

Do metaphors help or hinder second language vocabulary acquisition?

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Abstract

The use of non-literal language and its influence on second language (L2) vocabulary acquisition is a widely debated topic. This article focuses specifically on the role of metaphors as an example of non-literal language and a pragmatics related phenomenon, beginning with how conceptual and enactment-based metaphor awareness can support L2 vocabulary acquisition. Opposing arguments suggesting that metaphor may hinder L2 vocabulary learning are also explored, such as the role of an individual's first language (L1), along with insufficient vocabulary size and depth. Implications for both L2 vocabulary research and practice are discussed before reaching an overall conclusion.

Keywords conceptual metaphors, L2 vocabulary learning, non-literal language

1. Introduction

Metaphorical language has often been explored through Lakoff and Johnson's (1980) theoretical framework of Conceptual Metaphor Theory, which posits that metaphor is about understanding the link between constructs within our daily lives that can shape the way in which we perceive the world. They argue that metaphor is a conceptual process establishing connections between a source domain, typically a concrete concept, and a target domain, which is an abstract entity, such as "understanding is seeing" (Suárez-Campos, 2020, p. 79). Lakoff and Johnson (1980, p. 4) illustrate their framework through the conceptual metaphor "argument is war", which can be reflected in everyday language through expressions such as "I demolished his argument" and "He shot down all of my arguments".

The role of conceptual metaphors in L2 education has been found to enhance language learning by supporting learners in recognising the ubiquity and non-arbitrary nature of different linguistic realisations of metaphorical expressions (Boers, 2004). Several studies have found that knowledge of conceptual metaphors can improve learners' vocabulary acquisition (Condon, 2008; Deignan, Gabrys, & Solska, 1997; Veliz, 2017). Boers (2013) highlights that conceptual metaphors benefit learners by revealing the motivations behind metaphoric expressions. However, further research goes beyond conceptual metaphors and instead points to the role of enactment in raising learners' metaphoric awareness and ultimately their L2 vocabulary acquisition. Cohen (1989) notes that enactment is a symbolic action that learners perform and often with the use of either real or imaginary objects, which can enhance retention of new language. In a longitudinal 14-month

study, Macedonia and Klimesch (2014) explored enactment-based metaphor awareness to teach L2 metaphoric expressions and found that participants in the experimental group could remember enacted vocabulary items significantly more than those who only received an explanation of the vocabulary item.

The influence of a learner's L1 has been found as a potential variable to how successfully metaphors can support L2 vocabulary acquisition. In an empirical study featuring L1 English-L2 advanced Korean learners, Türker (2016) highlights the importance of the L1 metaphor sharing lexical and conceptual similarities with the L2 equivalent to support understanding and L2 vocabulary acquisition, even when learners have high levels of proficiency. Sharifian (2007) offers evidence from L1 Persian-L2 English speakers to illustrate the idea that L2 learners draw on the cultural conceptualisations that are associated with their L1 to unpack the meaning of L2 metaphorical expressions, suggesting an interdependence between the L1 and L2. This is supported by Kövecses (2003), who notes that metaphors are both cognitively and culturally motivated, therefore any cultural differences between the L1 and L2 can result in different interpretations of a conceptual metaphor shared in both languages. An increased typological distance between the L1 and L2 can lead to great difficulty for learners in trying to interpret metaphoric expressions (Chen & Lai, 2013).

Lexical knowledge has also been found to influence the role of metaphors in L2 vocabulary acquisition. Boers (2004) argues that beginner learners encounter the most difficulty with L2 metaphoric expressions due to their limited proficiency, whereas advanced learners may doubt the acceptability of their translations; it is the intermediate learners who are more likely to engage with figurative language. Jin (2011) analysed how learners of L2 Chinese

and L2 English use spatial metaphors in their writing and found that as learners advance in their linguistic proficiency and their lexical knowledge increases, they demonstrate more understanding and production of L2 metaphors in their writing. This points to a developmental trajectory, suggesting that metaphors may be of more benefit to learners at a higher level of linguistic proficiency.

2. Conceptual metaphors support L2 vocabulary acquisition

Through knowledge of conceptual metaphors, learners have demonstrated enhanced comprehension and retention of L2 idiomatic language. A study by Yasuda (2010) investigated this relationship with L1 Japanese - L2 English learners, exploring the acquisition of idiomatic phrasal verbs. Students in the control group received typical instruction for learning a set of phrasal verbs, whereas those in the experimental group learned the same verbs but through a cognitive linguistic approach. Despite only exploring short-term acquisition, clear findings revealed that knowledge of conceptual metaphors enabled learners to rely on metaphorical thought to support their acquisition of target idioms. Beréndi, Csábi, and Kövecses (2008) yielded similar results in a study featuring L1 Hungarian - L2 English teenage learners. The students who were supported in their understanding of how conceptual metaphors structure the meaning of L2 idioms were able to comprehend and recall this language far greater than those without such explicit instruction. A five-month post-delayed test reported the same findings, pointing to long-term benefits of using conceptual metaphors to support L2 vocabulary acquisition.

The positive influence of conceptual metaphors on L2 vocabulary acquisition can also be observed through raising learners' metaphoric awareness, a term coined by Boers (2000) to signify an individual's sensitivity to metaphors and their awareness of how language can encode different concepts. Gao and Meng (2010) adopted a quasi-experimental study with L2 English university students and found that learners who were exposed to vocabulary according to a common metaphorical theme, in comparison to learners presented with vocabulary organised by its functional usage, outperformed their peers in comprehension and retention. Such an approach also suggests that by drawing patterns and analogies across words, the learning burden will be lighter (Nation, 2022). Metaphoric awareness, therefore, is regarded as a "channel for vocabulary acquisition" (Boers, 2000, p. 553) and can serve as a platform for learners to develop metaphoric competence; an individual's ability to use the conceptual system of the L2 to express themselves rather than relying on that of the L1 (Danesi, 2008).

3. Enactment-based metaphor awareness supports L2 vocabulary acquisition

Metaphor awareness-raising activities based on enactment can increase awareness of the embodied

motivations behind conceptual metaphors and facilitate acquisition (Saaty, 2020, p. 263). Lindstromberg and Boers (2005) investigated the influence of enactment-based metaphor awareness on the acquisition of L2 English action verbs by Dutch university students. In the enactment group, students played charades by acting out metaphoric action verbs, such as "leap" and "pounce", while others guessed the meaning. Students in the comparison group, however, used verbal descriptors without any enactment. An immediate post-test required students to supply the missing verbs they had learned, along with a one-week delayed post-test, where students evaluated translations of the same verbs used metaphorically. Findings revealed that embodied action metaphor awareness significantly aided not just students' retention of the verbs, but also led to in-depth learning of interpreting the metaphorical usage of the verbs. Additionally, the authors concluded that this approach supported learners' ability to interpret the meaning of untaught metaphoric expressions (Lindstromberg & Boers, 2005).

Further support can be evidenced in a study by Saaty (2020), who compared the influence of enactment-based metaphor awareness with conceptual metaphor awareness on L2 English vocabulary acquisition amongst Saudi students. Participants did a range of comprehension and production tasks pertaining to the metaphor "life is a journey" and also completed a two-week post-test. Saaty's (2020) findings accorded with those of Lindstromberg and Boers (2005); enactment of the metaphorical expressions had a positive effect on memory and promoted heightened awareness of the embodied meanings, leading to enhanced L2 acquisition. Gibbs (2014) proposes that unlike conceptual metaphors, which focus on organising abstract concepts, embodied metaphors are an inherent part of who we are and our interaction with the world. They are at the root of why our language and gestures are "grounded in everyday bodily actions" (Gibbs, 2014, p. 168). Gibbs' (2014) position suggests that whilst conceptual metaphor awareness can help learners to understand and structure abstract ideas, it is perhaps more of a superficial approach to L2 acquisition. Embodied metaphors, however, are centred around the individual and encourage both linguistic and non-linguistic instantiations of metaphors, potentially facilitating deeper and richer L2 vocabulary acquisition.

4. L1 influence on metaphors hinders L2 acquisition

Despite empirical evidence suggesting that metaphors can enrich L2 vocabulary acquisition, studies have found that a learner's L1 may negatively influence this. Charteris-Black (2002) investigated whether Malay EFL learners' L1 conceptual and linguistic knowledge had an impact on their performance during a multiple choice and gap-fill task using L2 metaphorical expressions. Findings revealed that the most difficult figurative expressions for the participants were those which were dissimilar at conceptual level but shared an equivalent linguistic form. This imbalance between the L1 and L2 expressions led to

L1 interference, as participants were tempted by the literal translation of the linguistic form to activate a similar conceptual basis in their L1, which did not support the L2 (Charteris-Black, 2002). Chen and Lai (2013) investigated Taiwanese EFL learners' ability to translate English metaphorical sentences into Chinese and also reported poor performance when L1 and L2 conceptual metaphors were distinct. These findings suggest that concepts which have a pre-existing category in the L1, not shared by the L2, may hinder development of metaphor knowledge if learners try to apply this conceptual L1 knowledge to the L2.

L1 influence has also been observed in learners' L2 written production featuring the use of metaphors. Littlemore et al. (2013) analysed one hundred anonymised examination essays written by L1 Greek and L1 German L2 English learners from a range of CEFR levels scaling from A2 - C2. At B2 level, the learners produced significantly more errors in attempts at metaphorical expressions owing to L1 influence. Such errors were found in a higher proportion of open-class metaphors containing nouns, verbs, or adjectives, rather than closed-class metaphors focusing on prepositions or determiners (Littlemore et al., 2013). These findings are corroborated by Iaroslavtseva and Skorczynska (2017), who explored the use of metaphor in 100 L1 Spanish - L2 English learners' essays; 50 at CEFR level B2 and 50 at level C1. They found that learners' writing at B2 level contained the most metaphors, 53% of which were erroneous metaphors as a result of L1 influence. In line with Littlemore et al. (2013), the errors were more frequent in open-class as opposed to closed-class metaphors, which Martín-Gilete (2022) postulates may be because these metaphors enable learners to express a wide variety of conceptual meanings. Closed-class metaphors, however, are more restrictive and denote a much narrower set of meanings (Sullivan, 2013). Littlemore et al. (2013) propose, therefore, that learners at this stage are heavily influenced by their L1, resulting in L2 acquisition errors as they increase their usage of open-class metaphors.

5. Vocabulary size and depth hinders metaphorical understanding

In addition to the influence of a learner's L1, insufficient previous vocabulary knowledge may also cause difficulties for learners using metaphors in L2 vocabulary acquisition. A study by Hessel & Murphy (2019) investigated the comprehension of metaphors by children with English as an Additional Language (EAL) in England. Metaphors were presented in the context of short stories, from which children were required to answer questions pertaining to the story: a recall, multiple-choice, and reasoning task. In comparison to their monolingual peers, the EAL children demonstrated weaker metaphor comprehension and smaller receptive vocabularies and experienced the greatest difficulty during the reasoning task, which the authors note is a higher-order task requiring explanations and inferences about metaphors (Hessel & Murphy, 2019).

The findings from Hessel and Murphy's (2019) study are twofold. Firstly, the results point to a relationship

between overall size of vocabulary knowledge and metaphor comprehension. Rundblad and Annaz (2010) arrived at a similar conclusion to Hessel and Murphy (2019) in their study of a metaphor comprehension task featuring short picture stories, determining that increased receptive vocabulary size was a higher predictor of metaphor performance in young children and adults. Developing a learner's overall vocabulary knowledge therefore appears to be pertinent to metaphorical understanding, as a lack of this may impede L2 acquisition when learners encounter metaphors in their second language.

However, as Wolter (2006, p. 746) points out, an individual's L2 lexical network "cannot merely be explained through vocabulary size", thus the second implication of Hessel & Murphy's (2019) study is that of vocabulary depth. The authors highlight that in addition to a limited vocabulary range hindering the EAL children's ability to explain the meaning behind the metaphors in the stories during the reasoning task, they also experienced great difficulty understanding how vocabulary items "are processed in the company of other words" (Hessel & Murphy, 2019, p. 280). This suggests that solely increasing vocabulary size is insufficient for L2 vocabulary acquisition, but rather learners should also understand how individual words connect through both lexical and grammatical knowledge. Vocabulary depth therefore necessitates richer knowledge of a word by strengthening the connections between word items (Meara, 2004). In this respect, without depth of understanding about words, learners can experience difficulties with metaphorical understanding and as such, second language acquisition may be compromised.

Further support for how insufficient vocabulary depth can lead to L2 acquisition difficulties concerning metaphors can be evidenced by Littlemore et al. (2011). Their study explored the impact of university lecturers' use of metaphors on English for Additional Purpose (EAP) students' understanding. The researchers found that 90% of the students' confusion was due to misinterpreting the metaphorical language, and that even when the expressions consisted of familiar word items to the students, they misunderstood 41% of them (Littlemore et al., 2011). From Glucksberg's (2012) perspective, learners should employ categorisation processes when trying to decipher the meaning of metaphors by constructing a metaphorical category that is different from the lexically encoded concept. For example, in the metaphor "my lawyer was a shark", the metaphorical vehicle is in reference to the metaphorical shark, not the literal creature (Glucksberg, 2012). In this sense, the word "shark" under a metaphorical category would include qualities that are shared by both sharks and lawyers, and as such learners need to ascribe properties such as "aggressive", for example, to both (Glucksberg, 2012). This interpretation therefore suggests that limited depth of students' vocabulary in understanding the metaphorical property of words can hinder their comprehension of metaphorical expressions and subsequently impede L2 acquisition.

6. Implications for L2 vocabulary practice and research

From the evidence presented, a key implication for teaching practice is the importance of raising learners' metaphoric awareness to build their competence and L2 vocabulary. Drouillet et al. (2018) posit that this can be achieved through implicit learning, having found a relationship between students who demonstrated understanding of novel metaphors and had higher implicit learning abilities. However, whilst this approach may be advantageous for such students, we cannot assume that all learners will be able to draw on their implicit learning abilities to support L2 vocabulary acquisition. Danesi (1988) believes that while acquiring figurative concepts in a L1 develops naturally, learners need to be equipped with a set of skills to achieve this in a L2. This points to the need to adopt more of an explicit approach to raise learners' metaphoric awareness, not necessarily in place of implicit learning, but rather to complement their incidental learning of new vocabulary to develop acquisition (Spada & Tomita, 2010).

Graham et al. (2020) postulate that explicit instruction through literary texts such as poems offer a creative outlet for learners to develop their metaphoric awareness, along with increased understanding of the importance of metaphors in L2 communication. However, Veliz (2017, p. 835) argues that any form of language, not just lexically rich or literary texts, has the capacity to raise learners' metaphoric awareness through "systematic and explicit explanations". MacArthur (2010, p. 159) offers support, highlighting the advantage of developing metaphoric awareness for even complete L2 beginners as a tool to "make meaning from everyday, familiar words". This suggests that through explicit guidance, educators can support students to unpack the figurative meaning of L2 words, thus not only heightening their metaphorical awareness, but also their vocabulary depth to support L2 lexical development. If learners are familiar with metaphors and the figurative meaning of words from the beginning of L2 acquisition, then this may support the trajectory of their learning as they progress to using more advanced vocabulary.

As for research implications, the relationship between the influence of metaphor and L2 education remains scarce (Hoang, 2014). The extent to which metaphorical meanings of words are stored in the L2 lexical system in the same way as non-metaphorical words remains an underdeveloped area of research (Kohl, Bolognesi & Werkmann-Horvat, 2020). To this degree, Hoang (2014) questions whether metaphorical meanings involve the learning of individual word items, or rather conventionalised expressions that form part of a larger L2 system. The absence of this research has direct implications for L2 vocabulary teaching. There remains ambiguity regarding whether figurative expressions should be grouped under metaphorical themes (Boers, 2004), whether lists of individual words should link to common metaphors (Hoang, 2014), or even if entire language curriculums should be redesigned around metaphorical themes (Danesi, 2008).

7. Conclusion

The use of metaphors as an example of non-literal language can positively influence L2 lexical development. There is evidence to suggest that knowledge of conceptual metaphors supports not just the comprehension of L2 vocabulary, but also the retention of this at a later stage. Studies exploring embodied action metaphor awareness also point to similar findings, proposing even richer L2 acquisition through enactment of metaphorical expressions. However, it should be recognised that interference from a learner's L1 may hinder L2 vocabulary acquisition due to dissimilarities in the metaphors at conceptual level. Additionally, misunderstandings regarding the metaphorical properties of L2 vocabulary can be traced to limited vocabulary size and depth, which may also impede acquisition. Overall, evidence suggests that explicit instruction to raise learners' metaphoric awareness, and subsequent metaphoric competence, is beneficial for L2 vocabulary acquisition. Through explicit guidance, educators have the potential to equip learners with knowledge and understanding of metaphors, along with the linguistic tools to decipher meaning from non-literal language. Finally, with regards to future research, this should expand on the currently underdeveloped area surrounding how metaphorical meanings of words are stored in the lexicon, to make evidence-informed recommendations for L2 pedagogy concerning the teaching of L2 vocabulary.

Rachael Howe graduated from the University of Southampton in 2020 with an MLang (Hons) degree in German and Spanish Linguistic Studies. She then completed the Cambridge CELTA, followed by a PGCE in Modern Languages at the University of Chester. She is a Teacher of Modern Languages and is currently a part-time student at the University of Oxford studying for an MSc in Applied Linguistics for Language Teaching. Her research to date has predominantly focused on various areas of second language acquisition, with a particular interest in second language speech. She is currently investigating second language phonological decoding and the importance this has for the Modern Languages classroom with teenage learners of Spanish.

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Conflict of Interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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