Conceptual motivation in visual representations of English particle verb (PV) constructions

Nikolić, Mislav

Sveučilište u Zagrebu
Filozofski fakultet
Odsjek za anglistiku
Katedra za metodiku

CONCEPTUAL MOTIVATION IN VISUAL REPRESENTATIONS OF ENGLISH PARTICLE VERB (PV) CONSTRUCTIONS

Diplomski rad

Student: Mislav Nikolić
Mentor: dr. sc. Renata Geld, izv.prof.

Zagreb, rujan 2019.

University of Zagreb
Faculty of Humanities and Social Sciences
Department of English
TEFL section

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Graduation thesis

Student: Mislav Nikolić
Supervisor: Renata Geld, PHD, Associate Professor

Zagreb, September 2019.

Examining committee:

Stela Letica Krevelj, Ph. D., postdoc.

Jasenka Čengić, M. Ed.

Associate Professor Renata Geld, Ph. D.

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Abstract

The main focus of this thesis is the analysis of visualisations of English particle verb (PV) constructions. More specifically, we were interested in the strategies Croatian and Omani English speakers used to depict different PV constructions after being given their meaning. The first part of the thesis provides a theoretical background to key terms and concepts of this thesis: PV constructions, strategic construal, heavy and light verbs. The second part focuses on the results of the study, that is, the role of the semantic nature of the verbs (light vs. heavy) in PV constructions. More specifically, we focused on the frequency of topological and lexical determination in the PV constructions and their representations. Finally, we were interested in establishing potential differences in the way our participants depicted meanings as well as in the strategies used in the representation of the PV constructions based on the participants' cultural background.

Keywords: visual representation, particle-verb constructions, lexical and topological component, strategic construal, heavy and light verbs

1. Introduction

This thesis focuses on the analysis of visual representations of particle-verb constructions (hereinafter PV constructions or PVs) produced by learners of English as a foreign language (hereinafter referred to as either participants or EFL learners). The analysed data was collected in a research conducted by Al-Bulushi and Geld on 22 Croatian and 24 Omani English learners who were asked to visually depict 24 different PV constructions. These representations will be referred to as images and drawings. The thesis is rooted in the idea that PV constructions have a literal meaning and at least one metaphorical meaning, which can be visualized by EFL speakers. The study will analyse the relationships between these two types of meaning based on the drawings provided by the EFL learners. These drawings represent a different form of output when compared to the more common language-based research. Additionally, due to all participants being EFL learners of English, their cognitive strategies are primarily influenced by their first language and conscious cognitive processes (Geld, 2006, p. 4). The research focused on the connection between the lexical and topological determination of PV constructions and heavy and light verbs that are components of the PV composite wholes. We were also interested in the differences between Croatian and Omani EFL learners which may appear in the representations of the PV constructions. The conclusions of this thesis are focused on the ways our experience determines the way we perceive certain PVs, as well as how the data obtained from this research can be used to facilitate the learning process.

2. Theoretical background

This section of the thesis will provide an overview of the crucial subjects and concepts which form the basis of this thesis and which will often be referenced. Particle-verb constructions are the first of these subjects, as they make up the basis for this research. Their complex form and meaning provide a lot of material for discussion and analysis. The central cognitive phenomenon upon which this research hinges is strategic construal. It is a cognitive process or a cluster of processes by which speakers produce meaning of various linguistic structures, that is a fundamental mechanism for the strategic construction of meaning. Additionally, we will focus on the verbs contained in the PVs. They are categorized as either semantically heavy or light verbs. Furthermore, an important aspect in the analysis of the images related to light and heavy verbs is the difference in semantic determination: topological vs. lexical. The aim of the analysis will be determining which determination is represented in the drawings produced by our participants. Finally, we will be discussing visual representation as a phenomenon, in this case the representation of language and the connections between meaning and form.

2.1. Particle-verb constructions

Particle verbs are constructions that consist of a verb and another particle that is most commonly a preposition. Another term that needs to be mentioned before discussing PVs is phrasal verb, a more well-known term that is similar but not synonymous to the PV. We decided to use the terms PV and PV constructions due to the fact that the term *phrasal verb* is associated with non-compositionality in more traditional literature (Geld, 2009, p. 9).

Phrasal verbs are combinations of verbs and particles in which both parts contribute to the final meaning of the phrasal verb (Celce-Murcia and Larsen-Freeman, 1999 p. 425). This is similar to the definition which can be found on the Merriam-Webster online dictionary. This would be the way in which most people would try to define this linguistic construction. Dirven (2001) expands upon this definition by adding an aspect not mentioned before, which is *idiomaticity*.

"As a preliminary definition, phrasal verbs can be said to possess some degree of idiomaticity in the assembly of the verb plus preposition (*cry over* something), or verb plus separable particle" (p. 5). This is to mean that the meaning of the construction does not necessarily equal the sum of the meaning of its parts.

Rudzka-Ostyn (2003) discusses the difficulties EFL learners have with phrasal verbs, stressing that they are not easy to learn due to their idiomaticity and the fact that the meaning is often not evident from its constituents. Despite this, new phrasal verbs are constantly being created. Rudzka-Ostyn also tries to define the syntactic frame of phrasal verbs. According to this frame, there are three types of phrasal verbs:

1. verb + particle (*slow down, bring up*)
2. verb + particle + preposition (*face up to, get down to*)
3. verb + preposition (*refer to, look into*)

This semantic frame has several restrictions and is rather complex. According to it, the more figurative a phrasal verb is, the more it forms a tight unit, and the less verb and particle can be split (Rudzka-Ostyn, 2003, p. 1). Another issue mentioned in this context is the way learners are expected to acquire phrasal verbs. As these verbs are supposedly impossible to understand on the basis of their constituting elements, verb and particle, they would have to be learned one by one, which is a long and not very logically sound task (p. 3). A term which needs to be explained in order to gain a deeper understanding of PVs is compositionality. Langacker (2008) writes how the issue of compositionality must be formulated in terms of whether the composite structure derives from component structures in the manner specified by a constructional schema (p. 169). Compositionality is the extent to which a composite structure is predictable from the component structures together with the sanctioning constructional schema (p. 245). To simplify, compositionality is the relationship between the form and its meaning and according to it we should be able to predict and create new forms based on existing ones. It is also mentioned that compositionality is a matter of degree, as not every example demonstrates the same level of correlation between form and meaning (p. 170). All these theories were provided in order to question the idea that phrasal verbs have to be learned by heart as they cannot be understood more meaningfully.

Cognitive linguists have been challenging such notions for years now. The cognitive linguistic perspective is based on the notion that grammar is meaningful (Geld, 2009a, p. 20) and the relation between the constituting parts of a structure cannot be independent from its meaning. There has to be a certain motivation behind this construction and our aim is to find some of its aspects in this research.

The cognitive linguistic perspective is founded upon the notion that grammar is meaningful and systematic (Geld, 2009a; Yasuda, 2010). From this perspective, phrasal verbs are seen as analysable and compositional (Yasuda, 2010, p. 254). This paper adheres to the cognitive linguistic perspective as well, and, therefore, opts for the term *particle verb construction*, which does not imply the idea of non-compositionality of phrasal verbs. Each of these PV constructions consists of a lexical component (verb) and a topological component (particle) and shall be analysed in this context.

2.2 Strategic construal

In the theory of acquiring a second language, learning strategies are most commonly divided into cognitive, metacognitive and socio-affective ones (O'Malley and Chamot 1990, p. 46). *Construal* is a cognitive linguistic term introduced by Langacker, who proposes that any expression's meaning imposes a particular construal, reflecting just one of the countless ways of conceiving and portraying the situation in question (2008, p. 4). General cognitive processes which we associate with the learning and understanding of the native language mirror what we will refer to as the *strategic construal of meaning* in the process of learning of the second language. (Geld 2006, p. 3) In other words, construal refers to the ability to perceive an objectively identical situation in different ways (Geld, 2006, p. 67). Another way of defining a construal would be as a mechanism speakers of a language use to choose between linguistic alternatives that are at their disposal (Radden & Dirven, 2007, p. 22).

So for example, one person can say that a race was won by Yohan Blake, while another can say that it was lost by Usain Bolt. Both people are referring to the same race and the outcome of the race was the same with Blake coming in first and Bolt second, but they are choosing to approach it from different perspectives. Consequently, the speakers provide the listeners with

information about themselves and about their opinions. This information is coded in certain linguistic clues. So in this example, the person who said that Bolt lost the race is focusing more on the shortcomings and mistakes of an athlete instead of the accomplishments of the other. This would lead one to conclude that this person is more critical and is more likely to look for flaws in someone's performance.

This is the cognitive reality when talking about the strategic construal in the context of the native language (hereinafter L1), but what interests us in this thesis is the way the construal affects the EFL learners, as English is their second language (hereinafter L2). In the L2 context, Geld defines the strategic construal as cognitive strategies which we use when we try to learn and understand another language (different from L1). These strategies are a universal cognitive potential realised through one's cognitive abilities which are developing throughout one's life and are in constant interaction with the L1. Every cognitive processing activated in the L2 uses a strategic conceptualisation that is based on fundamental cognitive abilities as well as knowledge of the language and knowledge of the world (2006, p. 4). Geld also (2009) explains the difference between construal in the L1 and the L2 in the following way:

> Finally, strategic meaning construal and second language acquisition inevitably depend on whatever precedes. Being entangled with L1 and experiential knowledge of the world, L2 both relies on and mirrors various cognitive processes that constitute conceptual structure in L1 (p. 34).

Going forward, the strategic construal was important for this thesis as we will analyse how the participants constructed and represented the meaning of PVs. As none of them are native speakers of English, and all of them have different experiences with the language and the world in general, these will influence the way the cognitive processes that are involved in the understanding and interpretation of PV constructions. We wish to see how the data that the EFL speakers will provide us with reflects not just their knowledge of the language, but their experience in general.

2.3.1 Heavy and light verbs

There are many categories we can sort verbs into, transitive or intransitive verbs being one of these categories for example. However, for this research, we will be talking about semantically *heavy* (also known as specific verbs) and *light verbs* (also known as schematic verbs). Geld defines

light verbs as verbs that have a broad meaning and are often parts of phrasal verbs and phrases, while heavy verbs have a more narrow and specified meaning than schematic verbs (2018, p.176). The examples of light verbs that are given are *take, do* and *make.* Examples of heavy verbs are *pull* and *write*. Maouene shares a similar opinion on the matter and in writes that light verbs, such as *do, make, get, take*, and *go* are more abstract and label a wide range of specific events that have little in common, other than the relation itself. Heavy verbs, such as *kick, eat, drink,* and *read* seem more concrete and specific and may refer to a smaller range of events, often ones that involve narrow classes of actions and objects (2014, p.2).

On the other hand, Brown argues that the main difference between light and heavy transitive verbs in is that heavy verbs place restrictions on what their arguments can be, whereas light verbs are semantically general in the sense that they do not place so many restrictions on the objects that can fill the argument roles (1998, p. 130). As it is evident from these definitions, it is very difficult to specifically define the difference between heavy and light verbs. The definition for heavy verbs provided by Geld even references light verbs, and this shows that these can most easily be defined when comparing one group to the other. One of the overlying notions in most of these definitions is the contrast between concrete and abstract verbs, or more specific and general ones. Heavy verbs are considered to be more concrete, while light verbs are more abstract. The issue with such an explanation is that it is very notional and not something that can be noticed right away, but it does help us gain a general understanding of these two groups of verbs.

This is important for the role these verbs have in the forming of PV constructions, as each PV consists of a verb and at least one additional particle. Both heavy and light verbs can be part of a PV. The aforementioned *take* is present in various PVs, *take out, take down,* and *take on* just being some of them. The same goes for *pull.* There is *pull up, pull down, pull off* etc. These examples demonstrate that the distinction between heavy and light verbs is not relevant for the forming of PVs, but it does not mean that there are no differences between the PVs formed by one group as opposed to the other. One way of approaching the issue of meaning is to look at certain aspects off a verb when it is part of a PV construction. Geld and Stanojević write how in the example *pull in* 'attract people in large numbers', the specific aspects of meaning here is a large number of people, while the schematic relation of attracting towards something is determined by

the lexical and topological components (2018, p. 112). These will be discussed in detail in the following section.

2.3.2 Topological and lexical components of PV constructions

When discussing the meaning of a PV construction, there are two approaches. One is to look at PVs as a whole, where we learn the meaning by heart, and not waste time on trying to determine the motivation behind the form of the construction and its meaning. The other way of analysing the meaning is in the context of the aforementioned compositionality, where we observe the meaning of the PVs as a sum of two or more parts. We will opt for this approach, as it is the one relevant for our research.

As we mentioned in the Section *Particle verb constructions,* all PVs consist of a verb and a particle, that is, a topological and a lexical component. Every particle has a meaning that describes relations in the physical space and is therefore topological (Geld and Stanojević, 2018, p. 44). We will analyse the lexical and topological components in order to determine what role they have in constructing the meaning of a PV construction. The meaning of PVs is explained by Geld through *conceptual motivation,* which serves as a counterargument to arbitrariness, and refers to the meaning and form of a construction being derived from the meaning and form of its constituting parts. For example, the meaning of the phrasal verb *break out* is not incidental, but is somewhat dependant on the meaning of its lexical component *break* and the topological component *out* (Geld and Stanojević, 2018, p.14). The meaning of a PV is not evident straight away based on its parts, but they can help us in trying to discern its meaning. We know what *break* means 'separate into pieces as a result of a blow, shock, or strain' and we know that the particle *out* describes a relation 'away from the inside of a place or container'. So an EFL learner who does not know the meaning of the PV *break out,* but is familiar with the constituting parts, can attempt to understand the meaning of the PV. A paraphrase of *break out* would be 'to escape'. If the speaker is familiar with the meaning of both parts, it is very much possible that they may at the very least be able to see how the meanings of the parts form the composite meaning. *Break* is the lexical component of the PV and its "heavy" semantic content seems to be dominant when it comes to the construction of meaning of this particular PV. The same principle regarding the construction of

meaning applies to a PV that is formed with a semantically light verb. For example, *take out* 'to remove something from somewhere'. In this example, the more important part would be the topological component *out*, as it the PV describes the relation of something before and after the action was taken. These two examples are relevant in the context of topological versus lexical components, as they illustrate the difference between PVs formed with light and heavy verbs. This is something Geld and Stanojević (2018) address in their book.

They discuss how topological determination is significantly more evident among phrasal verbs formed with a schematic verb, so among phrasal verbs with *go, take and put.* In other words, taking into consideration all the participants and strategic implementations (that is, all answers with both of the topological particles, *in* and *out*), they observed that the participants more often relied on the topological component than the lexical one during the construction of meaning. However, the situation is far different when talking about phrasal verbs that were the lexical component was formed with a specific verb (those being *call, cut, break, draw, pull, shut* and *write*). When constructing the meaning of such phrasal verbs, the participants often ignored the topological component in favour of the lexical, which they found to be far more informative (Geld and Stanojević, 2018, p. 62). What do the described results indicate? They show that when it comes to phrasal verbs, both the verb (the lexical component) and the topological particle have an important role as strategic triggers in the process the construction of meaning. When it comes to verbs, they are semantically schematic or specific, with this categorisation being dynamic, whereas particles are an omnipresent element in the cognitive structuring of space (Geld and Stanojević, 2018, p.63).

All this is to say that the type of verb that stands as the lexical component of PVs will affect the way EFL speakers will represent them. We will discuss visual representation in the following section.

2.4 Visual representation of language

A very important aspect of the educational process is the involvement of different types of media. Some media analysts like Messaris claim that we use and understand *visual* and audio-visual representations using the same skills we use to interpret the everyday world, as opposed to this understanding of visual representations being based on the mastery of cultural conventions

(1994, p. 86). The term *visual literacy* is used when discussing this aspect of learning and operating in the educational system. Visual literacy is defined by Newfield as an education that enhances understanding of the role and function of images in representation and communication, especially in the media (2011, p. 82). Newfield also writes about the increasing centrality of the visual in the contemporary communications landscape (2011, p. 12). It is important to note that the majority of the literature focuses on the analysis of visual media, and not on the role of the production of visual representations. The reason for this is probably the fact that educators are primarily interested in students' written production. In other words, the importance of visual representation is often dismissed. This is due to the fact that verbal representation is a more precise representation of reality due to language being a very sophisticated system of representation of meaning. However, what is not taken into account is the fact that a verbal representation cannot bring forth the object of representation, that is, "make it present", in the same way a visual representation can. Verbal representation may refer to an object, describe it, invoke it, but it can never bring its visual presence before us in the way pictures do (Mitchell, 1995, p.152).

When describing an object, a speaker has a lot of options, and may opt to describe certain features another speaker may not find relevant for said object. However, when it comes to the visual representation of objects, most people choose to depict features most people would instantly associate with the object. For example, if a group of 50 people was tasked to depict a car, almost all the depictions would have four wheels, a windshield and doors. Visual representation restricts the speaker in a way that verbal representation does not, but in doing so, it also helps us gain a better understanding of the perception and mental image of certain objects and activities. Of course, this applies much more to concrete objects, as it is much harder to visually represent abstract concepts and activities such as, for example, the noun *causality* or the verb *obstinate*. The described process is important for this thesis as we are interested in the visual representation of PV constructions, which, as previously stated, have a certain degree of idiomaticity. As such, they are not always transparent, their meaning is not evident from their constituting parts, and are therefore more abstract. All this is important for patterns that may appear in the visual representation.

Forceville focuses on the importance of the function of images on the example of modern advertisements, in which the text no longer only servers as anchorage due to the fact that

sometimes is may be disadvantageous to the success of the advertisement (1996, p. 73). It is stressed that advertisers today have to decide what medium they need to use, as the linguistic information is often difficult to decode and the image is now used to anchor the text. Moreover, the use of image to anchor the text implies that the text also assumes a relaying function since image and text work together to form the desired meaning of the advertisement (1996, p. 73).

Mitchell uses the term *metapictures,* which represent any pictures used to depict other pictures (1995 p. 57). They are discussed as they stand apart from other forms of visual representation. The object of representation is in itself a representation and therefore shows the possibility of blending visual and verbal experiences, and reveals the inextricable weaving of representation and discourse (p. 83). This is in fact connected to the subject of this study, as the EFL learners were tasked to produce visual representations of one specific meaning of each PV constructions. They do not depict all the meanings of the PV construction, just one aspect of it. Therefore, the drawings are more likely to share certain characteristics and features, as they try to capture a smaller scope of meaning, rather than the entirety of it.

3. Study

3.1. Data

This qualitative study focused on analysing strategies used by EFL students in the visual representation of 24 PV constructions and the patterns present in these drawings. The data used in this analysis was provided by professor Geld and is part of the data collected by Geld and Al-Bulushi (2016). The data were obtained from 46 participants - 22 participants had Croatian as their first language, and 24 had Arabic. All the participants were of comparable age and had similar educational backgrounds and English proficiency. The participants were given a questionnaire containing 24 PV constructions, as well as the meaning of every one of them. They were asked to draw the meanings of the PV constructions as well as explain how the constructions make sense, that is, how each construction produces the given meaning (see Appendix A).

All participants were assigned a number, with Croatian participants being numbered from 1 to 22, and Omani participants being numbered from 23 to 46. The PV constructions were also assigned a number, depending on the order they appeared in the questionnaire.

As previously stated, each PV construction consists of a lexical and a topological component. The PV constructions present in the questionnaire consisted of these six lexical components: *break, cut, go, pull, put,* and *take* and four topological components: *in, out, up,* and *down*. They were not presented in any particular order. The PV constructions present in this research were as follows: *go in, go out, go up, go down, take in, take out, take up, take down, cut in, cut out, cut up, cut down, break in, break out, break up, break down, pull in, pull out, pull up, pull down, put in, put out, put up, put down*

Each of the 46 participants produced 24 drawings each. This gives a total of 1104 drawings altogether. However, not all the drawings were used for this research, as a large number of scanned drawings were of low quality and, therefore, could not be used in the analysis. In total, 611 drawings were used in this research. In the section that follows, we explain our aim, the procedure used to analyse the data, as well as the results obtained.

3.2 Aim

Our primary aim was to investigate the ways EFL learners represent the meaning of PV constructions and determine possible differences in representation in relation to the nature of the lexical component: heavy vs. light verbs. We also aimed to establish whether there are particular elements in the participants' drawings that tend to be included in one or the other type of PV – the one containing a light verb or the one containing a heavy verb. Secondly, we were interested in the differences in the visual representation of the PV constructions based on the participants' cultural background.

The research questions that emerged were as follows:

1. What are the characteristics of the learners' strategic construal in the visual representation of PV constructions in relation to the verb being semantically heavy or light?

2. What differences may appear in the visual representation based on the participants Country of origin (Croatia or Oman)?

3. Based on the research questions stated above we have formed the following hypotheses:

   a) Lexical determination will be more frequent in visual representations of PVs with heavy verbs,

   b) Topological determination will be more frequent in visual representations of PVs with light verbs,

   c) There would be culture-specific differences in the drawings produced by the Croatian and Omani participants

3.3 Categorization of Data

The first task in this research was to classify the PV constructions based on relevant criteria. The first criterion was the type of the verb (light or heavy) in the PV construction. According to this categorisation, the PV constructions containing the lexical components *go*, *put* and *take* were categorised as light PV constructions and the ones containing *cut*, *break* and *pull* were categorised as heavy PV constructions. After that, we analysed each group of drawings the participants

produced for a particular PV construction. The first aspect that was analysed was the component that was visually represented in the drawing, be it the lexical component or the topological component. This was done in accordance with the idea of conceptual motivation. When analysing the data, our main strategy was to determine which component they found more informative when producing their drawings, that is which component "determined" the drawing. The first PV construction that was analysed in this manner was '*cut out'* and the process shall be explained on this example in the section that follows.

3.3.1 *Cut out*

Patterns which are present with this example are present in most of the other groups of drawings which were analysed. The first thing to note is that the majority of drawings representing a particular PV construction tend to share certain characteristics. For example, in the case of '*cut out'* (see Figure 1), 16/29 images depict scissors cutting something. All of the drawings that emphasize the process of cutting were lexically determined. When categorizing and coding the data, these drawings were coded as *lexically determined representations.* All visual representations that are determined by the lexical component of the PV will be assigned to this category.

Figure 1: *cut out* - 'stop doing something'

Analogously, the second group that was formed was *topologically determined representations.* Images that were put in this group emphasized the topological component of the PV construction. An example of this for *cut out* is the image provided in Figure 2. As can be seen from the example, scissors are also present in this drawing, but what is heavily emphasized here is not the act of cutting, but the change of location. Something was part of a whole, but it now exists outside of it. When it comes to the difference between Figures 1 and 2, we can observe the different focal points. In Figure 1, the scissors and the act of cutting are the focus, while in Figure 2 they are in the background, and the topological component of the PV is much more important in this representation. This was the principle we applied to all the representations when trying to distinguish between lexically and topologically determined drawings.

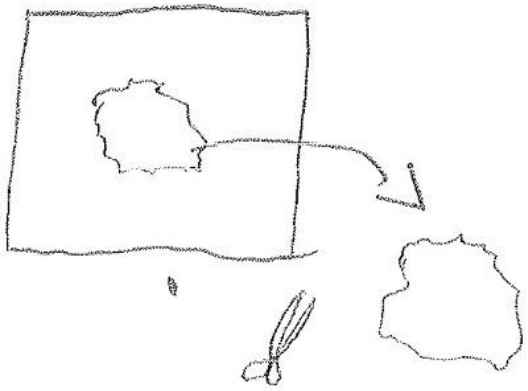

Figure 2: *cut out* - 'stop doing something'

The following drawing (see Figure 3) is an example of *cut out* in which the participant represents the provided meaning 'stop doing something'. In other words, as proposed by Geld and Stanojević (2018), the learner creates a visual paraphrase of the provided meaning. Visual paraphrases are visual representation of meaning in which the drawing depicts the figurative meaning, but does not include the literal meaning if the components, is the category whose members do not indicate the participants' awareness of conceptual motivation of meaning (2018, p. 177). This category of answers contains all the drawings in which neither of the two PV components is in focus, that is, neither the verb nor the topological component is singled out as

more informative. However, even though these drawings do not show the role of the constituting parts in the construction of meaning, they can still be analysed in the context of cultural differences between Croatian and Omani participants.

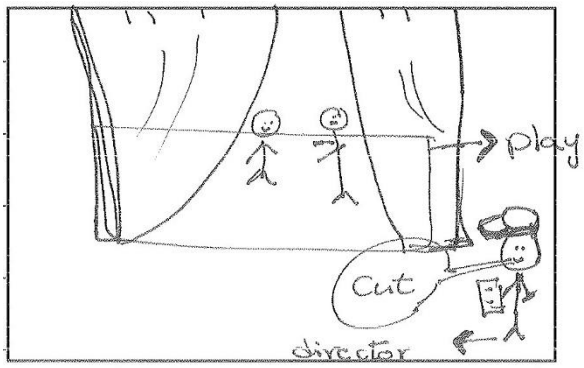

Figure 3: *cut out* - 'stop doing something'

After all the images were analysed, we decided to form another group of answers titled *miscellaneous*. This is a category of examples that could not be classified as members of other categories. The most common images in this category were those that were unclear and badly drawn, and images that simply relied on too much text to be analysed as a visual representation. One of the examples from this category is shown in Figure 4.

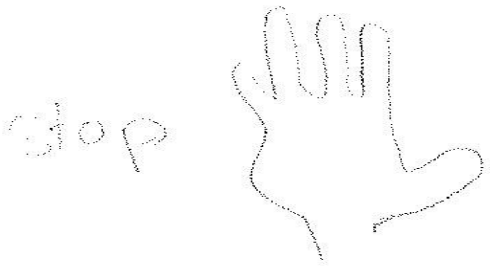

Figure 4: *cut out* – 'stop doing something'

To summarize, we formed four categories of analyzed answers: *lexically determined representations (*hereinafter LDRs), *topologically determined representations (*hereinafter TDRs), *visual paraphrases* and *miscellaneous.* After analyzing the drawings for each particular PV, we looked at the number of drawings in each of the four categories. For *cut out*, the numbers were as follows: Twenty of the 29 images were classified as *lexically determined representations.* This makes up 69 % and thus the majority of drawings for this particular PV. Five of the 29 images were classified as *topologically determined representations.* This makes up 17% of all the images and is much less than the first group. Three images were classified as *visual paraphrases*, while 2 were seen as *miscellaneous.* The following chart illustrates the distribution by category:

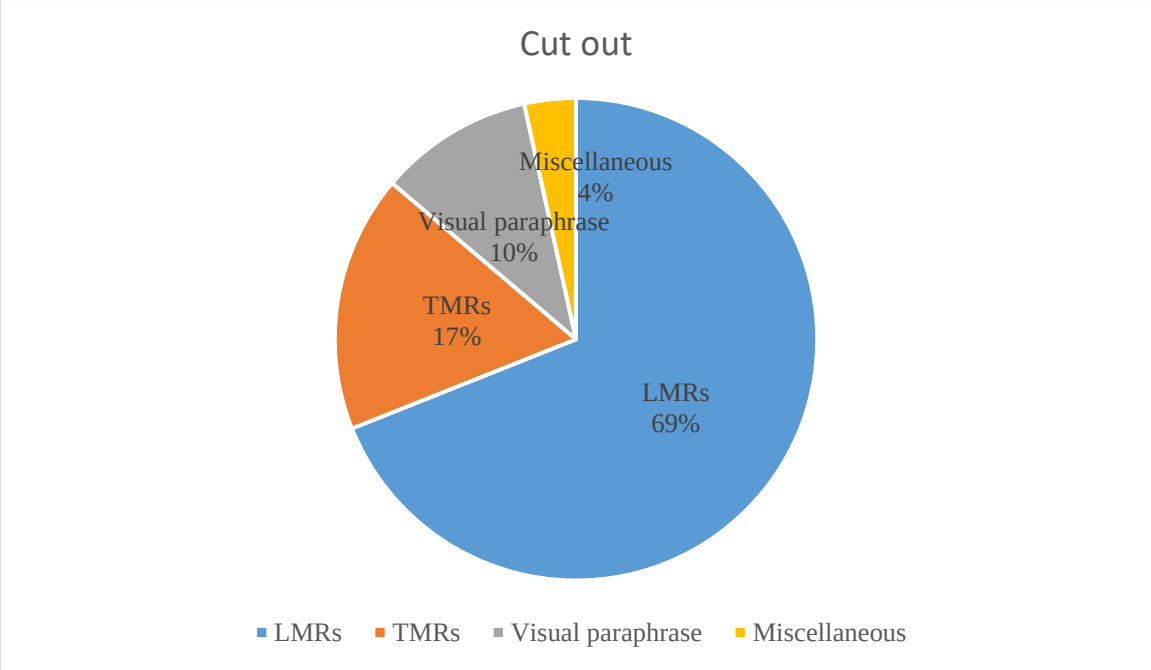

Figure 5: Distribution by category- *cut out*

As can be seen from the chart, the TDRs and LDRs make up the large majority of the drawings for the PV *cut out.* The first important subject here is the semantic determination of the drawings. For this PV, that has a heavy verb as its lexical component, most of the representations were lexically determined, while a much smaller number was topologically determined. In the following section we shall present the numbers for a different PV, in this case one that has a light verbs as its lexical component.

3.3.2 *Put up*

The meaning provided in the questionnaire was ‘resist strongly or fight hard’. We repeated the same procedure of analyses as in the case of *cut out* and coded all the answers with one of the four categories of answers. The distribution in the four categories was as follows:

Six of the 32 images were classified as LDRs, making up 19%, much less than in the first example. Eighteen drawings were assigned to the TDRs category, 56% of all the drawings, and therefore the majority of representations for this PV. Seven of the images were classified as verbal paraphrases, while 1 one was assigned to the miscellaneous category.

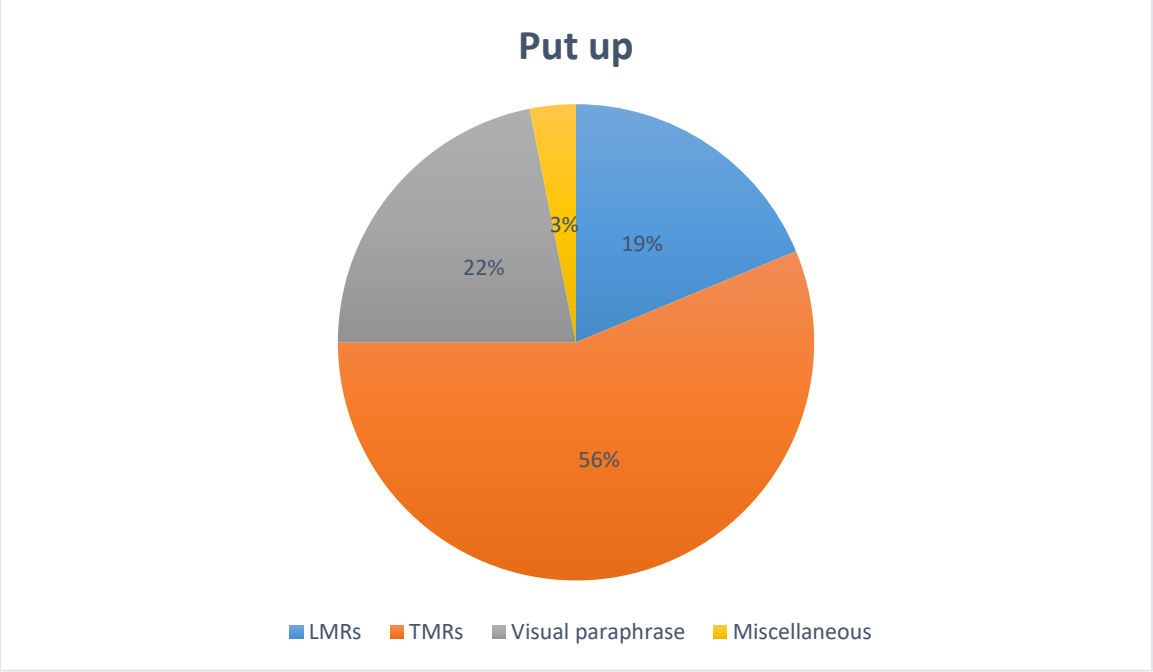

Figure 6: Distribution by category- *put up*

As can be seen from Figure 5 and Figure 6, the distribution by category is much different between the two of them. Most of the drawings for *put up* were categorized as TDRs, while only a small portion were LDRs. We will now show some of the images in order to analyse the differences in representation. We will start with Figure 7 as an example of TDRs.

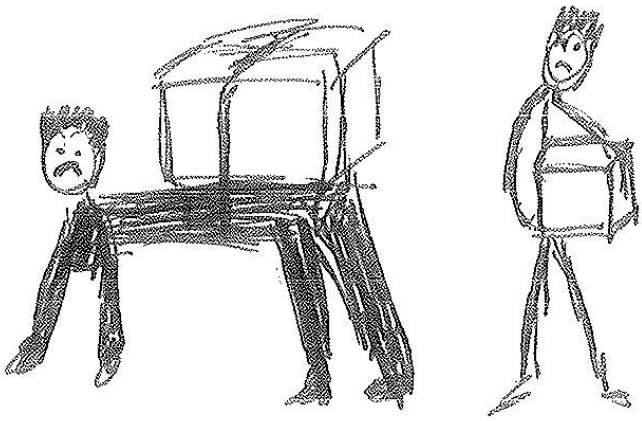

Figure 7: *put up* - resist strongly or fight hard

As can be seen from the drawing, this image encompasses both of the components of the PV in the representation. The lexical component *put* is represented by the lifting of boxes and the effort that can be seen, while the topological component *up* is represented by the stacking of the boxes, as one is already in place, the other needs to be put on top of it. The lexical component is much more prominent however, than the topological. There is a change of location, but the activity itself is central to this image.

Now, let us compare this to Figure 8. The idea behind this drawing is very similar to the previous one, as both show objects being stacked upon another. However, in this image, we do not see the action, that is we see the agent but not that this agent is actually doing something. In other words, the lexical component *put* is not really represented. What is in the focus here is the change of location, the topological component, which is why we categorized this and images similar to it as TDRs. For this PV, TDRs are more common than LDRs. As we stated before, we theorised that the PVs that have a heavy verb as the lexical component are more likely to be *lexically determined*, whereas those that have a light verb as the lexical component are more likely to be *topologically determined.* Based on the two PVs that we have described here, this seems to be the case. However, we had to analyse all the representations for all the PVs to actually test this assumption.

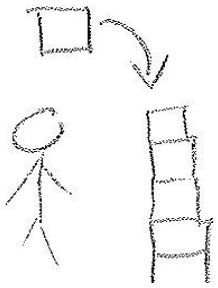

Figure 8: *put up* - resist strongly or fight hard

3.4.1 PVs formed with heavy verbs

We analysed all the drawings the participants produced and we will now present the results and elaborate on them. We will start with PV constructions that have a heavy verb as the lexical component, those being *cut in, cut out, cut up, cut down, break in, break out, break up, break down, pull in, pull out, pull up and pull down*. In all except 1 of these 12 groups of representations we classified the largest number of the drawings as LDRs. This was especially the case for the PV *break up*, as 28/35 drawings were classified as LDRs (80%). The smallest number of LDRs was found for the PV *pull out*, as 11/31 drawings classified as LDRs. These drawings represent 35% of all the drawings for this PV, and it is important to notice that there were 12 images that were classified as TDRs, meaning that, although *pull* is a heavy verb, a considerable number of participants found the particle *up* more informative, that is represented in their drawings. The distribution of LDRs amongst the other PVs was mostly between 45% and 73%.

When discussing particular PVs, we will first elaborate on *break up*, and possible reasons for such a large number of representations determined by the lexical component of the PV. Most of the representations follow two patters, as they either depict a heart shattered into pieces (see Figure 9), or a connection that gets broken between two people (see Figure 10).

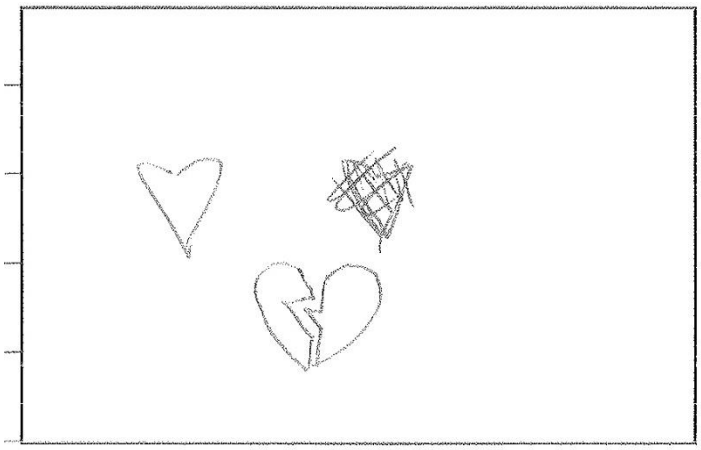

Figure 9: *break up* – 'end a relationship'

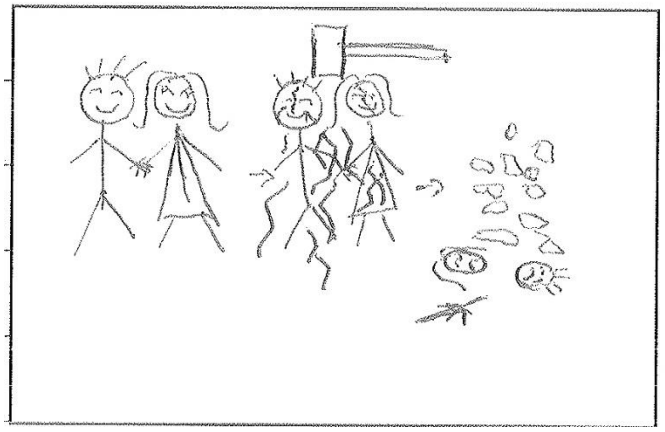

Figure 10: *break up* – 'end a relationship'

As we can see, the motivation behind the meaning of the PV 'end a relationship' and the lexical component is very clear to the participants, as a relationship is seen either as a specific object symbolised by a heart or as a bond two people share. The probable reason for this specific internalisation is presence of the PV in media. Discussions about breakups and fights are very common on social media, as well as in movies and TV shows, where entire movies either revolve around or are caused by a breakup. Due to its presence, people are far more likely to encounter this PV, process it and, consequently, have clearer or more conventional image about it.

Another detail in the research that needs to be discussed is the distribution of LDRs based on the verb in the PV. As mentioned, *break up* had the most LDRs, but a large number of drawings pertaining to the PVs with break were classified as LDRs: *break out* had 73%, *break in* had 69% and *break down* had 64%. As can be seen from the table featured below (see Table 1), while LDRs were the most represented category for all but one of the PVs, there are noticeable differences in the distribution based on specific verbs. From the data, we can see that the PVs with *break* were the ones with the largest number of LDRs. The PVs with *cut* had a smaller number of LDRs, while the PVs that were formed with *pull* had by far the smallest number of LDRs in this group.

Table 1 - Distribution of LDRs among PVs with heavy verbs as lexical components

break in – 69%	*break out – 73%*	*break up* – 80%	*break down* – 64%
cut in – 55%	*cut out* – 69%	*cut up* – 51%	*cut down* – 66%
pull in – 44%	*pull out* – 35 %	*pull up* – 44%	*pull down* – 52 %

As can be seen from the collected data, different heavy verbs trigger different aspects affecting strategic construal of the constructions in question, and, hence, their visual representation. *Break* is the verb that formed the largest LDRs category, whereas *pull* formed the smallest, with the difference in percentages being very noticeable. Even though these three verbs are all semantically heavy, the participants' knowledge and imagery will vary considerably based on their perception of the meaning of the PVs.

3.4.2 PVs formed with light verbs

We will now present the results of the analysis of PVs that have light verbs as their lexical component, and we shall compare these results to the previous section. In this group, there were also 12 verbs: *go in, go out, go up, go down, take in, take out, take up, take down, put in, put out, put up* and *put down*. We were primarily interested in the number of TDRs since we wished to establish whether the semantic nature of the lexical component would determine the nature of the visual representation of the meaning. The distribution of TDRs can be seen below (see Table 2).

Table 2 - Distribution of TDRs among PVs with light verbs as lexical components

take in – 63%	*take out* – 42%	*take up* – 44%	*take down* – 40%
put in – 53%	*put out* – 29%	*put up* – 59%	*put down* – 53%
go in – 55%	*go out* – 43 %	*go up* – 50%	*go down* – 60 %

As can be seen from the data, the results differ from the ones for the PVs formed with heavy verbs. Firstly, none of the groups had an overwhelming majority classified as TDRs, with *take in* (63%) having the largest number of TDRs. *Put out* had by far the smallest number of representations classified as TDRs (29%), with almost half of all the representations of it being visual paraphrases (46%). Visual paraphrases were also the most common category in the representations of *take down* (42%) and *take up* (43%). We will now present two example of visual paraphrases that were used to represent the PVs *put out* and *take down* (see Figure 11 and Figure 12) that illustrate the problems participants had in the representation of the components of PVs. As can be seen, these drawings represent the whole meaning of the PV constructions, but do not reflect the meaning of the components. The participants had a problem connecting the meaning of the components to the whole and they opted for the safer option and just drew the meaning of the PV as a whole.

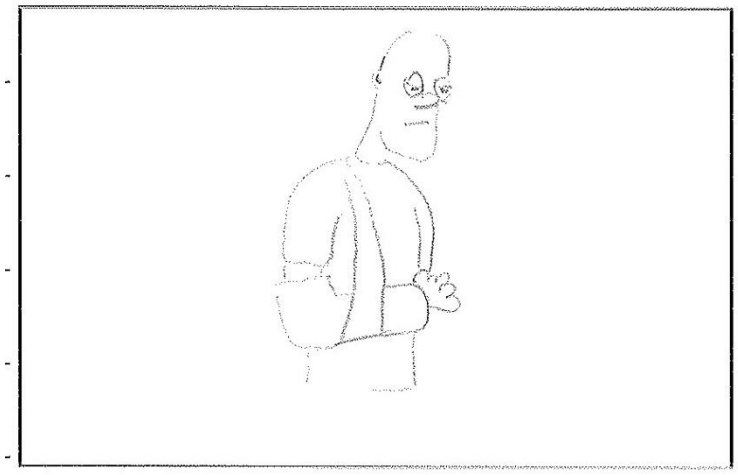

Figure 11: ***put out - 'injure back, shoulder, hip'***

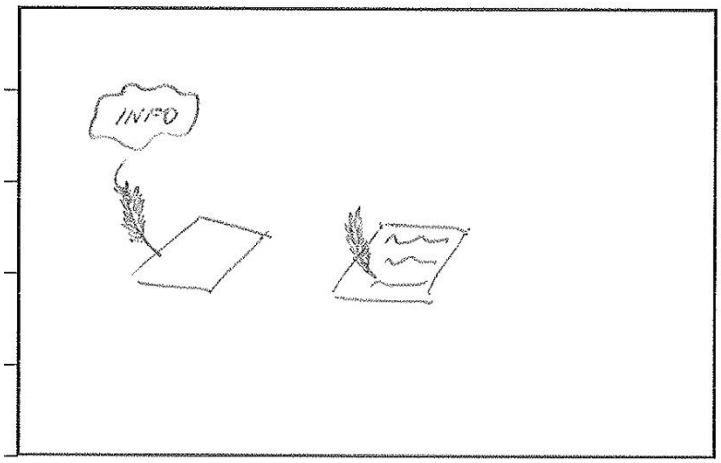

Figure 12: *take down* - 'write something'

Among the groups of representations of PVs with light verbs, visual paraphrases were more common than LDRs in each group except *take out.* The results also show that most of the representations were determined by the topological particle, even though to a lesser extent than it is the case of heavy verbs and their determination of LDRs. If we observe the data in context of the three verbs that were the lexical components of these PVs, we can see that none of the 3 verbs affected the distribution of TDRs, as the results vary in each particular verb group. The same situation can be observed in the case of particles - the results vary in the same manner. The only noticeable pattern here is that all the PVs with the particle *in* had a representation of TDRs higher than 50%.

There are two more elements that have to be mentioned when discussing all the results of this research. Firstly, some of the participants seem to have been influenced by the drawings of other participants (see Figures 13 and 14 and Figures 15 and 16[1]), especially in the drawings that came later in the questionnaire, as they were probably tired or out of ideas as the research was nearing its end. This may have affected the data and hence the results of the analysis.

[1] Both images were produced by participants #8 and #9 respectively.

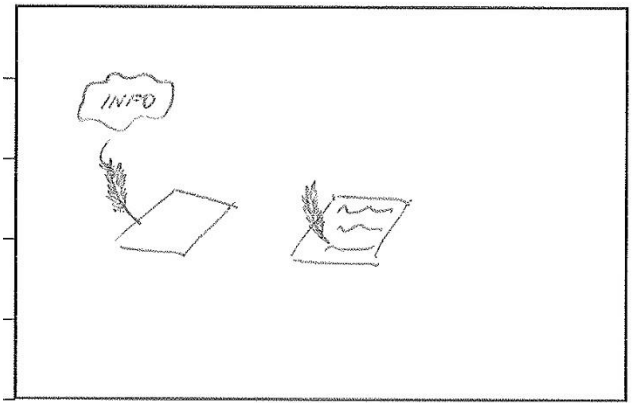

Figure 13: *take down* - 'write something'

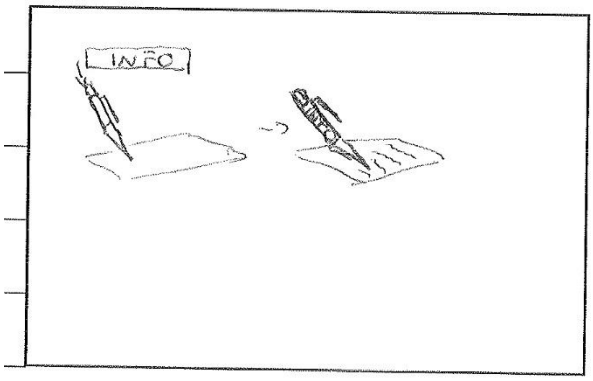

Figure 14: *take down* - 'write something'

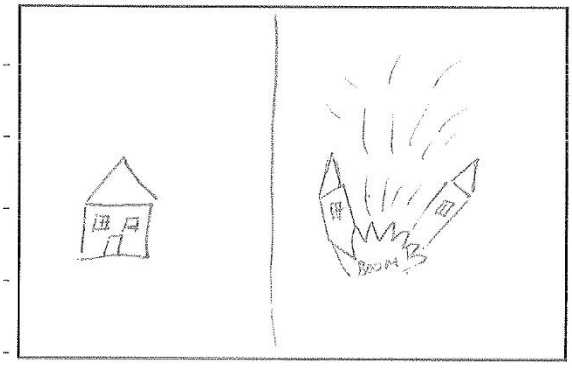

Figure 15: *go up* – 'be destroyed by fire or explosion'

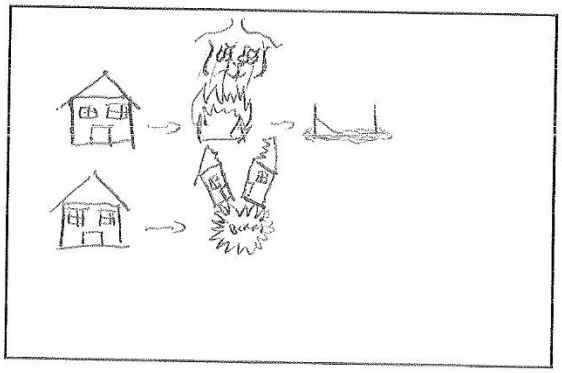

Figure 16: *go up* – 'be destroyed by fire or explosion'

The second element is the patterns that repeat in the drawings of the same participants for similar PVs. For example, participant #2 drew an image of a road from a bird's eye view for the PV *pull in* (see Figure 17).

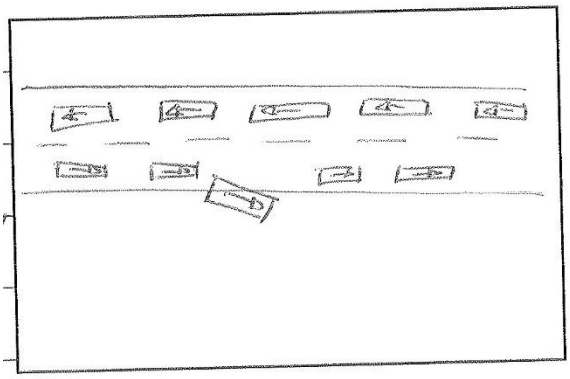

Figure 17: *pull in* – 'move to the side of the road to stop'

The participant then produced very similar images for the PVs *pull up* and *pull out* (see Figures 18 and 19). They seem to have opted for the first drawing as the optimal solution and some sort of template, and then, when they were provided with PVs they found similar to the first one they had to represent, they simply produced similar drawings. We may say that they were somehow primed by what they initially drew.

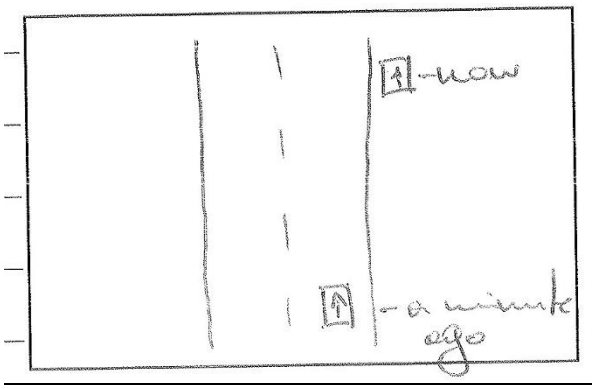

Figure 18: *pull up* – 'stop while driving, especially for a short period of time'

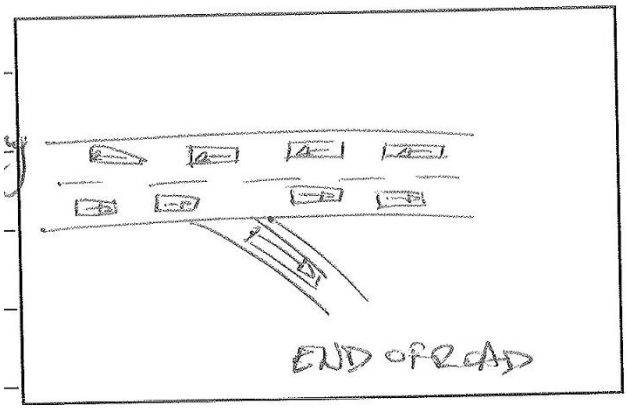

Figure 19: *pull out* – 'stop being involved in something'

Dehaene (1995) addresses a similar phenomenon by describing instances when words are masked and presented so briefly that they cannot be seen, but they may, nevertheless facilitate, the subsequent processing of related words. The phenomenon is called masked priming (p. 315). The author also discusses the phenomenon where the longer a person is subjected to a word or idea, the faster they will be influenced by the word after encountering it again. (p. 319). That being said, we can see how the participant was influenced by the PVs that they encountered first. They decided to use a similar schema for different PVs, even if their meanings were not very similar. Therefore, the possibility of the results of the analysis being different with a different order of PVs needs to be taken into account.

3.5 Differences between Croatian and Omani Participants

The questionnaire contained a section where participants can fill in the information regarding their age, education, and proficiency in English. We must first state that Omani participants were less keen on filling out this part of the questionnaire. Consequently this part of data is less accurate because it describes a smaller sample of a larger group. Naturally, there are a lot of possible factors that might have affected our results. In this section we shall focus primarily on the differences between the Croatian and Omani participants in terms of possible differences that might result from different cultural backgrounds.

As was mentioned previously, there were 22 participants from Croatia and 24 from Oman. All the participants were between the ages of 20 and 25. The average age of Croats was 22.87 years. As previously mentioned, not all Omani participants submitted their age, but the ones who did were on average 20.15 years old, that is more than two years younger than their Croatian colleagues. This is the first difference we noticed that may have had an effect on the differences in the images they produced. The Croatian speakers also had an average 15.8 years of learning English, with the minimum being 13 years, while the Omani speakers had an average of 12.4 years of learning English. Nineteen of the 22 Croatian participants also know another foreign language in addition to English, whereas only 4/24 Omani participants speak a foreign language other than English. As can be seen from the data collected, the Croatian participants have noticeably more experience with English and foreign languages in general. This does not necessarily mean that their language proficiency is higher, but it may have played a role in the approach to the representation of meaning.

We will now show examples of differences in the representations of the PVs that we noticed between the two groups. The first difference we noticed is the object that is represented in the images produced by Croatian participants and is not found in the drawings by the Omanis. As we can see in Figure 20, participant #9 decided to depict a carriage driver pulling the reigns for the PV *pull in*.

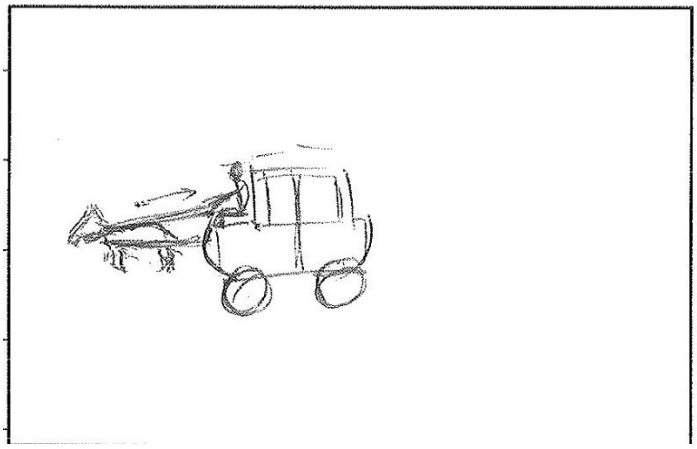

Figure 20: *pull in* – 'move to the side of the road to stop'

In the Croatian cultural context, carriages were commonly used until the 1960s, and can still be seen in some places. On the other hand, they are not something many Omani people would have seen. Due to the climate and historic circumstance, carriages were rarely used on the Arabian Peninsula, especially in the second part of the 20th century due to the discovery of oil in Oman and the focus on mechanized transportation. While carriages are uncommon in both countries nowadays, they are integral part of the Croatian cultural and historical background, and as such even younger people see them as something which is common. The same principle can be applied to the Omani participants. As we can see in Figure 21, women are wearing traditional Arabic clothes. Even though women wearing such clothes can sporadically be seen in Croatia, very few Croatians would draw this element as a part of a generic representation.

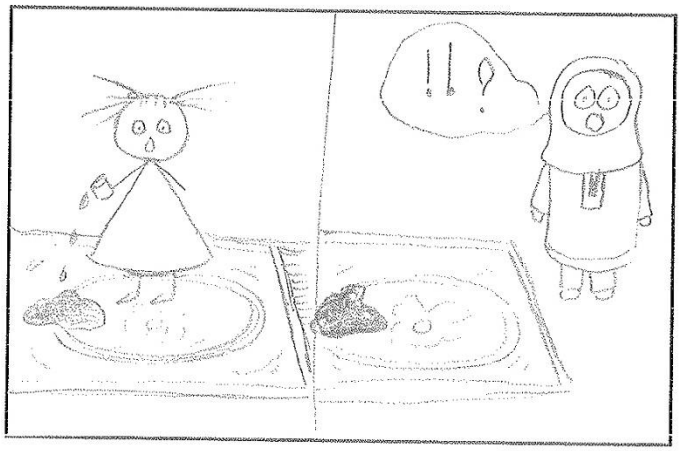

Figure 21: *break out* – 'to escape'

Other differences that were noticed during the analysis relate to the use of text in the visual representation of the PVs. Croatian and Omani participants both used text in the representations, but Omani speakers were more likely to use a lot of text, which led to their drawings being assigned to the miscellaneous category. This may be due to the greater FL experience of Croatian participants, but it may also be connected to certain aspects that are specific to the Omani language education. We may assume that resorting to words was the only strategy that could replace the participants' inability to express themselves visually. They are probably not used to drawing, let alone representing linguistic meaning visually.

Generally speaking, there were not that many noticeable differences between the drawings produced by the Croatian and Omani students. This is probably connected to the fact that, while L1 affects our strategies and perception of other languages, English is a specific case. This is due to the role of the English language as lingua franca. Most of the media consumed by both groups of participants is probably in English. They watch movies and listen to songs in English, read news written in English and interact with people all over the world in English. The role of their native language and their culture is not eliminated, but it is diminished when it comes to the perception of something like PV constructions, which are constructions that are deeply entrenched and quite widespread in the everyday English language.

4. Conclusion

The purpose of this study was the analysis of visual representations of English PVs produced by Omani and Croatian participants in the context of semantically heavy and light verbs. We were interested whether such verbs would motivate different types of representations of PVs. The results of this qualitative study suggest the following: Visual representations of PVs that were formed with semantically heavy verbs were most frequently lexically determined, while visual representations of PVs that were formed with semantically light verbs were most frequently topologically determined. This indicates that there is certain connection between the semantic nature of the verb and the role it plays in the visual representation of the PV construction. This

also suggests that the type of verb somehow determines the perception of the PV construction in question, as the participants used different strategies in representations of different PVs.

What needs to be mentioned for this part of the analysis is that a significant portion of representations were classified as visual paraphrases (21% of all useful drawings), meaning that the participants often had trouble in representing the meaning of components of PV constructions. In the section *Particle verb constructions* we mentioned how such constructions are usually taught in school, which may determine the ways these verbs are represented, even in the case of highly proficient speakers of English like the ones that participated in this research. When students are taught something in a particular manner from a young age, it is difficult to change one's perspective. We also need to mention that drawing is a specific skill that some people may not excel at. Our participants may have had a deep understanding of the motivation behind a PV and an idea of how to represent it, but simply lacked the skill required to depict it through drawings. To summarize, the distribution of representations in the formed categories suggest we were right in our assumption that semantically heavy verbs would trigger more lexically determined representations and that semantically light verbs would trigger more topologically determined representations.

When comparing the images produced by Croatian and Omani EFL learners, we noticed a few differences, like the representation of carriages or women wearing Arabic clothing. Generally speaking, however, most of the representations were very similar and if a person were to be presented with a drawing and asked from which group of participants it came, they would have a lot of trouble in sorting them. These similarities were evident, despite some differences among the participants, such as their age, knowledge of other languages, as well as the number of years of learning English. As was previously stated, this is most likely due to the cultural impact the English language has as a lingua franca. It extends far beyond being linguistic in nature and it indubitably shapes the way we perceive the world.

Finally we wish to address the possible use of this data in teaching PV constructions. As we were able to see from the analysis and the representations, EFL learners can discern at least a part of the motivation behind English PVs. Future students may become even better in discerning

the motivation if the way PVs are taught was to change. It is clear that there is not enough time for the teacher to go through every single phrasal verb and try to explain the motivation behind it. They could take a PV like *break up*, a somewhat clear-cut example and explain to his/her students how the meanings of its components form the meaning 'end a relationship'. For this and other examples, pictures would also be of great aid, as visualization is an important learning strategy... Most students do not like learning by heart, and by explaining the structure and meaning of PVs to them, we would greatly facilitate both the learning and the teaching process. There is no perfect approach and each approach to teaching will have its challenges, but the duty of teachers is to find the best possible way of dealing with challenges they are facing. They need to be willing to find new solutions to old problems and not just keep doing what others were doing before them, hoping to produce better results.

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Appendix A: Questionnaire

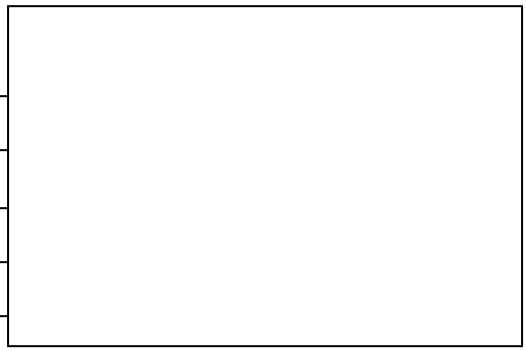
Task

a) You have a list of 24 phrasal verbs (24 meanings). Each verb is followed by a short dictionary definition of its meaning.
b) Please go through the verbs one by one and try to do the following:
Explain the meaning of the phrase in your own words. Please, **do not** just rephrase the definition from the dictionary, but try **to explain the meaning by making sense of the phrasal verb construction. If you can, please "draw the meanings" as well. ☺ Use the boxes on the right.**
Make sure to explain what it is in the phrase that produces this particular meaning.

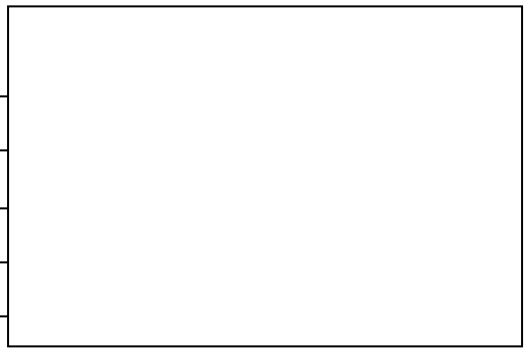
1) **cut out** – stop doing something

2) **put up** – resist strongly or fight hard

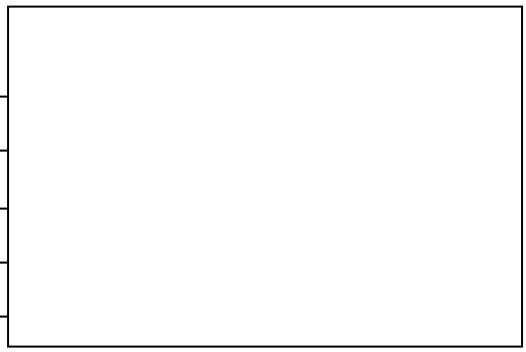
3) **go down** – be sent to prison



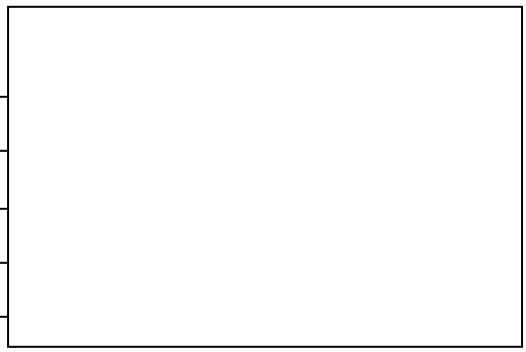
4) **pull in** – move to the side of the road to stop



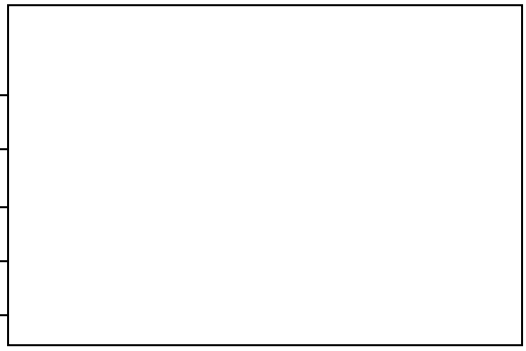
5) **cut down** – kill somebody



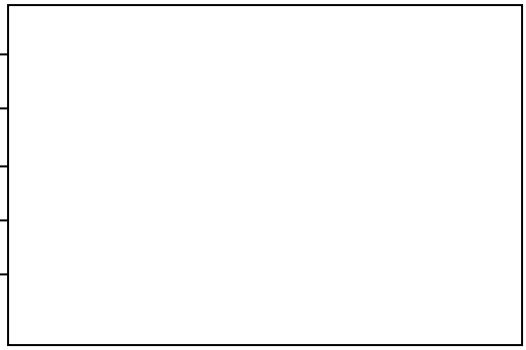
6) **go in** – become hidden



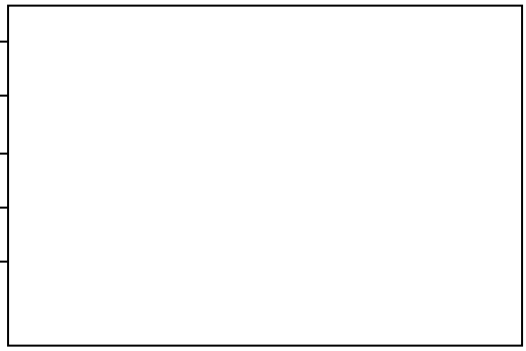
7) **put out** – injure your back, shoulder, hip, etc.



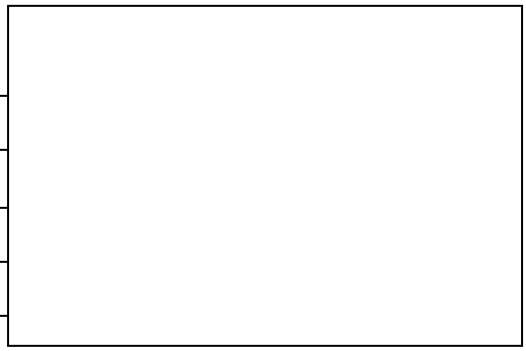
8) **take in** – understand or absorb something



9) **pull up** – stop while driving, especially for a short period of time



10) **break down** – stop working



11) **put in** – interrupt

12) **take up** – fill an amount of space or time

13) **pull down** – destroy a building

14) **break in** – wear something until it is comfortable

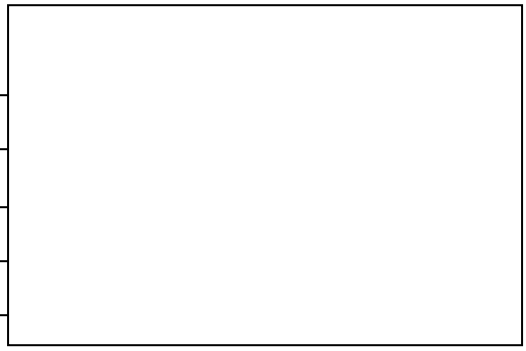
15) **pull out** – stop being involved in something

16) **cut up** – suddenly drive in front of another vehicle in a dangerous way

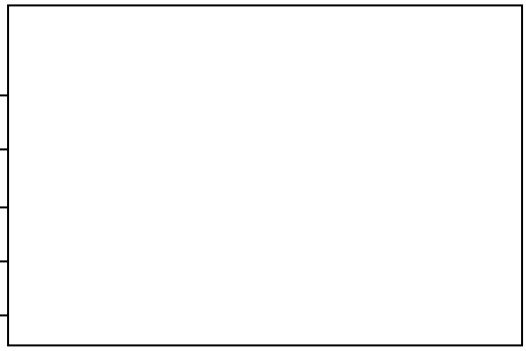
17) **put down** – criticize somebody and make them feel stupid

18) **break up** – end a relationship

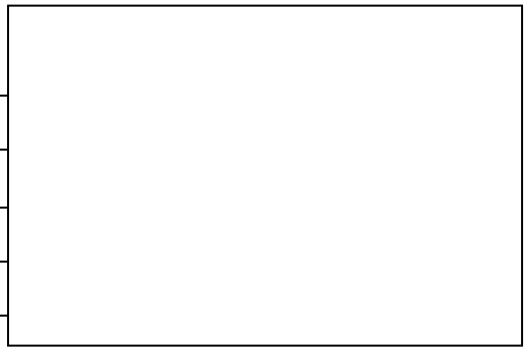
19) **go out** – stop burning



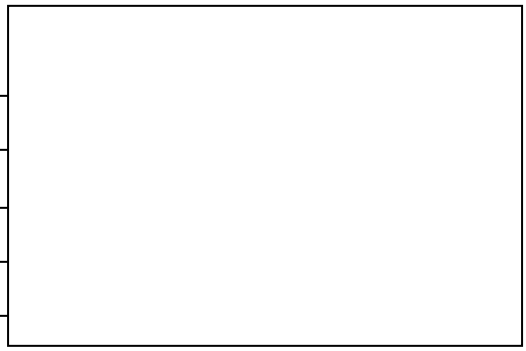
20) **take down** – write something



21) **go up** – be destroyed by fire or explosion



22) **break out** – to escape



23) **cut in** – interrupt somebody's conversation

24) **take out** – go out socially with somebody

Age:

First language:

Year of study (university):

Number of years of learning English:

Other languages you speak (please list):