case
NOM	Nominative case
POSS	Possessedness suffix
PRT	Verbal particle
SUBLAT	Sublative case
SUP	Superessive case

Appendix D. Clued completion task

Using an English idiom in your answer, please complete the following 50 sentences in a way that your answer includes **the bold word in brackets**. Write only the missing English idiom on the line. Your answer should be the English equivalent of the Hungarian expression seen in square brackets. For example: *This exercise is usually good fun and can help* **…** *for a new, and perhaps rather anxious, group.* **(ice)** [megtöri a jeget]. The answer is: break the ice.

He was also somewhat of … **(wolf)**, never marrying. [magányos farkas]
The English idiom: ……..

My uncle was … **(family)** and we were never encouraged to talk about him. [a család fekete báránya]
The English idiom: ……..

Don't **… (heart)**. He really didn't mean to upset you. [szívére vesz valamit]
The English idiom: ……..

Donna is the only person I know who can **…** me **… (table)**. [az asztal alá iszik valakit]
The English idiom: ……..

He was reluctant to go into details, but **… (lines)** it appears that he was forced to leave. [olvas a sorok között]
The English idiom: ……..

He made a joke about her appearance, which I thought was a bit **… (belt)**. [övön aluli]
The English idiom: ……..

Frank seemed to delight in **… (candle)**. No matter how late he stayed out, he was up at five o'clock the next morning to study. [két végén égeti a gyertyát]
The English idiom: ……..

A good school should encourage you to **… (wings)**. [a szárnyait próbálgatja]
The English idiom: ……..

We get about 2,000 complaints every year and that's just **… (iceberg)**. [a jéghegy csúcsa]
The English idiom: ……..

Wendy's sister is ten years older than her, and the two are not close. 'We've never really been **… (wavelength)**' said Wendy. [egy hullámhosszon van valakivel]
The English idiom: ……..

If Cedric was going to work with Eric, it would be **… (leading) …** . [vak vezet világtalant]
The English idiom: ……..

The size of the grants have been attacked by welfare groups as merely **… (drop) …** . [csepp a tengerben]
The English idiom: ……..

In confrontational situations I am like **… (shop)**. [elefánt a porcelánboltban]
The English idiom: ……..

He **… (horse)** in the recent Tory leadership contest. [rossz lóra tesz]
The English idiom: ……..

They had finally **(buried) …** after their falling-out. [elássa a csatabárdot]
The English idiom: ……..

To play for one's country is the ultimate experience. To be in a winning team is **… (cake)**. [hab a tortán]
The English idiom: ……..

It **(cost)** us **…** to get here. But it has been worth every penny and more. [egy vagyonba kerül valami]
The English idiom: ……..

It **…** my (**heart)** to see the refugees on the news. [megszakad a szíve valamitől]
The English idiom: ……..

I quite like modern fashions, but I (**draw) …** body-piercing! [meghúzza a határt]
The English idiom: ……..

His mild words only **… (fire)**. Isabelle was furious. [olajat önt a tűzre]
The English idiom: ……..

When he hears, straight **… (mouth)**, what a good worker you are, he'll increase your wages. [első kézből]
The English idiom: ……..

She was there when the fighting started and escaped **…** her (**teeth)**. [hajszálon függ(ött)]
The English idiom: ……..

I didn't know if I could memorize a text of that length and started to worry that I had **…** I **… (chew)**. [túl nagy fába vágja a fejszéjét]
The English idiom: ……..

These days you have to **(break) …** to make a business work. [agyondolgozza magát]
The English idiom: ……..

I've been … **(air)** ever since Chris and I started going out together. [repülni tudna a boldogságtól]
The English idiom: ……..

We're **… (circles)**. I wish you'd come up with a new idea! [mindig ugyanoda lyukad ki]

The English idiom: ……..

I prefer getting to the station early, but Lee always **… (fine)**. [hajszálra kiszámít(va tesz) valamit]
The English idiom: ……..

We didn't tell anyone the news, but she **… (bag)** and now everyone knows. [eljár a szája]
The English idiom: ……..

Her products … **(cakes)**. [viszik, mint a cukrot]
The English idiom: ……..

It **…** my **(mind)** that she might be lying about her age. [megfordul a fejében valami]
The English idiom: ……..

This Italian trip gave us all much **…** (**thought)**. [elgondolkodtató téma]
The English idiom: ……..

It was in attempting to climb the summit of this mountain that I realized I had **…** my (**Waterloo)**. [kudarcot vall]
The English idiom: ……..

Disasters can be avoided if a few general **… (don'ts)** are considered. [utasítások]
The English idiom: ……..

They felt that her father was … **(strings)** to advance her career. [protekciót vesz igénybe]
The English idiom: ……..

It would be best if an independent agency, that doesn't **… (grind)**, could deal with this case. [csak a maga hasznát nézi]
The English idiom: ……..

Kim's report really **… (pigeons)**. Now everyone's in a state of crisis. [nagy riadalmat kelt]
The English idiom: ……..

Some people see contactless payments as **… (bread)**, while others are more wary. [a legjobb dolog a világon]
The English idiom: ……..

A polite and pleasant young man, he was an ordinary worker who had … **(world)**. [meggazdagodik]
The English idiom: ……..

'I **… (bone) ….**' She wanted to bring up a matter that she had been afraid to discuss before. [elszámolnivalója van valakivel]
The English idiom: ……..

My **(heart) …** as Bob approached. [elcsügged]
The English idiom: ……..

Pricing policy is another **… (potato)**. [kényes téma]
The English idiom: ……..

Johnson had always loved (**rubbing) …** celebrities. [összejár valakivel]
The English idiom: ……..

I thought I was going to win the race, but it was still **… (go)**. [bizonytalan]
The English idiom: ……..

She passed the entrance exam **…** (**colours)**. [kitűnő eredménnyel]
The English idiom: ……..

Very few people know, so **...** it **…** (**hat)**. [titokban tart valamit]
The English idiom: ……..

One of them pointed a shotgun at me. I could see he **…** (**business)**. [komolyan beszél]
The English idiom: ……..

Nick was a naughty little boy, but I couldn't help **… (spot) …** him. [szeret valakit]
The English idiom: ……..

We had just one rehearsal and I was very nervous but the show **… (house) …** . [felállva tapsol a közönség]
The English idiom: ……..

They seem to **… (goalposts)** every time I meet the required conditions. [menet közben változtat a szabályokon]
The English idiom: ……..

I haven't really won the lottery. I was only **…** your **(leg)**. [ugrat valakit]
The English idiom: ……..

Appendix E. Familiarity test

How familiar are the following 50 idioms to you? Please, indicate it on this scale. If you do not know an idiom at all, select 1. If you know an idiom and can understand it well, select 7.

1	2	3	4	5	6	7
not at all familiar	barely familiar	slightly familiar	moderately familiar	quite familiar	greatly familiar	completely familiar

a lone wolf	1 2 3 4 5 6 7
the black sheep of the family	1 2 3 4 5 6 7
take something to heart	1 2 3 4 5 6 7
drink someone under the table	1 2 3 4 5 6 7
read between the lines	1 2 3 4 5 6 7
below the belt	1 2 3 4 5 6 7
burn the candle at both ends	1 2 3 4 5 6 7
try your wings	1 2 3 4 5 6 7
the tip of the iceberg	1 2 3 4 5 6 7
on the same wavelength	1 2 3 4 5 6 7
the blind leading the blind	1 2 3 4 5 6 7
a drop in the ocean/bucket	1 2 3 4 5 6 7
a bull in a china shop	1 2 3 4 5 6 7
back the wrong horse	1 2 3 4 5 6 7
bury the hatchet	1 2 3 4 5 6 7
the icing on the cake	1 2 3 4 5 6 7
cost an arm and a leg	1 2 3 4 5 6 7
break someone’s heart	1 2 3 4 5 6 7
draw the line at something	1 2 3 4 5 6 7
add fuel to the fire	1 2 3 4 5 6 7
from the horse’s mouth	1 2 3 4 5 6 7
by the skin of your teeth	1 2 3 4 5 6 7
bite off more than you can chew	1 2 3 4 5 6 7
break your back	1 2 3 4 5 6 7
be floating/walking on air	1 2 3 4 5 6 7
go round in circles	1 2 3 4 5 6 7
cut things fine	1 2 3 4 5 6 7
let the cat out of the bag	1 2 3 4 5 6 7
sell like hot cakes	1 2 3 4 5 6 7
cross your mind	1 2 3 4 5 6 7
food for thought	1 2 3 4 5 6 7
meet your Waterloo	1 2 3 4 5 6 7
the dos and don’ts	1 2 3 4 5 6 7
pull strings	1 2 3 4 5 6 7
have an axe to grind	1 2 3 4 5 6 7
put the cat among the pigeons	1 2 3 4 5 6 7
be the best/greatest thing since sliced bread	1 2 3 4 5 6 7
come up in the world	1 2 3 4 5 6 7
have a bone to pick with someone	1 2 3 4 5 6 7
your heart sinks	1 2 3 4 5 6 7
a hot potato	1 2 3 4 5 6 7

rub shoulders with someone	1 2 3 4 5 6 7
touch and go	1 2 3 4 5 6 7
with flying colours	1 2 3 4 5 6 7
keep something under your hat	1 2 3 4 5 6 7
mean business	1 2 3 4 5 6 7
have a soft spot for someone	1 2 3 4 5 6 7
bring the house down	1 2 3 4 5 6 7
move the goalposts	1 2 3 4 5 6 7
pull sb’s leg	1 2 3 4 5 6 7

Appendix F. Predictability test

The figurative meanings of idioms may or may not be clear from the literal meanings of their constituent words. For example, the figurative meaning of *hold your tongue* ('to remain silent') is probably easy to guess based on the literal meaning of *hold your tongue*, while the figurative meaning of *to hit the sack* ('to sleep') is probably difficult to guess based on the literal meaning of *to hit the sack*. Please rate to what extent the figurative meanings of the following 50 idioms can be guessed on the basis of its literal meaning.

1	2	3	4	5	6	7
The figurative meaning cannot be guessed at all.	The figurative meaning can be barely guessed.	The figurative meaning can be slightly guessed.	The figurative meaning can be moderately guessed.	The figurative meaning can be guessed quite easily.	The figurative meaning can be guessed to a great extent.	The figurative meaning can be completely guessed.

a lone wolf Figurative meaning: A lone wolf is an independent person who likes doing things on their own, rather than doing them with other people.	1 2 3 4 5 6 7
the black sheep of the family Figurative meaning: If you describe someone as the black sheep or the black sheep of the family, you mean that the other people in their family disapprove of them and consider their behaviour to be bad.	1 2 3 4 5 6 7
take something to heart Figurative meaning: take something (usually criticism) seriously	1 2 3 4 5 6 7
drink someone under the table Figurative meaning: If someone drinks you under the table, they drink much more alcohol than you.	1 2 3 4 5 6 7
read between the lines Figurative meaning: If you read between the lines, you understand what someone really means, or what is really happening in a situation, even though it is not stated openly.	1 2 3 4 5 6 7
below the belt Figurative meaning: If someone says something that is below the belt, they say something cruel and unfair.	1 2 3 4 5 6 7
burn the candle at both ends Figurative meaning: If you burn the candle at both ends, you try to do too much, regularly going to bed late and getting up early in the morning.	1 2 3 4 5 6 7
try your wings Figurative meaning: If you try your wings, you try to do something new to find out if you can succeed.	1 2 3 4 5 6 7
the tip of the iceberg Figurative meaning: If something is the tip of the iceberg, it is a small part of a very large problem or a very serious situation.	1 2 3 4 5 6 7
on the same wavelength Figurative meaning: If two people are on the same wavelength, they understand each other well because they share the same attitudes, interests, and opinions.	1 2 3 4 5 6 7
the blind leading the blind Figurative meaning: If you describe a situation as the blind leading the blind, you mean the person who is trying to show someone what to do has skills or knowledge that are no better than the person they are helping.	1 2 3 4 5 6 7
a drop in the ocean/bucket Figurative meaning: If something, especially an amount of money, is a drop in the ocean or a drop in the bucket, it is very small in comparison with the amount which is needed or expected.	1 2 3 4 5 6 7
a bull in a china shop Figurative meaning: If someone is like a bull in a china shop, they say or do things too quickly and without considering them enough, and often upset people or damage things.	1 2 3 4 5 6 7
back the wrong horse Figurative meaning: If you back the wrong horse, you support someone or something that fails in business or in a contest, election, etc.	1 2 3 4 5 6 7
bury the hatchet Figurative meaning: When people who have argued bury the hatchet, they agree to forget their argument and become friends again.	1 2 3 4 5 6 7
the icing on the cake Figurative meaning: If you describe something as the icing on the cake, you mean that it is an extra good thing that makes a good situation or activity even better.	1 2 3 4 5 6 7
cost an arm and a leg Figurative meaning: If something costs an arm and a leg it costs a lot of money.	1 2 3 4 5 6 7
break someone's heart Figurative meaning: make someone very sad (often someone who loves you)	1 2 3 4 5 6 7

draw the line at something Figurative meaning: not do something because you think it is wrong or too extreme	1 2 3 4 5 6 7
add fuel to the fire Figurative meaning: to make an argument or bad situation worse	1 2 3 4 5 6 7
from the horse's mouth Figurative meaning: If you get a piece of information from the horse's mouth, you get it directly from someone who is involved in it and knows most about it.	1 2 3 4 5 6 7
by the skin of your teeth Figurative meaning: If you do something by the skin of your teeth, you just manage to do it but very nearly fail.	1 2 3 4 5 6 7
bite off more than you can chew Figurative meaning: If you bite off more than you can chew, you try to do a task that is too big for you or too difficult.	1 2 3 4 5 6 7
break your back Figurative meaning: If you break your back to do something, you work extremely hard to try to do it.	1 2 3 4 5 6 7
be floating/walking on air Figurative meaning: be very happy about something good that has happened	1 2 3 4 5 6 7
go round in circles Figurative meaning: make no progress in an argument or discussion	1 2 3 4 5 6 7
cut things fine Figurative meaning: leave yourself only just enough time to do something	1 2 3 4 5 6 7
let the cat out of the bag Figurative meaning: you accidentally tell people a secret / something you should not tell them	1 2 3 4 5 6 7
sell like hot cakes Figurative meaning: If things sell like hot cakes or sell like hotcakes, people buy large quantities of them in a short time.	1 2 3 4 5 6 7
cross your mind Figurative meaning: If something crosses your mind, you suddenly think of it.	1 2 3 4 5 6 7
food for thought Figurative meaning: If something gives you food for thought, it makes you think very hard about an issue.	1 2 3 4 5 6 7
meet your Waterloo Figurative meaning: If someone meets their Waterloo, they suffer a very severe defeat or failure, especially one which causes them to finally stop doing what they are trying to do.	1 2 3 4 5 6 7
the dos and don'ts Figurative meaning: The dos and don'ts of a particular situation are the things you should and should not do in that situation.	1 2 3 4 5 6 7
pull strings Figurative meaning: If someone pulls strings to get something they want they get it by using their friendships with powerful people, often in a way which is unfair.	1 2 3 4 5 6 7
have an axe to grind Figurative meaning: If someone has an axe to grind, they have particular attitudes about something, often because they think they have been treated badly or because they want to get an advantage.	1 2 3 4 5 6 7
put the cat among the pigeons Figurative meaning: you create a crisis or a problematic situation	1 2 3 4 5 6 7
be the best/greatest thing since sliced bread Figurative meaning: be fantastic (informal)	1 2 3 4 5 6 7
come up in the world Figurative meaning: If someone has come up in the world, they are richer or more powerful than they used to be and have a higher social status.	1 2 3 4 5 6 7
have a bone to pick with someone Figurative meaning: If you say that you have a bone to pick with someone, you mean that you are annoyed with them about something, and you want to talk to them about it.	1 2 3 4 5 6 7
your heart sinks Figurative meaning: you start to feel sad or worried	1 2 3 4 5 6 7
a hot potato Figurative meaning: If a subject or problem is a hot potato, it is very difficult to deal with, especially because it is something that people argue about a lot.	1 2 3 4 5 6 7
rub shoulders with someone Figurative meaning: If you rub shoulders with someone important or famous, you spend time with them.	1 2 3 4 5 6 7
touch and go Figurative meaning: If it is touch and go whether something will happen, you cannot be certain whether it will happen or not.	1 2 3 4 5 6 7

with flying colours Figurative meaning: If you achieve something, such as passing an examination, with flying colours, you achieve it easily and are very successful.	1 2 3 4 5 6 7
keep something under your hat Figurative meaning: If you keep something under your hat, you do not tell anyone else about it.	1 2 3 4 5 6 7
mean business Figurative meaning: If you mean business, you are serious and determined about what you are doing.	1 2 3 4 5 6 7
have a soft spot for someone Figurative meaning: feel a lot of affection for one particular person, often without knowing why	1 2 3 4 5 6 7
bring the house down Figurative meaning: If a person or their performance brings the house down, the audience claps and cheers loudly for a long time because they liked the performance so much.	1 2 3 4 5 6 7
move the goalposts Figurative meaning: If someone moves the goalposts, they change the rules or aims in a situation or activity, in order to gain an advantage and to make things more difficult for the other people involved.	1 2 3 4 5 6 7
pull sb's leg Figurative meaning: joking / trying to fool you	1 2 3 4 5 6 7

Appendix G. Motivation test

The connection between the figurative meaning and the literal meaning of the idiom may or may not be clear to see. For example, such connection is easy to see in *to skate on thin ice* ('do something risky') based on the literal meaning of *to skate on thin ice*, because a thin layer of ice may break under you as you skate on it. However, it is probably difficult to see the relation in *to kick the bucket* ('die'). Please rate to what extent you can see the connection between the figurative and literal meanings of the following 50 idioms.

1	2	3	4	5	6	7
The connection between the figurative and literal meanings cannot be seen at all.	The connection between the figurative and literal meanings can be barely seen.	The connection between the figurative and literal meanings can be slightly seen.	The connection between the figurative and literal meanings can be moderately seen.	The connection between the figurative and literal meanings can be seen quite easily.	The connection between the figurative and literal meanings can be seen to a great extent.	The connection between the figurative and literal meanings can be completely seen.

a lone wolf Figurative meaning: A lone wolf is an independent person who likes doing things on their own, rather than doing them with other people.	1 2 3 4 5 6 7
the black sheep of the family Figurative meaning: If you describe someone as the black sheep or the black sheep of the family, you mean that the other people in their family disapprove of them and consider their behaviour to be bad.	1 2 3 4 5 6 7
take something to heart Figurative meaning: take something (usually criticism) seriously	1 2 3 4 5 6 7
drink someone under the table Figurative meaning: If someone drinks you under the table, they drink much more alcohol than you.	1 2 3 4 5 6 7
read between the lines Figurative meaning: If you read between the lines, you understand what someone really means, or what is really happening in a situation, even though it is not stated openly.	1 2 3 4 5 6 7
below the belt Figurative meaning: If someone says something that is below the belt, they say something cruel and unfair.	1 2 3 4 5 6 7
burn the candle at both ends Figurative meaning: If you burn the candle at both ends, you try to do too much, regularly going to bed late and getting up early in the morning.	1 2 3 4 5 6 7
try your wings Figurative meaning: If you try your wings, you try to do something new to find out if you can succeed.	1 2 3 4 5 6 7
the tip of the iceberg Figurative meaning: If something is the tip of the iceberg, it is a small part of a very large problem or a very serious situation.	1 2 3 4 5 6 7
on the same wavelength Figurative meaning: If two people are on the same wavelength, they understand each other well because they share the same attitudes, interests, and opinions.	1 2 3 4 5 6 7
the blind leading the blind Figurative meaning: If you describe a situation as the blind leading the blind, you mean the person who is trying to show someone what to do has skills or knowledge that are no better than the person they are helping.	1 2 3 4 5 6 7
a drop in the ocean/bucket Figurative meaning: If something, especially an amount of money, is a drop in the ocean or a drop in the bucket, it is very small in comparison with the amount which is needed or expected.	1 2 3 4 5 6 7
a bull in a china shop Figurative meaning: If someone is like a bull in a china shop, they say or do things too quickly and without considering them enough, and often upset people or damage things.	1 2 3 4 5 6 7
back the wrong horse Figurative meaning: If you back the wrong horse, you support someone or something that fails in	1 2 3 4 5 6 7

business or in a contest, election, etc.	
bury the hatchet Figurative meaning: When people who have argued bury the hatchet, they agree to forget their argument and become friends again.	1 2 3 4 5 6 7
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break your back Figurative meaning: If you break your back to do something, you work extremely hard to try to do it.	1 2 3 4 5 6 7
be floating/walking on air Figurative meaning: be very happy about something good that has happened	1 2 3 4 5 6 7
go round in circles Figurative meaning: make no progress in an argument or discussion	1 2 3 4 5 6 7
cut things fine Figurative meaning: leave yourself only just enough time to do something	1 2 3 4 5 6 7
let the cat out of the bag Figurative meaning: you accidentally tell people a secret / something you should not tell them	1 2 3 4 5 6 7
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cross your mind Figurative meaning: If something crosses your mind, you suddenly think of it.	1 2 3 4 5 6 7
food for thought Figurative meaning: If something gives you food for thought, it makes you think very hard about an issue.	1 2 3 4 5 6 7
meet your Waterloo Figurative meaning: If someone meets their Waterloo, they suffer a very severe defeat or failure, especially one which causes them to finally stop doing what they are trying to do.	1 2 3 4 5 6 7
the dos and don'ts Figurative meaning: The dos and don'ts of a particular situation are the things you should and should not do in that situation.	1 2 3 4 5 6 7

pull strings Figurative meaning: If someone pulls strings to get something they want they get it by using their friendships with powerful people, often in a way which is unfair.	1 2 3 4 5 6 7
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put the cat among the pigeons Figurative meaning: you create a crisis or a problematic situation	1 2 3 4 5 6 7
be the best/greatest thing since sliced bread Figurative meaning: be fantastic (informal)	1 2 3 4 5 6 7
come up in the world Figurative meaning: If someone has come up in the world, they are richer or more powerful than they used to be and have a higher social status.	1 2 3 4 5 6 7
have a bone to pick with someone Figurative meaning: If you say that you have a bone to pick with someone, you mean that you are annoyed with them about something, and you want to talk to them about it.	1 2 3 4 5 6 7
your heart sinks Figurative meaning: you start to feel sad or worried	1 2 3 4 5 6 7
a hot potato Figurative meaning: If a subject or problem is a hot potato, it is very difficult to deal with, especially because it is something that people argue about a lot.	1 2 3 4 5 6 7
rub shoulders with someone Figurative meaning: If you rub shoulders with someone important or famous, you spend time with them.	1 2 3 4 5 6 7
touch and go Figurative meaning: If it is touch and go whether something will happen, you cannot be certain whether it will happen or not.	1 2 3 4 5 6 7
with flying colours Figurative meaning: If you achieve something, such as passing an examination, with flying colours, you achieve it easily and are very successful.	1 2 3 4 5 6 7
keep something under your hat Figurative meaning: If you keep something under your hat, you do not tell anyone else about it.	1 2 3 4 5 6 7
mean business Figurative meaning: If you mean business, you are serious and determined about what you are doing.	1 2 3 4 5 6 7
have a soft spot for someone Figurative meaning: feel a lot of affection for one particular person, often without knowing why	1 2 3 4 5 6 7
bring the house down Figurative meaning: If a person or their performance brings the house down, the audience claps and cheers loudly for a long time because they liked the performance so much.	1 2 3 4 5 6 7
move the goalposts Figurative meaning: If someone moves the goalposts, they change the rules or aims in a situation or activity, in order to gain an advantage and to make things more difficult for the other people involved.	1 2 3 4 5 6 7
pull sb's leg Figurative meaning: joking / trying to fool you	1 2 3 4 5 6 7

Appendix H. Production averages of idiom types, B and C levels with familiarity, motivation and predictability averages (pilot)

Familiar, motivation-transparent					**Familiar, motivation-opaque**				
Idiom type	Production average of raters	Familiarity	Motivation	Predictability	Idiom type	Production average of raters	Familiarity	Motivation	Predictability
same-same	0.857401481	6.437037037	6.4533333	6.391666667	*different-same*	0.399173	4.209877	2.511111	2.194444
similar-same	0.640593827	5.674897119	6.1703704	5.869158879	*L2-only transparent*	0.345677	4.296296	3.088889	2.611111
different-same	0.46560582	4.412698413	5.2788462	4.464285714	*L2-only opaque*	0.564198	4.437037	2.746667	2.333333
L2-only transparent	0.449382222	4.362962963	5.1333333	4.216666667	Total	0.459594	4.3367	2.775758	2.371212
L2-only opaque	0.529314815	4.398148148	4.8333333	3.6875					
Total	0.627507725	5.306878307	5.7729008	5.250596659					

Familiar, motivation-transparent						**Familiar, motivation-opaque**					
Idiom type		Production average of raters	Familiarity	Motivation	Predictability	Idiom type		Production average of raters	Familiarity	Motivation	Predictability
same-same	*a lone wolf*	0.882711111	6.8888889	7	6.916666667	*different-same*	*from the horse's mouth*	0.382704	4.074074	2.066667	1.583333
	the black sheep of the family	0.944444444	6.6296296	6.8	6.5		*by the skin of your teeth*	0.37037	4.222222	2.6	1.666667
	take something to heart	0.753077778	5.8148148	5.733333333	6.75		*cut things fine*	0.444444	4.333333	2.866667	3.333333
	drink someone under the table	0.932092593	6.6296296	6.133333333	6.666666667		Total	0.399173	4.209877	2.511111	2.194444
	read between the lines	0.870348148	6.7037037	6.866666667	6.166666667	*L2-only transparent*	*meet your Waterloo*	0.425919	4.333333	3.533333	2.75
	below the belt	0.740740741	6.2962963	5.066666667	5.916666667		*have an axe to grind*	0.259259	4.333333	3.266667	1.916667
	burn the candle at both ends	0.759244444	5.7777778	6.733333333	5.833333333		*be the best/greatest thing since sliced bread*	0.351852	4.222222	2.466667	3.166667
	try your wings	0.777774074	6.1481481	6.866666667	5.833333333		Total	0.345677	4.296296	3.088889	2.611111
	the tip of the iceberg	0.919755556	6.8518519	6.933333333	6.583333333	*L2-only opaque*	*a hot potato*	0.716052	4.777778	3.333333	3.25
	on the same wavelength	0.993825926	6.6296296	6.4	6.75		*touch and go*	0.444444	4.037037	1.666667	1.5
	Total	0.857401481	6.437037	6.453333333	6.391666667		*with flying colours*	0.586419	4.111111	2.4	2.25
similar-same	*the blind leading the blind*	0.845666667	6.2222222	6.533333333	6.916666667		*bring the house down*	0.419756	4.148148	3.266667	2.25
	a drop in the ocean/bucket	0.901214815	6.2592593	6.533333333	6.333333333		*pull someone's leg*	0.654319	5.111111	3.066667	2.416667
	a bull in a china shop	0.481466667	5	6	5.818181818		Total	0.564198	4.437037	2.746667	2.333333
	back the wrong horse	0.320977778	4.1481481	5	4.583333333						
	the icing on the cake	0.679003704	5.6296296	6.133333333	6.583333333						
	cost an arm and a leg	0.456803704	4.4814815	4.866666667	3.583333333						
	break someone's heart	0.746888889	6.6666667	6.6	6.666666667						
	draw the line at	0.679011111	6.4074074	6.866666667	5.666666667						

	add fuel to the fire	0.654311111	6.2592593	7	6.666666667
	Total	0.640593827	5.6748971	6.17037037	5.869158879
different-same	*bite off more than you can chew*	0.506177778	4.2962963	6.2	5.916666667
	break your back	0.407407407	4.1851852	4.866666667	4
	be walking on air	0.425937037	4.1851852	4.714285714	3.083333333
	go round/around in circles	0.370362963	4.2222222	4.066666667	2
	let the cat out of the bag	0.512344444	4.4814815	5.066666667	4
	sell like hot cakes	0.561707407	4.5185185	5.8	6
	cross your mind	0.475303704	5	6.2	6.25
	Total	0.46560582	4.4126984	5.278846154	4.464285714
L2-only transparent	*food for thought*	0.320985185	4.037037	4.866666667	3.75
	the dos and don'ts	0.574074074	4.3333333	6	6.166666667
	pull strings	0.60492963	4.962963	5.066666667	4.833333333
	come up in the world	0.308644444	4.2962963	4.8	3.416666667
	somebody's heart sinks	0.438277778	4.1851852	4.933333333	2.916666667
	Total	0.449382222	4.362963	5.133333333	4.216666667
L2-only opaque	*rub shoulders with someone*	0.493818519	4.5925926	4.266666667	2.333333333
	keep something under your hat	0.50617037	4.2222222	5.133333333	2.583333333
	mean business	0.543207407	4.7037037	5.2	5.083333333
	move the goalposts	0.574062963	4.0740741	4.733333333	4.75
	Total	0.529314815	4.3981481	4.833333333	3.6875

Familiar, predictability-transparent					**Familiar, predictability-opaque**				
Idiom type	Production average of raters	Familiarity	Motivation	Predictability	Idiom type	Production average of raters	Familiarity	Motivation	Predictability
same-same	0.857401481	6.437037037	6.4533333	6.391666667	*similar-same*	0.456804	4.481481	4.866667	3.583333
similar-same	0.663567593	5.824074074	6.3333333	6.157894737	*different-same*	0.416224	4.243386	3.740385	2.809524
different-same	0.514396296	4.604938272	6.0666667	6.055555556	*L2-only transparent*	0.350823	4.234568	3.977778	2.986111
L2-only transparent	0.589501852	4.648148148	5.5333333	5.5	*L2-only opaque*	0.545854	4.428571	3.304762	2.369048
L2-only opaque	0.558635185	4.388888889	4.9666667	4.916666667	Total	0.44268	4.313933	3.716561	2.75
Total	0.708880741	5.714074074	6.176	6.086956522					

Familiar, predictability-transparent						Familiar, predictability-opaque					
Idiom type		Production average of raters	Familiarity	Motivation	Predictability	Idiom type		Production average of raters	Familiarity	Motivation	Predictability
same-same	*a lone wolf*	0.882711111	6.8888889	7	6.916666667	*similar-same*	*cost an arm and a leg*	0.456804	4.481481	4.866667	3.583333
	the black sheep of the family	0.944444444	6.6296296	6.8	6.5		Total	0.456804	4.481481	4.866667	3.583333
	take something to heart	0.753077778	5.8148148	5.733333333	6.75	*different-same*	*from the horse's mouth*	0.382704	4.074074	2.066667	1.583333
	drink someone under the table	0.932092593	6.6296296	6.133333333	6.666666667		*by the skin of your teeth*	0.37037	4.222222	2.6	1.666667
	read between the lines	0.870348148	6.7037037	6.866666667	6.166666667		*break your back*	0.407407	4.185185	4.866667	4
	below the belt	0.740740741	6.2962963	5.066666667	5.916666667		*be walking on air*	0.425937	4.185185	4.714286	3.083333
	burn the candle at both ends	0.759244444	5.7777778	6.733333333	5.833333333		*go round/around in circles*	0.370363	4.222222	4.066667	2
	try your wings	0.777774074	6.1481481	6.866666667	5.833333333		*cut things fine*	0.444444	4.333333	2.866667	3.333333
	the tip of the iceberg	0.919755556	6.8518519	6.933333333	6.583333333		*let the cat out of the bag*	0.512344	4.481481	5.066667	4
	on the same wavelength	0.993825926	6.6296296	6.4	6.75		Total	0.416224	4.243386	3.740385	2.809524
	Total	0.857401481	6.437037	6.453333333	6.391666667	*L2-only transparent*	*food for thought*	0.320985	4.037037	4.866667	3.75
similar-same	*the blind leading the blind*	0.845666667	6.2222222	6.533333333	6.916666667		*meet your Waterloo*	0.425919	4.333333	3.533333	2.75
	a drop in the ocean/bucket	0.901214815	6.2592593	6.533333333	6.333333333		*have an axe to grind*	0.259259	4.333333	3.266667	1.916667
	a bull in a china shop	0.481466667	5	6	5.818181818		*be the best/greatest thing since sliced bread*	0.351852	4.222222	2.466667	3.166667
	back the wrong horse	0.320977778	4.1481481	5	4.583333333		*come up in the world*	0.308644	4.296296	4.8	3.416667
	the icing on the cake	0.679003704	5.6296296	6.133333333	6.583333333		*somebody's heart sinks*	0.438278	4.185185	4.933333	2.916667
	break someone's heart	0.746888889	6.6666667	6.6	6.666666667		Total	0.350823	4.234568	3.977778	2.986111
	draw the line at	0.679011111	6.4074074	6.866666667	5.666666667	*L2-only opaque*	*a hot potato*	0.716052	4.777778	3.333333	3.25
	add fuel to the fire	0.654311111	6.2592593	7	6.666666667		*rub shoulders with someone*	0.493819	4.592593	4.266667	2.333333
	Total	0.663567593	5.8240741	6.333333333	6.157894737		*touch and go*	0.444444	4.037037	1.666667	1.5
different-same	*bite off more than you can chew*	0.506177778	4.2962963	6.2	5.916666667		*with flying colours*	0.586419	4.111111	2.4	2.25
	sell like hot cakes	0.561707407	4.5185185	5.8	6		*keep something under your hat*	0.50617	4.222222	5.133333	2.583333
	cross your mind	0.475303704	5	6.2	6.25		*bring the house down*	0.419756	4.148148	3.266667	2.25
	Total	0.514396296	4.6049383	6.066666667	6.055555556		*pull someone's leg*	0.654319	5.111111	3.066667	2.416667
L2-only transparent	*the dos and don'ts*	0.574074074	4.3333333	6	6.166666667		Total	0.545854	4.428571	3.304762	2.369048
	pull strings	0.60492963	4.962963	5.066666667	4.833333333						
	Total	0.589501852	4.6481481	5.533333333	5.5						
L2-only opaque	*mean business*	0.543207407	4.7037037	5.2	5.083333333						
	move the goalposts	0.574062963	4.0740741	4.733333333	4.75						
	Total	0.558635185	4.3888889	4.966666667	4.916666667						

Appendix I. Production averages of idiom types per language levels with familiarity, motivation and predictability averages (pilot)

B, familiar, motivation-transparent					**B, familiar, motivation-opaque**				
Idiom type	Production average of raters	Familiarity	Motivation	Predictability	Idiom type	Production average of raters	Familiarity	Motivation	Predictability
same-same	0.853327333	6.466666667	6.4285714	6.35	*different-same*	0.411112	4.516667	2.785714	2.53125
similar-same	0.670361481	5.903703704	6.1746032	5.845070423	*L2-only transparent*	0.41111	4.5	3.642857	3.25
different-same	0.475921111	4.455555556	5.5	5.020833333	*L2-only opaque*	0.585187	4.511111	3	2.625
L2-only transparent	0.544433333	4.6	5	4.875	Total	0.469136	4.511111	3.047619	2.722222
L2-only opaque	0.5074	4.311111111	4.7142857	4.25					
Total	0.672023678	5.588505747	5.9310345	5.649350649					

B, familiar, motivation-transparent						**B, familiar, motivation-opaque**					
Idiom type		Production average of raters	Familiarity	Motivation	Predictability	Idiom type		Production average of raters	Familiarity	Motivation	Predictability
same-same	*a lone wolf*	0.84444	6.9333333	7	6.875	*different-same*	*from the horse's mouth*	0.444433	4.6	1.857143	1.5
	the black sheep of the family	0.911113333	6.4666667	6.714285714	6.25		*by the skin of your teeth*	0.333333	4.333333	2.714286	1.5
	take something to heart	0.777773333	5.8666667	5.428571429	6.625		*be walking on air*	0.46668	4.733333	3.428571	3.625
	drink someone under the table	0.933326667	6.8	6	6.5		*cut things fine*	0.4	4.4	3.142857	3.5
	read between the lines	0.855533333	6.8	6.857142857	6		Total	0.411112	4.516667	2.785714	2.53125
	below the belt	0.8	6.3333333	5.285714286	6.125	*L2-only transparent*	*meet your Waterloo*	0.399993	4.266667	3.285714	2.75
	burn the candle at both ends	0.744426667	5.8666667	6.857142857	5.375		*come up in the world*	0.422227	4.733333	4	3.75
	try your wings	0.799993333	6.1333333	6.857142857	6		Total	0.41111	4.5	3.642857	3.25
	the tip of the iceberg	0.87778	6.9333333	6.857142857	7	*L2-only opaque*	*a hot potato*	0.811113	4.866667	2.857143	3.125
	on the same wavelength	0.988886667	6.5333333	6.428571429	6.75		*bring the house down*	0.422227	4.066667	2.571429	2.25
	Total	0.853327333	6.4666667	6.428571429	6.35		*pull someone's leg*	0.52222	4.6	3.571429	2.5
similar-same	*the blind leading the blind*	0.822213333	6.0666667	6.285714286	6.875		Total	0.585187	4.511111	3	2.625
	a drop in the ocean/bucket	0.89998	6.3333333	6.428571429	6.375						
	a bull in a china shop	0.5111	5.0666667	5.571428571	5.428571429						
	back the wrong horse	0.35554	4.6	4.285714286	5						
	the icing on the cake	0.677766667	5.6666667	6.285714286	6.75						

	cost an arm and a leg	0.511126667	4.9333333	5.857142857	3.5
	break someone's heart	0.755533333	6.7333333	6.857142857	6.625
	draw the line at	0.744446667	6.8666667	7	5.5
	add fuel to the fire	0.755546667	6.8666667	7	6.5
	Total	0.670361481	5.9037037	6.174603175	5.845070423
different-same	*bite off more than you can chew*	0.555566667	4.0666667	6.142857143	5.75
	break your back	0.444446667	4.0666667	5	4.625
	go round/around in circles	0.444433333	5	4.571428571	2.25
	let the cat out of the bag	0.455553333	4.0666667	5	4.375
	sell like hot cakes	0.49998	4.2	5.571428571	6.125
	cross your mind	0.455546667	5.3333333	6.714285714	7
	Total	0.475921111	4.4555556	5.5	5.020833333
L2-only transparent	*pull strings*	0.544433333	4.6	5	4.875
	Total	0.544433333	4.6	5	4.875
L2-only opaque	*rub shoulders with someone*	0.5111	4.6666667	4.285714286	2.25
	mean business	0.411113333	4.0666667	5	5.875
	move the goalposts	0.599986667	4.2	4.857142857	4.625
	Total	0.5074	4.3111111	4.714285714	4.25

B, familiar, predictability-transparent					**B, familiar, predictability-opaque**				
Idiom type	Production average of raters	Familiarity	Motivation	Predictability	Idiom type	Production average of raters	Familiarity	Motivation	Predictability
same-same	0.853327333	6.466666667	6.4285714	6.35	*similar-same*	0.511127	4.933333	5.857143	3.5
similar-same	0.690265833	6.025	6.2142857	6.142857143	*different-same*	0.417776	4.613333	3.142857	2.475
different-same	0.482218667	4.346666667	5.6857143	5.575	*L2-only transparent*	0.41111	4.5	3.642857	3.25
L2-only transparent	0.544433333	4.6	5	4.875	*L2-only opaque*	0.566665	4.55	3.321429	2.53125
L2-only opaque	0.50555	4.133333333	4.9285714	5.25	Total	0.474074	4.6	3.511905	2.708333
Total	0.693154872	5.671794872	6.0494505	5.995169082					

B, familiar, predictability-transparent						B, familiar, predictability-opaque					
Idiom type		Production average of raters	Familiarity	Motivation	Predictability	Idiom type		Production average of raters	Familiarity	Motivation	Predictability
same-same	*a lone wolf*	0.84444	6.9333333	7	6.875	*similar-same*	*cost an arm and a leg*	0.511127	4.933333	5.857143	3.5
	the black sheep of the family	0.911113333	6.4666667	6.714285714	6.25		Total	0.511127	4.933333	5.857143	3.5
	take something to heart	0.777773333	5.8666667	5.428571429	6.625	*different-same*	*from the horse's mouth*	0.444433	4.6	1.857143	1.5
	drink someone under the table	0.933326667	6.8	6	6.5		*by the skin of your teeth*	0.333333	4.333333	2.714286	1.5
	read between the lines	0.855533333	6.8	6.857142857	6		*be walking on air*	0.46668	4.733333	3.428571	3.625
	below the belt	0.8	6.3333333	5.285714286	6.125		*go round/around in circles*	0.444433	5	4.571429	2.25
	burn the candle at both ends	0.744426667	5.8666667	6.857142857	5.375		*cut things fine*	0.4	4.4	3.142857	3.5
	try your wings	0.799993333	6.1333333	6.857142857	6		Total	0.417776	4.613333	3.142857	2.475
	the tip of the iceberg	0.87778	6.9333333	6.857142857	7	*L2-only transparent*	*meet your Waterloo*	0.399993	4.266667	3.285714	2.75
	on the same wavelength	0.988886667	6.5333333	6.428571429	6.75		*come up in the world*	0.422227	4.733333	4	3.75
	Total	0.853327333	6.4666667	6.428571429	6.35		Total	0.41111	4.5	3.642857	3.25
similar-same	*the blind leading the blind*	0.822213333	6.0666667	6.285714286	6.875	*L2-only opaque*	*a hot potato*	0.811113	4.866667	2.857143	3.125
	a drop in the ocean/bucket	0.89998	6.3333333	6.428571429	6.375		*rub shoulders with someone*	0.5111	4.666667	4.285714	2.25
	a bull in a china shop	0.5111	5.0666667	5.571428571	5.428571429		*bring the house down*	0.422227	4.066667	2.571429	2.25
	back the wrong horse	0.35554	4.6	4.285714286	5		*pull someone's leg*	0.52222	4.6	3.571429	2.5
	the icing on the cake	0.677766667	5.6666667	6.285714286	6.75		Total	0.566665	4.55	3.321429	2.53125
	break someone's heart	0.755533333	6.7333333	6.857142857	6.625						
	draw the line at	0.744446667	6.8666667	7	5.5						
	add fuel to the fire	0.755546667	6.8666667	7	6.5						

	Total	0.690265833	6.025	6.214285714	6.142857143
different-same	*bite off more than you can chew*	0.555566667	4.0666667	6.142857143	5.75
	break your back	0.444446667	4.0666667	5	4.625
	let the cat out of the bag	0.455553333	4.0666667	5	4.375
	sell like hot cakes	0.49998	4.2	5.571428571	6.125
	cross your mind	0.455546667	5.3333333	6.714285714	7
	Total	0.482218667	4.3466667	5.685714286	5.575
L2-only transparent	*pull strings*	0.544433333	4.6	5	4.875
	Total	0.544433333	4.6	5	4.875
L2-only opaque	*mean business*	0.411113333	4.0666667	5	5.875
	move the goalposts	0.599986667	4.2	4.857142857	4.625
	Total	0.50555	4.1333333	4.928571429	5.25

C, familiar, motivation-transparent					**C, familiar, motivation-opaque**				
Idiom type	Production average of raters	Familiarity	Motivation	Predictability	Idiom type	Production average of raters	Familiarity	Motivation	Predictability
same-same	0.862494167	6.4	6.475	6.475	*different-same*	0.458333	4.166667	2.5625	2.5
similar-same	0.680540476	5.857142857	6.5535714	6.535714286	*L2-only transparent*	0.347219	4.638889	3.083333	2.5
different-same	0.50555	4.683333333	5.575	4.55	*L2-only opaque*	0.652778	4.766667	2.8	2.3
L2-only transparent	0.621527083	4.979166667	5.15625	4.6875	Total	0.522222	4.608333	2.8375	2.4
L2-only opaque	0.574069444	4.916666667	5.0416667	2.666666667					
Total	0.693958333	5.623563218	6.0086207	5.517241379					

C, familiar, motivation-transparent						C, familiar, motivation-opaque					
	Idiom type	Production average of raters	Familiarity	Motivation	Predictability		Idiom type	Production average of raters	Familiarity	Motivation	Predictability
same-same	*a lone wolf*	0.93055	6.8333333	7	7	*different-same*	*by the skin of your teeth*	0.416667	4.083333	2.5	2
	the black sheep of the family	0.986108333	6.8333333	6.875	7		*cut things fine*	0.5	4.25	2.625	3
	take something to heart	0.722208333	5.75	6	7		Total	0.458333	4.166667	2.5625	2.5
	drink someone under the table	0.93055	6.4166667	6.25	7	*L2-only transparent*	*meet your Waterloo*	0.458325	4.416667	3.75	2.75
	read between the lines	0.888866667	6.5833333	6.875	6.5		*have an axe to grind*	0.25	4.75	3.5	2
	below the belt	0.666666667	6.25	4.875	5.5		*be the best/greatest thing since sliced bread*	0.333333	4.75	2	2.75
	burn the candle at both ends	0.777766667	5.6666667	6.625	6.75		Total	0.347219	4.638889	3.083333	2.5
	try your wings	0.75	6.1666667	6.875	5.5	*L2-only opaque*	*a hot potato*	0.597225	4.666667	3.75	3.5
	the tip of the iceberg	0.972225	6.75	7	5.75		*touch and go*	0.666667	4.583333	1.625	1.25
	on the same wavelength	1	6.75	6.375	6.75		*with flying colours*	0.763892	4.583333	2.125	2.25
	Total	0.862494167	6.4	6.475	6.475		*bring the house down*	0.416667	4.25	3.875	2.25
similar-same	*the blind leading the blind*	0.874983333	6.4166667	6.75	7		*pull someone's leg*	0.819442	5.75	2.625	2.25
	a drop in the ocean/bucket	0.902758333	6.1666667	6.625	6.25		Total	0.652778	4.766667	2.8	2.3
	a bull in a china shop	0.444425	4.9166667	6.375	6.5						
	the icing on the cake	0.68055	5.5833333	6	6.25						
	break someone's heart	0.736083333	6.5833333	6.375	6.75						
	draw the line at	0.597216667	5.8333333	6.75	6						
	add fuel to the fire	0.527766667	5.5	7	7						
	Total	0.680540476	5.8571429	6.553571429	6.535714286						

different-same	*bite off more than you can chew*	0.444441667	4.5833333	6.25	6.25
	break your back	0.361108333	4.3333333	4.75	2.75
	let the cat out of the bag	0.583333333	5	5.125	3.25
	sell like hot cakes	0.638866667	4.9166667	6	5.75
	cross your mind	0.5	4.5833333	5.75	4.75
	Total	0.50555	4.6833333	5.575	4.55
L2-only transparent	*food for thought*	0.486108333	4.1666667	4.875	5.5
	the dos and don'ts	0.708333333	5.3333333	5.125	6
	pull strings	0.68055	5.4166667	5.125	4.75
	somebody's heart sinks	0.611116667	5	5.5	2.5
	Total	0.621527083	4.9791667	5.15625	4.6875
L2-only opaque	*rub shoulders with someone*	0.472216667	4.5	4.25	2.5
	keep something under your hat	0.541666667	4.75	5.5	2
	mean business	0.708325	5.5	5.375	3.5
	Total	0.574069444	4.9166667	5.041666667	2.666666667

C, familiar, predictability-transparent					**C, familiar, predictability-opaque**				
Idiom type	Production average of raters	Familiarity	Motivation	Predictability	Idiom type	Production average of raters	Familiarity	Motivation	Predictability
same-same	0.862494167	6.4	6.475	6.475	*different-same*	0.465277	4.416667	3.75	2.75
similar-same	0.680540476	5.857142857	6.5535714	6.535714286	*L2-only transparent*	0.413194	4.729167	3.6875	2.5
different-same	0.527769444	4.694444444	6	5.583333333	*L2-only opaque*	0.623263	4.822917	3.640625	2.4375
L2-only transparent	0.624997222	4.972222222	5.0416667	5.416666667	Total	0.531249	4.697917	3.679688	2.53125
Total	0.732479348	5.826086957	6.25	6.239130435					

C, familiar, predictability-transparent						C, familiar, predictability-opaque					
	Idiom type	Production average of raters	Familiarity	Motivation	Predictability		Idiom type	Production average of raters	Familiarity	Motivation	Predictability
same-same	*a lone wolf*	0.93055	6.8333333	7	7	*different-same*	*by the skin of your teeth*	0.416667	4.083333	2.5	2
	the black sheep of the family	0.986108333	6.8333333	6.875	7		*break your back*	0.361108	4.333333	4.75	2.75
	take something to heart	0.722208333	5.75	6	7		*cut things fine*	0.5	4.25	2.625	3
	drink someone under the table	0.93055	6.4166667	6.25	7		*let the cat out of the bag*	0.583333	5	5.125	3.25
	read between the lines	0.888866667	6.5833333	6.875	6.5		Total	0.465277	4.416667	3.75	2.75
	below the belt	0.666666667	6.25	4.875	5.5	*L2-only transparent*	*meet your Waterloo*	0.458325	4.416667	3.75	2.75
	burn the candle at both ends	0.777766667	5.6666667	6.625	6.75		*have an axe to grind*	0.25	4.75	3.5	2
	try your wings	0.75	6.1666667	6.875	5.5		*be the best/greatest thing since sliced bread*	0.333333	4.75	2	2.75
	the tip of the iceberg	0.972225	6.75	7	5.75		*somebody's heart sinks*	0.611117	5	5.5	2.5
	on the same wavelength	1	6.75	6.375	6.75		Total	0.413194	4.729167	3.6875	2.5
	Total	0.862494167	6.4	6.475	6.475	*L2-only opaque*	*a hot potato*	0.597225	4.666667	3.75	3.5
similar-same	*the blind leading the blind*	0.874983333	6.4166667	6.75	7		*rub shoulders with someone*	0.472217	4.5	4.25	2.5
	a drop in the ocean/bucket	0.902758333	6.1666667	6.625	6.25		*touch and go*	0.666667	4.583333	1.625	1.25
	a bull in a china shop	0.444425	4.9166667	6.375	6.5		*with flying colours*	0.763892	4.583333	2.125	2.25
	the icing on the cake	0.68055	5.5833333	6	6.25		*keep something under your hat*	0.541667	4.75	5.5	2
	break someone's heart	0.736083333	6.5833333	6.375	6.75		*mean business*	0.708325	5.5	5.375	3.5
	draw the line at	0.597216667	5.8333333	6.75	6		*bring the house down*	0.416667	4.25	3.875	2.25
	add fuel to the fire	0.527766667	5.5	7	7		*pull someone's leg*	0.819442	5.75	2.625	2.25
	Total	0.680540476	5.8571429	6.553571429	6.535714286		Total	0.623263	4.822917	3.640625	2.4375

different-same	*bite off more than you can chew*	0.444441667	4.5833333	6.25	6.25	
	sell like hot cakes	0.638866667	4.9166667	6	5.75	
	cross your mind	0.5	4.5833333	5.75	4.75	
	Total	0.527769444	4.6944444	6	5.583333333	
L2-only transparent	*food for thought*	0.486108333	4.1666667	4.875	5.5	
	the dos and don'ts	0.708333333	5.3333333	5.125	6	
	pull strings	0.68055	5.4166667	5.125	4.75	
	Total	0.624997222	4.9722222	5.041666667	5.416666667	

Appendix J. Production averages of idiom types with familiarity, motivation and predictability averages, B and C levels (main)

Familiar, motivation-transparent					**Familiar, motivation-opaque**				
Idiom type	Production average of raters	Familiarity	Motivation	Predictability	Idiom type	Production average of raters	Familiarity	Motivation	Predictability
same-same	0.872957333	5.953333333	6.2217391	5.9181818	*similar-same*	0.68888	5	4	4
similar-same	0.769121481	5.525925926	5.7101449	5.6439394	*L2-only transparent*	0.511107	4.022222	3.73913	4.272727
different-same	0.577768889	4.588888889	4.8478261	4.3863636	*L2-only opaque*	0.76296	5.311111	3.695652	2.227273
L2-only transparent	0.603695556	4.088888889	5.2173913	4.6363636	Total	0.654316	4.777778	3.811594	3.5
L2-only opaque	0.503702222	4.022222222	4.4347826	3.8636364					
Total	0.780361889	5.498888889	5.7913043	5.5159091					

Familiar, motivation-transparent						**Familiar, motivation-opaque**					
Idiom type		Production average of raters	Familiarity	Motivation	Predictability	Idiom type		Production average of raters	Familiarity	Motivation	Predictability
same-same	*a lone wolf*	0.911104444	6.4222222	6.3478261	6.318181818	*similar-same*	*bury the hatchet*	0.68888	5	4	4
	the black sheep of the family	0.962962222	6.3777778	6.173913	6.545454545		Total	0.68888	5	4	4
	take something to heart	0.766657778	5.2222222	5.7826087	5.363636364	*L2-only transparent*	*food for thought*	0.511107	4.022222	3.73913	4.272727
	drink someone under the table	0.929624444	6.2888889	6.173913	6.090909091		Total	0.511107	4.022222	3.73913	4.272727
	read between the lines	0.866644444	6.3333333	6.5217391	6.181818182	*L2-only opaque*	*pull someone's leg*	0.76296	5.311111	3.695652	2.227273
	below the belt	0.755555556	5.0444444	6.3478261	5.636363636		Total	0.76296	5.311111	3.695652	2.227273
	burn the candle at both ends	0.766651111	5.7111111	5.8695652	5.772727273						
	try your wings	0.851851111	5.6444444	6.5652174	4.818181818						
	the tip of the iceberg	0.922226667	6	6.1304348	6.045454545						
	on the same wavelength	0.996295556	6.4888889	6.3043478	6.409090909						
	Total	0.872957333	5.9533333	6.2217391	5.918181818						
similar-same	*the blind leading the blind*	0.848135556	6.1111111	6	6.318181818						
	a drop in the ocean/bucket	0.799982222	5.9333333	6.0869565	5.909090909						
	the icing on the cake	0.774062222	5.5555556	5.4782609	5.954545455						
	break someone's heart	0.818488889	6.3111111	6.173913	6.5						

	draw the line at	0.670368889	4.5777778	5.2608696	4.363636364
	add fuel to the fire	0.703691111	4.6666667	5.2608696	4.818181818
	Total	0.769121481	5.5259259	5.7101449	5.643939394
different-same	*break your back*	0.518515556	4.2666667	4.3913043	4
	sell like hot cakes	0.637022222	4.9111111	5.3043478	4.772727273
	Total	0.577768889	4.5888889	4.8478261	4.386363636
L2-only transparent	*pull strings*	0.603695556	4.0888889	5.2173913	4.636363636
	Total	0.603695556	4.0888889	5.2173913	4.636363636
L2-only opaque	*mean business*	0.503702	4.022222	4.434783	3.863636
	Total	0.503702	4.022222	4.434783	3.863636

Familiar, predictability-transparent					**Familiar, predictability-opaque**				
Idiom type	Production average of raters	Familiarity	Motivation	Predictability	Idiom type	Production average of raters	Familiarity	Motivation	Predictability
same-same	0.872957333	5.953333333	6.2217391	5.9181818	*similar-same*	0.68888	5	4	4
similar-same	0.769121481	5.525925926	5.7101449	5.6439394	*different-same*	0.518516	4.266667	4.391304	4
different-same	0.637022222	4.911111111	5.3043478	4.7727273	*L2-only opaque*	0.633331	4.666667	4.065217	3.045455
L2-only transparent	0.557401111	4.055555556	4.4782609	4.4545455	Total	0.618514	4.65	4.130435	3.522727
Total	0.794532982	5.56374269	5.8283753	5.6172249					

Familiar, predictability-transparent						**Familiar, predictability-opaque**					
Idiom type		Production average of raters	Familiarity	Motivation	Predictability	Idiom type		Production average of raters	Familiarity	Motivation	Predictability
same-same	*a lone wolf*	0.911104444	6.4222222	6.3478261	6.318181818	*similar-same*	*bury the hatchet*	0.68888	5	4	4
	the black sheep of the family	0.962962222	6.3777778	6.173913	6.545454545		Total	0.68888	5	4	4
	take something to heart	0.766657778	5.2222222	5.7826087	5.363636364	*different-same*	*break your back*	0.518516	4.266667	4.391304	4
	drink someone under the table	0.929624444	6.2888889	6.173913	6.090909091		Total	0.518516	4.266667	4.391304	4

	read between the lines	0.866644444	6.3333333	6.5217391	6.181818182	*L2-only opaque*	*mean business*	0.503702	4.022222	4.434783	3.863636
	below the belt	0.755555556	5.0444444	6.3478261	5.636363636		*pull someone's leg*	0.76296	5.311111	3.695652	2.227273
	burn the candle at both ends	0.766651111	5.7111111	5.8695652	5.772727273		Total	0.633331	4.666667	4.065217	3.045455
	try your wings	0.851851111	5.6444444	6.5652174	4.818181818						
	the tip of the iceberg	0.922226667	6	6.1304348	6.045454545						
	on the same wavelength	0.996295556	6.4888889	6.3043478	6.409090909						
	Total	0.872957333	5.9533333	6.2217391	5.918181818						
similar-same	*the blind leading the blind*	0.848135556	6.1111111	6	6.318181818						
	a drop in the ocean/bucket	0.799982222	5.9333333	6.0869565	5.909090909						
	the icing on the cake	0.774062222	5.5555556	5.4782609	5.954545455						
	break someone's heart	0.818488889	6.3111111	6.173913	6.5						
	draw the line at	0.670368889	4.5777778	5.2608696	4.363636364						
	add fuel to the fire	0.703691111	4.6666667	5.2608696	4.818181818						
	Total	0.769121481	5.5259259	5.7101449	5.643939394						
different-same	*sell like hot cakes*	0.637022222	4.9111111	5.3043478	4.772727273						
	Total	0.637022222	4.9111111	5.3043478	4.772727273						
L2-only transparent	*food for thought*	0.511106667	4.0222222	3.7391304	4.272727273						
	pull strings	0.603695556	4.0888889	5.2173913	4.636363636						
	Total	0.557401111	4.0555556	4.4782609	4.454545455						

Appendix K. Production averages of idiom types per language levels with familiarity, motivation and predictability averages (main)

B, familiar, motivation-transparent					**B, familiar, motivation-opaque**				
Idiom type	Production average of raters	Familiarity	Motivation	Predictability	Idiom type	Production average of raters	Familiarity	Motivation	Predictability
same-same	0.867419091	5.886363636	6.1777778	5.8692308	*L2-only transparent*	0.5303	4.045455	2.222222	4.461538
similar-same	0.752151299	5.402597403	5.4920635	5.2637363	*L2-only opaque*	0.749995	5.272727	4	2.230769
different-same	0.613622727	4.818181818	5.2222222	4.3076923	Total	0.640148	4.659091	3.111111	3.346154
Total	0.808492929	5.638888889	5.8580247	5.5470085					

B, familiar, motivation-transparent						**B, familiar, motivation-opaque**					
Idiom type		Production average of raters	Familiarity	Motivation	Predictability	Idiom type		Production average of raters	Familiarity	Motivation	Predictability
same-same	*a lone wolf*	0.931813636	6.3636364	6.5555556	6.461538462	*L2-only transparent*	*food for thought*	0.5303	4.045455	2.222222	4.461538
	the black sheep of the family	0.969695455	6.4090909	6	6.615384615		Total	0.5303	4.045455	2.222222	4.461538
	take something to heart	0.704540909	4.7727273	5.5555556	5	*L2-only opaque*	*pull someone's leg*	0.749995	5.272727	4	2.230769
	drink someone under the table	0.916663636	6.0454545	6.1111111	6.153846154		Total	0.749995	5.272727	4	2.230769
	read between the lines	0.848463636	6.2272727	6.5555556	6.076923077						
	below the belt	0.772727273	5.1363636	6.3333333	5.538461538						
	burn the candle at both ends	0.704527273	5.4090909	5.3333333	5.846153846						
	try your wings	0.878790909	5.7727273	6.5555556	4.307692308						
	the tip of the iceberg	0.954545455	6.1363636	6.6666667	6.230769231						
	on the same wavelength	0.992422727	6.5909091	6.1111111	6.461538462						
	Total	0.867419091	5.8863636	6.1777778	5.869230769						
similar-same	*the blind leading the blind*	0.795445455	5.6818182	5.7777778	6.076923077						
	a drop in the ocean/bucket	0.780286364	5.6363636	5.8888889	5.846153846						
	bury the hatchet	0.704531818	5.2272727	4.1111111	4						
	the icing on the cake	0.749990909	5.3636364	5.1111111	5.615384615						
	break someone's heart	0.848454545	6.5	6.4444444	6.538461538						
	draw the line at	0.643936364	4.5454545	5.3333333	4.153846154						
	add fuel to the fire	0.742413636	4.8636364	5.7777778	4.615384615						

	Total	0.752151299	5.4025974	5.4920635	5.263736264
different-same	*sell like hot cakes*	0.613622727	4.8181818	5.2222222	4.307692308
	Total	0.613622727	4.8181818	5.2222222	4.307692308

B, familiar, predictability-transparent					**B, familiar, predictability-opaque**				
Idiom type	Production average of raters	Familiarity	Motivation	Predictability	Idiom type	Production average of raters	Familiarity	Motivation	Predictability
same-same	0.867419091	5.886363636	6.1777778	5.8692308	*similar-same*	0.704532	5.227273	4.111111	4
similar-same	0.760087879	5.431818182	5.7222222	5.474359	*L2-only opaque*	0.749995	5.272727	4	2.230769
different-same	0.613622727	4.818181818	5.2222222	4.3076923	Total	0.727264	5.25	4.055556	3.115385
L2-only transparent	0.5303	4.045454545	2.2222222	4.4615385					
Total	0.798813384	5.573232323	5.7530864	5.5726496					

B, familiar, predictability-transparent						**B, familiar, predictability-opaque**					
Idiom type		Production average of raters	Familiarity	Motivation	Predictability	Idiom type		Production average of raters	Familiarity	Motivation	Predictability
same-same	*a lone wolf*	0.931813636	6.3636364	6.5555556	6.461538462	*similar-same*	*bury the hatchet*	0.704532	5.227273	4.111111	4
	the black sheep of the family	0.969695455	6.4090909	6	6.615384615		Total	0.704532	5.227273	4.111111	4
	take something to heart	0.704540909	4.7727273	5.5555556	5	*L2-only opaque*	*pull someone's leg*	0.749995	5.272727	4	2.230769
	drink someone under the table	0.916663636	6.0454545	6.1111111	6.153846154		Total	0.749995	5.272727	4	2.230769
	read between the lines	0.848463636	6.2272727	6.5555556	6.076923077						
	below the belt	0.772727273	5.1363636	6.3333333	5.538461538						
	burn the candle at both ends	0.704527273	5.4090909	5.3333333	5.846153846						
	try your wings	0.878790909	5.7727273	6.5555556	4.307692308						
	the tip of the iceberg	0.954545455	6.1363636	6.6666667	6.230769231						
	on the same wavelength	0.992422727	6.5909091	6.1111111	6.461538462						
	Total	0.867419091	5.8863636	6.1777778	5.869230769						

similar-same	*the blind leading the blind*	0.795445455	5.6818182	5.7777778	6.076923077
	a drop in the ocean/bucket	0.780286364	5.6363636	5.8888889	5.846153846
	the icing on the cake	0.749990909	5.3636364	5.1111111	5.615384615
	break someone's heart	0.848454545	6.5	6.4444444	6.538461538
	draw the line at	0.643936364	4.5454545	5.3333333	4.153846154
	add fuel to the fire	0.742413636	4.8636364	5.7777778	4.615384615
	Total	0.760087879	5.4318182	5.7222222	5.474358974
different-same	*sell like hot cakes*	0.613622727	4.8181818	5.2222222	4.307692308
	Total	0.613622727	4.8181818	5.2222222	4.307692308
L2-only transparent	*food for thought*	0.5303	4.0454545	2.2222222	4.461538462
	Total	0.5303	4.0454545	2.2222222	4.461538462

C, familiar, motivation-transparent					**C, familiar, motivation-opaque**				
Idiom type	Production average of raters	Familiarity	Motivation	Predictability	Idiom type	Production average of raters	Familiarity	Motivation	Predictability
same-same	0.878254783	6.017391304	6.25	5.9888889	*similar-same*	0.673909	4.782609	3.928571	4
similar-same	0.777762319	5.615942029	5.702381	5.8888889	*L2-only opaque*	0.775361	5.347826	3.5	2.222222
different-same	0.641295652	4.847826087	4.8571429	5.3333333	Total	0.724635	5.065217	3.714286	3.111111
L2-only transparent	0.69563913	4.434782609	5.5	5.4444444					
L2-only opaque	0.550721739	4.391304348	4.0714286	4.4444444					
Total	0.798903696	5.619565217	5.8	5.7888889					

C, familiar, motivation-transparent						**C, familiar, motivation-opaque**				
Idiom type		Production average of raters	Familiarity	Motivation	Predictability	Idiom type		Production average of raters	Familiarity	Motivation	Predictability
same-same	*a lone wolf*	0.891295652	6.4782609	6.2142857	6.111111111	*similar-same*	*bury the hatchet*	0.673909	4.782609	3.928571	4
	the black sheep of the family	0.956521739	6.3478261	6.2857143	6.444444444		Total	0.673909	4.782609	3.928571	4
	take something to heart	0.826073913	5.6521739	5.9285714	5.888888889	*L2-only opaque*	*pull someone's leg*	0.775361	5.347826	3.5	2.222222
	drink someone under the table	0.942021739	6.5217391	6.2142857	6		Total	0.775361	5.347826	3.5	2.222222

	read between the lines	0.884034783	6.4347826	6.5	6.333333333	
	below the belt	0.739130435	4.9565217	6.3571429	5.777777778	
	burn the candle at both ends	0.826073913	6	6.2142857	5.666666667	
	try your wings	0.826082609	5.5217391	6.5714286	5.555555556	
	the tip of the iceberg	0.891313043	5.8695652	5.7857143	5.777777778	
	on the same wavelength	1	6.3913043	6.4285714	6.333333333	
	Total	0.878254783	6.0173913	6.25	5.988888889	
similar-same	*the blind leading the blind*	0.898534783	6.5217391	6.1428571	6.666666667	
	a drop in the ocean/bucket	0.818821739	6.2173913	6.2142857	6	
	the icing on the cake	0.797086957	5.7391304	5.7142857	6.444444444	
	break someone's heart	0.789826087	6.1304348	6	6.444444444	
	draw the line at	0.695652174	4.6086957	5.2142857	4.666666667	
	add fuel to the fire	0.666652174	4.4782609	4.9285714	5.111111111	
	Total	0.777762319	5.615942	5.702381	5.888888889	
different-same	*break your back*	0.623186957	4.6956522	4.3571429	5.222222222	
	sell like hot cakes	0.659404348	5	5.3571429	5.444444444	
	Total	0.641295652	4.8478261	4.8571429	5.333333333	
L2-only transparent	*pull strings*	0.69563913	4.4347826	5.5	5.444444444	
	Total	0.69563913	4.4347826	5.5	5.444444444	
L2-only opaque	*mean business*	0.550721739	4.3913043	4.0714286	4.444444444	
	Total	0.550721739	4.3913043	4.0714286	4.444444444	

C, familiar, predictability-transparent					**C, familiar, predictability-opaque**				
Idiom type	Production average of raters	Familiarity	Motivation	Predictability	Idiom type	Production average of raters	Familiarity	Motivation	Predictability
same-same	0.878254783	6.017391304	6.25	5.9888889	*similar-same*	0.673909	4.782609	3.928571	4
similar-same	0.777762319	5.615942029	5.702381	5.8888889	*L2-only opaque*	0.775361	5.347826	3.5	2.222222
different-same	0.641295652	4.847826087	4.8571429	5.3333333	Total	0.724635	5.065217	3.714286	3.111111
L2-only transparent	0.69563913	4.434782609	5.5	5.4444444					
L2-only opaque	0.550721739	4.391304348	4.0714286	4.4444444					
Total	0.798903696	5.619565217	5.8	5.7888889					

C, familiar, predictability-transparent						C, familiar, predictability-opaque					
Idiom type		Production average of raters	Familiarity	Motivation	Predictability	Idiom type		Production average of raters	Familiarity	Motivation	Predictability
same-same	*a lone wolf*	0.891295652	6.4782609	6.2142857	6.111111111	*similar-same*	*bury the hatchet*	0.673909	4.782609	3.928571	4
	the black sheep of the family	0.956521739	6.3478261	6.2857143	6.444444444		Total	0.673909	4.782609	3.928571	4
	take something to heart	0.826073913	5.6521739	5.9285714	5.888888889	*L2-only opaque*	*pull someone's leg*	0.775361	5.347826	3.5	2.222222
	drink someone under the table	0.942021739	6.5217391	6.2142857	6		Total	0.775361	5.347826	3.5	2.222222
	read between the lines	0.884034783	6.4347826	6.5	6.333333333						
	below the belt	0.739130435	4.9565217	6.3571429	5.777777778						
	burn the candle at both ends	0.826073913	6	6.2142857	5.666666667						
	try your wings	0.826082609	5.5217391	6.5714286	5.555555556						
	the tip of the iceberg	0.891313043	5.8695652	5.7857143	5.777777778						
	on the same wavelength	1	6.3913043	6.4285714	6.333333333						
	Total	0.878254783	6.0173913	6.25	5.988888889						
similar-same	*the blind leading the blind*	0.898534783	6.5217391	6.1428571	6.666666667						
	a drop in the ocean/bucket	0.818821739	6.2173913	6.2142857	6						
	the icing on the cake	0.797086957	5.7391304	5.7142857	6.444444444						
	break someone's heart	0.789826087	6.1304348	6	6.444444444						
	draw the line at	0.695652174	4.6086957	5.2142857	4.666666667						
	add fuel to the fire	0.666652174	4.4782609	4.9285714	5.111111111						
	Total	0.777762319	5.615942	5.702381	5.888888889						
different-same	*break your back*	0.623186957	4.6956522	4.3571429	5.222222222						
	sell like hot cakes	0.659404348	5	5.3571429	5.444444444						

	Total	0.641295652	4.8478261	4.8571429	5.333333333
L2-only transparent	*pull strings*	0.69563913	4.4347826	5.5	5.444444444
	Total	0.69563913	4.4347826	5.5	5.444444444
L2-only opaque	*mean business*	0.550721739	4.3913043	4.0714286	4.444444444
	Total	0.550721739	4.3913043	4.0714286	4.444444444

Appendix L. A tabular representation of the metaphors motivating the idioms rated as familiar in my experiments

Idiom motivation	Metaphors	Idioms	Idiom types
same metaphors	HUMAN FEATURES ARE ANIMAL FEATURES	*lone wolf – magányos farkas*	*same-same*
	HUMAN FEATURES ARE ANIMAL FEATURES	*the black sheep of the family – a család fekete báránya*	
	CONCERNS/ISSUES ARE PHYSICAL OBJECTS	*take something to heart – szívére vesz valamit*	
	ACTIONS ARE TRANSFERS; scale metonymy; BAD IS DOWN	*drink someone under the table – az asztal alá iszik valakit*	
	COMPREHENDING IS SEEING	*read between the lines – olvas a sorok között*	
	BAD IS DOWN	*below the belt – övön aluli*	
	LIFE IS A FLAMMABLE OBJECT	*burn the candle at both ends – két végén égeti a gyertyát*	
	DEVELOPMENT IS FLIGHT; HAPPY IS UP	*try your wings – a szárnyait próbálgatja*	
	STATES AND SITUATIONS ARE LOCATIONS	*the tip of the iceberg – a jéghegy csúcsa*	
	UNDERSTANDING IS HARMONY	*on the same wavelength – egy hullámhosszon van valakivel*	
	IGNORANCE IS BLINDNESS	*the blind leading the blind – vak vezet világtalant*	*similar-same*
	INSIGNIFICANCE/INSUFFICIENCY IS LITTLE	*a drop in the ocean/bucket – csepp a tengerben*	
	HUMAN FEATURES ARE ANIMAL FEATURES	*a bull in the china shop – elefánt a porcelánboltban*	
	PURPOSEFUL ACTIVITY IS GAMBLING	*back the wrong horse – rossz lóra tesz*	
	CONFLICT IS A SINGLE COMBAT	*bury the hatchet – elássa a csatabárdot*	
	GOOD IS UP	*the icing on the cake – hab a tortán*	
only L2 metaphors	PURPOSEFUL ACTIVITY IS A SINGLE COMBAT	*cost an arm and a leg – egy vagyonba kerül valami*	
same metaphors	NEGATIVE DEVELOPMENT IS DISINTEGRATION	*break someone's heart – megszakad a szíve valamitől*	
	GIVING CONCESSION/PERMISSION IS LIMITING	*draw the line at – meghúzza a határt*	
	INTENSITY OF ACTIVITY IS AMOUNT OF PHYSICAL ENERGY	*add fuel to the fire – olajat önt a tűzre*	
	QUALITY OF STATE OR SITUATION IS QUALITY OF CONTAINER; metonymy	*from the horse's mouth – első kézből*	*different-same*
	ACTIONS ARE MEANS	*by the skin of your teeth –*	

		hajszálon múlik	
different metaphors	ISSUES TO BE DEALT WITH ARE FOOD; ISSUES TO BE DEALT WITH ARE TREES	*bite off more than you can chew – túl nagy fába vágja a fejszéjét*	
same target domains	NEGATIVE DEVELOPMENT IS DISINTEGRATION; NEGATIVE DEVELOPMENT IS A HARMFUL FORCE; metonymy	*break your back – agyondolgozza magát*	
same metaphors	GOOD IS UP	*be walking on air – repülni tudna a boldogságtól*	
same target domains	STAGNATION IS A CIRCULAR MOVEMENT; STAGNATION IS REPETITION	*go round/around in circles – mindig ugyanoda lyukad ki*	
different metaphors	ISSUES TO BE DEALT WITH ARE PHYSICAL OBJECTS; ACTIONS ARE METICULOUS CALCULATIONS; metonymy	*cut things fine – hajszálra kiszámít(va tesz) valamit*	
different metaphors	STATES AND SITUATIONS ARE CONTAINERS; CHANGE IS A HORIZONTAL MOVEMENT	*let the cat out of the bag – eljár a szája*	
same metaphors	QUALITIES ARE TRANSFERS	*sell like hot cakes – viszik, mint a cukrot*	
	STATES AND SITUATIONS ARE CONTAINERS	*cross your mind – megfordul a fejében valami*	
different metaphors	ISSUES TO BE DEALT WITH ARE PHYSICAL OBJECTS; THEORIES ARE FOOD; ATTRIBUTES ARE FORCES	*food for thought – elgondolkodtató téma*	*L2-only transparent*
only L2 metaphors	PURPOSEFUL ACTIVITY IS A BATTLE	*meet your Waterloo – kudarcot vall*	
	CORRECT BEHAVIOUR IS INSTRUCTIONS	*the dos and the don'ts – utasítások*	
different metaphors	DISHONEST BEHAVIOUR IS ACTING FROM BEHIND THE SCENES; ABSTRACT ENTITIES ARE PHYSICAL OBJECTS TO USE	*pull strings – protekciót vesz igénybe*	
same metaphors	INTERESTS ARE PHYSICAL OBJECTS	*have an axe to grind – csak a maga hasznát nézi*	
only L2 metaphors	ATTRIBUTES ARE TIME SPANS	*be the best/greatest thing since sliced bread – a legjobb dolog a világon*	
different metaphors	GOOD IS UP; CHANGE IS ACQUISITION; metonymy	*come up in the world – meggazdagodik*	
same metaphors	CHANGE IS A VERTICAL MOVEMENT	*somebody's heart sinks – elcsügged*	
same target domains/ different metaphors	ISSUES TO BE DEALT WITH ARE PHYSICAL OBJECTS; ISSUES TO BE DEALT WITH ARE WAYS OF DEALING WITH THE ISSUES TO BE DEALT; MENTAL ENTITY IS CONCRETE MATTER	*a hot potato – kényes téma*	*L2-only opaque*

same metaphors	INTERPERSONAL RELATIONSHIPS ARE PROXIMITY	*rub shoulders with someone – összejár valakivel*	
same target domains	STATES OR QUALITIES ARE VEHICLES; STATES OR QUALITIES ARE LACK OF OTHER STATES OR QUALITIES	*touch and go – bizonytalan*	
	STATES OR QUALITIES ARE VEHICLES; STATES OR QUALITIES ARE MANNERS OF ACHIEVING THEM; metonymy	*with flying colours – kitűnő eredménnyel*	
same metaphors	STATES OR QUALITIES ARE CONTAINERS	*keep something under your hat – titokban tart*	
different metaphors	ISSUES TO BE DEALT WITH ARE COMMERCIAL TRANSACTIONS; STATES OR QUALITIES ARE MANNERS OF ACHIEVING THEM	*mean business – komolyan beszél*	
	ACTIONS ARE TRANSFERS; GOOD IS UP	*bring the house down – felállva tapsol a közönség*	
	CHANGES ARE MOVEMENTS; BEING IN A PROGRESS IS A GAME	*move the goalposts – menet közben változat a szabályokon*	
	ACTIONS ARE TRANSFERS; ATTRIBUTES ARE FORCES	*pull someone's leg – ugrat valakit*	

Appendix M. A textual explanation on the metaphors motivating the idioms rated as familiar in my experiments

The idiom *a lone wolf* (CCID: 489) and its Hungarian counterpart *magányos farkas* (AMI: 424) share source and target domains that are based on wolf behaviour and human social contexts. They have the same motivating metaphor: HUMAN FEATURES ARE ANIMAL FEATURES. They both describe human traits as animal features, with the former implying independence and solitude, while the latter emphasizes loneliness and self-reliance. Both idioms share a common source and target domain, highlighting the connection between animal and human traits.
The idioms *the black sheep of the family* (CCID: 394) and its Hungarian counterpart *a család fekete báránya* (AMI: 56) share source and target domains that are based on sheep husbandry and human family dynamics. The motivating metaphor is HUMAN FEATURES ARE ANIMAL FEATURES. It refers to a family member who is considered different, outcast, or disapproved of, similar to a black sheep in a flock.
The idioms *take something to heart* (EIIU: 112) and its Hungarian counterpart *szívére vesz valamit* (AMI: 708) share common source and target domains that revolve around issues to be dealt with and physical objects. They have this motivating metaphor: CONCERNS/ISSUES ARE PHYSICAL OBJECTS. It emphasizes the connection between individuals' emotional cores and their concerns, suggesting that they can be internalized and embraced like holding a physical object close to their heart.
The idioms *drink someone under the table* (CCID: 438) and its Hungarian counterpart *az asztal alá iszik valakit* (AMI: 182) involve common source and target domains related to the act of drinking alcohol and the concept of tolerance or endurance. Their motivating metaphor is ACTIONS ARE TRANSFERS. The metaphor suggests that one person consumes more alcohol than another, leading to intoxication and the other person remaining unaffected. In addition to the metaphoric aspect, the presence of the metonymy SCALE and, consequently, the metaphor GOOD IS UP (BAD IS DOWN) (cf Langlotz 2006b), which appears explicitly in the idioms (indicated by *under* and *alá*, respectively), also play a role in the development of the idiomatic meaning.
The idioms *read between the lines* (CCID: 280) and *olvas a sorok között* (AMI: 572) share common source and target domains related to reading and understanding hidden or implied meanings in written or spoken communication. The motivating metaphor is COMPREHENDING IS SEEING. This metaphor refers to the skill of looking beyond literal words to grasp the implicit message of an utterance.
The idioms *below the belt* (CCID: 32) and *övön aluli* (AMI: 48) share common source and target domains related to physical confrontations, fairness, and morality. The English and the Hungarian expressions share the following motivating metaphor: BAD IS DOWN (cf Langlotz 2006b), suggesting actions or behaviorus considered "bad" are associated with being "down" or in a lower position. The two idioms come from boxing rules, where hitting an opponent below the belt is considered illegal and unethical.
The idioms *burn the candle at both ends* (WOYI: 33) and *két végén égeti a gyertyát* (AMI: 83) share common source and target domains related to work ethic, lifestyle, and self-care in managing one's life. The idioms share the motivating metaphor LIFE IS A FLAMMABLE OBJECT, suggesting that excessive work or a hectic lifestyle can lead to rapid depletion of energy and resources.
The idiom *try your wings* (CCID: 488) and its Hungarian counterpart *a szárnyait próbálgatja* (AMI: 758) share common source and target domains related to personal development, learning, and gaining experience. Their motivating metaphor may be DEVELOPMENT IS FLIGHT. However, we need to add that it is the semantics of flight itself

that gives the phrase a positive meaning, and this is based on the metaphor HAPPY IS UP (generally speaking, UP IS POSITIVE). DEVELOPMENT IS FLIGHT suggests that personal growth is akin to a bird testing its wings before taking flight.
The idiom *the tip of the iceberg* (WOYI: 19) and its Hungarian counterpart *a jéghegy csúcsa* (AMI: 359) share common source and target domains related to hidden or partial knowledge, superficial understanding, and the idea that there is more to a situation than meets the eye. The motivating metaphor shared is STATES AND SITUATIONS ARE LOCATIONS (cf Lakoff 1993: 220), which suggests that what is visible represents only a small part of a larger, hidden reality.
The idiom *on the same wavelength* (WOYI: 23) and its Hungarian counterpart *egy hullámhosszon van valakivel* (AMI: 782) share common source and target domains related to mutual understanding, shared perspectives, and being in sync with someone else. Their motivating metaphor is UNDERSTANDING IS HARMONY. It equates mental alignment to the synchronization of radio waves, allowing for clear communication and effective understanding.
The idiom *the blind leading the blind* (CCID: 40) and its Hungarian counterpart *vak vezet világtalant* (AMI: 57) share common source and target domains related to guidance, leadership, and competence. They have the motivating metaphor of IGNORANCE IS BLINDNESS, which suggests that individuals lacking knowledge are unfit to provide effective guidance. Due to their lack of knowledge, such guidance may lead to disastrous results.
The idioms *a drop in the ocean/bucket* (CCID: 127) and its Hungarian counterpart *csepp a tengerben* (AMI: 183) share common source and target domains related to quantity, scale, and impact. The two idioms share INSIGNIFICANCE/INSUFFICIENCY IS LITTLE. This metaphor compares the small size of a drop of liquid to the vastness of the ocean or a bucket of water, implying that something's quantity or impact has little effect in a larger context.
The idioms *a bull in the china shop* (CCID: 61) and its Hungarian counterpart *elefánt a porcelánboltban* (AMI: 80) share common source and target domains related to clumsiness, recklessness, and potential for causing damage. Both have HUMAN FEATURES ARE ANIMAL FEATURES as motivating metaphor. Both metaphors draw a parallel between human characteristics and animal attributes, with the English idiom comparing a person's clumsiness to a bull in a delicate china shop, while the Hungarian expression translates to "an elephant in a china shop," highlighting the potential for damage.
The idiom *back the wrong horse* (CCID: 239) and its Hungarian counterpart *rossz lóra tesz* (AMI: 351) share common source and target domains related to making wrong decisions or choices, especially in uncertain or risky situations. The common metaphor is PURPOSEFUL ACTIVITY IS GAMBLING (cf Langlotz 2006b). The metaphor refers to making wrong decisions or choices in uncertain or risky situations, similar to gambling.
The idiom *bury the hatchet* (CCID: 214) and its Hungarian counterpart *elássa a csatabárdot* (AMI: 83) share common source and target domains related to reconciliation, forgiveness, and ending conflicts. Their motivating metaphor is CONFLICT IS A SINGLE COMBAT (cf Langlotz 2006b). The metaphor suggests that one compares conflicts to physical battles, and the idea of burying the weapon used in the fight is suggested.
The idiom *the icing on the cake* (WOYI: 18) and its Hungarian counterpart *hab a tortán* (AMI: 359) share common source and target domains related to enhancement, addition, and something that makes an already good situation even better. A likely motivating metaphor is GOOD IS UP (cf Langlotz 2006b). This suggests that icing enhances the taste and appearance of a cake, while "hab a tortán" translates to "icing on the cake" and carries the same meaning. On the one hand, it is known that the icing is usually on top of the cake, and on the other hand, the Hungarian adverbial suffix *-n* and the English preposition *on* support and elaborate this meaning, which is why UP appears here as a positive direction in the

metaphor.
The idiom *cost an arm and a leg* (WOYI: 82) and its Hungarian counterpart *egy vagyonba kerül valami* (AMI: 18) do not share common source and target domains. The two structures differ in their metaphors, as the motivating metaphor in English is PURPOSEFUL ACTIVITY IS A SINGLE COMBAT (cf Langlotz 2006b) and I found no metaphor as motivation in the Hungarian expression. In the English idiom the metaphor conveys the idea that significant financial cost is associated with purposeful activities or actions, and it implies a considerable sacrifice or burden in terms of expenses. In the Hungarian idiom "egy vagyonba kerül valami" ("costs a fortune"), the lack of a specific motivating metaphor in the information does not hinder the understanding of the idiom's source and target domains.
The idiom *break someone's heart* (EIIU: 112) and its Hungarian counterpart *megszakad a szíve valamitől* (AÉAKSZ: 223) share common source and target domains related to emotional pain and heartache. The motivating metaphor is NEGATIVE DEVELOPMENT IS DISINTEGRATION (cf Langlotz 2006b). This metaphor conveys the same idea of deep emotional hurt, pain, and vulnerability.
The idiom *draw the line at* (EIIU: 120) and its Hungarian counterpart *meghúzza a határt* (AMI: 417) share common source and target domains related to setting limits and establishing boundaries. Their motivating metaphor is GIVING CONCESSION/PERMISSION IS LIMITING. This implies that setting limits is similar to granting permission or making concessions.
The idiom *add fuel to the fire* (CCID: 176) and its Hungarian counterpart *olajat önt a tűzre* (AMI: 253) share common source and target domains related to exacerbating conflicts or making a situation worse. Their motivating metaphor is INTENSITY OF ACTIVITY IS AMOUNT OF PHYSICAL ENERGY (cf Langlotz 2006b). It suggests that certain actions or words can escalate a conflict or make a situation worse.
The idiom *from the horse's mouth* (CCID: 239) and its Hungarian counterpart *első kézből* (AMI: 352) share common source and target domains related to the authenticity and reliability of information. Their motivating metaphor is QUALITY OF STATE OR SITUATION IS QUALITY OF CONTAINER (cf Langlotz 2006b). Since one can infer quality from the state of its teeth, it is worth noting that the *teeth* do not explicitly appear in the idiom, only the animal's mouth, so that in the case of this metaphor too, it is a matter of making a part-whole metonymic shift to the body part in the English idiom, which is the mouth. Similarly, in the Hungarian idiom "első kézből", the metaphorical meaning aligns with the English idiom. Both expressions emphasize the importance of obtaining information directly from the original source.
The idiom *by the skin of your teeth* (CCID: 408) and its Hungarian counterpart *hajszálon múlik* (AMN: n.a.) share common source and target domains related to narrowness, close calls, and barely escaping a difficult or dangerous situation. Their motivating metaphor is ACTIONS ARE MEANS (cf Langlotz 2006b). The metaphor suggests that the actions taken were the means by which a close call or narrow escape from a difficult or dangerous situation was achieved.
The idiom *bite off more than you can chew* (WOYI: 74) and its Hungarian counterpart *túl nagy fába vágja a fejszéjét* (AMI: 55) have different source and the same target domains related to the challenge of consuming more food than one can chew comfortably, or attempting to cut down a large tree with an axe. The motivating metaphor in English is ISSUES TO BE DEALT WITH ARE FOOD (cf Langlotz 2006b), and in Hungarian ISSUES TO BE DEALT WITH ARE TREES. Both metaphors emphasize the importance of capacity, overestimation, and taking on more responsibilities than one can handle.
The idiom *break your back* (WOYI: 38) and its Hungarian counterpart *agyondolgozza magát* (AÉAKSZ: 22) have different source and the same target domains related to physical

effort, labor, and excessive workload. The motivating metaphor in English is NEGATIVE DEVELOPMENT IS DISINTEGRATION (cf Langlotz 2006b), and in Hungarian NEGATIVE DEVELOPMENT IS A HARMFUL FORCE (cf Langlotz 2006b). The motivating metaphor for the English idiom implies that the excessive physical effort and labor involved in "breaking your back" can lead to physical exhaustion or strain, similar to the disintegration or breaking apart of a physical object. The motivating metaphor for the Hungarian idiom suggests that one can compare the excessive mental effort or working too hard to facing a harmful force or pressure that negatively impacts an individual. Here, we may refer to the etymology of the Hungarian *agyon*, [brain-ALL] (Ladányi 2007: 221-230), since it is also highly figurative, and it is particularly interesting that, in contrast to the English *back*, another human organ, the brain, appears in it. Ladányi (2007: 221) posits that the Hungarian preverbal prefix *agyon* has three meanings: 'until something or something dies'; intensity. i.e. 'to a large extent'; and, with a reflexive pronoun, exhaustivity, i.e. 'until something or something gets exhausted'. In this case, there is a Hungarian reflexive pronoun in the Hungarian idiom, *magát*; therefore, it is the third meaning which is relevant. Also, as both *back* and *agy* are parts of the human body, we may say that the members of this idiom pair are motivated by metonymies, not just the two metaphors discussed above.
The idiom *be walking on air* (EIIU: 10) and its Hungarian counterpart *repülni tudna a boldogságtól* (AMI: 10) share common source and target domains related to emotions and happiness. Their motivating metaphor is GOOD IS UP (cf Langlotz 2006b). Their metaphor conveys the idea of being overwhelmed with joy and happiness, as if one's positive emotions have lifted them to a higher plane.
The idiom *go round/around in circles* (CID: n.a.) and its Hungarian counterpart *mindig ugyanoda lyukad ki* (AMI: 110) have different source and common target domains related to repetitive actions and lack of progress. The motivating metaphor in English is STAGNATION IS A CIRCULAR MOVEMENT, and in Hungarian STAGNATION IS REPETITION. The English metaphor suggests that going round in circles involves continuous, circular movement, while the Hungarian metaphor suggests that repetition of problems or challenges hinders growth.
The idiom *cut things fine* (EIIU: 38) and its Hungarian counterpart *hajszálra kiszámít(va tesz) valamit* (AÉAKSZ: 169) do not share common source and target domains. Still, their source and target domains are related to precision and accuracy in calculations or decision-making. The motivating metaphor in English is ISSUES TO BE DEALT WITH ARE PHYSICAL OBJECTS; in Hungarian ACTIONS ARE METICULOUS CALCULATIONS. The motivating metaphor for the English idiom implies that the things or issues being dealt with are compared to physical objects that need to be precisely measured or divided to achieve the desired result. The metaphor of the Hungarian idiom suggests that one likens the actions taken to meticulous calculations, indicating that one does them with great precision and attention to detail to achieve the desired outcome. Both idioms may be metonymy-motivated as well, with the English idiom referring to *fine* and the Hungarian equivalent to a human body part with the PROPERTY "*hajszál*" (hair), similarly to the potentially metonymy-based motivation of *break your back/agyondolgozza magát*.
Let the cat out of the bag (EIIU: 80) and its Hungarian counterpart *eljár a szája* (AÉAKSZ: 77) have different source and target domains related to revealing a secret or disclosing confidential information. The motivating metaphor in English is STATES AND SITUATIONS ARE CONTAINERS, while in Hungarian CHANGE IS A HORIZONTAL MOVEMENT (cf Lakoff 1993: 225). The English metaphor suggests that states and situations are like containers, while the Hungarian metaphor suggests that actions or behaviors lead to the disclosure of information.
The idiom *sell like hot cakes* (CCID: 242) and its Hungarian counterpart *viszik, mint a*

cukrot (AMI: 617) share common source and target domains related to the popularity and rapid sale of a product. Their motivating metaphor is QUALITIES ARE TRANSFERS. The metaphor suggests that one transfers the attributes of a product to the act of selling, implying that a product's desirability leads to rapid sales.
The idiom *cross your mind* (WOYI: 10) and its Hungarian counterpart *megfordul a fejében valami* (MAEN: n.a.) share common source and target domains related to thoughts and mental processes. Their motivating metaphor is STATES AND SITUATIONS ARE CONTAINERS (cf Langlotz 2006b). This suggests that states and situations are like containers, with thoughts like objects entering and leaving one's mind.
The idiom *food for thought* (CCID: 170) and its Hungarian counterpart *elgondolkodtató téma* (AMI: 729) do not share common source and target domains related to food and mental stimulation. The motivating metaphor in English is ISSUES TO BE DEALT WITH ARE PHYSICAL OBJECTS (cf Langlotz 2006b), and in Hungarian ATTRIBUTES ARE FORCES (cf Langlotz 2006b). The English idiom likens issues to physical objects for mental stimulation, while the Hungarian one compares attributes to forces that stimulate thinking. In addition to the metaphors mentioned above, also the conceptual metaphor THEORIES ARE FOOD also works for the English idiom.
The idiom *meet your Waterloo* (CCID: 477) and its Hungarian counterpart *kudarcot vall* (AMI: 782) lack a metaphor shared. The motivating metaphor in English is PURPOSEFUL ACTIVITY IS A BATTLE (cf Langlotz 2006b), and I found none in Hungarian. The motivating metaphor for the English idiom means that purposeful actions or endeavours are likened to a battle or military campaign, and "meeting your Waterloo" signifies encountering a significant and decisive defeat or failure in one's efforts, while the Hungarian expression simply means "to suffer a failure" or "to fail".
The idioms *the dos and the don'ts* (WOYI: 90) and its Hungarian counterpart *utasítások* (AMI: 171) do not have a common metaphor. The motivating metaphor in English is CORRECT BEHAVIOUR IS INSTRUCTIONS, and I found none in Hungarian. The English metaphor compares dos and don'ts to instructions for proper behavior, while the Hungarian counterpart translates to "instructions" without employing a specific motivating metaphor.
The idiom *pull strings* (WOYI: 87) and its Hungarian counterpart *protekciót vesz igénybe* (AMI: 690) have different source and target domains. The motivating metaphor in English is DISHONEST BEHAVIOUR IS ACTING FROM BEHIND THE SCENES, and in Hungarian ABSTRACT ENTITIES ARE PHYSICAL OBJECTS TO USE. The motivating metaphor for the English idiom implies that when someone "pulls strings", they are engaging in secretive or manipulative actions to exert influence or gain an advantage, often without others being aware of their involvement. The Hungarian metaphor suggests that when someone "protekciót vesz igénybe" (literally, "takes advantage of protection" or "uses connections"), they are making use of abstract entities like influence or connections as if they were physical objects or tools.
The idiom *have an axe to grind* (WOYI: 30) and its Hungarian counterpart *csak a maga hasznát nézi* (AMI: 25) share common source and target domains related to personal interests and motivations. Their motivating metaphor is INTERESTS ARE PHYSICAL OBJECTS. This metaphor implies that one likens personal interests and motivations to tangible objects that individuals carry or hold for their benefit or advantage.
The idioms *be the best/greatest thing since sliced bread* (EIIU: 84) and *a legjobb dolog a világon* (AMI: 71) do not share source and target domains. The motivating metaphor in English is ATTRIBUTES ARE TIME SPANS, and I found none in Hungarian. In English, the metaphor compares attributes to time spans.
The idiom *come up in the world* (WOYI: 62) and its Hungarian counterpart *meggazdagodik* (AMI: 122) have different source and target domains related to social and economic

advancement. The motivating metaphor in English is GOOD IS UP (cf Langlotz 2006b), and in Hungarian CHANGE IS ACQUISITION (cf Lakoff 1993: 226). The two metaphors emphasize social and economic advancement. In English, achieving progress is analogous to moving upwards, while in Hungarian, "meggazdagodik" signifies acquiring wealth or prosperity, a significant change in one's economic status. We need to bear in mind, however, that *meggazdagodik*, is not only metaphorical but also metonymical, since this verb is a prototypical example of metonymies with the ACTION ICM, such as *megfésül* – 'comb' (INSTRUMENT FOR ACTION), *szenteskedik* – 'be sanctimonius' (AGENT FOR ACTION), *plázázik* – 'to hang around/about in malls' (PLACE OF ACTION FOR ACTION), *jegyzetel* – 'make/take notes' (PURPOSE OF ACTION FOR ACTION) (cf. Kövecses-Benczes 2010: 70-71). In the case of *meggazdagodik*, the root of the word itself contains the result of the action.
The idiom *somebody's heart sinks* (CID: n.a.) and *elcsügged* (AMI: 331) share common source and target domains related to emotions and the physical sensation of sinking. The motivating metaphor in both English and Hungarian is CHANGE IS A VERTICAL MOVEMENT (cf Lakoff 1993: 226). Both English and Hungarian metaphors use a vertical movement metaphor to describe emotional changes, likening them to sinking objects. the Hungarian metaphor also suggests that "elcsügged" conveys the idea of becoming disheartened or discouraged as if one's emotional state moves vertically, implying a change or shift in emotional condition. This is supported by the data taken from two etymological dictionaries (Benkő 1995 and Zaicz 2013). Therefore, it seems likely that the verb *csügg* ('hang') - which, according to the data in Benkő (1995: 580), also relates to the verb *csüng* ('hang') and is a variant of *csüng* on the basis of Zaicz (2013) - motivates the vertical 'hanging down, keeping down' and thus the appearance of the negative direction in the present verb form.
The idiom *a hot potato* (CCID: 352-353) and its Hungarian counterpart *kényes téma* (AMI: 543) share common target domains and different source domains related to the concept of handling difficult or sensitive issues. The motivating metaphor in English is ISSUES TO BE DEALT WITH ARE PHYSICAL OBJECTS, and in Hungarian ISSUES TO BE DEALT WITH ARE WAYS OF DEALING WITH THE ISSUES TO BE DEALT. Both expressions describe handling difficult or sensitive issues. The English metaphor compares issues to physical objects, while the Hungarian metaphor suggests specific approaches to handling them carefully. Both idioms use concrete physical matter, such as skin or clothing material, to convey the idea that mental entities are concrete matter. At the same time, another source domain, CONCRETE PHYSICAL MATTER, is also at work; expressions like *kényes bőr* 'delicate skin' or *kényes ruha* 'delicate (clothing) material'. In other words, we may formulate another Hungarian metaphor: MENTAL ENTITY IS CONCRETE MATTER.
The idiom *rub shoulders with someone* (CCID: 402) and its Hungarian counterpart *összejár valakivel* (AMI: 633) share common source and target domains related to social interactions and proximity to others. Their motivating metaphor is INTERPERSONAL RELATIONSHIPS ARE PROXIMITY. The metaphors refers to social interactions and proximity to others, implying that interpersonal relationships are similar to physical proximity, often in social settings or circles.
The idiom *touch and go* (WOYI: 63) and its counterpart *bizonytalan* (AMI: 749) in Hungarian share common target domains and different source domains related to uncertainty and precariousness. The motivating metaphor in English is STATES OR QUALITIES ARE VEHICLES, and in Hungarian STATES OR QUALITIES ARE LACK OF OTHER STATES OR QUALITIES. Both convey uncertainty and precariousness. The English metaphor suggests a situation moves uncertainly, while the Hungarian metaphor suggests a lack of certainty or stability.
The idiom *with flying colours* (WOYI: 63) and its counterpart *kitűnő eredménnyel* (AMI:

119) in Hungarian have different source and common target domains related to success, achievement, and excellence. Here, we find two different metaphors. While the motivating metaphor in English is STATES OR QUALITIES ARE VEHICLES, the motivating metaphor in Hungarian is STATES OR QUALITIES ARE MANNERS OF ACHIEVING THEM (cf Lakoff 1993: 226). The motivating metaphor for the English idiom implies that the person or thing being described has achieved success or excellence as if they were sailing through a challenging situation with colourful banners or flags flying, indicating triumph and accomplishment as ships did in the past[143]. On the other hand, the motivating metaphor for the Hungarian expression suggests that "kitűnő eredménnyel" (meaning "with excellent results" in English) conveys the idea of achieving success or excellence through an exceptional or outstanding manner or method. However, we must also reckon with a metonymic process within the metaphoricity: the word *eredmény* ('result'), which is the root of the derived form with *-vel* ('with'), already denotes the result of the action itself, but, in the form *eredménnyel* ('with a result'), which refers to the process, it appears as if it were an active participant or subfield of the process.
The idiom *keep something under your hat* (WOYI: 47) and its counterpart *titokban tart valamit* (AMI: 313) in Hungarian share source and target domains related to secrecy, confidentiality, and information control. The motivating metaphor is STATES OR QUALITIES ARE CONTAINERS (cf Langlotz 2006b). This metaphor implies that the information or secret being referred to is likened to an object or substance that is in a container (in this case, a hat), representing the idea of keeping information hidden and not revealing it to others.
The idiom *mean business* (WOYI: 31) and its counterpart *komolyan beszél* (AMI: 84) in Hungarian have different source and target domains related to seriousness, determination, and intention. There are two metaphors in place. The motivating metaphor in English is ISSUES TO BE DEALT WITH ARE COMMERCIAL TRANSACTIONS, and in Hungarian STATES OR QUALITIES ARE MANNERS OF ACHIEVING THEM (cf Lakoff 1993: 226). The English metaphor implies seriousness and determination in commercial transactions, while the Hungarian metaphor emphasizes states or qualities as ways to achieve goals.
The idiom *bring the house down* (WOYI: 62) and *felállva tapsol a közönség* (AMI: 354) have different source and target domains related to performances and audience reactions. The motivating metaphor in English is ACTIONS ARE TRANSFERS, and in Hungarian GOOD IS UP (cf Langlotz 2006b). The English motivating metaphor implies that the performer's action on the stage transfers or causes an overwhelming and enthusiastic response, such as applause, cheers, or standing ovation. The Hungarian metaphor implies that the performance is so outstanding and praiseworthy that the audience rises from their seats and claps enthusiastically. It is probably not only the semantics of *felállva* 'standing up' but also the that of *tapsol* 'clap' that help to elaborate the positive meaning that is inherently positive in the case of *tapsol*.
The idiom *move the goalposts* (WOYI: 43) and *menet közben változat a szabályokon* (AMSZ 2021: n.a.) have different source and target domains related to sports and rule changes. The metaphor in English is CHANGES ARE MOVEMENTS (cf Lakoff 1993: 226), and in Hungarian BEING IN A PROGRESS IS A GAME. The motivating metaphor for the English idiom implies that changing the rules or conditions of a situation is similar to physically moving the goalposts in a game, making it harder for the other team to achieve their objectives. On the other hand, the motivating metaphor for the Hungarian counterpart suggests the idea that when something is in progress, there might be changes in the rules or conditions.

[143] Cf (n.d.). Https://www.Idioms.Online. Retrieved August 6, 2023, from https://www.idioms.online/with-flying-colors/

The idiom *pull someone's leg* (WOYI: 47) and *ugrat valakit* (AÉAKSZ: 268) do not share common source or target domains related to humour and deception. The motivating metaphor in English is ACTIONS ARE TRANSFERS, and in Hungarian ATTRIBUTES ARE FORCES (cf Lakoff 1993: 226). The English metaphor implies playful deception, On the other hand, the motivating metaphor for the Hungarian idiom suggests that "ugrat valakit" (meaning "to tease someone" or "to pull someone's leg" in English) conveys the idea of using attributes or characteristics as forces to playfully deceive or trick someone for amusement.

Appendix N. Pearson correlation and Spearman's rho regarding production average, language level, motivation and predictability, pilot B and C together

Descriptive Statistics

	Mean	Std. Deviation	N
Production average of raters	0.587355	0.4385330	1242
Language level	2.444444	0.4971042	1242
Motivation	5.055152	2.1144245	689
Predictability	4.560799	2.3408286	551

Correlations

		Production average of raters	**Language level**	**Motivation**	**Predictability**
Production average of raters	Pearson Correlation	1	0.029	0.206**	0.265**
	Sig. (2-tailed)		0.301	0.000	0.000
	N	1242	1242	689	551
Language level	Pearson Correlation	0.029	1	0.018	-0.035
	Sig. (2-tailed)	0.301		0.645	0.414
	N	1242	1242	689	551
Motivation	Pearson Correlation	0.206**	0.018	1	.b
	Sig. (2-tailed)	0.000	0.645		.
	N	689	689	689	0
Predictability	Pearson Correlation	0.265**	-0.035	.b	1
	Sig. (2-tailed)	0.000	0.414	.	
	N	551	551	0	551

**. Correlation is significant at the 0.01 level (2-tailed).

b. Cannot be computed because at least one of the variables is constant.

Correlations

			Production average of raters	Language level	Motivation	Predictability
Spearman's rho	Production average of raters	Correlation Coefficient	1.000	0.042	0.179**	0.229**
		Sig. (2-tailed)	.	0.143	0.000	0.000
		N	1242	1242	689	551
	Language level	Correlation Coefficient	0.042	1.000	0.034	-0.030
		Sig. (2-tailed)	0.143	.	0.375	0.485
		N	1242	1242	689	551
	Motivation	Correlation Coefficient	0.179**	0.034	1.000	.
		Sig. (2-tailed)	0.000	0.375	.	.
		N	689	689	689	0
	Predictability	Correlation Coefficient	0.229**	-0.030	.	1.000
		Sig. (2-tailed)	0.000	0.485	.	.
		N	551	551	0	551

**. Correlation is significant at the 0.01 level (2-tailed).

Appendix O. Pearson and Spearman's rho correlations regarding production average, language level, motivation and predictability, pilot (B and C levels separated, familiar idioms)

Descriptive Statistics

Language level		Mean	Std. Deviation	N
B	Production average of raters	0.623971	0.4168024	570
	Motivation	5.248120	1.9538294	266
	Predictability	4.953795	2.2237081	303
C	Production average of raters	0.649923	0.4249717	468
	Motivation	5.195513	2.1615418	312
	Predictability	4.717949	2.3767554	156

Language level			Production average of raters	Motivation	Predictability
B	Production average of raters	Pearson Correlation	1	0.202**	0.200**
		Sig. (2-tailed)		0.001	0.000
		N	570	266	303
	Motivation	Pearson Correlation	0.202**	1	.b
		Sig. (2-tailed)	0.001		.
		N	266	266	0
	Predictability	Pearson Correlation	0.200**	.b	1
		Sig. (2-tailed)	0.000	.	
		N	303	0	303
C	Production average of raters	Pearson Correlation	1	0.222**	0.285**
		Sig. (2-tailed)		0.000	0.000
		N	468	312	156
	Motivation	Pearson Correlation	0.222**	1	.b
		Sig. (2-tailed)	0.000		.
		N	312	312	0
	Predictability	Pearson Correlation	0.285**	.b	1
		Sig. (2-tailed)	0.000	.	
		N	156	0	156

**. Correlation is significant at the 0.01 level (2-tailed).

b. Cannot be computed because at least one of the variables is constant.

				Production average of raters	Motivation	Predictability
Spearman's rho	B	Production average of raters	Correlation Coefficient	1.000	0.174**	0.174**
			Sig. (2-tailed)	.	0.004	0.002
			N	570	266	303
		Motivation	Correlation Coefficient	0.174**	1.000	.
			Sig. (2-tailed)	0.004	.	.
			N	266	266	0
		Predictability	Correlation Coefficient	0.174**	.	1.000
			Sig. (2-tailed)	0.002	.	.
			N	303	0	303
	C	Production average of raters	Correlation Coefficient	1.000	0.160**	0.208**
			Sig. (2-tailed)	.	0.005	0.009
			N	468	312	156
		Motivation	Correlation Coefficient	0.160**	1.000	.
			Sig. (2-tailed)	0.005	.	.
			N	312	312	0
		Predictability	Correlation Coefficient	0.208**	.	1.000
			Sig. (2-tailed)	0.009	.	.
			N	156	0	156

**. Correlation is significant at the 0.01 level (2-tailed).

Appendix P. Pearson correlation and Spearman's rho regarding production average, language level, motivation and predictability, main, B and C together

Descriptive Statistics

	Mean	Std. Deviation	N
Production average of raters	0.763921	0.3500603	1035
Language level	2.511111	0.5001182	1035
Motivation	5.533081	1.8078486	529
Predictability	5.252964	1.9002973	506

Correlations

		Production average of raters	Language level	Motivation	Predictability
Production average of raters	Pearson Correlation	1	0.044	0.788**	0.674**
	Sig. (2-tailed)		0.153	0.000	0.000
	N	1035	1035	529	506
Language level	Pearson Correlation	0.044	1	0.026	0.099*
	Sig. (2-tailed)	0.153		0.543	0.026
	N	1035	1035	529	506
Motivation	Pearson Correlation	0.788**	0.026	1	.c
	Sig. (2-tailed)	0.000	0.543		.
	N	529	529	529	0
Predictability	Pearson Correlation	0.674**	0.099*	.c	1
	Sig. (2-tailed)	0.000	0.026	.	
	N	506	506	0	506

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

c. Cannot be computed because at least one of the variables is constant.

Correlations

			Production average of raters	Language level	Motivation	Predictability
Spearman's rho	Production average of raters	Correlation Coefficient	1.000	0.014	0.525**	0.424**
		Sig. (2-tailed)	.	0.651	0.000	0.000
		N	1035	1035	529	506
	Language level	Correlation Coefficient	0.014	1.000	0.015	0.089*
		Sig. (2-tailed)	0.651	.	0.724	0.045
		N	1035	1035	529	506
	Motivation	Correlation Coefficient	0.525**	0.015	1.000	.
		Sig. (2-tailed)	0.000	0.724	.	.
		N	529	529	529	0
	Predictability	Correlation Coefficient	0.424**	0.089*	.	1.000
		Sig. (2-tailed)	0.000	0.045	.	.
		N	506	506	0	506

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Appendix Q. Pearson and Spearman's rho correlations regarding production average, language level, motivation and predictability, main (B and C levels separated, familiar idioms)

Descriptive Statistics

Language level		Mean	Std. Deviation	N
B	Production average of raters	0.791658	0.3272512	440
	Motivation	5.583333	1.7840855	180
	Predictability	5.326923	1.8632926	260
C	Production average of raters	0.792152	0.3176269	506
	Motivation	5.610390	1.7416593	308
	Predictability	5.545455	1.7085793	198

Language level			Production average of raters	Motivation	Predictability
B	Production average of raters	Pearson Correlation	1	0.772**	0.623**
		Sig. (2-tailed)		0.000	0.000
		N	440	180	260
	Motivation	Pearson Correlation	0.772**	1	.b
		Sig. (2-tailed)	0.000		.
		N	180	180	0
	Predictability	Pearson Correlation	0.623**	.b	1
		Sig. (2-tailed)	0.000	.	
		N	260	0	260
C	Production average of raters	Pearson Correlation	1	0.753**	0.556**
		Sig. (2-tailed)		0.000	0.000
		N	506	308	198
	Motivation	Pearson Correlation	0.753**	1	.b
		Sig. (2-tailed)	0.000		.
		N	308	308	0
	Predictability	Pearson Correlation	0.556**	.b	1
		Sig. (2-tailed)	0.000	.	
		N	198	0	198

**. Correlation is significant at the 0.01 level (2-tailed).

b. Cannot be computed because at least one of the variables is constant.

Language level				Production average of raters	Motivation	Predictability
Spearman's rho	B	Production average of raters	Correlation Coefficient	1.000	0.450**	0.391**
			Sig. (2-tailed)	.	0.000	0.000
			N	440	180	260
		Motivation	Correlation Coefficient	0.450**	1.000	.
			Sig. (2-tailed)	0.000	.	.
			N	180	180	0
		Predictability	Correlation Coefficient	0.391**	.	1.000
			Sig. (2-tailed)	0.000	.	.
			N	260	0	260
	C	Production average of raters	Correlation Coefficient	1.000	0.479**	0.238**
			Sig. (2-tailed)	.	0.000	0.001
			N	506	308	198
		Motivation	Correlation Coefficient	0.479**	1.000	.
			Sig. (2-tailed)	0.000	.	.
			N	308	308	0
		Predictability	Correlation Coefficient	0.238**	.	1.000
			Sig. (2-tailed)	0.001	.	.
			N	198	0	198

**. Correlation is significant at the 0.01 level (2-tailed).