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Kognitív nyelvészet az angol nyelvi szókincstanításban: esettanulmány phrasal
verb-tanítással

Cognitive Linguistic methods in ESL vocabulary teaching: a case study of
phrasal verbs

Szerző: Papp Júlia Eszter

Konzulens: Dr. Jávor-Szelid Veronika

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Introduction

Cognitive Linguistics is a well-established branch of research that regards the use of language as a primarily cognitive process. Theoretical findings of this field have given rise to a large number of applied studies. The present paper explores a topic where the field of ESL can benefit from the findings of Cognitive Linguistics. It aims to answer the question of how cognitive linguistic methods can be applied to the teaching of phrasal verbs in a secondary school setting. The study will investigate the theoretical foundations of experimental cognitive linguistic methods, especially regarding the cognitive linguistic principle of semantic motivation and Conceptual Metaphor Theory.

Conceptual Metaphor Theory, which was first introduced by George Lakoff and Mark Johnson (1980), challenges the common belief that metaphors are only artistic tools. They rather view metaphor as a cognitive tool that can make abstract concepts more tangible by likening them to more concrete concepts (Kövecses, 2010). For example, the abstract concept of ANGER can be likened to the tangible experience of heat, found in expressions such as *to be hot under the collar* or *to add fuel to the fire*. The linguistic metaphors can show the existence of an underlying conceptual metaphor, such as ANGER IS HEAT in this case.

Conceptual Metaphor Theory can be usefully applied to phrasal verbs as well because the particles of phrasal verbs can often be understood in a metaphorical sense. For example, the phrasal verb *to think out*, despite the basic meaning of its particle, does not signify any physical outward movement. However, the particle can be understood metaphorically by conceptualizing the mind as a metaphorical container in which thoughts emerge and move outward. This approach reveals connections between meanings that were previously considered arbitrary, aligning with the cognitive linguistic principle that language is predominantly motivated. Motivatedness implies that connections between linguistic forms and meanings are explainable, though not always fully predictable. For example, the basic meaning of the particle *out* is metaphorically related to its more abstract meaning.

This study focuses on phrasal verbs for a variety of reasons. First and foremost, they were chosen because of their status as a difficult and recurring problem in English language learning. This is mainly due to the fact that learners often view the connections between the meanings of phrasal verbs as arbitrary, which makes them difficult to learn. However, as discussed earlier, a cognitive linguistic approach can reveal important information regarding the relationships between distinct meanings of phrasal verbs. Additionally, the choice of

phrasal verbs was influenced by recent developments in ESL research which emphasizes the importance of paying more attention to multi-word units on English lessons for greater learner benefit.

After the exploration of theoretical principles, a mixed-method quasi-experimental case study involving 14 upper-intermediate level secondary school students is described. Previous experiments applying Cognitive Linguistics to phrasal verb teaching have primarily focused on university students, and thus this study aims to collect more data on the understudied age group of students entering high school. The present study also aims to incorporate recent findings and materials related to ESL produced by Cognitive Linguistics theorists in an effort to further improve the cognitive linguistic method. Most importantly, it explores the opportunities and challenges of using pictures to represent conceptual metaphors.

The present experiment also contrasts the cognitive linguistic grouping of phrasal verbs by particle with grouping according to topic, which is a new approach compared with previous studies. The objective of this research is to explore the question of how cognitive linguistic teaching materials can be designed and administered, and to measure the effectiveness of these methods. The study makes the theoretical assumption that cognitive linguistic strategies are more effective than traditional methods.

The research endeavor introduces methodological ideas and discuss relevant issues. The experiment involves two lessons, one based on traditional methods, and one based on a cognitive linguistic approach. The study ends with administering a delayed posttest measuring the effectiveness of the two approaches. Qualitative data sources supporting the findings of the tests include teacher reflections and images that students created during the experimental lesson.

The objective of this experiment is twofold: firstly, to provide additional evidence on the effectiveness of cognitive linguistic methods, and secondly, to serve as a pilot study for a subsequent longitudinal experiment. The longitudinal experiment will explore the research questions over an extended period, with the objective of continuously refining the experimental method and collecting long-term data regarding the method's effectiveness within a high school setting.

The study is structured in the following way. A literature review exploring the theoretical foundations of the cognitive linguistic method is presented in chapter two. Chapter three

describes the methodology of the experiment. Results are presented in chapter four, and these findings are discussed in chapter five. Finally, conclusions are drawn in chapter six.

1. Literature review

2. 1. Theoretical foundations

Cognitive Linguistics is an established field of study, which presents a vastly different approach to language than the generative linguistic paradigm. Its perspective was introduced in the 1970s and has been used to analyze linguistic phenomena in a different light. The field's first scholars included George Lakoff and Mark Johnson with their work *Metaphors We Live By* (Lakoff & Johnson, 2003), Ronald Langacker with his book *Foundations of Cognitive Grammar* (Langacker, 1987, 1991), and Leonard Talmy with his work on cognitive semantics (Talmy, 2003).

Cognitive Linguistics holds that language is not independent from cognition, but “sees language as embedded in the overall cognitive capacities of man” (Geeraerts & Cuyckens, 2010, p. 4). Thus, representatives of the discipline do not view the formal structures of language as autonomous entities, but rather as tools for various cognitive processes in the human brain (Geeraerts & Cuyckens, 2010, p. 3). They look for evidence of cognitive processes in language, and they hypothesize about the organization of cognitive structures in the mind from their findings about linguistic phenomena. The claim that language is part of cognition goes directly against the Chomskyan idea of a separate language faculty in the brain, and challenges the notion that humans possess a unique and innate instinct for language (Ellis, 1999, p. 3). Cognitive Linguistics seeks to support its claims with neurobiological evidence, which also casts doubts on claims of Universal Grammar (Ellis, 1999, p. 4).

The view that language is inseparable from cognition has led cognitive linguists to another important assertion. Cognitive Linguists believe that social, biological, and cultural factors have a significant impact on language (Ellis, 1999, pp. 3–4). In other words, they maintain that language is not separate from the context it exists in. The significance of the link between culture and cognition has been especially important for many scholars of the field, including Zoltán Kövecses (2005, 2006, 2015) and Andreas Musolff (2017). Among others, their work provides the link between Cognitive and Cultural Linguistics.

The cognitive linguistic view of language is very closely related to usage-based approaches, which emphasize the explanatory power of linguistic usage habits. In Langacker's (1987) words, when a usage-based approach to language is employed, “substantial importance

is given to the actual use of the linguistic system and a speaker's knowledge of this use; the grammar is held responsible for a speaker's knowledge of the full range of linguistic conventions, regardless of whether these conventions can be subsumed under more general statements." Usage-based and functionalist linguists view language as a product of language use and highlight its dynamic and varied nature. This is particularly evident in their view of grammar. Joan Bybee, one of the most important proponents of the usage-based theory, defines grammar as "the cognitive organization of one's experience with language" (Bybee, 2006). The connection between a cognitive and a usage-based approach is once again evident from her definition.

I am placing my own research in the thus outlined cognitive linguistic framework, while remaining considerate of the introduced related subfields of linguistics.

2. 2. Phrasal verbs and phrasal-prepositional verbs

In this experiment I am examining phrasal and phrasal-prepositional verbs. These lexical categories are first characterized according to Biber et al.'s grammar (2007, pp. 404–428). This work is based on the Longman corpus, and I chose to be able to explore quantitative aspects of these grammatical concepts. The cognitive view on phrasal verbs, which is slightly different, will be introduced later.

According to their work, phrasal and phrasal-prepositional verbs are characterized as a subset of multi-word lexical verbs. Multi-word lexical verbs differ from free word combinations in the sense that their meanings cannot be predicted from their individual parts. They are relatively fixed, idiomatic expressions, although their degree of fixedness can vary. Multi-word lexical units can be divided into several categories. Phrasal verbs such as *pick up*, *give in* or *carry out*, are multi-word lexical verbs consisting of a verb and an adverbial particle which has a "core spatial or locative meaning" (e. g. *up*, *down*, *in*, *out*, etc.) (Biber et al., 2007, p. 403). Another similar category is prepositional verbs, such as *look at*, *talk about*, *depend on*, which contains a verb and a preposition (e.g. *at*, *about*, *on*, *with*). A third category of multi-word lexical verbs includes both a verb, an adverbial particle, and a preposition. These are called phrasal-prepositional verbs (e. g. *get away with*, *look out for*, *look down on*, *come up against*, etc.).

Semantic properties (the multi-word lexical verb having a meaning that cannot be deduced from its individual components, adverbial particles with a spatial meaning) are the main determinant for multi-word lexical verbs, but structural criteria are also important to accurately establish categories due to the variability of fixedness. Transitive phrasal verbs, unlike

prepositional verbs, can almost always move their particle before and after their direct object as well. See the following examples:

- (1) I've got to *get* this one *back* from her mom.
- (2) I went to Eddie's girl's house to *get back* my wool plaid shirt.

Common registers for phrasal verbs are conversation and fiction, and they are uncommon in academic prose, as they are usually colloquial in tone. In conversation and fiction, they occur an average of 2000 times per 1 million words. Phrasal-prepositional verbs match phrasal verbs in register distribution and tone. In terms of valency patterns, phrasal-prepositional verbs are more similar to prepositional verbs: the complements of their prepositions function as the verb's direct object, and both take these complements in two similar patterns.

In terms of semantic domains, phrasal verbs and phrasal-prepositional verbs are once again found to be similar. Their core meaning often refers to an activity, which is often physical. Roughly three quarters of the most common phrasal and phrasal-prepositional verbs are activity verbs (e. g. *get on*, *look out*, *step up*, *get out of*, *get away with*). Common phrasal and phrasal-prepositional verbs with core meanings in the mental (*make out*, *look forward to*) communicative (*bring up*, *come out with*), occurrence (*grow up*, *come down to*), and aspectual domains (*keep on*, *start off*) are much rarer. A recurrent pattern is the existence of a core meaning referring to an activity accompanied by a secondary meaning in a more abstract domain. An example of this is *take in*, which can refer to the actual activity of bringing someone or something in, and more abstract senses, such as 'understanding something completely' or 'to receive money from sales or as payment' as described by the Cambridge Dictionary.

Given the observed similarities of phrasal verbs and phrasal-prepositional verbs, such as in register distribution, in tone and in common semantic domains, the decision to use both types in the experiment is justified.

2. 3. Conceptual Metaphor Theory and motivated meaning-meaning connections

My research applies two important cognitive linguistic theories which have significant implications for phrasal verbs, the subject I have chosen to teach.

The first of these is Conceptual Metaphor Theory, first introduced by the works *Metaphors We Live By* (1980). Conceptual Metaphor Theory has been further developed, for example, in the works of Zoltán Kövecses (e. g. *Metaphor: A Practical Introduction*, 2010), *Extended Conceptual Metaphor Theory*, 2020).

Conceptual Metaphor Theory challenges the common belief that metaphors are only artistic tools that are primarily used in a literary context, and that one must have special literary talent to invent them. Rather, they view metaphor as a device that is pervasive and essential in our everyday speech (Kövecses, 2010). The reason for this, in their view, is that metaphor is an essential cognitive tool which helps us better understand abstract concepts (Kövecses, 2010). According to metaphor theory, when confronted with abstract concepts, individuals tend to liken them to something more concrete and tangible. This helps one to imagine and deal with abstract concepts more easily. The conceptual domain which one is aiming to understand is called the target domain, while the domain in whose terms the target domain is understood is called the source domain (Kövecses, 2010, p. 4). The resulting link between the two conceptual domains is based on similarity, and thus it is metaphorical in nature. This link is known as a conceptual metaphor, which is typically represented by small capital letters to highlight the fact that it exists in a conceptual realm. Lakoff's and Johnson's famous example is the conceptual metaphor ARGUMENT IS WAR, which is present in metaphorical linguistic expressions such as "Your claims are *indefensible*." "He *attacked* every weak point in my argument." or "His criticisms were *right on target*." (Lakoff & Johnson, 2003, p. 4).

Although conceptual metaphors are most evident from such idiomatic expressions, they are present on other organizational levels of language as well. According to the cognitive linguistic view on language, phrasal and phrasal-prepositional verbs are also thought to have metaphorical properties. The approach to these multi-word units based on linguistic corpora also highlights the link between a core activity sense and a secondary, more abstract sense that is often present in phrasal and phrasal-prepositional verbs. However, this view attests that the meaning of phrasal verbs is not predictable from their parts and does not elaborate on the nature of the link between the core and the peripheral sense. Learners are not exempt from this difficulty. In Littlemore and Low's opinion, they "represent a traditional and recurring nightmare for all learners of English" (Littlemore & Low, 2006, p. 158).

By applying the cognitive linguistic principle of linguistic motivation to the analysis of phrasal and phrasal-prepositional verbs, cognitive linguistics offers an alternative viewpoint. According to Lakoff's definition (Lakoff, 1987, p. 346), "[s]omething in language or thought is motivated when it is neither arbitrary nor predictable." According to (Boers & Lindstromberg, 2006), motivated connections include form-form connections, such as alliteration and rhyme, form-meaning connections such as onomatopoeia, and meaning-meaning connections such as

polysemy. Although not all linguistic connections are motivated, cognitive linguistics generally claims that motivation is the rule rather than the exception. (Lakoff, 1987, p. 346).

In the cognitive linguistic view, the semantic links between the meanings of a phrasal verb or a phrasal-prepositional verb are motivated, and the metaphorical nature of these connections is explained by the principles of Conceptual Metaphor Theory. The underlying motivation is typically attributed to the particle. It is worth noting that according to the cognitive linguistic view, the particles of phrasal verbs are not considered distinct from prepositions (Boers & Lindstromberg, 2006, p. 318), and consequently, cognitive linguists usually refer to them as such.

Another perspective in cognitive linguistics, as exemplified by Dirven (Dirven, 2001), holds that a phrasal verb is a more general category than a phrasal verb is a broader category that includes all verbs which combine a base verb with another word that has “a certain degree of idiomacity” (Dirven, 2001, p. 5). He also does not consider prepositions and particles to be identical, but proposes a complex relationship between them, claiming that some prepositions are able to function as particles and adverbs. The present work will follow his example in adopting a broader definition of phrasal verbs and use the term ‘phrasal verb’ for both phrasal- and phrasal-prepositional verbs as they were described by Biber et al. (2007). However, due to theoretical differences on this issue, particles and prepositions will be managed separately in this study. The present work will also continue to distinguish between particles and prepositions in order to avoid confusion of the particles of phrasal verbs with the prepositions of prepositional verbs and the different elements of phrasal-prepositional verbs.

According to Cognitive Linguistics, particles are analogous to prepositions because they have the same form and the same concrete, spatial sense. They also hold that particles can also assume metaphorical meanings. Consider the following examples:

(3) *Speak up*, please!

(4) *Keep* your voice *down*!

In these phrasal verbs, the voice is not literally raised or lowered in a literal, but in a metaphorical sense. When we are asking someone to *speak up*, we mean to say that they should ‘use more of their voice’, giving us the conceptual metaphor MORE IS UP. The opposite conceptual metaphor is LESS IS DOWN, likening using less of the abstract concept of voice with the more concrete action of bringing it down from a higher place.

The meaning of the phrasal verb and the phrasal-prepositional verb, according to the cognitive linguistic view, arises from the interaction of the conceptual metaphor represented by the particle and the meaning of the base verb. In the case of the previous two examples, this connection is straightforward: *speaking* means to ‘use one’s own voice’, *up* gives the added meaning of ‘having more of something’, and the result is *speaking up* = ‘using more of one’s voice’. However, metaphorical connections are usually more difficult to analyze than this example, which has important implications for teaching.

The previous example followed the cognitive process where a phrasal verb is created from the base verb and the particle which possesses a metaphorical sense. However, it can also be hypothesized that in other cases, a phrasal verb is formed with a concrete, physical sense, but then subsequently evolves to have a metaphorical sense based on the concrete meaning. This process, described by Dirven (2001) is similar to the previous one in the fact that it employs the underlying conceptual metaphor in the process. This case is exemplified by the verbs listed by Biber et al. (2007) as having a core activity meaning and a secondary meaning, such as *take in*. The core meaning of *take in* is ‘to bring someone or something in’, which is now only used in the context of a police arrest according to the Cambridge Dictionary. The abstract sense involves viewing the mind as a metaphorical container. Thus, the metaphorical image evoked by the verb *take in* is that of an object entering a container. This metaphorical movement signifies the process of understanding the concept in question.

According to Lakoff’s definition of motivation, the meanings of phrasal verbs cannot be predicted even with extensive cognitive linguistic knowledge. However, educated guesses can be made before learning the meanings of phrasal verbs, and patterns can be deduced if the meanings of the phrasal verbs are already known. For example, with the knowledge of the conceptual metaphor MORE IS UP, the meanings of the phrasal verbs *fill up* can be more easily understood, or even guessed.

2. 4. Why teach phrasal verbs with cognitive linguistic methods?

Cognitive Linguistics, particularly its approach to cognitive processes, significantly impacts second language acquisition theories. Key scholar Nick C. Ellis (Ellis, 1998, 1999; Robinson & Ellis, 2008) is central to this field, alongside other important works (Achard & Niemeier, 2004; Le & Nguyen, 2023; Littlemore, 2023; Tyler et al., 2018). These contributions have led to new methodologies, with Achard & Niemeier (2004) and Littlemore (2023) offering both

theoretical insights and practical suggestions. Additional handbooks (Boers & Lindstromberg, 2008; Littlemore & Low, 2006) further demonstrate the field's productivity.

According to Conceptual Metaphor Theory, metaphors are pervasive in everyday language. Therefore, it is essential for language learners to develop the cognitive skills necessary to deal with instances of metaphorical language. These metaphors tend to be highly conventionalized (Littlemore & Low, 2006), and as a result, native speakers often use them without considering or even consciously recognizing their metaphorical nature. However, for language learners, these metaphors can appear novel or be experienced in a different way than the one to which they are accustomed. This is due to the fact that there is considerable cultural variation in the usage of metaphor (Kövecses, 2005). Moreover, the domain connected to a concept may vary across cultures. A metaphor derived from a source domain like this may contain culturally specific knowledge, which can hinder understanding (Littlemore & Low, 2006, p. 91).

In light of these issues, it is not surprising that language learners generally use less metaphors than native speakers, either because they do not understand them, or because they are not confident enough to use them (Littlemore, 2023, pp. 94–95). Methodological strategies grounded in Conceptual Metaphor Theory can offer a number of solutions to this problem.

A major advantage of employing cognitive linguistic theory into an ESL curriculum is that its theoretical framework can offer meaningful explanations to certain linguistic phenomena that might otherwise appear to be highly arbitrary (Dirven, 2001; Verspoor, 2008). As Littlemore and Low (Littlemore & Low, 2006) demonstrate based on Cameron's (Cameron, 2003) findings, verbal metaphors are more opaque than nominal metaphors, and it is especially true for phrasal and phrasal-prepositional verbs, as it has been previously discussed. By offering explanations similar to those outlined in the previous section, the metaphorical meanings of phrasal verbs can be more clearly understood by learners compared to explanations employing traditional, arbitrary rules or if metaphorical meanings are left unexplained. For preliminary evidence of this problem in English language textbooks, see the study of González et al. (González et al., 2010).

If teachers choose to place more emphasis on metaphors or might even present them with a learner-friendly explanation of Conceptual Metaphor Theory, learners' metaphor-related skill can improve. In literature, this skill is referred to as metaphorical competence.

Littlemore and Low (2006) provides a comprehensive exploration of the term's history and distinguishes between a broader and a narrower definition of metaphorical competence. The narrower definition includes only "the individual's ability to understand and produce metaphors", whereas the broader one extends to one's capacity to understand the sociolinguistic implications of metaphor as well. Given the prevalence of the narrower definition in research, and due to the constraints of the study, it will be used in the present analysis.

Conceptual Metaphor Theory can also support vocabulary acquisition because it provides a form of 'deep processing'. The term refers to a process that requires significant cognitive effort on the learner's part, an activity which aids retention (De Knop et al., 2010). Thinking about the metaphorical meanings of a word can foster a form of semantic deep processing, which can have beneficial effects for learning.

The decision to employ cognitive linguistic methodology on phrasal and phrasal-prepositional verbs was not only taken due its advantages, but also because of recent developments in ESL regarding multi-word units. Lexical chunks have been traditionally neglected in English teaching, but recent findings, based on corpus data, have spotlighted their significance and proposed new methodologies (Lewis, 2012; Sinclair, 1991). This is particularly relevant in a communicative language teaching context, because teaching entirely according to communicative principles often leads to insufficient input for incidental learning (Boers & Lindstromberg, 2006).

2. 5. How to teach phrasal verbs with cognitive linguistic methods?

Inspired by findings from Cognitive Linguistics on Second Language Acquisition, a number of important principles can be introduced, which are applicable to the teaching of phrasal verbs.

Firstly, it is essential to determine which phrasal verbs to teach. Given the evidence that incidental learning is most effective when the lexical chunk is frequent - see, for example, Ellis (2002) and low-frequency verbs may not be as useful, it is best to begin with medium-frequency verbs. From this it also follows that this method is most appropriate starting from lower intermediate level (Boers et al., 2010). When designing an experiment, it is important to select examples based on corpus data, as noted in the critique of Cognitive Linguistics (Littlemore, 2023, p. 102), which can inform one about frequency. Other factors to take into

account are the discourse range, the difficulty and the meaning coverage of the word, relevance to the topic, and of course, student interest (Boers & Lindstromberg, 2006).

According to the cognitive linguistic method, phrasal verbs should be grouped according to particle, the element that can show metaphorical characteristics. In traditional teaching methods, alternative approaches include grouping phrasal verbs according to verb, according to a topic, or in semantic sets (e. g. opposites) (González et al., 2010). In previous experiments, there has been no direct comparison between a cognitive linguistic grouping and another type of grouping (Boers & Lindstromberg, 2006, p. 38). This represents a significant gap in the research.

When presenting the different meanings of a word, the framework of prototype theory can be useful. Prototype theory holds that a category has – usually a singular – central member, possessing all important criteria of the group. The category is organized around this central member, with other members being more or less prototypical based on their similarity to the prototypical member (Kövecses, 2006). This approach can be applied to the organization of word meanings to explain how metaphorical meanings – in cases when they are more peripheral – relate to more basic senses. It also highlights the importance of teaching the most prototypical senses of a word first, and elaborating on the more peripheral senses only after the most prototypical one has already been established (Littlemore, 2023; Verspoor, 2008).

Given the importance Cognitive Linguistics places on cultural differences between the conceptual systems of languages, and differences between the ways that languages conceptualize certain events, scholars of the field advise teachers to be mindful of differences between English and the students' native language. According to cognitive linguistic principles, it is beneficial to contrast the students' first language with the target language especially regarding conceptual differences (Littlemore, 2023), which frequently prove to be challenging for learners. However, this awareness is essential for developing advanced language skills. This approach is also supported by empirical evidence that in the case of teaching idioms, similar expressions in the students' L1 significantly help acquisition (Hu & Fong, 2010).

Cognitive linguistic pedagogy has also stressed the importance of using visuals and miming. While these methods are well-known in English language teaching methodology, their novelty in cognitive linguistic methodology involves using pictures and physical

movement to make conceptual metaphors more concrete and imaginable for students. This can lead to a formation of mental imagery. This, according to dual coding theory (Paivio & Walsh, 1993), which holds that the association of mental images and verbal information aids retention, can significantly benefit students. Beneficial effects of using images have been reported in multiple experimental studies (Csábi, 2004; Csábi et al., 2008; Li, 2002).

A helpful example of how this approach might be implemented can be found in the book of Brygida Rudzka Ostyn (2008). This book provides exercises for phrasal verbs with a cognitive linguistic approach, grouping them according to underlying conceptual metaphor. The book contains numerous schematic drawings including two primary figures, a trajectory and a landmark. The trajectory represents a moving object, while landmark signifies a static background or object. See the following example:

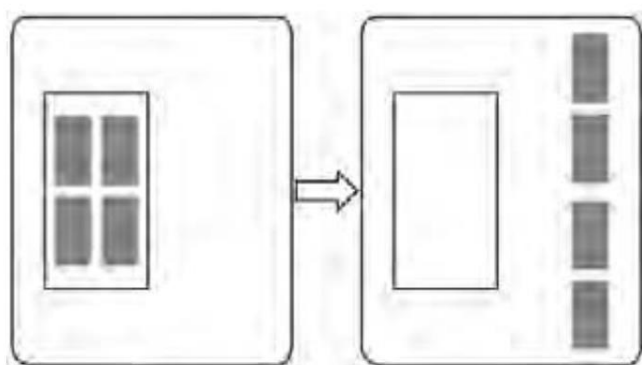


Figure 1: Example of Rudzka-Ostyn's schematic drawings (Rudzka-Ostyn, 2008, p. 19)

This drawing refers to one of the metaphorical meanings of the particle *out*, where minds, bodies and mouths are viewed as containers something can move out of. Examples of this metaphor include the phrasal verbs *look out* or *thought out*. Based on this conceptual metaphor, the phrasal verb *look out* can be used to describe metaphorical movement of the attention that goes out of the body. In this scenario, attention is pictured as the dynamic trajectory (shown as a small black rectangle), while the body is the static landmark (shown as a large white rectangle).

Previous experimental studies have shown different approaches in terms of whether they preferred teacher-led or learner-led activities. Learner-led activities, where teachers provide assistance for learners in identifying metaphors, have been favored because of their deductive approach and for their promotion of learner autonomy. However, conceptual metaphors are not always clear-cut, and their accurate identification requires a high level of

expertise and metaphorical competence. This cannot be expected from learners of English (Juchem-Grundmann & Krennmayr, 2010). Entirely learner-led activities also pose problems because learners can rarely guess conceptual metaphors by themselves, without explicit instruction (Skoufaki, 2005). And finally, a practical consideration has been suggested by Boers and Lindstromberg (2006, p. 30), which was to avoid the use of technical terms prevalent in scholarly literature, such as landmark and trajectory in Rudzka Ostyn's book.

2. 6. Previous experiments involving phrasal verbs

Experiments are most often focusing on idioms, but three experiments concerning phrasal verbs have also been carried out so far. Kövecses and Szabó's (1996) experiment involved 30 adult learners who were divided into two groups. The control group was instructed to memorize phrasal verbs, while the experimental group received instruction on orientational metaphors. The posttest involved 10 phrasal verbs which were not used in the experiment, measuring whether a cognitive linguistic instruction led to more accurate guesses due to increased metaphorical competence. The experimental group outperformed the control group in these tasks.

The other two experiments did not exclusively focus on phrasal verbs but concentrated on certain polysemous words (e. g. *hold* and *keep*) by themselves, and then as part of phrasal verbs and idioms. Csábi's (2004) included intermediate-level Hungarian students in the eighth grade (ages 13–14) and in the ninth grade (ages 14–15), while Csábi et al. (2008) experiment focused solely on eighth graders. Both experiments were conducted in Budapest schools. The two experiments yielded similar results: the experimental group performed better than the control group, although in both cases, partially correct responses involving the correct use of conceptual metaphor were taken into account.

The most immediate predecessor of the current experiment is one that I conducted in the fall of 2021 with two fellow teacher trainees (Erdei et al., in print). This experiment involved an intermediate-level group of adult learners. It followed the research design of Kövecses and Szabó's (1996) experiment, but involved the calculation of the frequency of target phrasal verb based on corpus data, and employed drawing and miming during practice. In the posttest, the experiment included a few phrasal verbs that experimental subjects did not encounter before, in order to measure metaphorical competence. In this experiment, the control group had slightly better results, but the experimental group outperformed the control group in terms of correct particles, which can indicate enhanced metaphorical competence.

In conclusion, previous experiments had encouraging but varied results and demonstrated that metaphorical competence can be improved as a result of cognitive linguistic instruction. However, they involved a limited number of students and focused on a select number of phrasal verbs. To determine the effectiveness of their methods, more research is necessary.

2. 7. Aim of the current research

The goal of the current study is to perform a quasi-experimental case study with 14 upper-intermediate Hungarian students enrolled in the ninth grade at a secondary school in Budapest.

The main aim of the study is to evaluate the effectiveness of cognitive linguistic instruction vs. traditional methods for upper-intermediate secondary school students. To this end, a comprehensive literature review has been carried out to investigate how efficient tasks can be designed and applied in this context. The present research goes deeper into this topic.

My objective is to fill a gap in existing research by conducting an experiment with a methodology enhanced by recent advancements in literature. The phrasal verbs of the experiment is be tailored to the level of the experimental group by employing corpus linguistic methods. As the experiment is conducted in a monolingual group, the advantages of this situation can be leveraged by placing emphasis on contrasting English with the students' first language. Special attention is paid to measuring the language distance between the English phrasal verb and its Hungarian equivalent in order to assess its impact on the uptake of phrasal verbs. The experimental lessons employ visuals in order to facilitate dual coding based on the ones presented in Brygida Rudzka-Ostyn's book.

3. Methodology

During the design of my research, I received invaluable ideas and feedback from Dr. Christopher Ryan,¹ who contributed to my knowledge of the ESL setting and how to conduct an experiment in a classroom environment. The present section draws significantly on his perspective on case study design.

3. 1. Group profile

My experiment was conducted in an English language group whose students were 9th graders (14-15 years old). They started their first year of secondary school in Budapest during the semester of the experiment. The group was comprised of members from two different classes. One of these classes was a specialized language class where students were required to study their first and second foreign language in an increased number of classes. Students from the other type of class focused on humanities subjects including Hungarian language and history. Students of both classes were required to learn English 4 lessons a week. Following their enrolment to secondary school, students were required to take an entrance exam to assess their language proficiency. This procedure ensured, although different members had varying experiences with learning English, that all of them were on a homogenous upper-intermediate level.

Most learners in the group were hard-working, showed a positive attitude towards English, and a clear motivation to learn. When asked, they described their motivation with extrinsic factors, such as studying or living abroad. In my experience, they were also, quite naturally, motivated by social interaction and by opportunities for creativity. Following the first quarter of the school year, I asked them for feedback on how I could improve my teaching. In response to the question “What do you think is the most useful thing for you in English lessons?”, many of them answered that vocabulary improvement was the most beneficial for them. This experience prompted me to introduce them to cognitive linguistic methods, which I had prior experience with, and which I believed to be useful for vocabulary improvement.

3. 2. Ethical considerations

Significant effort was made to ensure that the ethical considerations of such experiments were respected. As all research participants were under eighteen, I obtained consent from the headmistress of the school and the parents of all my participants. Students were not obliged to

¹ Lecturer, Department of English Language Pedagogy, Eötvös Loránd University, Budapest.

take part in the experiment and could withdraw at any time. In such cases, their results would have been deleted. Anonymity was strictly maintained throughout the study and in the presentation of its results.

In the beginning of the experiment, students chose a code name for themselves that ensured their anonymity even from the researcher. As previously mentioned, the conscientiousness and studiousness of these students had to be considered, and this decision was made to ensure they would not perceive the experimental instruction as something that might have consequences for their grades. If they had anticipated that it would affect their grades, they might have engaged in additional practice at home, potentially compromising the experiment's validity. I have also emphasized on multiple occasions that they will not be required to know these phrasal verbs for any test, and they were also asked not to write the phrasal verbs down in their notebooks, as it was customary with other new words.

A key decision was to inform students themselves that they were participating in a case study. The word *experiment* itself was not used due to its negative connotations, but students knew that they would be testing out two different methods in class, with the objective of determining their relative effectiveness. This approach was decided to prevent students from attempting to learn the terms independently outside of the classroom. Additionally, it was taken in an effort to treat them as partners with a common goal rather than passive test subjects. The students' attitudes towards the experiment varied; some viewed it as an additional obstacle, while others expressed interest in their performance and the experiment's outcome.

3. 3. Research design

3. 3. 1. Corpus-based selection of phrasal verbs

The present study employs a different technique from those that were previously discussed in literature. Previous experiments focused on two groups of learners on the same level of English and then taught one group using 'cognitive' methods, and the other using 'traditional' methods. Due to the low number of research subjects, this research method was not feasible. As an alternative, I have designed two lessons, the first one using 'traditional' methodology and the second one using 'cognitive' methodology. To ensure the validity of the experiment, the structures of the two lessons were as similar as possible. I operated with two sets of phrasal verbs on the two lessons, which were confirmed to be identical in *frequency* and in *language distance* using corpus linguistic methods.

The phrasal verb set in the ‘traditional’ lesson was organized according to topic (family relationships), while the ‘cognitive’ phrasal verb set was organized according to particle. In the latter case, to avoid overwhelming my students, I selected phrasal verbs with only two particles whose meanings were opposites (*out, into*). An extensive list of possible phrasal verbs for each set was manually gathered, and then the frequency of each phrasal verb was measured in the British National Corpus 2014 (BNC).

The British National Corpus was gathered in the late 20th and the early 21st centuries with the aim of creating a general corpus that represents the British English dialect. It is distributed by the University of Oxford on behalf of the BNC Consortium. The BNC 2014, representing the second, more contemporary set of data, is a 100-million-word compilation of spoken and written samples (*BNC2014 – CASS, 2014*), out of which approximately one-tenth comprises the spoken part. The written part consists of texts from newspapers, journals, fiction, letters, and many other types of texts. The spoken part contains informal conversations (*British National Corpus 2014, 2014*).

The frequency of each phrasal verb was counted in all of its possible forms (e. g. in the case of the lexeme *throw out*, the forms *throws out, threw out* and *thrown out* were all counted). The BNC 2014 was used to create three groups based on the number of instances in the corpus: phrasal verbs with over 100 hundred instances, phrasal verbs with frequencies between 50 and 100 instances, and phrasal verbs with under 50 instances.

All phrasal verbs were analyzed according to language distance as well. In other words, the relationship between the English word and its Hungarian equivalent was examined. In Hungarian, the closest equivalents that are similar in form to English phrasal verbs are called *igekötős igék*. In the following parts of the paper, the Hungarian term will be utilized to refer to them. These types of verbs also contain a base verb and a particle with a similar orientational meaning. The primary distinction between English phrasal verbs and Hungarian *igekötős igék* lies in form: in English, the particle follows the verb, while in Hungarian it precedes it.

I categorized the words into three categories based on the degree of similarity between the English and the Hungarians forms. The first category was labeled ‘mirror-translations’. This category included phrasal verbs whose base verbs and particles could be translated directly into Hungarian, and the two verbs had the same meaning. Examples of this category included *to look up to somebody* (in Hungarian: *felnézni valakire*) and *throw out* (*kidobni*). Based on the principles of Cognitive Linguistics, I hypothesized that these verbs would be easier for students to learn.

The second category was termed ‘false friends’. These phrasal verbs could be directly translated into a grammatical and commonly used Hungarian verb or phrase, but the meanings of the two verbs differed. For instance, the English verb *to hold something against someone*, which means ‘to consider something as a reason to have a bad opinion about someone’ has the same base verb and particle as the Hungarian verb *ellentartani*. However, the latter has the meaning ‘using physical strength to hold something in place when pressure is exerted from another side’. I anticipated that these verbs will be more challenging for students because the equivalent Hungarian forms could mislead them. The third category, which I also expected to be more difficult to acquire, was composed of phrasal verbs that had lacked a Hungarian equivalent with a similar form.

My objective was to compose two sets of phrasal verbs with the same amount of verbs and balance the frequency and language gap between groups. The frequencies and the analyses of the language distances of the phrasal verbs chosen for the research can be found in Appendix A.

3. 3. 2. Lesson plans and testing

Each lesson began with a pretest, which gauged the students’ familiarity with the phrasal verbs of the lesson (Appendix B). Delayed posttests (Appendix C) were administered three days after the contents of each lesson had been taught. The pretest asked students to provide Hungarian translations for English verbs, while the posttest required them to fill in the gaps of sentences with the appropriate phrasal verbs.

Instruction began with the lesson that employed ‘traditional’ methodology to ensure that students’ familiarity with cognitive linguistic methods would not influence their view on the ‘traditional’ lesson’s phrasal verbs. Following the pretest, both lessons presented phrasal verbs within the context of a magazine article, which were modified to include all phrasal verbs targeted on the given lesson. Students were asked to read the text, and pair the phrasal verbs with their definitions.

Afterward, the meanings of all phrasal verbs were thoroughly explained. In the ‘cognitive’ lesson, this discussion was supplemented by the introduction of Conceptual Metaphor Theory. To ensure a level appropriate for a secondary school setting, the discussion happened employing only the unavoidable technical term *metaphor* and with many examples, based on Zoltán Kövecses’s work on ANGER metaphors (see, for example, Kövecses, 1986). After exploring the pervasive nature of metaphors in more accessible idioms, the metaphorical meanings of phrasal verbs were illustrated with drawings sketched on the whiteboard. The drawings were inspired by Brygida Rudzka Ostryń’s (2008) book, but to avoid the terms

landmark and *trajectory*, the elements were referred to as *moving object* and *static object*. The drawings included concrete scenes rather than schematic drawings of Rudzka-Ostyn's design, in order to make the metaphorical meanings more easily imaginable. To accentuate their difference, the scene's landmark and trajectory were drawn with different colored markers. Examples of drawings made in preparation for the lesson are shown in the figures below.

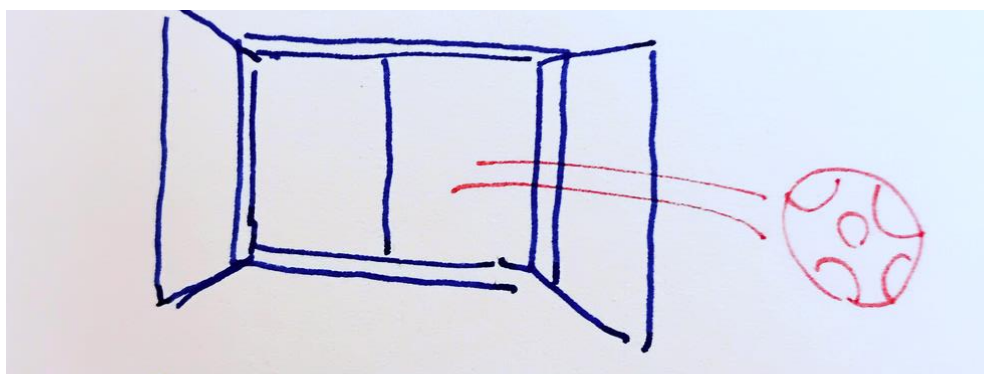


Figure 2: Representation of the verb *to throw out*



Figure 3: Representation of the verb *to speak out*

The practice phase differed between the 'traditional' and the 'cognitive' lesson. On the 'traditional' lesson, students were given discussion questions which included the targeted phrasal verbs (e. g., *What do you do to make up with somebody if you have fallen out with them?*; *Are there traits which run in your family?*). These questions were designed to inspire students to use the targeted phrasal verbs in a communicative situation for practice.

In the 'cognitive' lesson, students were tasked with creating drawings with new phrasal verbs similar to those presented during the frontal phase. A methodological issue of the experiment was that the 'cognitive' lessons' tasks took longer than expected. For this reason, the drawing task was given as homework. In the next lesson, the practice was followed up by a

group guessing game that involved students identifying phrasal verbs based on their peers' drawings. During this task, they were encouraged to share their thought process leading to their drawings with their groupmates to further develop their understanding of the underlying metaphors.

4. Results

4. 1. Reflections on the experiment

The experiment obtained data from four different sources: the tests and drawings students made, and from the reflections of my mentor teacher and myself. In these sections, I first present the reflections of my mentor teacher and myself. After that, I turn to analyze the drawings and finally the test results.

The experiment would not have been possible without the help I received from my mentor teacher. She advised me on my lesson plan before teaching and helped me choose phrasal verbs that were appropriate to the group's level. In the discussion immediately after the experimental lesson, she shared her perspective that, in her view, the experimental method was not significantly different from conventional methods. I then sought to elaborate on my rationale for the experiment. She praised my choice of the magazine article, which dealt with a topic unrelated to the experiment (the usage of AI technology in school settings). She noted that this choice effectively engaged the students, as the topic naturally sparked their interest. She also commented that I had appeared slightly unsure of myself during the lesson, possibly because of nervousness about the experiment's outcome. She also remarked that in her view, my students could have managed even more challenging tasks.

My own perceptions did not entirely confirm that students had not found the 'cognitive' method challenging. I was also led to this view because some of them approached me after class to inquire about the specifics of the homework assignment again because they were unsure how to complete it. My own initial impression was that I was able to engage them with the discussion about language's metaphorical nature, and problems occurred because I did not allocate enough time to effectively guide them through the process of creating illustrations in the spirit of Conceptual Metaphor Theory.

4. 2. Drawings

Of the 17 drawings collected (some students completed more than one drawing), 13 clearly showed a distinguishable landmark and trajectory, although they usually forgot to indicate these with different colors. A positive counterexample can be seen in Figure 4.



Figure 4: Student drawing representing the word *reach out*

Two drawings did not contain a landmark and trajectory, but they were otherwise valid illustrations of the phrasal verb itself (see Figure 5 as an example).

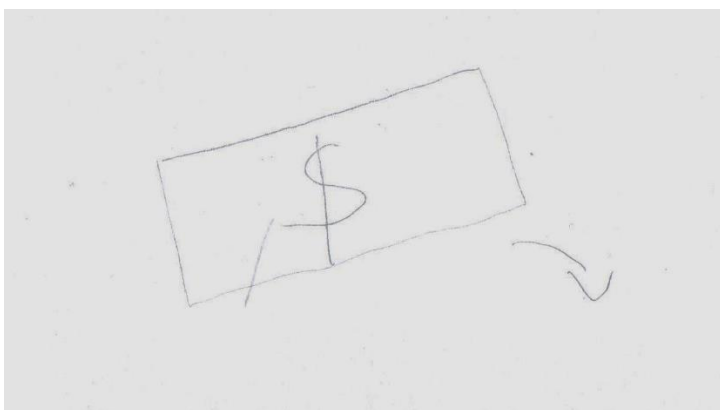


Figure 5: Student drawing representing the verb *to buy into something*

The last two drawings indicated that their creators either had wide-reaching associations or had slightly misunderstood the meaning of the phrasal verb. These examples were the drawing of ripped jeans for the phrasal verb *to buy into something*,² and the drawing of a bed with a bag of money on it for the phrasal verb *to pump money into something*.³

As instructed during the ‘cognitive’ lesson, student drawings generally lacked the abstract characteristic of Rudza-Ostyn’s work. Many students took the task one step further,

² Appendix D, Figure 14.

³ Appendix D, Figure 13.

creating concrete scenarios that their phrasal verbs could refer to (see, for example, the fake arrest for the verb *to trick someone out of something*⁴ or the ‘cat raid’ for the verb *to scream out*⁵).

4. 3. Test data

4. 3. 1. Errors in the pretests

The pretest instructed students to try to translate phrasal verbs into Hungarian, allowing them to leave a verb out if its meaning was unknown. However, many students attempted to guess verbs based on the forms and / or the meanings of the English phrasal verbs. These guesses indicate that students often favored the strategy of translating the base verb and the particle and subsequently choosing an appropriate Hungarian *igekötő*s *ige* as an equivalent.

Out of the 180 non-correct responses in the pretests (which included partially correct and incorrect answers, and items that were left blank), students attempted to employ a strategy to guess the phrasal verb in 52 cases. The 52 translations and the hypotheses made about the cognitive process that resulted in them are all shown in Appendix E.

In five instances, students attempted to guess to deduce the phrasal verb from an English verb with a similar form. For instance, they often presumed that the forms and meanings of the phrases *to fall into love with someone* and *to fall out with someone* were both opposites. In one case, a student attempted to deduce the meaning of the verb *to reach out* based on a previous encounter with the verb as part of a larger phrase (*to reach out to someone for help*).

However, the most prevalent strategy was mirror-translation. The base verb was translated in 36 cases, and the particle was used in 28 cases. It should also be noted that they frequently sought to include both the translated particle and base verb in their translation. The resulting verbs were rarely original creations: they were almost always existing Hungarian *igekötő*s *igék*, which nevertheless also often had metaphorical meanings. However, some cases clearly showed an attempt at metaphorical thinking.

This was the case in one of the translations of *to grow apart from someone*. The solution read ‘felülnőni valakit → már érettebb, bölcsebb vagy nála például’ (‘to grow over someone → you are more mature, wiser than them for example’). This error shows the

⁴ Appendix D, Figure 4.

⁵ Appendix D, Figure 17.

unconscious use of the conceptual metaphor TO BE HIGHER THAN/BEYOND SOMETHING IS TO BE OVER SOMETHING (Rudzka-Ostyn, 2008, p. 164).

Other translations also showed a degree of abstraction. Examples of this include the translation *kinőni valakit* ('to outgrow someone') for *to grow apart from someone*. This solution showed a metaphorical connection between a piece of clothing that used to fit but is now too small and a person one used to be close to but has since grown apart from.

These two examples support the claim of Conceptual Metaphor Theory that abstract thought is inherently metaphorical and conceptual metaphors are most often used unconsciously, without prior training. However, it is difficult to distinguish cases in which a student mirror-translated a word into Hungarian and arrived at an *igekötős ige* with a metaphorical meaning from cases when metaphorical thinking was involved, since the student's thought process can only be guessed at in the test format. Thus, the exact proportion of the latter is difficult to determine. It is also difficult to say whether the metaphorical thought process involved any conscious element.

It should also be noted that guessing strategies, both those that do involve some degree of metaphorical competence, and those that do not, are only evident in the case of errors. In the case of correct answers, one cannot know whether they were the result of actual prior knowledge or a lucky guess, with or without metaphorical thinking involved. Therefore, the actual proportions of guessing strategies can only be approximated.

This data also clearly supports the need to examine the language distance factor, as students were most likely to guess based on the Hungarian translations of the base verbs and particles (in the case of incorrect responses). Thus, most of the mistaken responses were accurately predicted before the start of the experiment. Examples include *beletépi valamibe* (literally, 'to tear into something') for *to tear into something / to rip into something*. Another example is the switching of *to hold something against someone* for the Hungarian the false friend *ellentartani valaminek* meaning 'to hold something up against some counterforce'. However, some of the 'false friends' were not anticipated, such as *kikiáltani* 'to proclaim' for *to scream out*.

4. 3. 2. Comparison of pretests and posttests

Tests were corrected manually, on an individual basis. Responses were classified into four categories: correct, partially correct, incorrect and items left blank. To be considered correct, the answer had to demonstrate an understanding of the phrasal verb's meaning, as defined by

the Cambridge Dictionary. Answers were marked as partially correct if they contained a word that was only similar in meaning to the target phrasal verb, or if an item included both correct and incorrect answers.

Posttests were marked based on whether the student included a phrasal verb that fits into the context of the example sentence. Due to this principle, phrasal verbs that could fit into more example sentences were considered correct in more than one context. Usual cases of this were the pairs of phrasal verbs *to tear into someone* and *to rip into someone*, and *to patch things up with someone* and *to make up with someone*, since these pairs were very similar in meaning. Partially correct responses were rare, only marked in cases where the verb that the test subject used happened to be similar, but slightly different in meaning to the correct response.

It can generally be asserted that the ‘traditional’ and the ‘cognitive’ lessons yielded very similar test results. On average, students correctly answered 3,65 items on the ‘traditional’ lessons’ pretest, while they correctly answered 3,25 (29,5%) items on the ‘cognitive’ lessons’ pretest. (Both pretests included 11 phrasal verbs.) This indicates that there was only a slight difference between the difficulty level of the two phrasal verb sets. The validity of the corpus analysis is further supported by the fact that there was a positive correlation between the phrasal verbs’ frequency and correct responses on its item in the pretest. However, this correlation was stronger for the ‘traditional’ phrasal verb set (0,89) compared to the ‘cognitive’ phrasal verb set (0,24).

Following the instruction, the average number of correct responses increased to 7,57 (68,8%) on the ‘traditional’ lesson’s posttest, and to 6,75 (61,4%) on the ‘cognitive’ lessons’ posttest. For the traditional lesson, this represents a 136,3% increase, while for the ‘cognitive’ lesson it represents a 138,3% increase in the proportion of correct responses. For a more detailed set of data on the pretest and the posttest that presents results separately for each experiment subject, please refer to Appendix F.

The proportional difference between the respective pretests and posttests was also examined for standard deviation to evaluate whether students were equally responsive to cognitive linguistic instruction due to presumed differences in metaphorical competence. However, the two standard deviations were also very similar: 1,46 for the ‘traditional’ lesson, and 1,41 for the ‘cognitive’ lesson, which meant that the ‘cognitive’ method had not created larger performance gaps between students than the ‘traditional’ method.

Another important question was whether the individual characteristics (frequency, language distance) of the phrasal verbs were significant factors in acquisition. The study examined the correlation between the frequency and the number of instances a phrasal verb was newly acquired as a result of the instruction (was not marked 'correct' on the pretest and was marked 'correct' in the posttest). The results showed a weak negative correlation was found for the 'cognitive' phrasal verb set (-0,22) and a strong correlation for the 'traditional' phrasal verb set (-0,81). The language distance factor was not tested statistically due to the small number of members in each language distance group, but the analysis of errors may shed light on its significance.

5. Discussion

The test data showed that both the 'traditional' and the 'cognitive' methods achieved a proportionally equal increase in the number of correct responses. This result was obtained with an experiment that aimed to incorporate all the latest findings of cognitive linguistics-inspired pedagogy into its experimental design, and it succeeded in achieving a more promising result than previous experiments. The nature of this change lies in the fact that partially correct responses no longer needed to be considered for asserting that the experimental groups had achieved better results. In light of these findings, cognitive linguistics-inspired methods are suggested to be equally effective as 'traditional' approaches.

Since this experiment was conducted as a small-scale case study, its findings are limited. For some of the factors examined, only preliminary findings could be gathered. Despite these constraints, the findings appear to be promising. An analysis of errors made in the pretests reveal that students who are uncertain about a phrasal verb's meaning tend to translate the base verb and the particle in an attempt to identify a similar L1 equivalent. If these students are exposed to cognitive linguistic findings that shed light on the motivated connection between the base verb's, the particle's and the phrasal verb's meaning, these guesses can become more accurate. In some cases, the translating strategy has already included attempts at metaphorical thinking. This suggests that students had already possessed a certain degree of metaphorical competence prior to the experiment. An important pedagogical challenge is to raise awareness of and strengthen this skill, thereby ensuring its integration into students' lexical interpretation processes.

The experiment also analyzed the role of illustration in cognitive linguistic methodology. Contrary to the approach taken by Rudzka-Ostyn in her seminal work on the

subject, the present experiment offered more concrete illustrations of phrasal verbs than schematic drawings of rectangles employed in Rudzka-Ostyn's book. This approach was adopted in order to reduce the level of abstractness students were required to grasp, and thus to make the new method more accessible. The experiment's results showed that the majority of student drawings incorporated both a landmark and a trajectory, aligning with the model presented during the 'cognitive' lesson. These student drawings frequently exceeded the level of concreteness presented by the teacher's model, highlighting the need for more concrete visual aids for this age group. However, this approach does not come without its own set of challenges.

The distinction between a 'conventional' and a 'metaphorical' drawing becomes less clear when using more concrete images. A 'conventional' drawing can be defined as one that depicts a typical scenario that can be described by the target phrasal verb, while a 'metaphorical' drawing aims to illustrate the phrasal verb's metaphorical meaning. For instance, the phrasal verb *to tear into someone* could be illustrated by a 'conventional' drawing depicting one person saying something hurtful, and the other person taking offense. In contrast, a 'metaphorical' illustration could depict the person's feelings and positive self-image, illustrating how the hurtful comment metaphorically 'rips into' these.

A key finding of this case study is that students require more instruction to differentiate between 'conventional' images and 'metaphorical' ones, potentially leading them to question the benefits of the latter. This conclusion is further supported by my mentor teacher's assessment, who emphasized the similarity of the two methods. An important pedagogical objective would be to start instruction on a low level of abstractness, gradually introducing students to frequent, useful conceptual metaphors, and increasing the level of abstractness during a longer period of instruction. For students already familiar with Conceptual Metaphor Theory, concrete images can also be used as examples to deduce more abstract metaphorical models that can apply to all phrasal verbs in a specific category.

This study aimed to use no technical terms apart from the word 'metaphor' due to previous criticism of cognitive linguistic methods (Boers & Lindstromberg, 2006, p. 30). While this decision had made the explanation easier to understand, it might have also created the illusion that students were learning something they were already familiar with, i. e., that language employs metaphors. Due to time constraints during the theory's introduction, this issue could not be fully addressed. An important objective for further instruction would be to help students recognize the pervasive nature of metaphor in language, and the complexity of

their accurate mapping and depiction. The use of specialized terminology, such as ‘landmark’ and ‘trajectory,’ can also be considered, particularly for ease of reference in the context of continued cognitive linguistic instruction.

6. Conclusion

The present study aimed to examine the efficacy of an enhanced cognitive linguistic methodology applied to the instruction of phrasal verbs. In order to achieve this goal, the study investigated questions designing and administering effective cognitive linguistic tasks.

A comprehensive literature review highlighted recent advancements in the field of cognitive linguistic methodology and presented specific objectives to be implemented in teaching. The present study aimed to adhere to guidelines in order to assess a refined methodology. Methodology was improved through the use of corpora in the selection process of phrasal verbs, and the extensive use of images to facilitate dual coding. Additionally, the experiment sought to present Conceptual Metaphor Theory in the most student-friendly manner possible. For this reason, extensive use of technical terms was avoided, in order to ensure the theory’s comprehensibility.

These methodological decisions offered clear advantages particularly in making abstract scientific theories more accessible to ninth-grade students, a crucial objective for this study. The incorporation of images not only enriched the presentation of conceptual metaphors, but also aided mastery of both the theory and practical applications. However, methodological improvements also had disadvantages. The presentation of Conceptual Metaphor Theory in an accessible manner might have led to an illusion of stagnation. The distinction between conceptual and linguistic metaphors was not entirely clear for students, which was evident in the drawings. This highlights the necessity for more in-depth instruction for this age group to effectively grasp the principles of Cognitive Linguistics and develop the confidence to apply the method effectively.

The study’s findings were encouraging as despite the short amount of time allotted to the introduction of conceptual metaphors, the cognitive linguistic method was proven to be equally effective as the traditional method. The value of this comparison lies in the fact that cognitive linguistic grouping was contrasted with a traditional type of grouping (i. e. grouping by topic). The organization of the instruction ensured that teaching with the cognitive method did not require a significantly longer time than traditional methods. This suggests that by employing cognitive linguistic methodology, teachers can broaden their methodological

horizons and introduce more variation into their everyday practice. The continuous improvement of cognitive linguistic methodology also suggests that learners who employ these methods will likely outperform those who use traditional methods in the future.

The likelihood of this occurring would increase significantly if instruction were implemented on a broader scale. In a long-term study, students' metaphorical competence could be improved incrementally by gradually introducing them to increasingly abstract and difficult cognitive linguistic tasks. A longitudinal study is also necessary to gather data about the long-term effects of cognitive linguistic instruction, especially regarding long-term vocabulary retention. Another area for exploration is the enhancement of metaphorical competence, including the identification of effective methods and the assessment of their impact.

7. References

- Achard, M., & Niemeier, S. (Eds.). (2004). *Cognitive Linguistics, second language acquisition, and foreign language teaching*. Mouton de Gruyter.
<https://doi.org/10.1515/9783110199857>
- Biber, D., Johansson, S., Leech, G., Conrad, S., & Finegan, E. (2007). *Longman grammar of spoken and written English* (6th ed.). Pearson Education.
- BNC2014 – CASS. (2014). <https://cass.lancs.ac.uk/bnc2014/>
- Boers, F., Deconinck, J., & Lindstromberg, S. (2010). Choosing motivated chunks for teaching. In S. De Knop, F. Boers, & A. De Rycker (Eds.), *Fostering language teaching efficiency through Cognitive Linguistics* (pp. 239–256). De Gruyter Mouton.
<https://doi.org/10.1515/9783110245837.239>
- Boers, F., & Lindstromberg, S. (2006). Cognitive linguistic applications in second or foreign language instruction: Rationale, proposals, and evaluation. In G. Kristiansen, M. Achard, R. Dirven, & F. J. Ruiz De Mendoza Ibáñez (Eds.), *Cognitive Linguistics: Current applications and future perspectives* (pp. 305–358). Mouton de Gruyter.
<https://doi.org/10.1515/9783110197761.4.305>
- Boers, F., & Lindstromberg, S. (Eds.). (2008). *Cognitive linguistic approaches to teaching vocabulary and phraseology* (1–6). Mouton de Gruyter.
<https://doi.org/10.1515/9783110199161>
- British National Corpus 2014. (2014). <http://corpora.lancs.ac.uk/bnc2014/>
- Bybee, J. (2006). From Usage to Grammar: The Mind's Response to Repetition. *Language*, 82(4), 711–733. <https://www.jstor.org/stable/4490266>
- Cameron, L. (2003). *Metaphor in educational discourse*. Continuum.
- Csábi, S. (2004). A cognitive linguistic view of polysemy in English and its implications for teaching. In M. Achard & S. Niemeier (Eds.), *Cognitive Linguistics, second language*

- acquisition, and foreign language teaching* (pp. 233–256). Mouton de Gruyter.
<https://doi.org/10.1515/9783110199857.233>
- Csábi, S., Beréndi, M., & Kövecses, Z. (2008). Using conceptual metaphors and metonymies in vocabulary teaching. In F. Boers & S. Lindstromberg (Eds.), *Cognitive linguistic approaches to teaching vocabulary and phraseology* (Vol. 6). Mouton de Gruyter.
<https://doi.org/10.1515/9783110199161.2.65>
- De Knop, S., Boers, F., & De Rycker, A. (Eds.). (2010). *Fostering language teaching efficiency through Cognitive Linguistics*. De Gruyter Mouton.
<https://doi.org/10.1515/9783110245837>
- Dirven, R. (2001). English phrasal verbs: Theory and didactic application. In D. Geeraerts, R. Dirven, J. R. Taylor, & R. W. Langacker (Eds.), *Applied Cognitive Linguistics: II, language pedagogy* (1–19.2). Mouton de Gruyter.
<https://doi.org/10.1515/9783110866254.3>
- Ellis, N. C. (1998). Emergentism, connectionism and language learning. *Language Learning*, 48(4), 631–664. <https://doi.org/10.1111/0023-8333.00063>
- Ellis, N. C. (1999). Cognitive approaches to SLA. *Annual Review of Applied Linguistics*, 19, 22–42. <https://doi.org/10.1017/S0267190599190020>
- Ellis, N. C. (2002). Frequency effects in language processing: A review with implications for theories of implicit and explicit language acquisition. *Studies in Second Language Acquisition*, 24(2), 143–188. <https://doi.org/10.1017/S0272263102002024>
- Erdei, J., Rácz, B., & Papp, J. (in print). *Pedagogy meets Cognitive Linguistics: Measuring the efficacy of cognitive input in teaching phrasal verbs*.
- Geeraerts, D., & Cuyckens, H. (Eds.). (2010). *The Oxford handbook of Cognitive Linguistics*. Oxford University Press. <https://doi.org/10.1093/oxfordhb/9780199738632.002.0003>

- González, R. A., Piríz, A. P., & Sierra, G. R. (2010). Phrasal verbs in EFL course books. In S. De Knop, F. Boers, & A. De Rycker (Eds.), *Fostering language teaching efficiency through Cognitive Linguistics* (pp. 59–78). De Gruyter Mouton.
<https://doi.org/10.1515/9783110245837.59>
- Hu, Y.-H., & Fong, Y.-Y. (2010). Obstacles to CM-guided L2 idiom interpretation. In S. De Knop, F. Boers, & A. De Rycker (Eds.), *Fostering language teaching efficiency through Cognitive Linguistics* (pp. 293–316). De Gruyter Mouton.
<https://doi.org/10.1515/9783110245837.293>
- Juchem-Grundmann, C., & Krennmayr, T. (2010). Corpus-informed integration of metaphor in materials for the business English classroom. In S. De Knop, F. Boers, & A. De Rycker (Eds.), *Fostering language teaching efficiency through Cognitive Linguistics* (pp. 317–336). De Gruyter Mouton. <https://doi.org/10.1515/9783110245837.317>
- Kövecses, Z. (1986). *Metaphors of anger, pride, and love: A lexical approach to the structure of concepts*. Benjamins.
- Kövecses, Z. (2005). *Metaphor in culture: Universality and variation*. Cambridge University Press.
- Kövecses, Z. (2006). *Language, mind, and culture: A practical introduction*. Oxford University Press.
- Kövecses, Z. (2010). *Metaphor: A practical introduction* (2nd ed.). Oxford University Press.
- Kövecses, Z. (2015). *Where metaphors come from: Reconsidering context in metaphor*. Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780190224868.001.0001>
- Kövecses, Z. (2020). *Extended Conceptual Metaphor Theory* (1st ed.). Cambridge University Press. <https://doi.org/10.1017/9781108859127>
- Kövecses, Z., & Szabó, P. (1996). Idioms: A view from cognitive semantics. *Applied Linguistics*, 17(3), 326–355. <https://doi.org/10.1093/applin/17.3.326>

- Lakoff, G. (1987). *Women, fire, and dangerous things: What categories reveal about the mind*. The University of Chicago Press.
- Lakoff, G., & Johnson, M. (1980). *Metaphors We Live By* (1st ed.). The University of Chicago Press.
- Lakoff, G., & Johnson, M. (2003). *Metaphors We Live By* (W. a new Afterword, Ed.). University of Chicago Press.
<https://press.uchicago.edu/ucp/books/book/chicago/M/bo3637992.html>
- Langacker, R. W. (1987). *Foundations of Cognitive Grammar: Volume I: Theoretical prerequisites*. Stanford University Press.
- Langacker, R. W. (1991). *Foundations of Cognitive Grammar: Volume II: Descriptive application*. Stanford University Press. <https://www.sup.org/books/title/?id=2204>
- Le, M. T., & Nguyen, T. B. (2023). Roles of Cognitive Linguistics to second language acquisition. *ICTE Conference Proceedings*, 3, 118–126.
<https://doi.org/10.54855/ictcp.2339>
- Lewis, M. (2012). *The lexical approach: The state of ELT and a way forward*. Cengage Learning EMEA.
- Li, F. (2002). *The acquisition of metaphorical expressions, idioms and proverbs by Chinese learners of English: A conceptual metaphor and image schema-based approach* [Chinese University of Hong Kong]. <https://repository.lib.cuhk.edu.hk/en/item/cuhk-343264>
- Littlemore, J. (2023). *Applying Cognitive Linguistics to second language learning and teaching*. Springer Nature Switzerland. <https://doi.org/10.1007/978-3-031-39796-7>
- Littlemore, J., & Low, G. (2006). *Figurative thinking and foreign language learning*. Palgrave Macmillan UK. <https://doi.org/10.1057/9780230627567>

- Musolff, A. (2017). Metaphor and cultural cognition. In F. Sharifian (Ed.), *Advances in Cultural Linguistics* (pp. 325–344). Springer Singapore. https://doi.org/10.1007/978-981-10-4056-6_15
- Paivio, A., & Walsh, M. (1993). Psychological processes in metaphor comprehension and memory. In A. Ortony (Ed.), *Metaphor and thought* (2nd ed., pp. 307–328). Cambridge University Press. <https://doi.org/10.1017/CBO9781139173865.016>
- Robinson, P., & Ellis, N. C. (2008). *Handbook of cognitive linguistics and second language acquisition*. Routledge.
- Rudzka-Ostyn, B. (2008). *Word power: Phrasal verbs and compounds: A cognitive approach* (1st edition, 1–1). De Gruyter Mouton.
- Sinclair, J. (1991). *Corpus, Concordance, Collocation*. Oxford University Press.
- Skoufaki, S. (2005). Use of conceptual metaphors: A strategy for the guessing of an idiom's meaning? In M. Mattheoudakis & A. Psaltou-Joycey (Eds.), *Selected papers on theoretical and applied linguistics from the 16th International Symposium, April 11–13, 2003*. Aristotle University of Thessaloniki.
- Talmy, L. (2003). *Toward a cognitive semantics. 1: Concept structuring systems* (1st ed.). MIT Press.
- Tyler, A., Huang, L., & Jan, H. (Eds.). (2018). *What is applied Cognitive Linguistics?: Answers from current SLA research*. <https://doi.org/10.1515/9783110572186>
- Verspoor, M. H. (2008). Cognitive linguistics and its applications to second language teaching. In N. H. Hornberger (Ed.), *Encyclopedia of Language and Education* (pp. 1843–1854). Springer US. https://doi.org/10.1007/978-0-387-30424-3_140