



School of Education, Culture
and Communication

Swedish Learners of English and Their Use of Linguistic Metaphor

English 4: Master's Degree Project ENA411

Angelica Ahlin
Supervisor: Elisabeth Wulff-Sahlén
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Abstract

This study investigates linguistic metaphors used by Swedish learners of English in upper secondary school. The aim is to provide a measure of the amount and distribution of metaphor in learner English, with the secondary aim of evaluating the method. 24 essays at two different proficiency levels were analyzed using the Metaphor Identification Procedure Vrije Universiteit (MIPVU), a method developed by Steen and his colleagues in 2010, which has since become a popular method for identifying metaphor. The findings are in accordance with previous research and indicate increased metaphor density with higher proficiency levels. The results also show that metaphor is not evenly distributed among word classes: the word classes prepositions and verbs were found to exhibit the highest proportions of metaphor, whereas e.g., adverbs exhibited very few metaphor-related words. MIPVU was found to be a reliable and useful method even for learner English, despite not being created for this purpose.

Keywords: metaphor, metaphor density, second language learning, MIPVU, Sweden, upper secondary school, word class

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Introduction

Metaphors are ubiquitous. In contrast to what many people believe, metaphors are not just a poetic embellishment or literary flourish that we can get by without, like Shakespeare comparing his love to a “summer’s day”. Rather, metaphors are an important part of our everyday discourse. Lakoff and Johnson’s (1980) groundbreaking work on metaphors and how these shape our very perception of the world established their importance and relevance to language. The authors showed that metaphor is far more than an artistic device. Indeed, they claimed that “our ordinary conceptual system, in terms of which we both think and act, is fundamentally metaphorical in nature” (p. 5). They coined the term *conceptual metaphor* to describe these metaphors which shape our conceptual system. For example, one such conceptual metaphor would be TIME IS MONEY. We talk about *spending* time, *wasting* time, *investing* time, *saving* time, living on *borrowed* time, and so on. We use vocabulary that belongs with money and finances to describe the more abstract concept of time. But more than just use those words to describe time, we actually conceive of time this way – as a limited resource. Whether we know it or not, metaphor is entrenched into the human experience.

In other words, metaphor is far more common in language than most people are aware. The arrival of computerized corpora has allowed us to study language in a new and much more extensive way. Corpus studies on metaphor have confirmed its presence in all types of discourse. For example, Steen et al. (2010) found that 13.6 % of their corpus was related to metaphor. This means that one in every seven and a half words is metaphor-related, which equals more or less one word per sentence, since the average sentence length is said to be roughly eight words (p. 189).

Consequently, since metaphor is so universal and important, understanding and using metaphor must be of great importance to second/foreign language learners. In fact, there is compelling evidence that English learners need to develop metaphorical competence in order to be considered proficient in English (see e.g., Littlemore et al., 2014; Nacey, 2013). Research has shown that English learners’ successful and proper use of metaphors in their texts indicates a higher level of language proficiency than productions devoid of metaphors – no matter how grammatically correct. In actuality, there seems to be a positive correlation between the grades awarded an essay written for a school assignment and the use of metaphorical language in it (Hoang & Boers, 2018). Nevertheless, the metaphors that the

learners used were not evenly distributed across word classes. Indeed, some word classes appear to “prefer” metaphor more than others (Nacey, 2013), and the distribution of metaphors among different word classes also seems to vary with proficiency level (Littlemore, 2014).

However, identifying metaphor is not easy. For a long time, there was no reliable method to use, so most researchers used only their intuition. The creation of the Metaphor Identification Procedure (MIP) by the Pragglejaz Group (2007) changed that. This method was later developed into MIPVU (the VU at the end stands for Vrije Universiteit) by one of the original ten researchers on the Pragglejaz team and some of his colleagues (Steen et al., 2010; see section 2.2 below). Still, even though MIP and MIPVU are considered reliable and systematic methods for metaphor identification, they are not without problems, and it is common for researchers to make slight modifications to the method (see, e.g., Littlemore, 2014).

1.1 Aim and Research Questions

Even though there have been several studies on English learners and metaphor production at different levels of proficiency, there has been no such research on Swedish learners of English, to the extent of my knowledge. This study aims to fill that gap and investigate how the prevalence of metaphor differs across proficiency levels and how the distribution of metaphors varies across word classes. A secondary aim is to evaluate MIPVU as a method for identifying metaphor in learner English.

The material for this study consists of 24 English essays written by Swedish learners of English taking the courses English 6 and English 7 (second and third year, respectively, of upper secondary school).

The research questions I hope to answer are:

- i. What is the correlation between amount of metaphor and proficiency level in the data?
- ii. In what ways does the distribution of metaphor vary among different word classes in student essays written for English 6 and English 7?
- iii. To what extent is MIPVU a useful method for identifying metaphors in learner English?

2. Background

2.1 Conceptual and Linguistic Metaphor

When discussing metaphor, a distinction between linguistic and conceptual metaphor must be made. Conceptual metaphor can be seen as the understanding of one conceptual domain in terms of another and is usually expressed through an ‘A is B’ kind of structure, for example ARGUMENT IS WAR. Here, ‘argument’ is the target domain and ‘war’ is the source domain. This conceptual metaphor is then realized in expressions such as ‘I feel *attacked*’, ‘His criticism was right *on target*’, ‘Your claims are *indefensible*’, and so on. With conceptual metaphor, the exact words that are used are less relevant than the concept behind the words. Here, the focus is on the underlying relationship between the two concepts (Lakoff & Johnson, 1980; Littlemore & Low, 2006a).

In contrast, linguistic metaphor is often defined as linguistic realizations of conceptual metaphors (Johansson-Falck, 2010), i.e., language in use. Put simply, it is the words themselves that convey metaphor. These linguistic metaphors can be words in speech or writing, words which have a more basic meaning than the contextual one. One example of a linguistic metaphor would be the noun *way* in ‘There are many *ways* to prepare a chicken’. The most basic meaning of *way* is ‘road’ or ‘path’, but it is more often used in a sense of ‘manner’, such as in the example given here. This sense of *way* is an example of linguistic metaphor, where the focus is on the words themselves rather than the underlying relationship between concepts (Littlemore & Low, 2006a). However, it should be noted that all metaphor is based on some sort of conceptualization, viz. a comparison between domains. To clarify, with the noun *way* in the sentence above, different manners of preparing a chicken are conceptualized as choosing a path among many possible ones in order to reach a destination. In other words, linguistic metaphor is still closely connected to conceptual metaphor, but the difference lies in the focus.

Some researchers, e.g., Lakoff and Johnson (1999), claim that the actual words used to express a conceptual metaphor are of secondary importance. In response to this, Johansson-Falck (2010) shows that the same conceptual metaphor can take different linguistic expressions, and that these are not interchangeable. In a corpus-based study she demonstrates how *road*, *way* and *path* are used as linguistic expressions for conceptual metaphors such as ACTION IS MOTION and AN ACTIVITY IS A JOURNEY. Her examination of these words shows how different linguistic expressions have a metaphorical meaning of their own, and that these express different aspects of the superordinate metaphor. For example, the word

road indicates something wide and easily travelled, whereas a *path* is narrow and more difficult to travel. These basic aspects of the words affect how they are used in metaphors. If one is ‘on the *path* to success’, that indicates possible obstacles and slow going. In comparison, if one is ‘on the road to success’, success is more or less assured and the way there will probably be smooth and easy. Johansson-Falck’s study (2010) clearly demonstrates how metaphor at the linguistic level matters.

In addition, Charteris-Black (2000) notes in his article on second-language figurative proficiency that conceptual metaphors may be shared across languages, but that the precise linguistic realizations can differ considerably. Kövecses (2003) supports this notion by claiming:

Two languages or varieties may have the same conceptual metaphor but the linguistic expression of the conceptual metaphor may be influenced or shaped by differences in cultural-ideological traits and assumptions characterizing different cultures. Subtle linguistic differences point to certain cultural-ideological traits that appear to be deeply entrenched and widespread. (p. 319)

In other words, the lexical items used to express conceptual metaphor matter and carry meaning of their own, and this usage is often culturally entrenched.

Finally, metaphor at the linguistic level is highly significant to second language learners. Svanlund (2007) notes that knowing the conceptual mappings, i.e., comparing one thing in terms of another, is not enough to understand metaphors, let alone use them correctly. This is particularly relevant for second language learners, because they will not only need to learn the culture-specific concepts behind the metaphors in the L2, but also need to know “the specific semantics for each lexical item, which is entrenched in the mental lexicon together with constructional and collocational patterns” (Svanlund, 2007, p. 79). Deignan (1997, as cited in Low et al., 2010) emphasizes the essential role of phraseology for second language learners, saying that “the exact words and phrases which express this conceptual link in L2 cannot be guessed by reference to L1, so these need to be discussed and learned” (p. 65). Further, Littlemore and Low (2006b) claim that both the linguistic approach and the cognitive approach to metaphor are important:

The conceptual viewpoint has proved particularly successful in identifying metaphors underlying abstractions in both basic vocabulary and everyday thinking. ... The linguistic approach to metaphor is equally important, particularly for language learners, as it focuses on the words that are actually

used, and stresses the importance of phraseology and collocation. ... Our contention is that, however much researchers polarize in favour of one approach or the other, language learners need to operate both linguistically and conceptually. (p. 271)

This quote emphasizes the fact that language learners need to work with both conceptual and linguistic metaphor, because they are of equal importance. That said, the present study focuses on linguistic metaphor rather than conceptual metaphor, for the simple reason that the former has been given less attention in metaphor studies for many years. However, by first identifying linguistic metaphors at the level of the word, as in this study, it will then be possible to use these results to identify conceptual metaphors in a future study.

2.2 A Method for Linguistic Metaphor Identification – MIP

Metaphor research in second-language teaching and learning has long focused on receptive skills, such as comprehending and interpreting metaphor (see Littlemore, 2001), but in the last decade, more and more attention has been given to the production of metaphor, too. One likely reason for this increase is the birth of a reliable and systematic procedure for identifying metaphor: MIP (and MIPVU). Before MIP came into existence, the researcher had only his or her own intuition to go on as a tool. This made metaphor identification difficult, unreliable and highly biased, but MIP changed that.

2.2.1 The Genesis of MIP (and MIPVU)

Metaphor has been the object of study in many scientific fields, such as psychology, linguistics, anthropology, philosophy, history, and discourse studies. However, despite being a much-studied phenomenon, there have been few efforts to create a reliable method for metaphor identification. Most metaphor research has been done within cognitive linguistics, where the focus has been on conceptual metaphor identification. This approach relies on intuition and has consequently received much methodological criticism from psycholinguistics and the cognitive and social sciences, i.e., fields that rely on measurements and systematicity (Steen et al., 2010)

In an attempt to address and rectify this problem, ten experienced metaphor researchers worked together for six years to create a method for reliable metaphor identification. The earliest version of this method is referred to as Pragglejazz, which evolved into MIP: Metaphor Identification Procedure (Pragglejazz Group, 2007). This method for metaphor identification has since been widely adopted in many studies. Nonetheless, Gerard

Steen, one of the contributors to MIP, felt that this method was still not reliable enough. For this reason, he and some of his colleagues developed MIP into MIPVU (Steen et al., 2010).¹

2.2.2 Differences between MIPVU and its Predecessors

Even though MIP and MIPVU are very similar in most respects, there are still some notable differences between them. Some of these differences will be addressed here.

The first difference between MIPVU and its predecessors is the standardized use of a dictionary to determine a word's contrasting senses. The Pragglejaz method and MIP rely mostly on intuition and a dictionary is only consulted for difficult cases. With MIPVU, however, a dictionary is consulted for every lexical unit. The dictionary of choice is *The Macmillan English Dictionary for Advanced Learners*. If the Macmillan dictionary does not list several senses for a word, *The Longman Dictionary of Contemporary English* is consulted for a second opinion.

A second difference from the original Pragglejaz method is that MIPVU does not allow any crossing of word class boundaries or grammatical categories for determining the basic sense. In practice this means that, for example, the sense of an adjective and an adverb cannot be compared, neither can uncountable nouns be compared to countable ones or transitive verbs be compared to intransitive ones. The justification for this limitation is that MIPVU looks at metaphor within the morphological structure of a given context, and the focus should be on its contextual reference and not its origins or links (Steen et al., 2010).

Further, MIPVU has added several categories to its coding system. With Pragglejaz and MIP, there is simply metaphor and non-metaphor. But MIPVU has added categories for direct metaphor, implicit metaphor, metaphor flags, possible personification, and a category for borderline cases (Steen et al., 2010). Below follows a short explanation of each.

The Pragglejaz method and MIP are both based on the assumption that metaphor is indirect language used to convey an indirect conceptualization of a target domain by use of a source domain. In contrast, MIPVU emphasizes that indirect conceptualization by metaphor can be expressed in both direct and indirect language. For this reason, MIPVU has created a way to include direct metaphors, such as similes, in the analysis. There is also a specific classification category for metaphor markers (*like, as, compare, similar*, and so on), i.e., words that frequently flag metaphoric expressions.

¹ The VU at the end stands for Vrije Universiteit, which is the Dutch university where the research was carried out.

Additionally, MIPVU includes metaphors that are implicit by substitution and ellipsis, such as pronouns referring to a metaphorically used noun. One example would be: “This career path is a difficult one.” Here, *one* refers to *path*, which is a metaphor and therefore, *one* is coded as implicit metaphor. Also, there is a category for personification metaphors. However, this category is not completely logical, as it is not applied to the lexical unit which serves as the entity behind the personification, but only to the verb. To exemplify, in a sentence such as “this essay argues”, *argues* would be marked as ‘possible personification’ (PP), but *essay* would not be marked as metaphor-related at all.

A final difference in approach between MIPVU and its predecessors has to do with questionable cases. In MIPVU, a specific category for borderline cases has been created: WIDLII. WIDLII is an acronym for ‘When In Doubt, Leave It In’. This makes MIPVU a more inclusive method than its predecessors, based on the rationale ‘Rather safe than sorry’.

2.3 Studies Using MIPVU to Research Metaphor

With the advent of a reliable method for identifying metaphor, more attention was given to metaphor production, not least in second language learning. In this section, a few noteworthy studies using MIPVU as a method are introduced.

Firstly, Steen et al. (2010) used their newly developed method for metaphor identification (MIPVU) and analyzed a portion of the British National Corpus, the so-called BNC-Baby. This sample contained texts from four different registers: Academic, Newspapers, Fiction, and Conversation. The results showed that metaphor can be found in all registers, but that it is most common in academic texts (17.5%) and least common in conversation (6.8%). Fiction only contained 10.8% metaphor, which is much lower than academic texts and newspapers, and this may be surprising to those who see metaphor as an artistic device primarily used in poetry and fiction for extra flair. Finally, the total percentage of metaphor-related words in their sample corpus of nearly 200,000 words was 13.5 %, which is a useful baseline to have when performing metaphor research. Note, however, that this study was done on native language, i.e., L1 texts.

A few years later, Littlemore et al. (2014) used MIPVU to analyze English texts written by speakers of Greek and German at different levels of proficiency. They found that metaphoric density increased with L2 proficiency level from 2.13 percent for level A2 (beginner) to 19.54 percent for C2 level (mastery). Littlemore and her colleagues also noticed that the metaphoric use of open-class words increased with proficiency level, and that L2 speakers at the B2 level and upwards made more use of creative metaphors and

personification metaphors. Furthermore, they found that L2 speakers at higher CEFR levels tended to use metaphor for more advanced functions, such as evaluation and discourse organization. In other words, the results point to a connection between proficiency level and metaphoric density, as well as a qualitative difference in the use of metaphors.

In a similar study, Hoang and Boers (2018) looked at whether L2 learners of English at higher proficiency levels produced more metaphoric language than learners at lower proficiency levels. Their criticism of Littlemore et al. (2014) was that their study had too many independent variables, such as the language background of the participants, essay topics, length of essays etc. Therefore, Hoang and Boers designed a study where they analyzed 257 English essays written by undergraduate students of English at three different year levels at the same university in Vietnam. All essays were on the same topic and of more or less the same length. Year levels were used as indicator for proficiency level. The results were in accordance with that of Littlemore et al. (2014), showing a positive correlation between metaphor density and proficiency level. Additionally, Hoang and Boers found a positive correlation between metaphor use and the grades awarded the essays by independent assessors. Similarly, Chen (2020), who examined 442 Taiwanese EFL learners' essays using MIPVU, also found that the use of metaphor increased with proficiency level.

In addition, Nacey (2013) looked for linguistic metaphors in texts written by Norwegian speakers of L2 English and compared them to texts written by native speakers of English. Her results indicate that L2 learners at the highest proficiency level (C2) actually used more metaphor than native speakers. Nacey also noted a qualitative difference in the way learners used metaphor at a higher proficiency level. One such difference was the use of deliberate metaphors, i.e. *intentional* use. To exemplify, when using the expression 'that will *save* us time', people do not conceive of this as a metaphor, and there is no intention that the receiver should see it as such. In contrast, in an utterance such as 'it hasn't exactly been *smooth sailing*', the speaker is deliberately trying to paint a metaphorical picture, a mapping between the two domains of SAILING and PROGRESS, in the mind of the receiver. This deliberate use of metaphor *as* metaphor seems to increase with proficiency level, according to the findings of Nacey (2013). Also, this study added an evaluation of MIPVU as a method for identifying linguistic metaphors in learner English. The conclusion was that even though MIPVU was not created to be used with learner English, it is still a reliable and useful method in that context, too.

In another study by Nacey (2019), the development of metaphor in learner English was examined by analyzing texts written by 10–19-year-old Norwegian pupils. This study

replicates, in part, the study of Littlemore et al. (2014). The aim was to investigate metaphor use at different levels of proficiency, notably metaphor density, metaphor clusters and the discourse function of metaphors in the texts. Metaphor clusters are defined here as 30% metaphor-related words in a 20-word span. Her findings were that learners at a higher proficiency level used more metaphors and also made more use of metaphor clusters. The results from this study are in accordance with previous results, except that Nacey (2019) found that students made use of more metaphorical words from open word classes at an earlier age than had been noted in previous research.

In a subsequent study, Nacey (submitted) looked at the development of metaphorical production in learner English produced by five Norwegian pupils between 13 and 17 years of age. This study is unique in that it is a longitudinal study following the progress of the same five pupils over four consecutive academic years. The data was made up of two written texts for each student per year, yielding a total of 40 texts. These texts were analyzed for metaphoric density over time for the group but also for the individuals. This study also investigated metaphor clusters in combination with proficiency level, as well as the function of such clusters in written L2 discourse. The findings indicate an increase in metaphoric density with proficiency level, and also that metaphor clusters rise in frequency with increased language proficiency. Furthermore, metaphor clusters at higher proficiency levels were found to serve more varied purposes, such as discourse organization, text cohesion, and the conclusion of arguments.

In conclusion, all of the above-mentioned studies on metaphor use, or more specifically on metaphor production, point to similar findings: the amount of metaphor increases with proficiency level, and English learners at higher proficiency levels use metaphors in more creative ways and for more varied purposes. Evaluations on MIPVU as a method for identifying linguistic metaphor in learner English are also mainly positive, and researchers agree that it is the most reliable method for metaphor identification.

The current study takes inspiration from those mentioned above and uses MIPVU to identify linguistic metaphor in the written productions of Swedish learners of English.

3. Method and Material

3.1 Data Collection

The data for this study consists of 24 English essays written by Swedish learners of English at the upper secondary level. Yet, finding material to use as data proved difficult. There was no

pre-existing corpus that matched the requirements, so in the end a number of English teachers were contacted directly and asked for student essays of about 500 words or more, preferably argumentative in nature. The hope was to get essays from all three English courses in upper secondary school, viz. English 5, 6, and 7, but unfortunately, the essays received were all from English 6 and English 7, and none from English 5.

All the essays were written by students attending the same upper secondary school and the same higher education preparatory programme with a focus on the social sciences (*Samhällsprogrammet*). The English 6 essays were argumentative in nature and written on one of the following topics:

- death penalty
- stricter gun laws
- the legalization of cannabis
- free health care (in America)
- the rehabilitation of prisoners

In contrast, the essays from English 7 were comparative in nature; the students compared two or more dystopian short stories, novels, and films that they had worked with during the school year. Since not all essays reached the desired 500-word limit after the cleaning up had taken place (see section 3.2), a hard limit of 400 words, or rather lexical units, was set to make the essays equal in length. In total, 12 essays from English 6 and 12 essays from English 7 were analyzed. The data used from each essay consisted of 400 lexical units, giving us a total of 4.800 lexical units for each group and a grand total of 9.600 lexical units analyzed for this study.

3.2 Data Preparation

The first step was cleaning up the data. Since this study is focused on learner English, all quotes and references that were not paraphrased in the students' own words were removed. The rationale for this is that a quote from a book or a website written by a native English-speaking author does not tell us anything about learner English, and consequently it is not relevant to the present study. Book titles were also discarded from metaphor analysis, since the students themselves did not come up with them and they do not represent their own words. Once this cleaning up had been performed, several of the essays only had approximately 400 lexical units left, which is the reason why this word count was set as a hard limit for all essays in order to make them of comparable length. The essays were then pasted into an Excel

spreadsheet, after which the corpus was manually tagged for word class and grammatical category.

3.3 Data Analysis

3.3.1 The MIPVU Procedure

Once the material had been cleaned and prepared, the analysis could begin. The method chosen for this study was MIPVU, which stands for Metaphor Identification Procedure Vrije Universiteit (see section 2.2). MIPVU consists of 4 steps, which are illustrated in the flowchart taken from Nacey's book *Metaphors and Learner English* (2013; see Figure 1).

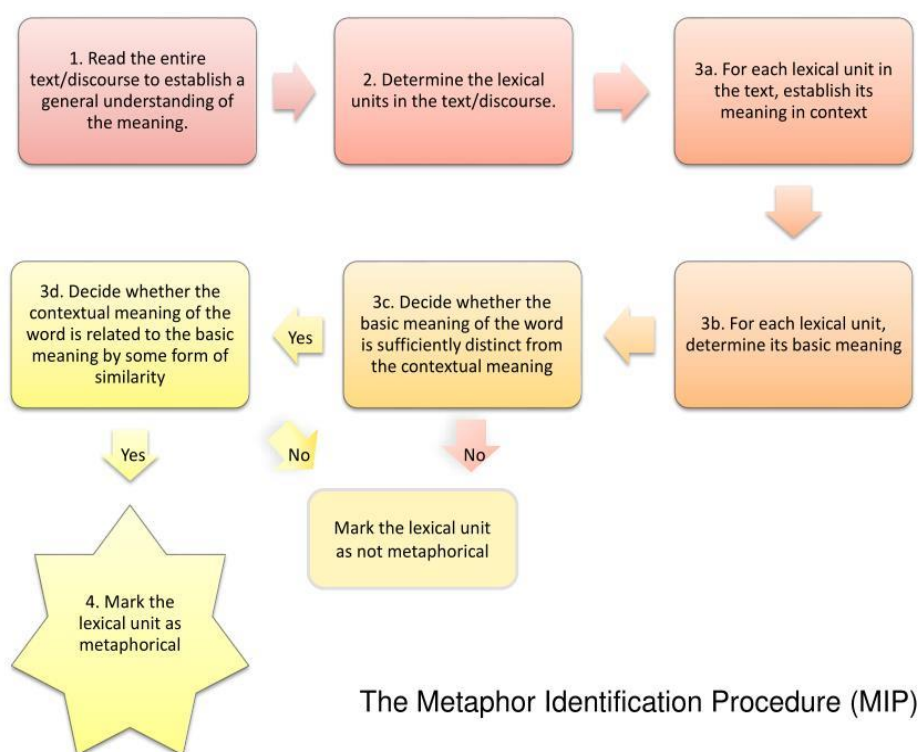


Figure 1. The Metaphor Identification Procedure. Source: Nacey, 2013, p. 70

To sum up the procedure: the first step is reading the whole text to get a general understanding of the context (step 1). The text is then divided into lexical units (step 2), after which each lexical unit is analyzed for metaphoricity. With the help of the free online *Macmillan English Dictionary (MED)*, the contextual and the basic sense for every lexical unit is decided (steps 3a and 3b). The last steps of the procedure are then to determine whether these senses are distinct enough that a comparison is possible and whether some kind

of comparison based on similarity can be made (steps 3c and 3b). Generally, if a sense is listed with its own number in the dictionary, it is considered sufficiently distinct that a comparison can be made (step 3c), whereas if the contextual sense and the basic sense are listed under the same number, e.g., as 1a and 1b, the contrast is not considered sufficiently distinct. The last step is to mark the lexical unit as metaphor (step 4). Strangely, marking a lexical unit as not metaphorical does not have its own step in this model.

There are different codes for different types of metaphor relations: indirect metaphor, direct metaphor, implicit metaphor, possible personification, and metaphor flags. (See section 2.2.2 for an explanation of these terms). The most common category is indirect metaphor, by far.

3.3.2 *Difficulties with MIPVU*

MIPVU as a method may seem simple, but it takes a long time to master, with each step holding difficulties. The first difficulty lies in establishing what counts as a lexical unit (step 2). Mostly, lexical units are the same thing as words, but there are exceptions to this rule, such as polywords (e.g. ‘in terms of’), compounds (e.g. ‘hot dog’), and phrasal verbs (e.g. ‘make up’) (Steen et al., 2010). As a tool to determine polywords, MIPVU recommends a list of polywords from BNC, which helps the researcher determine whether multiword expressions such as ‘by the way’ and ‘even if’ are counted as one lexical unit or several. In these examples, the BNC polyword list says that ‘even if’ is a polyword conjunction, whereas ‘by the way’ is not included in the list and must consequently be regarded as three separate lexical units.

When it comes to compounds, MIPVU uses stress pattern to determine whether an item should be counted as one lexical unit or several: if the primary stress is on the first word of the compound, it is regarded as one unit, but if the primary stress is on the second word, it is regarded as several units. Compare the stress patterns of ‘stock market’ and ‘black market’. Here, the former is counted as a compound but not the latter.

In addition, MIPVU considers phrasal verbs one lexical unit, but not prepositional verbs. An example of a phrasal verb is ‘*look up* [information]’ whereas ‘*look up* [into the sky]’ is a prepositional verb. With a phrasal verb, the particle can be separated from the verb and an object can be placed in the middle, e.g. ‘I will *look* that information *up*’. This is not possible with prepositional verbs, where the preposition cannot be separated from the verb. Unfortunately, learner dictionaries like *Macmillan English Dictionary* do not make a distinction between these but refer to both types as phrasal verbs. This means that it is up to

the researcher to differentiate between them. Even if a tagged corpus or a tagging software has been used, there are often mistakes when it comes to phrasal verbs versus prepositional verbs, so a manual analysis of these must still be performed.

Regarding step 3 of MIPVU, determining the contextual meaning (step 3a) and the basic meaning (step 3b) of a word may appear straightforward, but in practice this is not always easy. The general principle is that the basic sense is the one that is the most concrete, specific, related to bodily action or human-oriented. This is determined by consulting a dictionary, in this case the *Macmillan English Dictionary*. Another difficulty lies in deciding on how clear the similarity between the domains must be (step 3d) for it to be counted as an acceptable comparison. One such example is the word *life* (see 4.3.1.).

Evidently, this method requires many choices on the part of the researcher, which is why it is recommended that researchers work in a team and consult each other over difficult cases.

3.3.3 Demonstrating the Procedure

To illustrate MIPVU in practice, a sentence from the corpus has been chosen to be analyzed word by word below. The codes in brackets refer to the number of the sense as listed in *Macmillan English Dictionary (MED)*. In other words, the sense listed first in *MED* will be coded as MED1, and so on. The sentence that will serve for the demonstration is: *Few see the point of pursuing this matter.*

FEW

Word class: Pronoun, indefinite

Meaning in context: “Used for emphasizing that a number of people or things is very small” (MED2)

Basic meaning: “Some, but not many” (MED1)

Contrast between contextual and basic meaning: Yes, but not sufficient enough. This is a case of a more specific use of a word, no contrast between meanings is involved

Metaphor: No

SEE

Word class: Verb, transitive

Meaning in context: “To understand something” (MED4)

Basic meaning: “To notice someone or something using your eyes” (MED1)

Contrast between contextual and basic meaning: Yes

Similarity between contextual and basic meaning: Yes. We often conceptualize things that we understand or know as 'seeing'. This is based on the fact that we gain much knowledge by looking at and observing the world around us, making this a metaphor based on embodied experience

Metaphor: Yes

THE

Word class: Determiner

The definite article is never metaphorical, because it has only one meaning

Metaphor: No

POINT

Word class: Noun, countable

Meaning in context: "The reason for something" (MED1b)

Basic meaning: "The sharp end of something" (MED7)

Contrast between contextual and basic meaning: Yes

Similarity between contextual and basic meaning: Yes. The most salient or important part of an argument is compared to the sharp end of an object

Metaphor: Yes

OF

Word class: Preposition

Meaning in context: "Saying which specific thing" (MED2)

Basic meaning: "Used for saying what something is part of" (MED6)

Contrast between contextual and basic meaning: No. Since the basic meaning is abstract and not spatial, it is very difficult to determine if there is sufficient contrast.

Similarity between contextual and basic meaning: No. Since the basic meaning is abstract and not spatial, it is very difficult to determine if there is any similarity

Metaphor: No

PURSUING

Word class: Verb, transitive

Meaning in context: "To follow a course of activity" (MED1)

Basic meaning: “To chase someone or something in order to catch them” (MED3)

Contrast between contextual and basic meaning: Yes. The basic meaning has to do with bodily action whereas the contextual meaning is abstract

Similarity between contextual and basic meaning: Yes. There is a conceptual similarity between physically chasing after something and pursuing or following a course of activity such as a career

Metaphor: Yes

THIS

Word class: Determiner

Meaning in context: Refers to a fact that has previously been mentioned (MED1)

Basic meaning: “The one that is here; used for referring to something you are wearing, holding, or showing” (MED3)

Contrast between contextual and basic meaning: Yes. The basic meaning refers to something concrete that you can see, while the contextual meaning refers to something abstract

Similarity between contextual and basic meaning: Yes. The contextual meaning refers to something that is being figuratively pointed out

Metaphor: Yes

MATTER

Word class: Noun, countable

Meaning in context: “Something that you are discussing, considering, or dealing with” (MED1)

Basic meaning: “A particular type of substance” (MED4)

Contrast between contextual and basic meaning: Yes. One is concrete and one is abstract

Similarity between contextual and basic meaning: No, because the basic meaning (MED4) is uncountable and the contextual meaning (MED1) is countable, and so they cannot be compared, according to MIPVU.

Metaphor: No

This analysis shows that four out of eight words in the example sentence are metaphor-related: “Few see the point of pursuing this matter”.

3.3.4 Modifications to the Method

Although I strove to follow the method as closely as possible, I still decided to make a few modifications, mainly for the purpose of simplification. The first was the discarding of the category Possible Personification. Following Nacey's (2013) lead, words that are possible personifications have simply been coded as indirect metaphor for this study. The second modification concerns proper nouns. According to MIPVU, proper nouns such as 'New York' and 'Jane Austen' should be coded as several lexical units. However, I have chosen to go with MIP rather than MIPVU here and count them as one lexical unit, partly because it feels more logical and partly to adjust the word count to include more learner English. Finally, there are a few prepositions that are generally acknowledged as difficult to code (Steen et al., 2010; Nacey, 2013), particularly *of*, *for*, and *by*. These prepositions have become so semantically empty that trying to find a link of comparison (step 3d of MIPVU) between a basic sense and the contextual one can be almost impossible. For this reason, all instances of *of*, *for* and *by* have been coded as not metaphoric, which is in accordance with the practice of other metaphor researchers (e.g. Steen et al., 2010).

4. Results and Discussion

The results will be presented in relation to one research question at a time, followed by a discussion. First, the results regarding metaphor density will be presented and analyzed, after which the distribution of metaphor among different word classes will be presented and discussed. After this, the operationalization and usefulness of MIPVU will be considered. Examples from the corpus will be given in their original form, meaning that spelling or grammar errors have not been corrected.

4.1 Metaphor Density and Proficiency Level

The first research question for this study concerns the possible correlation between amount of linguistic metaphor and proficiency level. Put simply, the objective was to find out whether students at a higher proficiency level use more metaphors than students at a lower proficiency level. This is also referred to as metaphor density. The results from the analysis can be seen in Table 1.

As expected, students in the English 7 group used more metaphors than English 6 students. The English 7 subcorpus contains 15.69 % metaphor-related words, whereas the

English 6 subcorpus only contains 11.19 %. This difference is statistically significant with a p-value of 0.05 and a confidence interval of 95% according to Word Cruncher (2022).

Table 1. Metaphor density for English 6 and English 7

	English 6	English 7
Lexical units	4800	4800
Metaphors	537	753
% Metaphor	11.19 %	15.69 %

At first glance, 15.5 % metaphor for the English 7 texts might seem high. However, Nacey (2013) found that learners of English at a high proficiency level actually used more metaphor than native speakers, perhaps in a subconscious effort to show off their language skills. She actually measured an astonishing 19% metaphor for the learners of the highest proficiency level in her study. This means that the results from the current study are in accordance with previous research.

Another possible reason for the relatively high frequency of metaphor in the English 7 subcorpus could be the topics under discussion and the framework that the students were told to use. All the English 7 texts compare two or more dystopian stories. In order to carry out such a comparison, many terms which are metaphoric will likely be used, e.g., *setting/be set in/take place*, *plot*, and *world*, to name a few. These terms make a kind of framework or scaffold for the structure of the essays and they are included in all the texts of the English 7 subcorpus. Therefore, the prevalence of metaphor may be higher for these texts than for essays with a different framework based on other words.

4.1.1 Type-token Ratio

In order to see which group displayed more variation in their metaphor-related words, the type-token ratio was calculated for all the texts. The results are presented in Table 2. The findings from this analysis indicate that there is little difference between the English 6 and English 7 subcorpora when it comes to the average type-token ratio. It should be noted, however, that there are great individual differences here. For example, as can be seen in Table 2, essays 6.5, 7.4 and 7.10 all show more variation in their use of metaphor than the others. This means that their writers tend not to reuse the same expressions or phrases as much, but

vary their language more. In contrast, 6.4 and 6.8 show the least variety in their choice of metaphor-related words.

Table 2. Type-token ratio for metaphor-related words in English 6 and English 7

<i>English 6</i>				<i>English 7</i>			
Essay Id.	Types	Tokens	Ratio	Essay Id.	Types	Tokens	Ratio
6.1	43	64	.67	7.1	34	66	.52
6.2	24	40	.60	7.2	28	57	.49
6.3	22	38	.58	7.3	41	78	.53
6.4	25	57	.44	7.4	40	57	.70
6.5	35	45	.77	7.5	31	54	.61
6.6	19	39	.48	7.6	32	55	.58
6.7	25	42	.60	7.7	28	58	.48
6.8	19	44	.43	7.8	35	68	.51
6.9	16	30	.53	7.9	34	66	.51
6.10	26	40	.65	7.10	37	52	.71
6.11	32	57	.56	7.11	44	72	.61
6.12	24	41	.58	7.12	36	70	.51
Average	25.8	44.75	.57	Average	35.0	62.8	.56

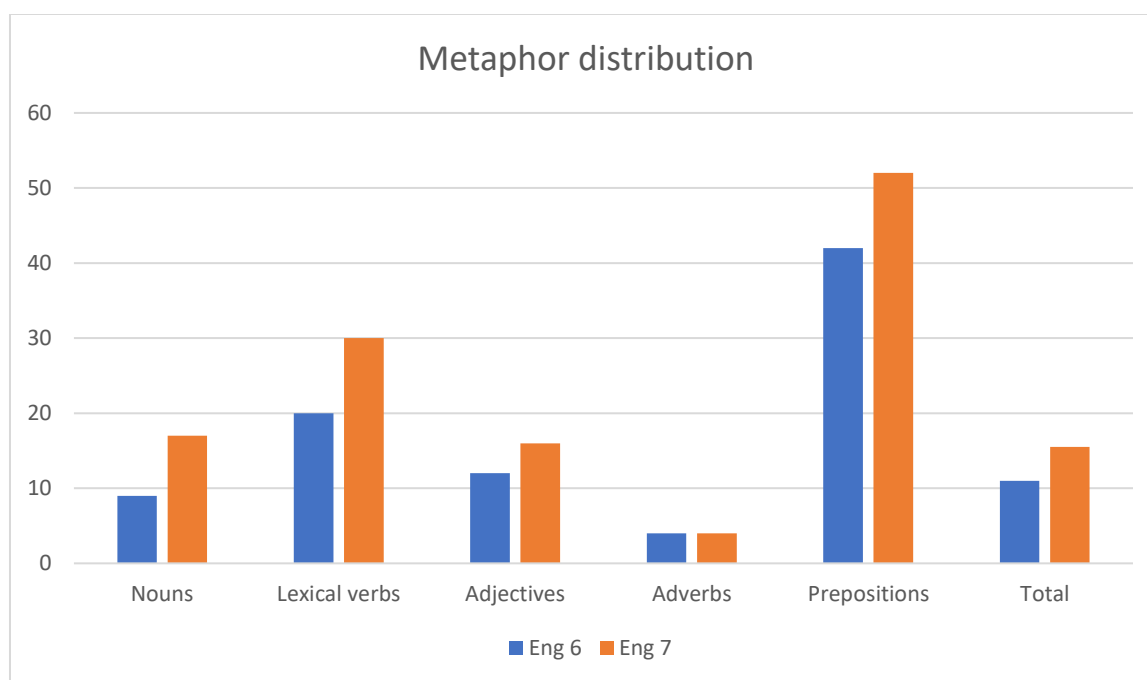
4.2 Metaphor Distribution and Word Classes

The second research question has to do with the distribution of metaphor among word classes and how that distribution differs between English 6 and English 7. The results can be seen in Figure 1.

Figure 1 shows that the frequency of metaphor is higher in English 7 than English 6 for all word classes except adverbs. It also clearly shows that the word class with the highest metaphor frequency is prepositions, while adverbs have the lowest metaphor frequency. Of the lexical word classes, verbs have the highest metaphor density. Following verbs and prepositions, the two word classes that exhibit the most metaphorically used words are adjectives and nouns. Here the two subcorpora differ from each other. In the English 6

subcorpus, adjectives are more frequently metaphoric than nouns, while in English 7, nouns are more often metaphoric than adjectives.

Figure 1. The distribution of metaphor among different word classes for English 6 and English 7 (in percent).



These results are in accordance with the research of both Steen et al. (2010) and Nacey (2013). Indeed, Steen et al. (2010) found that prepositions and verbs were used in a metaphoric sense more often than any other word class. In fact, Steen et al. (2010) found that both prepositions and verbs were used metaphorically much more than would be expected by chance in all of the four registers which they investigated: academic prose, news, fiction, and conversation. To add, Nacey (2013) concludes in her research that “these two word classes thus ‘prefer’ metaphor more than do the others, in both novice and professional texts” (p. 148). By contrast, adverbs show a surprisingly low tendency towards metaphoric use, much less than would be expected by chance. Steen et al. (2010) and Nacey (2013) come to the same conclusion in their research.

Below follows a more detailed discussion of metaphor and the different word classes in relation to the results from the present study. The word classes will be presented in order of metaphor frequency.

4.2.1 Prepositions

As previously mentioned, prepositions are the word class with the highest amount of metaphor (42% for English 6 and 52% for English 7). No other word class comes even close to this metaphor frequency.

Most prepositions have a basic sense that is spatial (*above, at, between, from, in, into, on, over, through, to, up*, etc.). When these prepositions are used in a spatial capacity, often together with an object that is concrete and physical, they have been coded as literal. However, when they are used in a different sense which is not spatial, they are coded as metaphoric. (1) and (2) are examples of prepositions being used in a spatial sense, while (3) and (4) are the same prepositions being used in a non-spatial and therefore metaphoric sense:

- (1) Theo hid the pregnant woman between two boats. (7.6)
- (2) 12 percent of the population in the US are counted as poor. (6.1)
- (3) One major similarity between the two stories is that they are both deeply unsettling. (7.11)
- (4) In some cases, there are extenuating circumstances. (6.12)

While prepositions in general proved to be metaphoric about half of the time, some prepositions, like *about*, have an even higher metaphor frequency. Indeed, the preposition *about* is almost exclusively used in a metaphoric sense, either as ‘concerning a particular topic’ (MED1) or ‘approximately’ (MED 2). In all of the current data, there were no examples of the preposition *about* used in a spatial, basic sense, but there were many examples of *about* being used metaphorically, such as (5):

- (5) In this essay, I will talk about that we need stricter gun laws. (6.4)

4.2.2 Verbs

The lexical word class with the highest metaphor density is verbs. The results from the present study show that 20 percent of lexical verbs are metaphor-related in the English 6 texts and 30 percent in the English 7 texts. Note here that only lexical verbs were included in this analysis; auxiliaries, modals and linking verbs were not included due to their grammatical rather than lexical function. *Macmillan* was used for determining when a verb is used as a lexical verb and when it is used in a grammatical function.

The verbs used varied to some degree with the topics of the essays. For example, the English 6 essays contained many tokens of *punish, kill, commit, think, prevent*, and *control*.

By contrast, the English 7 essays contained many instances of *compare*, *happen*, *begin*, and *set*.

Nevertheless, the most common lexical verbs in both subcorpora were *have* and *do*. Verbs like these are sometimes referred to as ‘delexical’, because they are semantically empty, and their function is closer to grammatical than lexical, despite being counted as lexical in the dictionaries. These so-called delexical verbs are *have*, *go*, *give*, *make*, *do*, and *take*. The common denominator for these verbs is that they carry little meaning of their own, as obvious from their polysemous nature. *Take*, for example, has no less than 27 different senses listed in *MED*. For this reason, delexical verbs turned out to be very difficult and time-consuming to code for metaphoricity. Below are some examples with *take* from the corpus:

- (6) What happens when you start taking harder drugs? (6.10)
- (7) A new totalitarian government has taken control of society. (7.7)
- (8) This story takes place in a modern society. (7.8)

The most basic meaning of *take* is “reach out and get something, especially with your hand” (MED7). This sense is concrete and clearly related to bodily action, and therefore it can be said to be the most basic sense. In (6), there is an element of this basic sense of reaching out and taking the drug before ingesting or injecting it. However, there is also an abstract sense at work here, which correlates with MED 16a “to put a drug or medicine into your body”. But the comparison between the meaning of ‘put into your body’ (MED 16a) and ‘reach out and get with your hand’ (MED 7) is a little difficult to explain unless you involve metonymy; this could be an example of a PART FOR WHOLE metonymy, where the initial action of reaching out to take hold of the drug stands for the whole series of actions involved in taking drugs. By contrast, (7) has a clearly metaphoric meaning of seizing control, while (8) is much more problematic again because the meaning here is carried more in the noun than the verb, and it is difficult to see any metaphorical *taking* involved, i.e., it is hard to find any similarity on which to base a comparison (step 3d of MIPVU). This example illustrates the semantically watered-down nature of *take*. Other similar examples are ‘take a walk’ and ‘take a shower’, both of which count as metaphors according to MIPVU.

4.2.3 Nouns

Nouns are the lexical word class with the highest raw frequency in my corpus: 915 nouns in English 6 and 971 nouns in English 7. Of these, 79 in the English 6 subcorpus and 164 in the English 7 subcorpus were coded as metaphor-related.

The semantic domains of the nouns in the English 6 and English 7 essays differ a lot due to the fact that the topics of the essays differ. As mentioned, all the essays from English 7 compare two dystopian books, short stories, or movies. Therefore, nouns belonging to the semantic domains of book reviews in general and to dystopias in particular can be found in all of the texts. In contrast, the topics of the English 6 essays vary a lot, though the texts are all argumentative in style. Here, the nouns vary with the topic for that particular essay, from the death penalty to the legalization of drugs. Unsurprisingly, the essays arguing for or against the death penalty contain nouns such as *killer*, *prison*, *execution*, (legal) *system*, etc. Similarly, essays on the legalization of drugs, stricter gun laws, or free health care contain nouns pertaining to those themes. Table 3 shows the ten most frequent nouns for the English 6 and English 7 texts, respectively.

Interestingly, most of the most common nouns are not coded as metaphor-related, as can be seen in Table 3. Of the ten most common nouns in the English 6 corpus, only *system* has been coded as metaphoric. For English 7, *plot* and *place* have been coded as metaphor in all of the instances from this corpus, while *world* turned out to be rather challenging to code consistently, as it can be both metaphor and metonymy, and it is not always easy to tell them apart.

Table 3. The 10 most frequent nouns in English 6 and English 7 (raw frequency)

Most frequent nouns in Eng 6		Most frequent nouns in Eng 7	
<i>people</i>	61	<i>story(-ies)</i>	74
<i>death</i>	32	<i>character(s)</i>	27
<i>gun(s)</i>	31	<i>society</i>	25
<i>prison</i>	27	<i>plot</i>	23
<i>law(s)</i>	26	<i>mood</i>	19
<i>school</i>	21	<i>difference(s)</i>	18
<i>crime</i>	20	<i>place</i>	16
<i>punishment</i>	20	<i>protagonist</i>	14
<i>penalty</i>	17	<i>world</i>	14
<i>system</i>	14	<i>event(s)</i>	14

Note: Metaphor-related words are marked in bold.

4.2.4 Adjectives

The word class with the lowest raw frequency in this corpus is adjectives. That means that only a few metaphoric adjectives will make the word class seem metaphor-rich, even though the actual number of metaphorical tokens is very low. While the English 6 corpus contains 12% metaphor-related adjectives and English 7 contains 16%, the number of metaphorical tokens is only 34 and 49, respectively, in all the texts.

Most of the adjectives coded as metaphor-related are conventional and highly frequent in everyday language, such as (9) and (10).

(9) They have a harder time understanding what is right and what is wrong. (6.4)

(10) The risk of getting cancer is much higher if you smoke. (6.10)

The most common adjective in the English 7 texts is, unsurprisingly, *dystopian*, followed by *similar* and *different*. None of these adjectives have been coded as metaphoric, however. An interesting metaphor-related adjective that was used in many of the English 7 texts was *dark*, which belongs in the semantic domain of dystopias. Below are two examples that are clearly metaphoric, because the basic sense of *dark* is ‘lacking light’ (MED1), but in (11) and (12), *dark* means ‘bad and frightening’ (MED4).

(11) The plot is very dark and stressful. (7.1)

(12) This dark tradition is controlling the village. (7.2.)

4.2.5 Adverbs

The word class with the lowest share of metaphor-related words is adverbs. This is true for both English 6 and English 7. In fact, there is no difference between the groups: they both have 4 percent metaphoric adverbs. Surprisingly, the English 6 students have used more adverbs in general than the English 7 students. Below are some examples of metaphoric adverbs from the English 6 subcorpus:

(13) That fear would not be here, if laws had been stricter. (6.3)

(14) It is not enough to take the fear away. (6.3)

Here in (13) is an adverb of place used in a metaphorical sense rather than the basic sense of pointing to where you are standing to indicate the exact spot (MED1). In (14), the basic sense of *away* means going or turning in a different direction and involves bodily movement or spatial direction. But in this case, *away* signifies disappearing (MED5), which is a metaphoric use.

The low frequency of metaphor among adverbs could in part be due to the analytical method. MIPVU does not allow for tracing a word's basic meaning across word class boundaries, and since many adverbs are derived from adjectives, the basic sense will be listed under the adjective and not under the adverb in the dictionary. Consequently, many adverbs have been disregarded as metaphor-related words because the dictionary only lists one sense for the adverb, which must then be interpreted as both the basic and the contextual sense, according to the method, which in turn means that it cannot be interpreted as metaphor-related. The problems with the rigidity of the method will be further discussed in 4.3.3.

However, there are a few examples of metaphoric adverbs derived from adjectives in the corpus. (15) and (16) represent two of them. Worth noting here is that all such instances were from the English 7 texts. Perhaps creating metaphoric adverbs from adjectives is a sign of growing metaphorical competence.

(15) They follow the custom blindly. (7.1)

(16) It was clearly not as important to them. (7.10)

4.3 Evaluating MIPVU

The last research question has to do with the method and how well it serves to identify metaphor in learner English.

4.3.1 Operationalization Difficulties

One of the major difficulties encountered when using MIPVU concerns phrasal verbs versus prepositional verbs (see 3.3.2). MIPVU stipulates that a distinction be made between the two. The problem with this is that the Macmillan dictionary does not make the same distinction. Rather, both prepositional and phrasal verbs are listed as phrasal verbs. 17) is an example from the corpus:

(17) In this essay I will look at two dystopian short stories and compare them. (7.8)

According to the *Macmillan English Dictionary*, *look at* is a phrasal verb, even though it is actually a prepositional verb. Determining that it is a prepositional verb means analyzing the verb *look* and the preposition *at* as two different units. In this case, an appropriate basic meaning can be found for both *look* (MED1) and *at* (MED1), but the contextual sense of 'examining something' can only be found in the dictionary if *look at* is interpreted as a phrasal verb, because the contextual sense is only listed there (MED4). The issue of only

finding the appropriate contextual meaning for prepositional verbs listed under phrasal verbs and not under the verb by itself can be very problematic and has proven to be time-consuming. Nevertheless, in this case it is clear that both *look* and *at* are used metaphorically even though the exact contextual sense cannot be found in the dictionary, so it was still possible to code *look at* as metaphor related.

Another difficult aspect of identifying metaphors is distinguishing metaphor from metonymy. MIPVU only focuses on the former. Yet, these types of tropes are often closely entwined and difficult to separate completely. It is no coincidence that many lexical units that end up being coded as WIDLII, i.e. borderline cases where the researcher is not sure whether something is metaphor or not, are words that can be interpreted as both metaphor and metonymy. A discussion on the coding of the word *life* will serve to illustrate this challenge. Examples (18)–(20) contain three different aspects of the word *life*:

(18) This was after the death of his mother and the love of his life. (7.5)

(19) At first glance, life in the village seems peaceful and happy. (7.9)

(20) The new surgery was supposed to save many lives. (7.2)

The most basic sense for *life* is the one listed under MED3: “the state of being alive”, which we can see in (20). In other words, (20) is literal and not metaphoric. (19) above corresponds to MED2: “your particular way of living and the experiences you have”. The question is whether this is metaphoric. Since this sense has a different listing number in *MED*, it is considered sufficiently distinct from the basic sense to match the criterium of 3c in MIPVU. But is there a comparison based on similarity (step 3d)? After much consideration, the decision was made to view this sense as metonymic rather than metaphoric; the relationship between ‘the state of being alive’ and ‘your particular way of living and experiences you have’ seems to be one of contiguity rather than similarity, and it is difficult to see that this would involve two different domains. Therefore, any instances of the MED2 sense of the word *life* were coded as not metaphoric. Also, instances like (18) were very difficult to code. Once again, it was hard to determine what type of relationship there is between the MED1 and the MED3 senses. In the end, it was decided to code (18) and other instances like it as not metaphor related.

Another difficult noun to code was *character*, as in “a person in a book” (MED4), which was very frequent in the English 7 subcorpus. The most basic sense for *character* is probably “a letter, number, or symbol that is written, printed, or used in computer programs” (MED7). Since there is clearly a contrast between the basic and the contextual sense (step 3c

in MPVU), the difficulty lay in establishing a comparison (step 3d). Is there a metaphorical link between the basic sense and the contextual one? Is there a comparison based on any sort of similarity? I struggled to see it. In the end, I decided that if there was a link between the basic meaning and the contextual meaning, this link was metonymic rather than metaphoric, and therefore I coded *character* as not metaphor-related.

These examples all show that even though the method seems easy and straightforward, in practice it is sometimes difficult to code certain words consistently.

4.3.2 MIPVU and Learner English

As one can expect from a learner corpus, there are many errors. Spelling mistakes are easy to deal with, but other mistakes can be more difficult when using MIPVU as a method. I have chosen to follow Nacey's (2013) example and take everything at face value when analyzing for metaphor. This means that rather than trying to think of which word the student intended to write, the word written is taken at face value and analyzed as it is. However, this is not an unproblematic approach, as finding a contextual sense in the dictionaries will often be impossible.

The first type of errors has to do with L1 interference. All of the EFL learners in this study have Swedish as their native language, so all errors have been compared to the equivalent Swedish word or expression to see if L1 interference can explain the error. Below are some examples:

- (21) Is it not meant that every student in school feel safe? 6.6)
- (22) But think if they are not going to take it seriously? (6.8)
- (23) This short story plays out in Russia. (7.4)
- (24) Their whereabouts is not percised. (7.1)

Sentence (21) above features interference from the Swedish expression *meningen att*, which translates best into 'supposed to'. In (22), the student probably translated *tänk om* into English, while the proper phrasing would be *what if*. In (23) the student used *plays out*, in Swedish *utspelar sig*, rather than *is set in* or *takes place in*. Finally, I speculate that the author of (24) incorrectly translated the Swedish word *precisera*, which means *to specify*, into a hybrid word that is neither English nor Swedish. There is an adjective *precise* in English, but it has a different sense from how it is used here. Since *to precise* does not exist as a verb in the English language, the best interpretation was analyzed instead, in this case *to specify*.

To continue, some errors concerned words that were used incorrectly, but probably not due to L1 interference. In (25) below, the correct verb would likely be ‘commit’, and in (26) the correct word would be ‘carry’. *Wearing* a gun could be seen as metonymic here, as what you wear is the holster with the gun in it. This type of shortcut in the language is typical of metonymy. Neither (25) nor (26) were coded as metaphor. Furthermore, in (27), *vouch for* is a phrasal verb which is generally used for saying that you believe in the goodness of someone, or that you believe they will behave well (MED2). In this context, the word choice is almost comical. It was coded as not metaphor related. To continue, it is impossible to tell with certainty whether (28) is a creative metaphor or an error. Consequently, we must take this at face value and view it as some kind of personification metaphor, which is coded as indirect metaphor in this study. The same is true of (29); it is hard to know whether the writer intended the more contextually suitable adjective ‘unspeakable’ and confused the words, or whether this was intended as an attempt at a personification metaphor.

- (25) Not everyone in prison has convinced a crime (6.2)
- (26) It is a fundamental right to wear a gun. (6.8)
- (27) The USA is a country where they vouch for freedom. (6.4)
- (28) In *The Lottery*, peace is roaming in society. (7.9)
- (29) Furthermore, the dramatic and speechless ending of this story (7.11)
- (30) You get this feeling of repulsiveness. (7.8)

Finally, there were a few made-up words clearly based on deduction, as in (30). The correct noun here would be *repulsion*, but the student instead created a noun out of the adjective *repulsive* by adding the suffix *-ness*, which is often, grammatically speaking, a correct way of nominalizing an adjective. The problem lies in the fact that *repulsiveness* does not exist in either the *Macmillan English Dictionary* or the *Longman Dictionary of Contemporary English*. It does, however, exist in the *Oxford English Dictionary* – the dictionary of last resort for MIPVU. There are also a few instances of *repulsiveness* in the Corpus of Contemporary American English (COCA). In other words, *repulsiveness* does exist as a word, but maybe it is not (yet) common enough to have made it into learner dictionaries like *Macmillan* and *Longman*. In coding words like *repulsiveness*, I followed Nacey’s advice (personal communication) and analyzed it as the nearest existing word in *Macmillan*, which in this case would be *repulsion*.

4.3.3 Limitations to the Method

One of the major disadvantages of MIPVU is the inability to trace a word's derivations across word class boundaries. The original Pragglejazz allowed for obvious metaphors across word class boundaries, such as the noun 'dog' and the verb 'to dog', with the reasoning that sometimes the derivation makes the metaphor rather than the contrast between a basic and contextual sense (Steen et al, 2010). These instances were, however, exceptions to the rule of staying within the word class. With the development of MIP and MIPVU, word class boundaries became absolute, and derivations were no longer taken into consideration. This goes against other research on metaphors, such as Deignan (2005), who studied the grammatical patterns of metaphors and found that for some mappings, changing word class was the norm.

This limitation will affect the results. One example encountered several times in the current material is the phrasal verb *base on*, as in (31):

(31) Their decisions were based on fear (7.4)

According to Macmillan, the phrasal verb *base on* has two meanings, none of which can be seen as basic. It is clear that it is derived from the noun 'base', which has the basic meaning of "the bottom part or section of something, that supports the rest of it" (MED1a). But this sense may not be taken into account for the phrasal verb, and consequently it cannot be metaphor, according to MIPVU. It would seem, that the basic meaning of a word can sometimes be found in one word class, while the derived forms have only retained the abstract meaning. For MIPVU not to take this into account is a serious shortcoming, in my opinion. Steen et al. (2010) explained their reasoning behind the rule by saying that if all derivations were to be tracked for all words, the workload of the researcher would increase tenfold (Steen, 2010). While that may be true, I still find that their rule of absolute word class boundaries may affect validity negatively.

Furthermore, another rule with MIPVU is that words from different grammatical categories cannot be compared, for example countable and uncountable nouns. This proves to be another limitation, as meaning is often extended through grammar, for example through changing from a specific to a general sense. One example from the current study can be seen in (32):

(32) The main character feels scared all the time (7.5)

The verb *feel* has the basic meaning of touching something and is then a transitive verb (MED3). But the meaning of *feel* has expanded semantically and has come to mean a general sentiment with the speaker, such as ‘feel scared’ (MED1) from the example above. However, with this sense, *feel* functions as a linking verb, and as such it cannot be compared to the transitive (and basic) sense. Consequently, the most common usage of the verb *feel* is not metaphoric according to this method, even though intuition suggests that it should be.

4.3.4. Suggestions for Improvements

The first suggestion for improvement of MIPVU would be to use the *Longman Dictionary of Contemporary English* as the primary dictionary instead of the *Macmillan English Dictionary for Advanced Learners*. Longman is more nuanced and has synonyms and antonyms listed, as well as word origins. All of these things are helpful to the researcher when trying to decide the basic and the contextual meanings. *Macmillan* may be easier to use, but *Longman* provides more useful information.

Moreover, there should be a way to work around the rigid word class boundaries. This is a common objection against MIPVU, as some obviously metaphorical words are excluded. For this reason, some researchers make their own small adaptations to the method in order to include derived metaphors (see, e.g., Littlemore et al., 2014, and their treatment of the verb *to snake*.) Perhaps another coding category for derived words could be added to the method to catch these obvious cases. Alternatively, they could be an acknowledged exception to the rule and coded as indirect metaphor, even though they do not fulfill the criteria of contrasting and comparing within the word class and grammatical category.

4.4 Final Discussion

Despite the fact that both English 6 and English 7 correspond to the same upper-intermediate proficiency level, a progress in proficiency between the groups can still be seen. The students in English 7 used more metaphors in general than the students in English 6: 15.5% metaphor-related words versus 11%. This might, in part, be due to the topics and nature of the essays. However, since previous research all points to a steady increase in metaphor density with increased level of proficiency, it is likely that the results from this study would have remained more or less the same even if the two groups had written about the same topic and the nature of the essays had been the same. What surprised me the most about this study was the fact that there was almost no difference in metaphor-related type-token ratio between the two groups.

It would have been natural to assume that the students in English 7 would display greater variety in their language than the students in English 6. This turned out not to be the case. Students of both groups tended to employ a number of metaphorically used words repeatedly rather than coming up with synonyms.

Regarding the method, MIPVU takes a long time to master, especially without formal guidance. This makes the method less user-friendly than desirable, at least during the rough and potentially long “break-in” period. However, once learned, it is a relatively reliable method, thanks to its systematicity. This is supported by the inter-rater reliability statistics from Steen et al. (2010). It is also clear that group sessions, which they refer to as “pragglejazzing”, where researchers discuss problematic words and make group decisions on how to code them, help increase both inter-rater and intra-rater reliability. Unfortunately, I did not have the advantage of working in a team. This drawback may have affected the results. Working with MIPVU as a lone researcher is not impossible, however; others have done it before (e.g., Nacey, 2013), but it is harder.

Other things which may have affected the results are the small size of the corpus and the heterogeneous topics of the essays. The small size of the corpus (9.600 words) makes individual deviations more noticeable and the results less generalizable. For future research, a larger corpus would be ideal. It would also be advantageous to include texts from more proficiency levels, for example texts from all three years of upper secondary school, as was the original plan for the present study.

Moreover, for future studies on metaphors and Swedish learners of English, performing a metaphor cluster analysis might yield interesting results. Metaphor clusters have been defined as 30% or more metaphorical words in a 20-word span (Littlemore et al., 2014). Nacey (2013) and Littlemore et al. (2014) both reported that not only did metaphor clusters increase with proficiency level, but the functions of these metaphor clusters also changed and evolved with higher proficiency levels. Regrettably, a metaphor cluster analysis fell outside the scope of the present study. Likewise, other qualitative aspects such as deliberate metaphors might be worthy of closer examination. A cursory look at potentially deliberate metaphors in the present study showed very few instances in the English 6 corpus but quite a few in the English 7 corpus. This would therefore be a natural area of investigation for future research.

5. Summary and Conclusion

This study has looked at metaphor production among Swedish learners of English. 12 essays from English 6 (year 2 of upper secondary school) and 12 essays from English 7 (year 3 of upper secondary school) have been analyzed using the Metaphor Identification Procedure Vrije Universiteit (MIPVU). The research questions addressed the possible correlation between metaphors and proficiency levels, the distribution of metaphors across word classes, and the usefulness of MIPVU for identifying metaphor in learner English.

The results show that the English 7 texts contain more metaphor in general than the English 6 texts. Further, the results clearly show that prepositions exhibit the highest degree of metaphor density among all the word classes followed by verbs, while adverbs appear to be the least metaphor-prone word class. An investigation into type-token ratios showed a negligible difference between the two groups, meaning that neither group as a whole can be said to use more variation in their metaphorically used words. However, individual differences were great in this respect.

Finally, MIPVU is a rather difficult method to master and the procedure is time-consuming. Nonetheless, it works well with learner English, even though some learner errors can make coding for metaphor harder. The method is reliable, particularly if the researcher has access to a team with regular “pragglejazzing” sessions. However, it is felt that MIPVU is too rigid when it comes to word class boundaries, and a slight modification to the method to make it possible to code words like *to snake* or *base on* as metaphor would be advantageous.

In sum, this study supports the findings of previous research such as Nacey (2013) and Littlemore et al. (2014). However, more research on Swedish learners of English, with a larger corpus and covering more proficiency levels, is needed in order to permit more definitive conclusions.

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