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Cross-Linguistic Influence of Conceptual Fluency in the L2: A Case Study for English and Hungarian¹

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ABSTRACT

The goal of this paper is to investigate whether native language (L1) metaphorical fluency and competence (Danesi, 1992; 2016) have a detectable influence on the processing of idiomatic expressions in a foreign language (L2). Based on earlier research in the broader field, a preliminary study was conducted to reveal the extent to which L1 (Hungarian) metaphorical fluency influences the judgement of L2 (English) idioms at both the lexico-semantic and the conceptual level. My initial hypothesis was that conceptual transfer is manifest at all levels of L2 figurative language processing, but its degree may vary in function of learners' language proficiency as well as task and input type (Hall, 2002; Dijkstra, 2007). Following Grosjean's idea of "language modes" (2008), I assumed that the cultural contextualization of the target items can potentially trigger the stronger activation of the L2, thereby minimizing the effect of the L1. Participants (teacher trainees, n=38) were given a set of multiple-choice questions in which they had to select the idiom that best fits into the sentences. Results suggest that conceptual transfer is detectable already at the level of recognition, along with other related factors, such as cross-linguistic lexical interference.

Keywords: Metaphor; Idiom; Recognition; Bilingualism; Conceptual Transfer. JEL Classification Code: Y9 (Other)

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1. Introduction

The learning of figurative phrases in the L2 (second language) has traditionally been considered as one of the most difficult aspects of foreign language learning due to the fact that figurative language and thinking are subject to considerable cross-cultural variation (Schmitt, 2000). Knowing an idiomatic expression therefore involves not only remembering the form and the contextual use of the lexical item, but also some understanding of its origin (Boers, 2004). For language learners, the major source

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of difficulty comes from the very nature of figurative phrases, that is, the fact that the sum of their parts does not equal to their actual meaning (Schmitt, 2000). This observation has led several methodologists and applied linguists to work out materials and manuals in hope of facilitating the learning and teaching of L2 figurative language. A large number of these works have been inspired by cognitive linguistics (CL), which regards figurative thinking as a main organizing force of human cognition (Lakoff & Johnson, 1980; Kövecses & Benczes, 2010). Researchers trying to unite cognitive linguistics and language teaching have suggested that the solution might lie in the systematic development of figurative thinking in language classes (e.g. Boers, 2004). This view is presented in Littlemore and Low (2006), a seminal work which is the classic example of how the principles of standard conceptual metaphor theory (CMT, based on the work of Lakoff and Johnson, 1980) can be implemented into the practice of language teaching. Danesi coined the terms metaphorical competence and conceptual fluency (1992; 2016) to define the mind's innate capacity to understand and control figurative language in the L1 (first or native language) without any apparent effort. The question is whether L1 conceptual fluency can be developed into a more general skill that facilitates the mastering of L2 figurative language and at the same time promotes independent learning. In line with the general trends in applied cognitive linguistic research aiming at improving foreign language instruction through the notions of conceptual motivation and awareness-raising (see Boers, 2000; 2004; 2011; Condon, 2008; De Rycker & De Knop, 2009; Pütz, 2010), there has been increasing effort in Hungarian second language acquisition research to develop CL-influence language teaching methodologies, and a large part of this scholarly initiative has focused on idiomatic language and vocabulary enhancement (see, for example, Kövecses & Szabó, 1996; Kövecses, 2001; Palágyi, 2016).

Besides L2 methodology, there is an increasing corpus of research on idioms from the perspective of the bilingual mind. It is assumed that uncovering the ways idioms are processed in a bilingual person's cognitive system can shed light on how the two languages are organized in their mind. There are several theories related to this essentially psycholinguistic strand of research, with two topics receiving special attention in second language acquisition studies:

- (1) Are the two languages connected to each other or are they separately stored in the memory? This question is commonly known as the interdependence versus independence view (Pritchett et al., 2016). It has been assumed that experimental research on bilingual idiom perception and production will tell us more about the potential interconnectedness of the two languages (see Jankowiak et al., 2017; Pritchett et al., 2016).
- (2) In what ways is a late bilingual's language system different from that of an early simultaneous bilingual's? It has been generally accepted that there should be some difference between the two types of bilingualism at the level of conceptual organization, meaning that late bilinguals (acquiring their L2 mostly within the limits of formal education or informally in the L2 setting)² probably have different tools to access their second language than bilinguals who learnt both their languages in their early childhood (see, for example, Cieślicka, 2015). From the perspective of idiom research, this issue boils down to the question whether late bilinguals have limited access to the L2 figurative system. Although there is no unequivocal standpoint on this subject, research suggests that L2 learners first activate the literal meaning of the idiom constituents before accessing its figurative meaning (Abel, 2003; Cieślicka, 2006; 2010; 2015; Beck & Weber, 2016). Some of the related conceptual models are presented in the literature review.

The study outlined in this paper is related to the broad research field of cross-linguistic influence, which investigates cognitive interference triggered by the activation of two or more languages in a bilingual person's mind (see Odlin, 1989). The present research is an attempt to explore whether Hungarian L1 learners' native metaphorical competence affects their judgement of English L2 idioms when they have to decide on the correct L2 idiom in a highly contextualized environment. My initial hypothesis was that the L1 conceptual system will exert its influence, but the extent of its scope will depend on different factors, including salience and the distance between the L1-L2 idiom equivalents.

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² In this paper, the terms "late bilinguals" and "L2 learners" are used interchangeably as the research focuses on Hungarian L1- English L2 university majors.

Whilst the present study is in many ways related to previous research done in applied cognitive linguistics and is based on the theoretical considerations promoted by CMT, it represents a more psycholinguistics-oriented direction of research inasmuch that it aims at uncovering the conceptual nature of L2 idiom-processing through a pre-selected set of lexical items. The research methodology followed a two-phase design, in which students (second-year English teacher trainees, n=38) had to judge the idiomaticity and context-appropriateness of English idioms in a set of highly contextualized multiple-choice questions. The analysis of the data suggests that cross-linguistic conceptual influence does occur in the process of understanding and judging L2 idioms, but the extent of this influence is uncertain and is probably further shaded by other factors, such as understanding the context (or the lack thereof) and lexical transfer. The major contribution of this paper to the already existing body of research is that it can potentially shed light on some of the cross-linguistic processes that take place during L2 idiom recognition, thereby deepening our understanding of the interdependence versus independence argument. In light of relevant research in the field, the methodological considerations of the results are also discussed, and the author puts forward some recommendations related to the research design.

Let us now briefly review the structure of the paper. The Literature review following the Introduction summarizes and synthetizes CL-inspired bilingualism and psycholinguistics research, pointing out the centers of gravity that constitute the theoretical basis of the paper. The Methodology gives an account of the participants, the research design and the method of data collection. The Results and analysis section presents the results and tries to explain them with the help of multiperspectival comparative metaphor analysis, anatomizing the conceptual, structural, cultural and lexical dimensions of metaphor (see, for example, Yu, 2008 or Kövecses, 2010). The Conclusion and policy implication section reassesses the research with regard to the results and includes some methodological recommendations.

2. Literature review

First of all, it is important to point out that cognitive linguistics, the theoretical stance adopted in this study, embraces a holistic perspective on human cognition, meaning that it sees the body-mind-language-culture relationship as a dynamic whole the elements of which are in continuous interaction with one another (see Yu, 2008; Kövecses & Benczes, 2010). The same principle applies to language acquisition in general, which cognitive linguistics sees as some kind of ever-changing and emergent phenomenon.

In this respect, cognitive linguistics shares some its core principles with François Grosjean's wholistic view on the bilingual mind (Grosjean, 2008). Contrary to the so-called "fractional view", Grosjean postulates the model of a bilingual speaker whose languages are in a perpetual interplay with each other, and who "has a unique and specific linguistic configuration" (Ibid.). Looked at on their own, the two languages may appear incomplete, but in reality, they form a perfect and legitimate system together – an idea very distant from Noam Chomsky's concept of the ideal speaker (Ibid.). This conclusion and the observation that bilinguals use their languages differently in different situations led Grosjean to work out the theory of "language modes" (Ibid.). Basically, language mode means that a bilingual speaker's languages are activated to varying degrees, depending on the factors that form the situation. Grosjean therefore imagines bilingual language competence as a continuum between monolingual and bilingual modes (Ibid.).

In the same vein, cognitive approaches regard language not as a separate, stable and finished property of the mind, but rather as an integral, open and dynamic product of human cognition, which is continuously evolving and transforming (Kövecses & Benczes, 2010). Language and linguistic behavior are formed by general cognitive functions and processes, such as gestalts, prototype or perspective. Culture and physical-natural environment have a strong influence on language, and vice versa (Ibid.) All in all, it is plausible to say that Grosjean's holistic theory of the bilingual mind and the way cognitive linguistics imagines cognition are not alien to each other.

In what concerns the acquisition of idiomatic language in the L2, there exist several theories directly influenced by cognitive linguistics, and its best-known sub-discipline, conceptual metaphor theory (Lakoff & Johnson, 1980). One of the most cited ones is Beate Abel's Model of Dual Idiom

Representation (Abel, 2003). The core question of Abel's research is whether idioms are decomposable, that is, whether their constituents prompt the actual meaning of the idiom. For example, 'flesh and blood' is decomposable as its form tells us about the meaning of the whole whereas 'kick the bucket' is not. The same question can be approached from the issue of transparency. Abel's large-scale research on German L1-English L2 university students concluded that idioms have both a lexical and a conceptual representation in the mind, but their strength of the lexical entry depends on the extent of their decomposability and their frequency. It appears that salience has a major role in the integration of the idiom into the bilingual language system.

Salience or transparency is often discussed together with the issue of literal meaning. As mentioned in the introduction, research suggests that the activation of the literal meaning is supposed to precede that of the figurative one when it comes to recognizing L2 idioms. To cite one seminal paper on the topic, Anna Cieślicka (2010) investigated the nature of semantic priming effect in Polish-English bilinguals (university graduates in English Studies). Basically, what Cieślicka sought was further evidence for Sprenger et al.'s superlemma theory (2006), which postulates that there is no idiom comprehension in the L2 without the activation of the literal meaning first (Sprenger et al., 2006 [In: Cieślicka, 2010]). Whilst it is probably true that some degree of literal meaning analysis should take place prior to accessing the figurative level, the extent and scope of this cognitive process is yet not fully known. Based on her results, Cieślicka concludes that idiomatic language is at the same time fixed and analyzable, implying that literal meaning activation must always take place before entering the semantic-conceptual level of the idiom. This assumption is in line with the literal-salience model, the validity of which Cieślicka examined in an earlier paper (Cieślicka, 2006). The hypothesis of this piece of research was that literal processing will happen independently of whether the given idiom makes sense at the literal level or not. Cieślicka applied a factorial model, in which the dependent variable was retention time (how long learners remember the target item), and the independent variable was the literality of the idiom. She arrived at the conclusion that the literal salience model can be justified as the results point to the fact that literal processing takes place prior to the comprehension of the figurative dimension of the idiom. Also, she addresses the need to understand that L1 figurative language processing models are not suitable for L2 research since learning a second language presupposes a different set of cognitive strategies. These conclusions are reinforced in two of her later studies (Cieślicka, 2015; Cieślicka & Heredia, 2016 on gaze duration while reading in the less dominant language). In her 2015 study, she offers a general model of L2 idiom learning, based on Hall's (2002) Parasitic Hypothesis (Cieślicka, [In: Heredia & Cieślicka, 2015]). In short, the parasitic view suggests that when encountering a new idiomatic expression, learners connect it to its closest equivalent in their L1 lexicon, and thus the conceptual structure of the L1 item will dominate, creating a space for crosslinguistic interference. As the L2 idiom starts to solidify in the interlanguage system through practice, reflection and repetition, the learner's concept of the word is gradually reorganized. Finally, it integrates into the L2 lexicon on its own right, with the L1 influence significantly reduced in the course of restructuration. However, the length and nature of this process varies due to a number of factors such as learner proficiency, decompositionality, translatability or susceptibility to cross-linguistic influence. A counterexample of Cieślicka's findings can be an earlier piece of research by Francis (Francis, [In: Kroll & De Groot, 2005]). It suggests that there might be a closer connection between L1 and L2 lexical equivalents than previously assumed: the results of an experiment focusing on word translation indicate that the conceptual and semantic relationship between the translation equivalents are stronger than between two synonymous words in the same language. It must be added, however, that this study did not focus on the metaphorical dimensions of the bilingual conceptual system, which seems to be an area of language competence governed by a different logic, at least to some extent.

Francis also emphasizes the need to understand the psycholinguistic background of language processing. Indeed, there appears to be a growing number of experiments conducted with the aim of uncovering the neuronal aspects of bilingualism. Jankowiak et al. (2017) is one such example. The research measured the electrophysical properties of bilingual metaphor processing. The participants of the experiment were late unbalanced Polish L1-English L2 bilinguals, and they were given the task to decide on the meaning of metaphorical expressions in both their languages. Results suggest that neuronal connections for L2 metaphorical understanding are generally weaker than for the L1.

Jankowiak et al. thus conclude that metaphor comprehension in L2 is likely to be characterized by longer lexical search and processing time, meaning that unbalanced bilinguals have to make more cognitive effort to decipher the meaning of an idiomatic phrase in their less dominant language. The kind of effortless fluency defining the L1 appears to be considerably limited in the L2.

The above-mentioned studies all support the idea that conceptual fluency in the L2 requires awareness and explicit instruction. It might be true that at higher levels of proficiency this competence becomes to some extent automatized, or can be improved more easily, but again, as Cieślicka (2006) claims, L1 acquisition models do not explain the peculiarities of L2 learning. Research on cross-linguistic influence in figurative language learning can both provide insight into the actual nature of the acquisition processes and offer some pedagogical recommendations.

Earlier views on language transfer regarded the influence of the L1 in the L2 acquisition process as a necessarily harmful factor which should be eliminated (Odlin, 1989), an idea that continues to be prevailing amongst some language teachers. However, with the rise of theories which saw the L1 as a natural and integral part of foreign language learning (such as Selinker's 1972 interlanguage hypothesis), cross-linguistic influence has become a much-researched field covering virtually all areas of L2 acquisition research.

In what concerns cross-linguistic influence in L2 figurative language, research generally revolves around the question whether L1 conceptual fluency and metaphorical competence are projected onto L2 metaphorical thinking, and if it is so, what detectable effects it might have on the interlanguage. The issue of metaphorical competence is a complex one as it can be broken down to several layers which are at the same time inseparable from one another. These levels can be simplistically defined as:

- ② Conceptual: how the mind makes sense of abstract concepts;
- ② structural: how the metaphor/metaphors of the concept is/are organized in the network of meanings in our conceptual system;
- ② Linguistic: how the abstract concept receives a linguistic form that is supposed to be intelligible for the interpretive community; and
- ② Cultural: how the metaphor is understood, used and re-invented through interaction in a given cultural space in a given time (for general reference see Kövecses, 2010; Kövecses & Benczes, 2010).

The inherent complexity of figurative thinking entails that studying the connections between L1 and L2 metaphorical competences involves the analysis of all four layers of meaning.

It must be emphasized at the outset that literature in cross-linguistic metaphor research shares many of its findings with the more psycholinguistics-oriented strand of investigation cited above. For example, Ferreira (2008) investigated the issue of metaphor universality in second language acquisition through testing learners' perception of metaphors related to the concepts of VISION, MOTION and ANGER. To test his hypothesis of universality overriding variability in metaphor comprehension, Ferreira had the participants (Portugal Portuguese L1) decide on the meaning of English L2 metaphors without providing any context that might prompt the correct answer. The statistical analysis of the results showed that learners were more successful in identifying the meaning of L2 metaphors if they were salient, i.e. they were conceptually and verbally close to the L1 or they were conventional metaphors. Ferreira's findings seem to underpin Cieślicka's views on the importance of literal salience in L2 metaphor perception.

From a more methodology-driven perspective, Dijkstra (Dijkstra, [In: Kecskés & Albertazzi, 2007]) investigated how task design can facilitate the recognition of genuine L2 metaphors. He concluded that contextualization has a significant effect on learners' performance. In a similar vein, Beck and Weber (2016) found that when English idioms were presented to L2 learners in a "highly figurative global environment" (Ibid.), that is, when learners were made aware of the fact that they are expected to think figuratively, they scored higher on metaphor recognition. Results therefore suggest that some kind of cognitive attunement should take place to activate learners' L2 metaphorical competence.

A notable small-scale research on cross-linguistic influence and bilingual memory was conducted by Pritchett et al. (2016). They tested English-Russian late bilinguals (either English or Russian dominant speakers) to see whether two-word figurative expressions that exist in both languages are activated and recalled more easily than those which are present in only one language. The research is based on Paivio & Desrochers' theory of bilingual dual coding (1980, [In: Pritchett et al.

2016: 6]), which assumes that bilinguals' understanding and recall of figurative expressions is faster and more successful if the given metaphorical meaning exists in both their languages. The reason for this is that the two symbolic representations are to some extent connected to each other, which probably facilitates recall from memory. The experiment consisted of two stages: the acquisition and the test phase (recall test). The data was numerically analyzed along several independent variables, and the results confirmed Paivio and Desrochers' hypothesis on bilingual idiom recall. Interpreting the results in relation to cross-linguistic interference, this appears to be an example of positive transfer (Odlin 1989: 36), where conceptual and linguistic similarity facilitates acquisition and integration into the conceptual system. As the participants of the research were late bilinguals, they learnt their L2 well after they have acquired their L1, meaning that they encountered the L2 idiom later. It has to be added, however, that the research focused on recognition, and measuring the production of these idioms might yield a different outcome.

One final piece of research to mention is Kharkurin's study on the effect of cross-linguistic factors on creativity (Kharkurin, [In: Kecskés & Albertazzi 2007]). Whilst divergent thinking is not in the focus of the present paper, this investigation touches upon questions that might be of interest to idiom research. Kharkurin starts by stating that experimental research indicating the positive effects of bilingualism on creativity is undermined by the fact that in their everyday lives bilinguals are not proved to be more creative thinkers than monolingual speakers. Nevertheless, this does not automatically entail that the bilingual mind has no influence on creativity as it has detectable benefits in figurative thinking. The architecture of the bilingual mind appears to be more plastic and flexible than the monolingual brain, exactly because of the quasi infinite number of neuronal associations that have been formed as a result of the two languages. The experiment conducted with English-Russian bilinguals suggests that language transfer can indeed enhance creativity as it signals interaction between the two language systems and can bring about novel connections. Also, Kharkurin underlines the need for research in the field of biculturalism, implying that linguistic and cultural cannot be handled separately if one aims at uncovering the cognitive processes characterizing the bilingual mind.

Divergent as they might be, the studies cited above share a similar mindset by adopting a cognitive linguistic view on L2 figurative thinking. To recapitulate what has been said so far, it can be stated that metaphorical salience, contextualization, and the factors that can potentially trigger cross-linguistic influence are important variables to be taken into account. At the same time, these variables can manifest differently in different learning/testing situations and therefore require flexible interpretation frameworks that are adjusted to the psychological and cultural background of the participants, including proficiency level and bicultural experiences.

3. Research hypothesis and questions

Based on the readings presented above, I set out to investigate whether Hungarian L1 – English L2 adult bilinguals rely on their L1 metaphorical competence when judging the appropriateness of idioms in a specific L2 context. In other words, I would like to find out whether cross-linguistic influence has an effect on their L2 metaphorical competence. The hypothesis is that it does, but the extent of this influence may vary in function of context and proficiency.

The aim of the research is two-fold: first, with reference to the interdependence versus independence view, the results might shed some light on how figurative thinking is organized in the cognitive system of late bilinguals. Second, the conclusions might make some contribution to the field of L2 methodology.

4. Methodology

4.1 Participants

The study comprised second-year students (n=38) enrolled in the EFL teacher training program at the University of Szeged, Hungary. They are all Hungarian native speakers who are estimated to be advanced L2 users of English. The research was conducted in their weekly Integrated English Language Skills seminar, a general language course specially designed for second-year teacher trainees having successfully passed their comprehensive exam at the end of the third semester of their studies.

Research materials and method 4.2

The research material consisted of two parts (see Appendix). The first one was a preliminary vocabulary assessment questionnaire to filter out the potential target items for the actual test phase. It contained a list of idiomatic expressions in alphabetical order, selected from the course book Advanced Vocabulary in Use (McCarthy & O'Dell, 2002). The reason for relying on a ready-made set of lexical items was that it is generally difficult to make a selection that suits the desired proficiency level, and the course books from these series are methodologically reliable. Participants were asked to evaluate their familiarity with the idioms on a five-level Likert-scale (1- I have never seen this idiom and I don't know its meaning; 5- I know the meaning of this idiom (I can explain it and/or provide its Hungarian equivalent)). Those idioms which were statistically higher on the familiarity scale (received 4s and 5s) were automatically eliminated, and only those with ratings of 2 and 3 were considered as target items. The criteria for final selection were a) translatability into the L1, meaning that there is a corresponding Hungarian idiom with the same or similar meaning, and b) an observable difference between the L1 and L2 idiom as it is more likely to trigger cross-linguistic influence. The difference can occur either in the conceptual grounding or in the linguistic manifestation of the idioms. To illustrate the first, the idiom 'pull the wool over someone's eyes' translates into 'az orránál fogva vezeti' (lit. 'to lead someone by the nose', an idiom that also exists in English). An example for the latter can be 'be over the moon', which translates into 'a fellegekben jár' (lit. 'to be walking up in the clouds'). In both idioms, happiness is conceptualized as upward movement, but the specific language elements are different. Overall, partial conceptual and language-level differences were more typical of the corpus than full conceptual divergence. This could be explained in terms of metaphorical universals: many of our basic ideas are conceptualized through the same or similar metaphors as they reflect general thinking processes that are mostly culture-independent (Kövecses & Benczes, 2010). In the end, eight idioms were selected to constitute the actual set of target items.

The second part, the actual test, was administered one week after the vocabulary assessment. The target items were tested in the form of a multiple-choice task (see Appendix). The four choices for each item were the following, in varying order: the L2 target idiom, the literal translation of the corresponding L1 idiom, a random L2 idiom which may or may not be similar to the target item in form, and for the last option participants were invited to provide their own answer if they had any. All eight idioms were embedded into an L2 context situation, such as two people talking about a Fairfax scandal or two mothers chatting in the New York subway. The reason for this contextualization was my idea that by embedding the situation into the L2 setting, the L2 competence might automatically be more activated than the L1.3

The following section presents and discusses the results of research. As it included a relatively small set of data, all eight target items are going to be analyzed in detail. The analysis of the conceptual and lexical composition of the correct English idioms (the target items) and the mirror translation of the Hungarian equivalents can contribute to a better understanding of the numerical differences and the peculiarities that occur in the data. Apart from providing an interpretation of the results from a metaphor theory viewpoint, the conclusions of the analysis also offered better insight into the future directions to take in the research.

5. **Results and analysis**

The following table shows the results of the questionnaire, broken down into the four options available for each question (correct English idiom, mirror translation of the Hungarian idiom equivalent, distractor English idiom, and alternative answer provided by participant). Alternative answers are counted separately regardless of whether the participant provided it as the only or as an additional choice. The target items are presented in order of their appearance in the task sheet. Results are rounded up to three decimals.

³ It has to be added, however, that the only way to measure the effect of this variable separately would be to conduct an experimental research with a control group which gets the same material, but with L1 names and places.

Table 1.

Results of participant answers. The target items are presented in order of appearance in the test.

target item	correct EN idiom	HU mirror transl.	distractor EN idiom	alternative answers
feel down in the dumps	61.538	30.769	5.128	5.128 hit the bedrock , get the blues
cannot make head or tail of it	55.263	7.894	31.578	5.263 can't get my head around it
be over the moon	50.50	26.315	21.052	2.631 I was in Neverland
hit the roof	73.684	10.526	10.526	5.263 lose his mind, hit the floor
snake in the grass	63.157	28.947	7.894	0.00
storm in a teacup	86.842	7.894	5.263	0.00
want to curl up and die	54.054	37.837	8.108	0.00
full of beans	72.972	18.918	8.108	0.00

The statistical analysis of the data suggests a detectable presence of L1 metaphorical competence. As it can be seen from Table 1, the mirror translation of the Hungarian idiom equivalent scored second highest in most cases. An exception is 'cannot make head or tail of it', where the distractor ('it's a complete shambles to me') appears to have been a more suitable choice for students. Also, the mirror translation and the distractor were judged to be to the same degree plausible (10.526) for the sentence where 'hit the roof' was the target item.

In order to explain the characteristics of the data, it is desirable to have a closer look at each of the target items and describe their metaphorical composition in relation to the mirror translation of their Hungarian counterpart to see to what extent L1 conceptual fluency can be accounted for the results.

Feel down in the dumps

Conceptually, this idiom emerges as the language-specific manifestation of the orientational metaphor SAD IS DOWN (its binary opposition being HAPPY IS UP)⁴. As the brain associates negative emotions and depressive states with downward movement and idleness, this metaphor has been generally recognized as a conceptual universal across cultures. The L2 idiom shares its conceptual basis with the L1 idiom 'maga alatt van' (mirror translation: 'be under themselves'). Despite the fact that both idioms stem from the metaphor SAD IS DOWN, the mirror translation of the Hungarian idiom seems to have been an appealing choice for participants in approximately one-third of the cases. Interestingly though, there is one property of the L1 idiom that makes it at the same time different from the L2 counterpart, namely, that it implies a shredded state of consciousness in the subject experiencing the negative emotions. While this subtle difference does not seem to be the factor that triggers cross-linguistic influence, it suggests that the two idioms are the same only at the most basic level of their conceptual grounding, and the accumulated layers of meaning are probably the result of different culture- and language-specific processes.

Let us now turn our attention to the two alternative answers provided by the participants. The first one: 'hit the bedrock' is actually a rarely used metaphor meaning 'reach the limits of something'. Whilst it does include the idea of downward movement, it does not necessarily involve negative emotions or a feeling of sadness. It is clearly a misinterpretation prompted by the shared conceptual basis and the incorrect form-meaning pairing in the participant's lexical entry of this expression. The

⁴ For an exhaustive index of metaphors and metonymies, see Zoltán Kövecses. 2010. *Metaphor: A Practical Introduction*. Second Edition. Cambridge: Cambridge University Press. Lakoff and Johnson gives a detailed account of orientational metaphors as one of the three basic functional metaphor types in *Metaphors We Live By* (1980, Chicago University Press).

other alternative: 'get the blues' is a metaphor originating from the musical genre of the same name, and it seems to be a more appropriate solution than the former one.

Cannot make head or tail of it

Despite the fact that the L1 'se füle, se farka' ('there's no ear or tail to it', meaning something is not coherent or difficult to understand) is close to the L2 in both conceptual grounding and form (the conceptual accentuation of certain focal body parts), there appears to have been a relatively low degree of transfer for this item (7.894). At the same time, the English distractor 'complete shambles' was chosen in almost one-third of all cases (31.578). The Merriam-Webster dictionary defines shambles as "a scene or a state of great disorder and confusion", referring to rooms, buildings, and institutions. The structure 'it's a complete shambles to me' does not actually exist, it was modified only to make it more similar to the other two options. The reason why participants preferred the L2 distractor to either the correct L2 idiom or the mirror translation might be in the semantic properties of the world 'shambles.' Another possible explanation is that they found the L1 and L2 idioms too similar and therefore suspicious, and they opted for the third choice. The alternative answer ('can't get my head around it') provided by two participants can be considered as a semantically and contextually acceptable solution.

Be over the moon

The third idiom in the list can be regarded as the antonym of 'feeling down in the dumps', as it stems from the orientational metaphor HAPPY IS UP. Its Hungarian equivalent is 'a fellegekben jár' ('to be walking up in the clouds'). Both metaphors exploit the frame of SPACE, and more specifically, the notion of infinite spaces, as they describe extremely positive emotional states (i.e. the happier one is, the farther they travel in space). This metaphor also implies a certain detachment from one's sense of reality through losing contact with the ground. As expected, participants chose the mirror translation of the L1 idiom in a number of cases (26.315% compared to the 50.50% for the correct answer). The distractor 'have one's head up in the clouds' yielded similar results (21.052). It is not implausible to assume that it was the word 'cloud' which triggered transfer at the lexical level. The alternative answer 'I was in Neverland' might evoke a sort of dream world, a fantasy materialized.

Hit the roof

For the fourth situation, almost three-quarters (73.684%) of participant answers fell on the correct English idiom 'hit the roof', and only slightly more than one-tenth (10.526) opted for the mirror translation of the corresponding Hungarian idiom 'knock the floor' (the same percentage goes for the distractor 'be at a loss for words'). The alternative responses were 'lose his mind' and 'hit the floor', which, similarly to the mirror translation, reflects some kind of cross-linguistic influence in operation. The verbal part of the latter is taken from English, and the direct object 'the floor' shows the effect of Hungarian, where the idiom 'padlót fog' ('knock the floor', lit. 'touch the floor') is commonly used to express intensive emotional reaction to unpleasant surprise or disappointment.

A snake in the grass

In the idioms 'snake in the grass' and its Hungarian equivalent, 'kígyót melenget a keblén' ('embrace a snake', lit. 'warm a snake on one's breasts'), the frame of SNAKE is exploited and projected onto the target domain of HUMAN CHARACTERISTICS. In folk culture, snakes are conceptualized as cunning and sly animals with a strong desire to kill. A person of self-interest and ambition shows behavioral patterns similar to a snake, hence the metaphor, which is basically a conceptual downgrading on the hierarchy of beings. 5 Since in Western cultures the snake is generally seen as the materialization of evil, it is not surprising that the English and Hungarian expressions are similar. While participants opted for the correct L2 idiom in 63.157% of cases, the mirror translation was still preferred in more than onefourth of the answers (28.947%).

Storm in a teacup

This was the idiom where participants scored highest on the correct English idiom: 86.842% compared to 7.894% for the mirror translation of the Hungarian equivalent ('vihar a biliben', lit. 'storm in a potty'). It might be the case that the culture-specific variation in the spatial elements hindered transfer due to the marked contrast between the two.

⁵ For a thorough analysis of the great chain of being, see George Lakoff, Mark Turner. 1989. More than Cool Reason: a Field Guide to Poetic Metaphor. Chicago, Chicago University Press.

Want to curl up and die

Participants opted for the mirror translation in 37.837% of cases despite the fact that there is a considerable conceptual gap between the L1 and L2 idioms. The L1 expression '(érzem, ahogy) megnyílik alattam a föld' ('[I feel] the floor open under my feet') might be similar in conceptual grounding to the L2 idiom in the sense that it also refers to downward movement and disappearance, but the general conceptual and linguistic make-up are different.

Full of beans

A corresponding Hungarian idiom for 'full of beans' is 'be van sózva'. The literal translation would be 'be seasoned with salt', but this was slightly transformed into 'full of salt' in the test to make the choices more similar to one another. Participants chose the mirror translation in only 18.918% of cases, compared to 72.972% on the target item. Despite the relatively low percentage on the translated idiom, it is worth taking a closer look at it. There is no Hungarian idiom which would correspond to the idea of a person being filled with salt or being salty (in contrast, 'bitter', 'sour' and 'sweet' exist). For this reason, it is highly unlikely that participants mistook 'full of salt' for another L1 idiom. Still, it appears that the word triggered the L1 lexicon, and that is why they opted for this "hybrid" English-Hungarian idiom. The result can thus be interpreted as a manifestation of some degree of transfer across the group.

6. Discussion

The data presented above was interpreted in terms of cross-linguistic influence. The results and the analyses suggest that conceptual transfer appears to have an influence on how learners judge English L2 idioms even in a strongly contextualized environment and at an advanced level. The results therefore support the interdependence view, implying that it is not possible to eliminate the presence of the L1 when the learner is solving problems in the L2.

However, it would be a methodological inconsequence to attribute all the peculiarities of the data to L1 metaphorical competence alone as other factors, such as lexical transfer and lack of comprehension might also play a part in the process. For example, in the case of idioms that only slightly differ at word level (the surface level), lexical transfer, i.e. recognizing a familiar lexical string, might overwrite L2 competence and hinders reflexivity on the possible choices. Furthermore, the interaction of multiple factors might be another variable to consider. Lexical transfer is often difficult to isolate from conceptual transfer since the conceptual make-up of an idiom largely determines the linguistic representation, and if the L1 and L2 idiom are different at the conceptual level, or they are only partially similar, then it requires the exclusion of all other potential variables to find out whether the cross-linguistic influence is conceptual or lexical in nature.

In summary, the findings suggest that transfer does take place at a conceptual level: the L1 metaphorical competence is active regardless of the language that is actively used in a given moment. These conclusions are in line with François Grosjean's idea of the language mode: there appears to be no particular moment when only one of the languages is activated. At the same time, conceptual transfer is only one of the several variables that might play a role in bilingual learners' judgement of L2 idioms. It has to be added that the participants are Hungarian-dominant bilingual speakers since they live in the L1 setting and attend a Hungarian university, where a number of their academic subjects are in the L1. It can therefore be assumed that their limited exposure to the L2 makes it more difficult to improve L2 conceptual fluency. All in all, the research raises some crucial questions related to both bilingual language processing and language education.

7. Conclusion and policy implication

The principal aim of the present research was to investigate whether L1 conceptual fluency can potentially be a type of cross-linguistic influence, and if it can, to what extent it is detectable with the help of recognition judgement tests. The results and the analysis of target items appear to confirm the initial hypothesis that conceptual transfer is active when bilingual learners need to focus on the relationships between form and meaning in idioms. At the same time, other factors also need to be taken into consideration when interpreting the data.

It is important to note, however, that the research examined the presence of general tendencies at group level, and therefore the results are not considered as valid information on individual performance. As to future research, I currently see two potential directions to continue the study. First, it would be desirable to test the hypothesis in an experimental research design to see if the same or similar results are produced when the test conditions differ in one variable, such as the cultural context provided in the situations. There have been a number of experimental studies exploring different aspects of L2 language learning within the applied cognitive linguistic framework, and these attempts have generally yielded positive results (see Boers 2004 for a comprehensive review on research done on multiword unit learning). Comparing the results of the focus group with that of the control group might provide us with useful statistical data.

Nevertheless, the simple quantification of student answers might not account for the complexity of the subject in question. We could see through the metaphor analysis that figurative language goes beyond the conventional form and meaning dichotomy, and it incorporates extralinguistic factors such as conceptual grounding and cultural filters. Also, task and other external circumstances can act as independent variables having an effect on the outcome of the test. In light of this, another methodological improvement would be to employ a think-aloud procedure in order to gain some insight into the psycholinguistic processes that actually take place when learners reflect on the idioms. While such a research design would be time-consuming, it would definitely prove to be beneficial for investigating cognitive mechanisms.

From the point of view of L2 methodology, it can be stated that figurative thinking occupies a peripheral place in foreign language education. The general idea is that idioms and figurative language are not integral part of foreign language competence in the traditional sense. However, metaphors and figurative expressions make up a significant part of everyday language, and it should therefore be indispensable to train learners to recognize the peculiarities of figurative thinking in both their L1 and L2. The results of the study show that even at higher levels of proficiency, learners' strategies to figurative thinking in the L2 are limited. This calls for awareness both on the part of the teacher/instructor and the learner. In fact, as Littlemore & Low (2006) also pointed out, figurative thinking can have a number of cognitive benefits, of which vocabulary enhancement is only one. Hopefully, the considerations put forward by the increasingly extensive research on the benefits of teaching L2 figurative thinking will soon find their way into actual teaching practice.

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Appendix

1. Vocabulary assessment questionnaire

Vocabulary assessment questionnaire. Below is a list of English idioms. Your task is to decide how well you think you know them. Circle the number that best corresponds to your estimated level of familiarity with each item. Thank you for your help in advance.

Explanation:

- 1- I have never seen this idiom and I don't know its meaning.
- 2- I have seen this idiom but I don't know its meaning.
- 3- I might have some ideas about what this idiom means.
- 4- I think I know what this idiom means or I can guess its meaning.

5- I know the meaning of this idiom (I can explain it and/or provide its Hungarian equivalent)

a snake in the grass	1	2	3	4	5
a storm in a teacup	1	2	3	4	5
at the eleventh hour	1	2	3	4	5
bad blood	1	2	3	4	5
be a complete	1	2	3	4	5
shambles					
be a dark horse	1	2	3	4	5
be a know-all	1	2	3	4	5
be a mine of	1	2	3	4	5
information					
be a rough diamond	1	2	3	4	5
be a soft touch	1	2	3	4	5
be at a loss for words	1	2	3	4	5
be clear as mud	1	2	3	4	5
be dead on one's feet	1	2	3	4	5
be down in the dumps	1	2	3	4	5
be full of beans	1	2	3	4	5
be in one's element	1	2	3	4	5
be in seventh heaven	1	2	3	4	5
be on cloud nine	1	2	3	4	5
be one sandwich short	1	2	3	4	5
of a picnic					
be over the moon	1	2	3	4	5
be slow on the uptake	1	2	3	4	5
be the brains behind (a	1	2	3	4	5
company)					
be up and running	1	2	3	4	5
be very much one's	1	2	3	4	5

own person					
be/feel at sea	1	2	3	4	5
brush something	1	2	3	4	5
under the carpet					
cannot make head or	1	2	3	4	5
tail of something					
drive someone nuts	1	2	3	4	5
fall head over heels	1	2	3	4	5
feel something in	1	2	3	4	5
one's bones					
get on like a house on	1	2	3	4	5
fire			-	-	-
get on someone's	1	2	3	4	5
nerves			-	•	-
get the wires crossed	1	2	3	4	5
give someone the	1	2	3	4	5
benefit of the doubt			,	'	,
go/run like clockwork	1	2	3	4	5
grey matter	1	2	3	4	5
have a soft spot for	1	2	3	4	5
someone	•	2	J	7	J
have no clue of	1	2	3	4	5
something	•	2)	4)
have nothing between	1	2	2	4	г
the ears	1	2	3	4	5
	1	2	2	4	г
have the gift of the	1	2	3	4	5
gab		_	_		_
hit the roof	1	2	3	4	5
live to tell the tale	1	2	3	4	5
mince one's words	1	2	3	4	5
mind one's own	1	2	3	4	5
business					
muddy the waters	1	2	3	4	5
not be born yesterday	1	2	3	4	5
(I wasn't born					
yesterday)					
not see the wood for	1	2	3	4	5
the trees					
out of the blue	1	2	3	4	5
pull the wool over	1	2	3	4	5
one's eyes					
put a brave face on it	1	2	3	4	5
the calm before the	1	2	3	4	5
storm					
things are looking up	1	2	3	4	5
turn one's stomach	1	2	3	4	5
want to curl up and die	1	2	3	4	5
work like a dream	1	2	3	4	5

2. Idiom recognition test

Read the following situations and decide which expression fits best. Circle the letter of your answer. You can add your own idea in d).

James: You know, Anneka, lately I've been feeling pretty bad about my life. It's like nothing's going the way it's supposed to be.

Anneka: Yes, I know what you're talking about. But don't worry, sometimes everybody

- a) Is under themselves
- b) Gets the wires crossed
- c) Feels down in the dumps
- d) Other:

Christopher: Tom, come here and have a look at this text, please.

Tom: What is it? Old English?

Christopher: Just come here at once! It's so difficult,

- a) I cannot make head or tail of it
- b) It's a complete shambles to me
- c) There's no ear or tail to it.
- d) Other:

When Abigail moved to the US from Ireland, she in the first few months. Afterwards she realized that life there wasn't all fun and games either.

in the first few months. Afterwards she realized that life there wash t all full and games either

- a) Had her head up in the clouds
- b) Was over the moon
- c) Was up in the clouds
- d) Other:

Edgar: Does your father know you've crashed his car?

June: Hell, no! He would surely

if I told him on the phone. I'll wait until he gets back from his business trip in Washington.

- a) Knock the floor
- b) Hit the roof
- c) Be at a loss for words
- d) Other:

When Chris met Margaret, they instantly took to each other. They had been going out for two years when Chris finally took the courage to propose to her. To everyone's surprise, Margaret said no, saying she was planning to marry a wealthy businessman from London. He had no idea that

- a) He was embracing a snake
- b) She was such a snake in the grass
- c) She would muddy the waters so much
- d) Other:

[Jake dropped a plate and it broke. Rosa is making a terrible fuss of it, as she always does] Jake: Rosa, that was just an old plate! Stop yelling or I'll leave.

Rosa: Yes, but you're always breaking things! You're the clumsiest person I've ever met! Jake [taking his coat]: Alright Rosa, that's it, I've had enough. All this drama, it's nothing but

- a) A storm in a potty
- b) A storm in a teacup
- c) Kicking up a storm
- d) Other:

We were halfway through French class when I realized one of my shirt buttons was undone [I'm the teacher]. It was so embarrassing.

- a) I wanted to curl up and die.
- b) I felt dead on my feet.
- c) I felt the floor open under my feet.
- d) Other:

[Two mothers, Michelle and Abigail, are talking on the busy New York subway]. Michelle: And how are the kids, Abby? Abigail: Oh, they're great! They're active, moving around all the time, they're so

- a) Full of salt
- b) Full of beans
- c) Full of hot air
- d) Other: