

Can you “dig up the hatchet”? On the Semantic  
Transparency of Idioms in English.

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## Abstract

This thesis is concerned with the connection between syntax and semantics regarding the construction of *special meaning* in English. To investigate this construction I have taken a selection of English *idioms*, modified them in structured ways and then presented them to a group of English mother tongue speakers to test whether, although modified, these idioms retain their idiomaticity. These modifications took the form of two specific operations, those of *mobility* and *transferability* (the latter operation was created for the purpose of this thesis). An idiom’s parts are considered mobile if its parts can undergo movement and retain an idiomatic reading. In this thesis, the movement operation that I was concerned with was passivisation. An idiom’s parts are considered transferable if one of its parts can be replaced (e.g. the verb with another verb or the object determiner phrase with another determiner phrase) and idiomaticity is retained. I hypothesise that whether an idiom’s parts are transferable and mobile is dependent on whether the idiom is compositional or not. I will discuss the above hypothesis against previous work of both Chomsky’s (1995) *Minimalist Program* and Jackendoff’s (1997) *representational modularity*.

The results gained in this study show that idioms cannot be categorised neatly as compositional or non-compositional, but rather exist on a continuum of idiomaticity. On the one end of the continuum exist idioms that are completely inflexible and the rate of flexibility increases the further the continuum extends. Therefore on the one side of the scale is an idiom such as “trip the light fantastic” which is inflexible and on the other side is an idiom such as “I lift my hat to you” which is flexible but in restrained ways.

## Dedication

I dedicate this thesis to the past – to Janet Patterson and to the future – to Katherine, Hannah and Joseph – all my love.

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The completion of this thesis signals the end of an era, as I look outside the jacarandas are dropping their flowers, and we all know what that means.

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# Chapter One

## Introduction

In this thesis I investigate the production and comprehension of *special meanings* (Marantz; 1997; McGinnis; 2002) in natural language (see paragraph 1.1.3. for a definition). I explore special meaning by examining the creation of *idiomatic meaning* in English, i.e. how we come to understand idiomatic meaning. My aim is to discover the relationship between syntax and semantics in the construction of idiomatic meaning in the narrow sense and special meaning, in the broad sense. In order to understand the creation of special meaning in more depth, I work in this study with variations of standard idiomatic expressions in English whose composition has been slightly changed through the application of two processes that I have termed *mobility* and *transferability* (to be described in more detail in chapter four). For example under mobility, an idiom would be passivised (from *he kicked the bucket* to *the bucket was kicked by him*) and under transferability, an idiom would have one of its parts replaced with another semantically related part (from *bury the hatchet* to *bury the axe*). Once these alterations were finalised, the resulting sentences were presented to groups of English mother tongue speakers. The aim was to test whether an idiomatic reading can be retained, even though the syntactic structure or semantic content of the original idiom was altered. Through this modification of idioms, I aim to elucidate the mechanisms involved in the construction of idiomatic meaning and special meaning in general. This study was conducted firstly to determine the dependence of special meaning on syntactic structure and secondly to establish the degree of reliance that the syntax has on single constituents within a sentence (such as words and phrases) to carry the meaning of the whole.

This first chapter is devoted to introducing the terms and concepts that will be vital in the discussion of this research. The first section of the current chapter puts forward some definitions of terms that will be used throughout this thesis, defining them for the purpose of this thesis. I begin the definition section by discussing *meaning* in general and then go on

to include the definition of what I consider an idiom to be, as this is not a widely agreed-upon term. I also present the definition of special meaning. Once the definitions of idiomaticity and special meaning have been laid out, I discuss the notion of *compositionality*, initially with regard to words and sentences and then with special reference to idioms. I shall also give brief explanations of mobility and transferability with mention of appropriate examples (mobility and transferability will be discussed in more detail in chapter four). The second section of this first chapter lays out my research questions and predictions for the research conducted in this thesis, situating the scope of my research as early on as possible. Section three of this current chapter describes my research methodology, with a brief explanation of the materials and the sample groups used. Section four of this first chapter briefly introduces the theoretical framework within which I work, i.e. Jackendoff's lexical licensing as part of representational modularity (1997). The final section of this first chapter lays out each subsequent chapter and what each contains.

## **1.1. Definitions**

### 1.1.1. Meaning

Two types of meaning can be distinguished – those of literal meaning and figurative meaning. When we encounter a sentence we search for its referents, if these referents exist in the world as we know it, the sentence is literal. The sentence's truth conditions can then be met and the sentence has a literal meaning. However if these truth conditions are not met because the parts of the sentence do not have real world referents then the sentence is ascribed figurative meaning, i.e. a meaning that does not equal the sum of its parts (Löbner; 2002) or the sentence is simply false or incomprehensible. Idioms fall into the category of figurative speech as within the context of the idiom the individual parts do not have referents and therefore cannot have verifiable truth conditions. Idioms do not have real world referents, even though their individual words may have, within the context of the idiom the canonical referents are made unavailable.

### 1.1.2. Idioms

For the purpose of this thesis I adopt a narrow definition of idiom<sup>1</sup>:

**An idiom** is a multiword unit, either phrasal or sentential, whose meaning is not based on the literal meaning of its parts. An idiom can be either phrasal (e.g. a verb phrase, a prepositional phrase or a determiner phrase) or sentential.

Saying that idioms fall into the group of utterances with figurative meaning entails that indirectly they create an analogy between two separate entities for example between *cat's pyjamas* and “stylishness” (as to say that someone is the *cat's pyjamas* is to say that this person is “stylish”). This analogy as far as idioms are concerned is conventionalised rather than relying on a logical relationship between the two entities within the analogy i.e. in the above example there is no logical relationship between *cats pyjamas* and “stylishness”.

I have purposefully kept my definition of idioms narrow and have left out other figures of speech that do not fall under the scope of my definition. These figures of speech include proverbs, clichés, metaphors and similes. Some proverbs and clichés are also idioms, like for example *a stitch in time saves nine* (which is simultaneously a proverb, cliché and idiom). However, in many cases proverbs and clichés are not idiomatic as in the example *he who hesitates is lost*. In such cases as this proverb the meaning can be derived from the literal meanings of the proverbs parts. Typically, proverbs contain advisory content or a lesson. Proverbs can be idiomatic but not all idioms are proverbial, so proverbs do not automatically fall within the scope of my definition. Clichés such as *to be young and foolish* or *to make a long story short* are overused phrases that no longer have their intended force. They can be interpreted from the literal meanings of their parts so do not fall within the scope of my definition. Metaphors<sup>2</sup> and similes likewise are not exclusively idiomatic and unlike idioms have a set element/ meaning correspondence (metaphors – A=B, similes

<sup>1</sup> This definition is based on a combination of definitions provided in the literature – discussed further in chapter three, section 3.1.

<sup>2</sup> This discussion does not apply to conceptual metaphors in the sense of Lakoff and Johnson (1980).

– A is like B), whereas idioms have many variant structures and tend towards being sentential or phrasal (often verb phrases).

The most important difference between these figures of speech and idioms is that the meanings of idioms are not based on the literal meaning of their parts, in contrast to the meaning of many proverbs, similes, metaphors and clichés, which in some cases are based on the literal meaning of their parts. The meanings of idioms have to be learned, as they are not immediately apparent (the meanings of proverbs, clichés, metaphors and similes can be immediately available, but again not exclusively e.g. *a stitch in time*'s meaning is not clear without having learned it). The final reason that these other figures of speech do not fall under the scope of my definition of idiomaticity is that some idioms can be considered proverbs, clichés or metaphors, but not all proverbs, clichés or metaphors are idiomatic.

As my above definition points out, idioms can be either phrasal or sentential and their meanings are not based on the literal meanings of their parts – idioms have special meaning.

### 1.1.3. Special meaning

I borrow the term special meaning from Halle and Marantz (1993) and Marantz (1997) (also used in the same sense in McGinnis; 2002: 669). Special meaning is contained in a part of the grammar called the *encyclopaedia* within the model of distributed morphology (DM) (Halle and Marantz; 1993). The encyclopaedia in DM consists of a list of special meanings, that are meanings which are not predictable and therefore need to be learned. This list in the encyclopaedia consists of the special meanings of word roots and bound morphemes but also of idioms, i.e. complex multiword expressions which function as lexical units. For a more complete discussion of Marantz's organisation of grammar within DM see chapter two, section 2.3.

#### 1.1.4. Compositionality

##### 1.1.4.1 Compositionality in general

Compositionality in the broad sense refers to how elements within language can combine to create new elements. Pinker (1994) refers to the grammar of a language being a *discrete combinatorial system* as “a finite number of discrete elements (in this case, words) are sampled, combined, and permuted to create larger structures (in this case, sentences) with properties that are quite distinct from those of their elements.” (Pinker; 1994: 84) This discrete combination of elements occurs on a few different levels as the quote above illustrates. Phonemes combine to form words, words to form phrases and phrases to form sentences. Sentences can have compositional meaning, namely when their meaning is composed out of the literal meanings of their parts (Frege; 1948). Sentences can also have non-compositional meaning, explained below.

##### 1.1.4.2. Compositionality with regard to idioms

Idioms are treated differently from literal sentences. With idioms, we can only learn their meanings after repeated experience with them in context, as I mentioned above. However, Pitt and Katz (2000: 409) have claimed that idioms can be both *compositional* and *non-compositional*. Non-compositional idioms are those where the idiom functions as a single unit and can only be interpreted as a whole, while an interpretation of its parts does not yield the idiom’s intended meaning. One such example is *kick the bucket*. The constituents of this verb phrase idiom do not have special meaning on their own that would contribute to the meaning of the idiom as a whole. In this way, the words *kick* and *bucket* only receive an idiomatic reading in the presence of each other (Marantz; 1996: 9). This idiom is interpreted as one phrasal lexical item, made up of individual words that correspond to one semantic unit, DIE<sup>3</sup>. As a concept DIE can either map onto the words *die* or *kick the bucket*.

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<sup>3</sup> In this thesis, small capital letters are used to represent concepts.

Different types of analyses for idioms consisting of different words or lexical items that combine to form one semantic unit will be discussed in chapter three.

The idiomatic meaning of compositional idioms, however, seems to be construed in a different way. Compositional idioms can be broken up into constituent parts which can be given special meanings *individually*, within the syntactic context defined by the other parts of the idiom (Marantz; 1996: 9) For example, the idiom *bury the hatchet* can be understood as:

- (1.) bury                   =       RECONCILE  
       the hatchet        =       AN ARGUMENT

In this thesis, I am concerned with the properties of compositional idioms in English. I examine under what conditions the special meanings of particular idioms can be mapped onto single constituents or concepts. In other words, how much of an idiom’s meaning can be carried by its individual parts? Importantly, I also explore the consequences of the compositionality of an idiom with respect to two characteristics, namely *mobility* and *transferability*.

#### 1.1.5. Mobility and transferability

Mobility refers to the ability of individual parts of an idiom to undergo syntactic movement operations. Certain idioms cannot undergo internal movement operations and retain an idiomatic reading at the same time. For example, in sentence (2.), the VP-idiom *kick the bucket* has been passivised, and the object DP *the bucket* has been moved to the subject position.<sup>4</sup>

- (2.) # The bucket was kicked by John.

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<sup>4</sup> The # symbol indicates that the following sentence does not receive an idiomatic interpretation.

As a result of this movement, the idiom can no longer be interpreted as idiomatic according to my own judgement (whether this is regarded as idiomatic is tested in this study). Not all idioms lose their idiomatic interpretation when passivised, as some idioms can undergo internal movement operations and still retain an idiomatic meaning; see example (3.):

(3.) The hatchet was buried by them.

*Transferability*, on the other hand, means that if a syntactic constituent of the idiom is replaced with a constituent of the same syntactic category (e.g. a noun with a noun or a determiner phrase with a determiner phrase) which is semantically related to the meaning of the constituent that is being replaced (a synonym or antonym), then the idiomatic meaning is retained, or a potentially new, but related, idiomatic meaning can result. Consider the ‘transferred’ idiom in (4.), for example:

(4.) They dug up the hatchet.

According to my judgement, the object *the hatchet* in (4.) can retain its idiomatic meaning, and hence (4.) can be interpreted as meaning “They revisited an old argument”.

While the mobility of syntactic parts of idioms has been studied by various linguists (Jackendoff; 1997; Marantz; 1996; Nunberg, Sag and Wasow; 1994), I am unaware of any research that has been done on the property of transferability illustrated by (4.). My study aims to fill this gap, with the intention of throwing new light on the mechanisms that determine the construction of special meanings in idiomatic expressions in natural language. This study seeks to investigate the connection between syntax and semantics in idioms, through researching how the alteration of one can affect the other.

## 1.2. Research Aims and Predictions

My first and foremost aim is to research the extent to which parts of idioms are mobile and transferable. Is it a valid prediction to say that idioms that have mobile constituents also always have transferable constituents or do idioms exist whose parts are mobile, but not transferable, and vice versa? By examining syntactically mobile and transferable idioms, my study will also analyse which role syntactic structure may play for the semantic licensing of special meanings.

Therefore my main research questions are:

1. can an idiomatic meaning be retained when constituents of an idiom are moved or replaced and;
2. does the licensing of special meaning rely on the idiom's syntactic structure?

My predictions are that idioms that are considered to be compositional will have both mobile and transferable constituents, whereas idioms that are considered to be non-compositional will have neither. This prediction is supported by a study conducted by Gibbs and Gonzalez (1985) and which was replicated by Gibbs and Nayak (1989). The results gained by Gibbs and Gonzalez (1985) and Gibbs and Nayak (1989) showed that the more semantically transparent or compositional an idiom is, the more syntactically flexible it will be. I expect that idioms that show mobility of their parts will always show transferability of their parts. It should not be the case that idioms that have mobile parts will not have transferable parts and vice versa. In this regard, the degree to which parts of idioms are mobile and transferable will be connected to whether they are considered to be compositional or non-compositional.

In summary, my research aims are:

1. to determine how dependent special meaning is on structure;
2. to discover how reliant special meaning is on individual parts (of a constituent with special meaning) to carry the meaning of the whole;
3. to research the degree to which the idioms in my test set have parts that are mobile and/or transferable and;
4. to discover whether there are idioms within my corpus that are mobile but not transferable, and vice versa.

### **1.3. Research Methodology**

To address the above research aims, a study was conducted to gauge a group of 20 respondents' views on a list of 32 sentences. These sentences consisted of 24 non-idiomatic control sentences and eight test sentences per questionnaire. The eight test sentences were divided into groups containing two accepted idioms, two idioms illustrating mobility, two idioms with a transferred verb (transferred<sup>verb</sup>) and two idioms with a transferred object (transferred<sup>object</sup>). For copies of the four questionnaires, see appendix 2.

The respondents were given the following instruction:

- (5.) For each of the following sentences, provide a context in which the sentence could be used, or explain the sentence’s meaning.

E.g.           The little boy kicked the ball.

Answer:       All the children were playing soccer and as soon as the little boy got it, he kicked the ball.

The sentences were given without context so that the respondents were not primed for a particular interpretation, and in addition I was seeking each sentence’s descriptive meaning in accordance with Löbner's (2002: 22) levels of meaning.

#### **1.4.           Framework**

As a theory of the interface between the lexicon and other modules of the language computational system, I adopt Jackendoff’s (1997) theory of lexical licensing as an alternative to the traditional theory of lexical insertion (Chomsky; 1965). According to Jackendoff (1997: 85) lexical insertion asserts that lexical items are inserted in their entirety into syntactic phrase structure. Lexical licensing however is conceived of quite differently. According to Jackendoff’s approach, which will be discussed in more detail in the next chapter, a lexical item consists of formal, phonological and semantic features that are interpreted and processed in syntax, phonology and conceptual structure; all of which are generative systems and subject to different rules and operations. These three components of Jackendoff’s (1997) representational modularity form the tripartite parallel architecture of the language faculty.

In Jackendoff’s model, a lexical item’s three feature sets are not taken inertly through each structure until they can be interpreted in their own module within the grammar (phonology,

syntax or semantics). Rather, a lexical item is understood as being a correspondence rule that connects these separate pieces of information (see chapter two). Therefore idioms are taken as having more than one chunk of information in the phonology and more than one chunk in the syntax, but only one chunk in the semantics, all which are connected by interfaces. In chapter two I describe my theoretical framework in more detail. The discussion of this derivational approach also includes an explanation of the syntactic operations of move and merge.

## 1.5. Chapter Outline

This chapter has aimed to establish the basis of this thesis by briefly defining some of the concepts that will be used throughout. These concepts include special meaning, idiomaticity, compositionality, mobility and transferability. I have also put forward reasons as to why there is a need for a study such as this. In addition I presented the research questions that I am addressing and my prediction of their outcomes. Finally I briefly summarised the frameworks within which I shall be working, viz. lexical licensing (Jackendoff; 1997).

**Chapter two** lays out the theoretical assumptions that I am working with, based on Jackendoff’s lexical licensing within representational modularity (1997) and Chomsky’s Minimalist Program (1995)<sup>5</sup>. I discuss lexical insertion and distributed morphology (DM) (Halle and Marantz; 1993) and stipulate why representational modularity, and specifically lexical licensing, were chosen for the purpose of this thesis over other options such as DM.

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<sup>5</sup> I use the broad term “Minimalist Program” to describe the framework within which I work, although “minimalist syntax” would be a more accurate description. I acknowledge that the “Minimalist Program” is a meta-theory or research agenda rather than a specific framework and when syntactic analysis is conducted through the lens of this research agenda it is conducted within the framework of “minimalist syntax”.

Further discussions of theoretical assumptions necessary for the completeness of my theoretical framework will include, but not be limited to Chomsky’s (1995) principles and parameters theory and the assumption of move rather than base generation.

**Chapter three** undertakes a more detailed exploration into the definition of idioms with reference to the wide range of definitions of idiom by others, thereby encompassing my literature review.

The compositionality of idioms will be discussed in **chapter four** where I will show how this compositionality applies to idiomatic meaning and also, in a broader context of how compositionality applies to words and sentences. I will then relate syntactic mobility to idiomatic sentences and discuss the effects of movement on these idiomatic sentences with regard to their idiomatic interpretations. Lastly, I will investigate the effects of transferability with regard to idiomatic sentences. I shall investigate how a transferred verb or object affects the idiomatic reading that an idiom may have, looking at whether this change creates a new, but related idiom or results in the new idiom or “neo-idiom” losing its idiomatic reading all together.

My methodology is discussed in the first section of **chapter five**. Here I lay out the methods that I have used to test the mobility and transferability of certain idiom constituents. My corpus of English test sentences will be presented, the permutations discussed and the rationale behind these permutations will be laid out. This section of the chapter is dedicated to discussing the methodology used and the reasons why these methods were chosen. The presentation and discussion of the results will be carried out in the second section of chapter five. I critically analyse the results gained with reference to my research questions and predictions laid out in chapter one. These predictions largely have to do with the compositionality of this selection of idioms and how they are interpreted after having undergone the processes of mobility and transferability.

The last chapter, **chapter six**, contains concluding remarks about the study and this thesis as a whole. My hypotheses are discussed, with reference to the results which I gained. The relevance and validity of these results will also be examined. Possible limitations of the current study are discussed and suggestions for how these limitations can be overcome, are proposed. In addition I discuss the implications of these results for broader research on the syntax-semantics interface for the construction and interpretation of special meaning. Finally I suggest avenues for further research, based on the results of this study.

# Chapter Two

## Theoretical Framework

In this chapter I expand the outline of the theoretical framework given in chapter one. In the first part of this current chapter I discuss universals found in language, starting with a look at universal grammar (UG) and the implications of UG. Included in this discussion of UG is the principles and parameters theory (PPT), which will be discussed with reference to examples. Next I shall set out the syntactic framework that I shall be making use of, namely Chomsky’s (1995) Minimalist Program (MP). I am going to be taking the assumptions of the MP to be accepted, rather than putting them to the test, so the relevant syntactic exposition will be brief. This exposition of the MP includes a discussion of the computational system and the structure of syntax, including the final syntactic structure that I adopt with reference to the operations of *merge* and *move*. This discussion of the MP also includes a brief description of the lexicon and lexical insertion. Next Halle and Marantz’s (1993) theory of distributed morphology is discussed as an alternative construction of the grammar. Finally the last part of this chapter introduces Jackendoff’s (1997) theory of representational modularity, including a discussion of lexical licensing as opposed to lexical insertion (Chomsky; 1965). I also explain why lexical licensing was chosen over lexical insertion.

### 2.1. Universals in Language

I begin this chapter with an introduction to the theory of UG. The theory of UG incorporates the idea that all biologically normal human beings are endowed with a genetically encoded language faculty, which allows them to acquire grammatical competence in their first language(s) (Chomsky; 1995: 169). This grammatical competence can be gained in any language that the child has had sufficient exposure to, in other words, UG is not language-specific. This means that all (biologically normal) humans are in

possession of the tool that helps them to acquire the grammatical competence in any language to which they are adequately exposed. In this way, the load of acquiring a primary language is lessened to only lexical learning and parameter setting (cf. Chomsky and Lasnik; 1995), discussed below. This idea is used by Chomsky (1965, 1972 & 1995) to explain why children learn to speak so quickly, without any formal lessons from their parents and without making many fundamental or unpredictable errors. UG consists of a “universal set of innately endowed grammatical principles which determine how grammatical operations apply in natural language grammars” (Radford; 2004: 16). These grammatical principles, being universal, must then apply to all human languages.

We know, however, that languages do differ from one another, so how is this accounted for within UG? The answer is that principles in UG have two different values to which they are able to be set, and these values are called parameters. So in its original state, UG consists of a set of principles “which take the form of a certain number of stipulated abstract constraints” (Baker; 2002: 283). These constraints are parameterised and these binary parameters are the reason for language variation (Chomsky and Lasnik; 1995: 25, 28). Since this variation is restricted to two options per principle, the range within which languages are actually able to vary is limited. Due to the existence of these parameters within principles, we are able to study a phenomenon in one language to get a greater understanding of language in general. The reason that this greater understanding can be gained is that languages only vary with relation to how the parameters are set, and not in unpredictable ways. Furthermore, the reason that this predictable variation is relevant is that each speaker of a particular language (or language dialect) will have these parameters set in the same way (taking into account minimal idiolectal variation). Both syntax and semantics are compositional; they are connected by correspondence rules – a change in one will effect a change in the other (Jackendoff; 1990: 19). This correspondence between syntax and semantics is pertinent because in the research conducted for this thesis, I rely on native speakers' intuitions about certain sentences in their native language. Therefore, if a group of native speakers in the language in question agree on the meaning of a sentence, then this meaning is likely to be accepted across that language group.

Radford (2004) demonstrates how parameters can take different values by way of three examples: the null-subject parameter, the wh-parameter and the head-position parameter. The null-subject parameter differentiates between languages that require overtly realised subjects and languages that do not. A language such as English is a non-null-subject language whereas Italian is a null-subject language (Chomsky and Lasnik; 1995: 36). These languages are unalterably set to these binary parameters and since all languages have to set these parameters, it follows that the parameters would be set to one value or another. This means that there will be no language that has this parameter, or any other parameter, set to both values. Likewise, the wh-parameter (referring to the position in which a wh-phrase such as *what*, *who*, *where*, can appear) can be set either to “ex-situ”, which means that the relevant language has wh-movement, or to “in-situ”, which means that in the relevant language, a wh-phrase does not undergo any movement operations, but rather just remains in its base position. English is a wh-ex-situ language, and Chinese is a wh-in-situ language as is demonstrated by the following example (taken from Radford; 2004: 18):

- (6.)           (a.)    What do you think he will say?  
                  (b.)    Ni    xiangxin ta   hui shuo shenme  
                           You think    he will say    what?

In the English sentence, the wh-phrase moves to the beginning of the sentence from its base position. In contrast, in Chinese, the wh-phrase stays in the place it was generated. The wh-parameter thus determines whether languages front their wh-phrases or not, disallowing any variation with respect to this feature. So as in the previous example, a language should not be able to exhibit both of these settings and allow wh-phrases to appear both in fronted and in base positions<sup>6</sup>.

Finally, the head-parameter establishes differences between languages as far as heads and the ordering of their complements is concerned (Chomsky and Lasnik; 1995: 35). As cited

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<sup>6</sup> Apparent exceptions to this rule can be found in languages such as Zulu, which seem to exhibit wh-movement, partial wh-movement and wh- in situ. See Sabel and Zeller (2006) for discussion.

by Radford (2004: 19) English is a head-first language whereas Korean is a head-final language as is illustrated below:

- (7.)           Muneul dadara  
                   door    close  
                   “Close the door”

In the English translation for the verb phrase in (7.) the head verb “close” precedes its determiner phrase complement “the door”, however in the Korean verb phrase in (7.), the complement “muneul” precedes the head “dadara”.

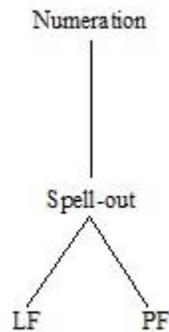
As Radford (2004: 25) demonstrates, parameters constrain the amount of structural variation amongst languages, as choices are confined to binary options. Depending on the input language, the language faculty specifies this binary choice for each parameter. In this way, all grammatical variation between languages can be explained in terms of a set of principles and parameters. As previously mentioned, this limits the task of the child whilst acquiring languages. The reason for this is that, rather than acquiring their first language completely on their own, the language acquiring child has the help of UG, which restricts the scope of learning only to lexical learning (words and the relevant exceptions – irregular plurals like *man = men* instead of *mans*) and parameter setting. If, as the name suggests, these principles are universal, “it follows that they will affect the application of every relevant type of grammatical operation in every language. Thus, detailed analysis of one grammatical construction in one language could reveal evidence of the operation of principles of UG” (Radford; 2004: 14). In line with this assumption, a new study of English idioms could illuminate some of the mechanisms of the construction of special meanings in language in general.

Once these parameters are set in early childhood, they cannot be altered. This results in an adult state of grammar which undergoes little change except for additions to the lexicon. Thus, language variation is the product of parameter setting during the critical period of

language acquisition. This final state of grammar that a speaker of a language has acquired is also referred to as the grammatical competence of the native speaker, that is, the tacit “knowledge and understanding” (Chomsky and Lasnik; 1995: 14) that a native speaker has of his/ her own language. Competence is paired with performance, the latter term denoting a speaker’s language use, i.e. how a speaker actually uses their native language in context. Performance can be influenced by many factors, including but not limited to a speaker’s emotional state.

## **2.2. The Minimalist Program**

Chomsky (1995) proposes an organisation of the grammar that aims to provide an answer to the question of how to link sound to meaning in language (Zwart; 1998: 215). In the MP very basically, language is assumed to have two components: the computational system and the lexicon (Chomsky and Lasnik; 1995: 20). In addition, these components need to interface with two linguistic levels that are associated with the performance system mentioned in the previous section. These two interface levels are the auditory-perceptual (A-P) system and the conceptual-intentional (C-I) system. The computational system generates what are called structural descriptions (SDs) by Chomsky and Lasnik (1995), and these give information about the structures in which the lexical items can appear. The lexicon is then accessed and these lexical items are then combined by the two operations of select and merge on the one hand and move on the other (discussed below) which form the syntactic structure – which creates these SDs and maps the syntactic structure to the phonological form – a process termed spell out. This syntactic structure is the input for the two other elements of the grammar: namely phonetic form (PF) and logical form (LF). PF and LF are interface levels that connect to the A-P and C-I systems respectively. The representation to follow illustrates the structure of the grammar (simplified from Hornstein, Nunes and Grohman; 2005: 73):

Figure 1

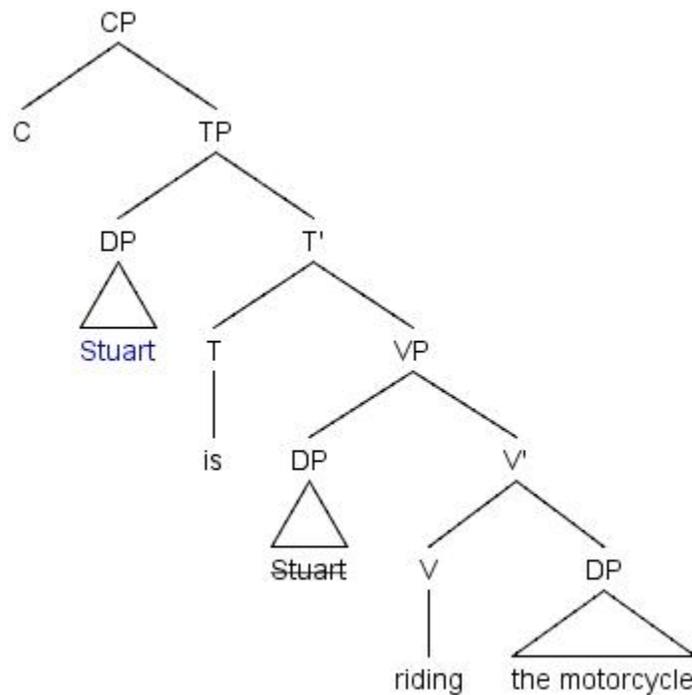
LF connects the syntactic representation to its semantic representation or its meaning and PF connects the representation to its pronunciation. PF and LF are interface systems, and are only able to interpret the information in spell-out that is directly related to them i.e. PF can only interpret phonological information and LF can only interpret semantic information. The numeration is made up of the lexical items that will be used to construct a sentence and also indicates how many times each lexical item will be used in the sentence (Lasnik; 2002: 433).

(8.) to follow indicates the final syntactic structure present at spell-out and is the structure that I adopt in this thesis. As this structure is not being put to the test, this section briefly presents the structure that I work with and how the structure is built.<sup>7</sup>

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<sup>7</sup> I follow the convention of labelling syntax trees as examples and not figures.

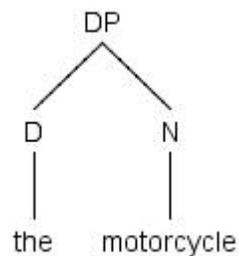
(8.)



The structure of this sentence within the MP is built out of two operations (mentioned earlier), those firstly of select and merge and secondly of move (or in later work (Chomsky; 2000 & 2004), external and internal merge respectively). The above sentence is constructed by a recursive application of the operations select and merge. This process is termed select and merge as lexical items are selected from the lexicon and merged to form structures.

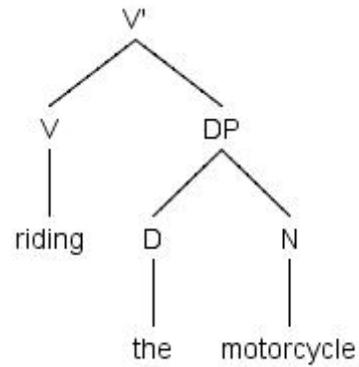
The determiner (D) *the* is merged with *motorcycle* to form:

(9.)



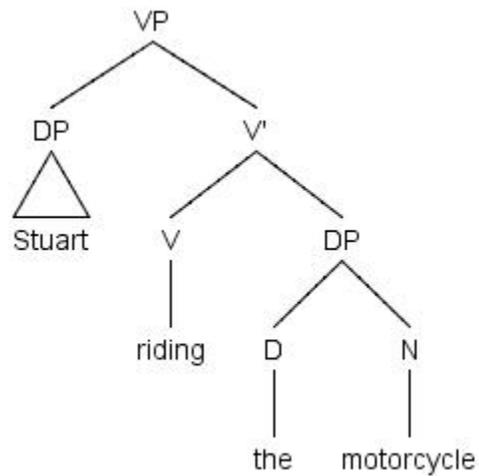
The DP in turn is merged with the verb (V) *riding* to form the intermediate projection V':

(10.)



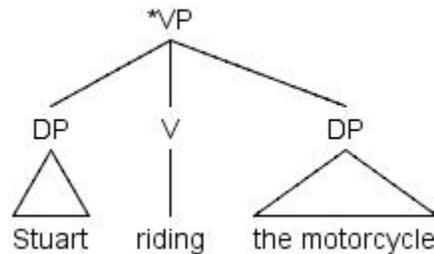
The intermediate projection V' is then merged with the subject DP *Stuart* to form the verb phrase (VP):

(11.)



Within the MP, tree structures must have binary branching hence a structure as illustrated in (12.) is disallowed:

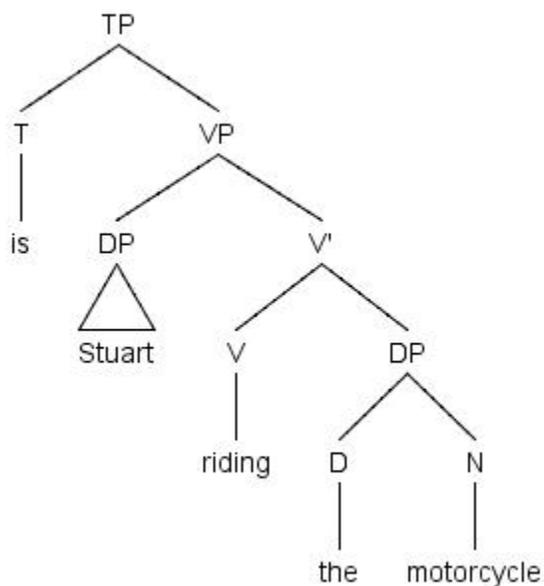
(12.)



In addition, in English the left-most element is the head of the phrase and also gives the phrase its name; the ungrammatical structure in example (12.) does not reflect that.

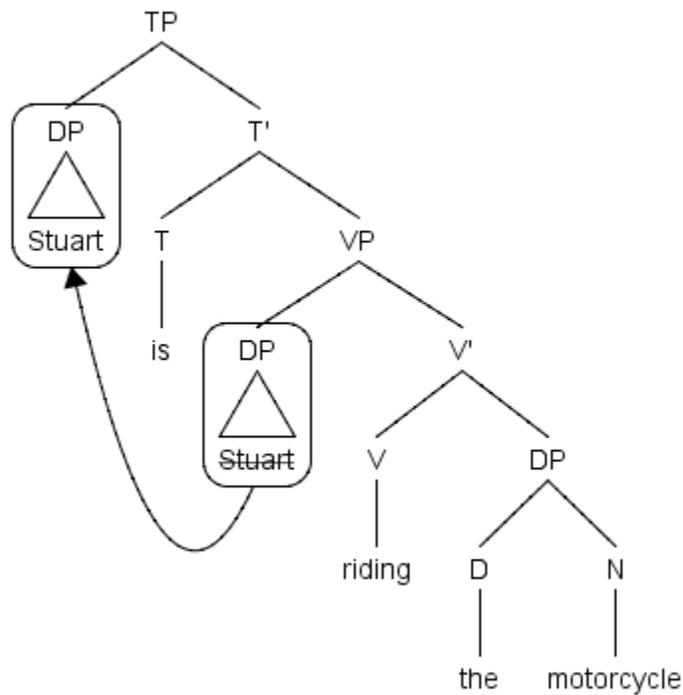
The phrase in “Stuart riding the motorcycle” (see example (11.)) is then merged with the auxiliary in the tense phrase (TP) to form the tree depicted in example (13.):

(13.)



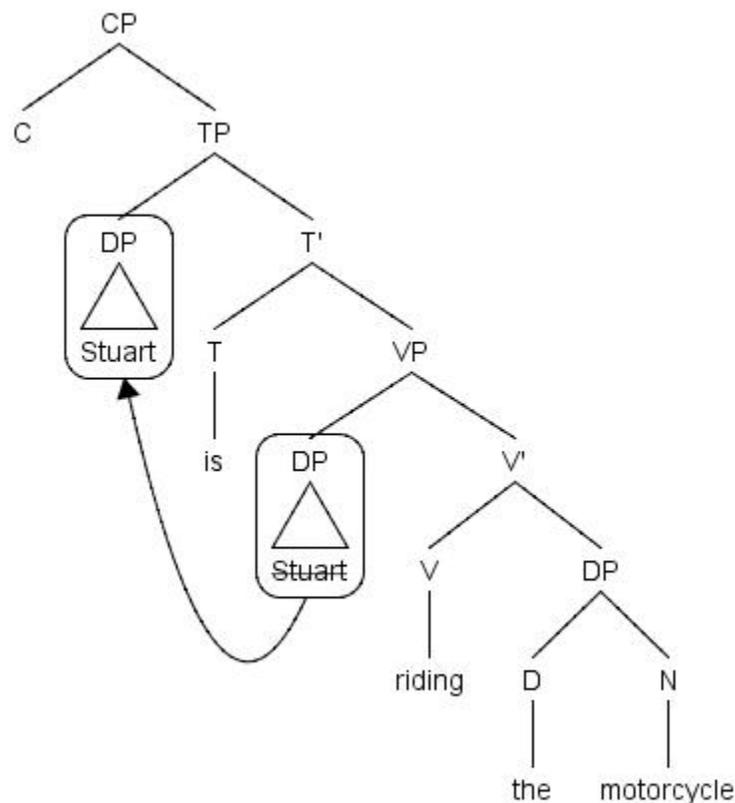
The next step of this process is for the operation move (or internal merge) to take place and this operation takes place in order to satisfy the EPP Feature which is found in T. The EPP feature is a stipulation found inside the TP that has to be checked in order for the derivation to proceed to LF and PF. The EPP feature states that the specifier of T (the sister node of the T') or [Spec, T] must be overtly filled. Therefore, the subject *Stuart* moves from [Spec, V] to [Spec, T] which yields the correct word order and satisfies the EPP feature in T. *Stuart* is only phonetically available in its final landing spot in [Spec, T].

(14.)



Finally (14.) is merged with a null complementiser to mark this sentence as declarative, which forms the complementiser phrase (CP) and the resulting tree structure in example (15.) to follow:

(15.)



Worth noting is that this final structure includes the idea that the syntactic structure of a sentence is based on the projections of functional categories such as C and T.

Another transformation in which movement is necessary is the passivisation of an active sentence. Consider the examples in (16):

- (16.) (a.) The dog ate the food. (active)  
 (b.) The food was eaten by the dog. (passive)

Example (16.a.) is an example of an active sentence and the sentence in (16.b.) is its passive counterpart. In this section of the chapter I am going to discuss the transformations which are necessary in changing (16.a.) to (16.b.) and the syntactic differences between the two constructions.

Notably, both DPs in (16.a.) (*the dog* and *the food*) are assigned theta roles by the verb (those of agent and theme respectively).<sup>8</sup>

However in sentence (16.b.) the agent *the dog* is represented as an adjunct in a prepositional phrase headed by the preposition *by* (the so-called “*by*-phrase”), i.e. *by the dog*. Adjuncts, by nature, are optional so the sentence in (16.c.) below is grammatical even though the adjunct is omitted:

(16.) (c.) The food was eaten.

In addition adjuncts do not get assigned theta roles as they are characteristically optional. Passive sentences hence lack the agentive theta role (Carnie; 2007: 292). The passive verb in English is marked by passive morphology – that is either *-ed* or *-en* and this kind of verb (i.e. a passive verb) is not a case assigner (Chomsky; 1995: 114) which makes accusative case unavailable for the object of the verb.

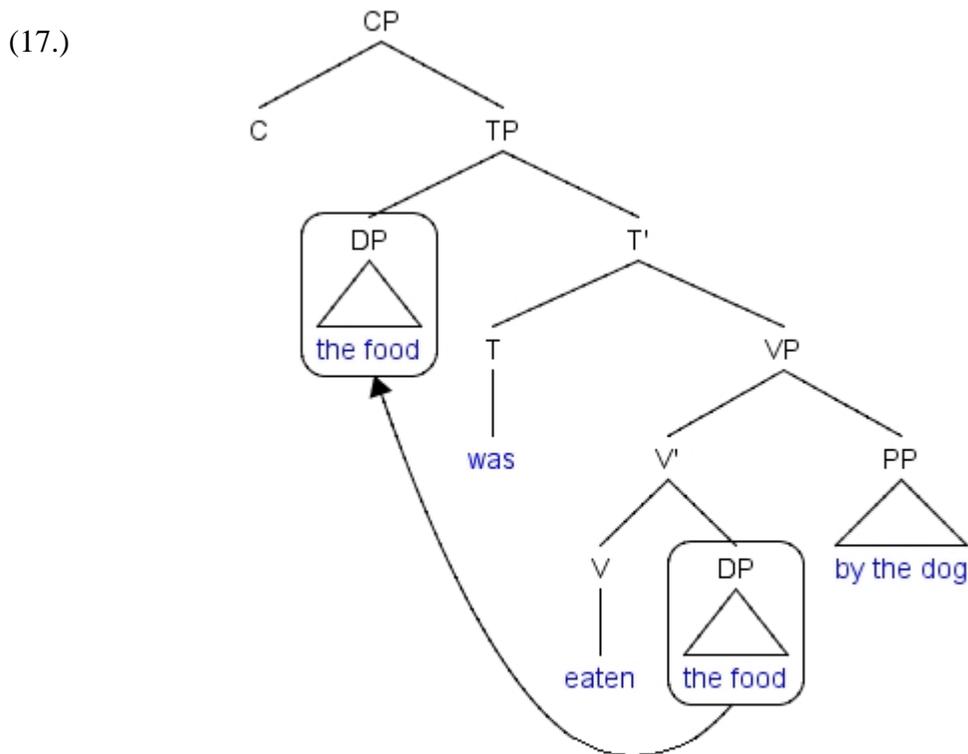
In short the operation of passivising an active sentence entails two main processes, which are the absorption of the agentive theta role and accusative case. Baker, Johnson and Roberts (1989) argue that passive morphology is actually an argument of the verb, more specifically that it is the verb’s external argument or subject (Baker, Johnson and Roberts; 1989: 221), which means that the external argument can be assigned the subject/agentive theta role and receive “the accusative case that the verb assigns. Accusative case is then

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<sup>8</sup> Within theta theory (Chomsky; 1981), the external argument of the verb or the subject is assigned the theta role of agent of the sentence by the verb, that is the active “player” in a sentence. In this case the verb assigns the theta role of theme to its internal argument or the entity that has undergone the action of the external argument.

unavailable for the object of the verb” (Chomsky; 1995: 115). The affect that this has on word order is as follows: in a passive sentence the theme argument appears in subject position. The theme theta role is assigned to internal arguments of the verb. It therefore can be assumed that the theme object is generated in object position (to receive the theme theta role) and moves to the subject position to satisfy the EPP feature in the specifier of T. The structure of (16.b.) is represented in (17.) below:

(16.) (b.) The food was eaten [by the dog].



The above sentence in (16.a.) is a declarative sentence with a transitive verb, and declarative sentences are specifically the types of sentences in English that can be passivised, while retaining a similar meaning.

### 2.2.1. The lexicon in the Minimalist Program (MP)

The lexicon within the MP is the storehouse of all idiosyncratic properties of lexical items. These properties, according to Chomsky and Lasnik (1995: 20), give information about the lexical items' phonological, syntactic and semantic characteristics. In the MP, the items are selected from the lexicon and merged with one another directly, as explained above. Once combined to form a syntactic structure the elements that are outside of the syntax (phonology and semantics) are uninterpretable until they cross over into either PF or LF respectively. The next section puts forward the theory about how the lexicon and the syntax interface, the theory of lexical insertion (Chomsky; 1965). Lexical insertion is replaced in section 2.4.1. by lexical licensing (Jackendoff; 1997) as the theory I adopt in this thesis to explain how the lexicon and the syntax interface.

### 2.2.2. Lexical insertion

A lexical item can be thought of as an instance or example of a lexical category. “A lexical item is like grammar in the miniature, it consists of sound, meaning and structure” (Freidin; 1992: 28). A lexical category (such as noun or verb), however lacks the elements of phonology, syntax and semantics that a lexical item has and can only have these elements once it becomes associated with a lexical item. In the process of lexical insertion, a lexical item is inserted in the place of a lexical category, and this lexical item carries with it semantic features that contribute to its meaning (Chomsky; 1972). A lexical item will also include subcategorisation features that state what phrasal categories a lexical head, such as V, can combine with (Chomsky; 1995: 30).

For lexical insertion to occur it is necessary that the lexical item be of the same type as the lexical category, however this is not sufficient. A common noun carries with it certain semantic features that restrict the positions in which it can appear and with what other elements it can appear. An illustration of this is that a singular common noun, in English, must be headed by a determiner and can optionally be preceded by an adjective:

- (18.) (a.) The mare is pregnant.  
(b.) The fat mare is pregnant.  
(c.) \*Mare is pregnant.<sup>9</sup>

Semantic features become more intricate, however, when dealing with argument-taking lexical categories such as verbs. For example, verbs differ in the number of internal arguments they can take, and certain verbs select their internal arguments obligatorily, while those of other verbs are optional. Lexical information about the number and obligatoriness of internal arguments is stored in a verb’s argument structure. For example, the lexical entry of *give* needs to specify that it obligatorily takes two arguments. It is necessary for these obligatory internal arguments of the verb to be stipulated so that sentences such as the ones in (19.) do not occur.

- (19) (a.) \*He gave the child.  
(b.) \*He gave a book.

In addition to its argument structure, the lexical entry of the verb must also include information about the syntactic properties of the verb’s arguments. For example, the lexical entry for *give* must specify that the internal arguments can be realised in two different syntactic frames: the theme is always a direct object-NP, but the goal is either a PP or an indirect object-NP.

These features of lexical items, specifically verbs, are termed subcategorisation features (Freidin; 1992). “A subcategorisation feature constitutes a lexical property of a specific lexical item. When the subcategorisation feature and the actual syntactic context of the lexical item match we can say that this lexical property is satisfied.” The above quote refers to what Freidin (1992: 33) has termed *the principle of lexical satisfaction*.

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<sup>9</sup> If *mare* in (18.c.) is interpreted as a proper noun the sentence of course is acceptable.

To sum up, lexical insertion is an operation that substitutes a fully specified lexical item for a lexical category such as [noun]. For this to be successful, the subcategorisation features and the syntactic context of the lexical item must match. If the *principle of lexical satisfaction* is not satisfied, the derivation will fail. In lexical insertion, a lexical item along with its phonological and semantic features is inserted in its entirety and taken through the syntax as an uninterpretable element. The phonological and semantic features can only become interpretable when the derivation is transferred to the phonological/phonetic and the semantic modules of grammar. In section 2.4.1., lexical licensing is discussed as an alternative to lexical insertion. There I present the reasons why lexical licensing is deemed appropriate for the interpretation of idioms within my study.

### **2.3. Distributed Morphology**

Distributed morphology (DM) is a theory of the structure of grammar put forward by Halle and Marantz (1993) as an alternative to ‘lexicalist’ approaches to grammar such as the MP. In DM there is no lexicon, instead the functions that are attributed to the lexicon in the MP are *distributed* throughout other components of the grammar (namely, phonology, syntax and semantics), hence the name distributed morphology. The grammar in DM is structured according to a set of lists that is accessed throughout the various stages of the derivation. These three lists replace the lexicon.

List one is the “narrow lexicon” (Marantz; 1997: 3), although I feel that this name is misleading, as it is very different from the conception of the lexicon explained above in terms of the MP. This list provides the units that the syntax operates with – the syntactic terminals. In DM the syntactic terminals do not contain words but rather feature bundles. The reason why Marantz (1997) terms this list the narrow lexicon is that it most directly replaces the lexicon in that it connects the syntactic terminals to vocabulary items which are inserted after the operations of syntax (which are merge and move)(see late insertion below).

List two is the vocabulary. This list provides phonological forms for the terminal nodes in list one. These items are underspecified with regard to the features they exhibit (discussed in underspecification of vocabulary items below).

List three is the encyclopaedia, already mentioned in chapter one. The encyclopaedia lists the special meanings of particular roots relative to their syntactic context. This list contains the non-compositional meaning of particular roots – that is the meaning that cannot be gained from the sum of a root’s parts. Therefore, the special meaning of root words as well as the special meaning of elements bigger than words, such as idioms, are stored in the encyclopaedia and can be associated with the elements in the terminal nodes.

According to Halle and Marantz (1993: 266), vocabulary items have three properties: those of late insertion, underspecification of features and syntactic hierarchical structure all the way down. As far as I can see, Halle and Marantz assume a minimalist organisation of the syntax which is organised hierarchically. Within the syntax, the terminal nodes are complexes of both semantic and syntactic features but lack phonology. The phonology is supplied after the syntax (i.e. after the operations merge and move) when the vocabulary items are inserted into the terminal nodes, hence the name *late insertion*. The bundle of features in the terminal nodes are associated with the phonology of the vocabulary items via indices. The vocabulary items that are inserted after the syntax are characterised by *underspecification*, in terms of their features. For vocabulary items to be inserted into the terminal nodes the features of the vocabulary items need to be a subset of the features in the terminal nodes. However, the vocabulary item need not have every feature that is specified in the terminal node (but also cannot have features that are not specified in the terminal node) therefore vocabulary items are underspecified with respect to the features of the node into which they are inserted. In the case where more than one vocabulary item is available for insertion (i.e. more than one vocabulary item matches the features in the terminal node), the most highly specified vocabulary item will be inserted. Finally the terminal nodes into which vocabulary items are inserted are ordered into the hierarchical structures which are determined by the principles and operations (merge and move) of the syntax. This last

property of vocabulary items, termed *syntactic hierarchical structure all the way down* entails that the syntax is autonomous and is not affected by vocabulary insertion or the encyclopaedia.

The two key ideas of DM mentioned here are late insertion and the autonomy of the syntax: phonology and semantic information are supplied to the terminal nodes at the interface with the pronunciation (vocabulary items) and meaning (encyclopaedia).

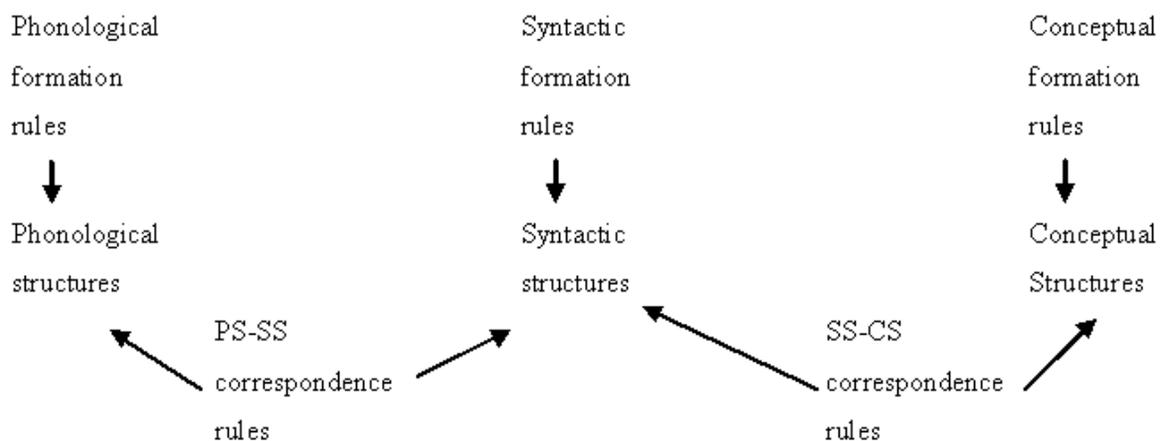
With regard to the topic of this thesis, in DM, idioms are held as being any expression “[...]whose meaning is not wholly predictable from its morphosyntactic structural description.” (Harley & Noyer; 1999: 4). Therefore, all root words are strictly speaking idioms, because their meanings cannot completely be derived from their form or from the syntactic environment in which they occur. All root words require an encyclopaedic entry. Hence idioms do not have any special meaning differently construed from the special meaning that words have. Throughout this thesis I adopt the term, ‘special meaning’ coined by Marantz to refer to the noncompositional meaning that idioms exhibit, that is the meaning that cannot be derived from the combination of their parts. However, I adopt the structure of the grammar as explained below in terms of representational modularity.

#### **2.4. Representational Modularity**

Jackendoff’s (1997) hypothesis about the architecture of the mind (with specific reference to language) is called representational modularity (RM) and this hypothesis encapsulates the organisation of the grammar. Jackendoff’s overarching idea here is that the mind “encodes information in some finite number of distinct representational formats or ‘languages of the mind.’ Each of these ‘languages’ is a formal system with its own proprietary set of primitives and principles of combination, so that it defines an infinite set of expressions along familiar generative lines.” (1997: 41) In the same way, grammar is organised into distinct modules, namely phonology (phonological structure (PS)), syntax

(syntactic structure (SS)) and semantics (conceptual structure (CS)). According to Jackendoff, these modules are connected by, and communicate with each other, via interface levels. The resulting *tripartite parallel architecture* of grammar is illustrated in Figure 2 (1997: 39):

Figure 2



PS – Phonological Structure

SS – Syntactic Structure

CS – Conceptual Structure

This architecture treats each module as equally generative with properties of its own. Crucially, the internal principles and operations of PS and SS are not determined or predictable from the syntax (and vice versa). In this way, the tripartite parallel architecture within RM is not syntactocentric.

As noted above, Jackendoff (1997: 42) puts forward that the three systems of grammar (phonology, syntax and semantics) are independent, generative within themselves and connected with each other via interfaces. Through these interfaces, the three systems interact and impose constraints on each other. According to Jackendoff, the interface

modules are characterised by *correspondence rules* that stipulate how the PS, SS and CS are connected. For example, Jackendoff considers a lexical item to be a correspondence rule as it is in the lexical item that the phonological, syntactic and semantic information is associated with each other.

According to Jackendoff (1997: 40) correspondence rules that provide links between the three components (PS, SS and CS) are conceptually necessary; they are part of the grammar of the language so must fall under the supporting arguments for UG. Therefore like syntactic and phonological rules, correspondence rules must be constrained so as to be learnable.<sup>10</sup> In the next section of this chapter I illustrate Jackendoff’s theory of lexical licensing which views lexical information as correspondence rules.

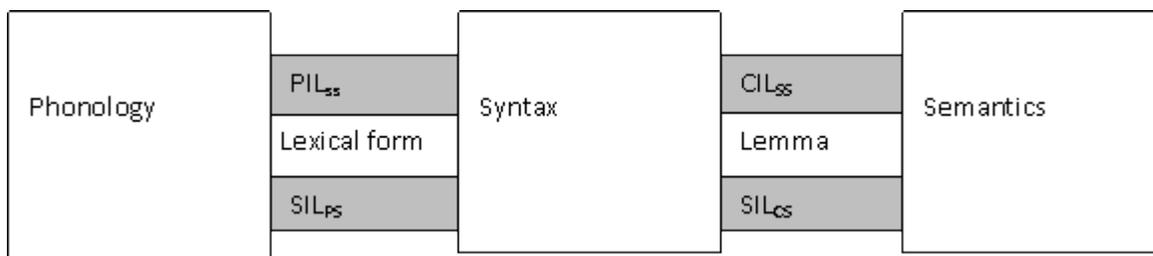
#### 2.4.1. Lexical licensing

As explained in the previous section, according to Jackendoff (1997), the three domains of grammar (phonology, syntax and semantics) interact via interfaces that consist of at least two interface levels for each module. Importantly, Jackendoff regards the lexicon as being part of these interfaces:

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<sup>10</sup> See Jackendoff (1990) for a more thorough explanation of these constraints.

Figure 3



Note: The interfaces are indicated by the grey areas.

PIL<sub>SS</sub> – Phonological Interface Level of Syntactic Structure

SIL<sub>PS</sub> – Syntactic Interface Level of Phonological Structure

CIL<sub>SS</sub> – Conceptual Interface Level of Syntactic Structure

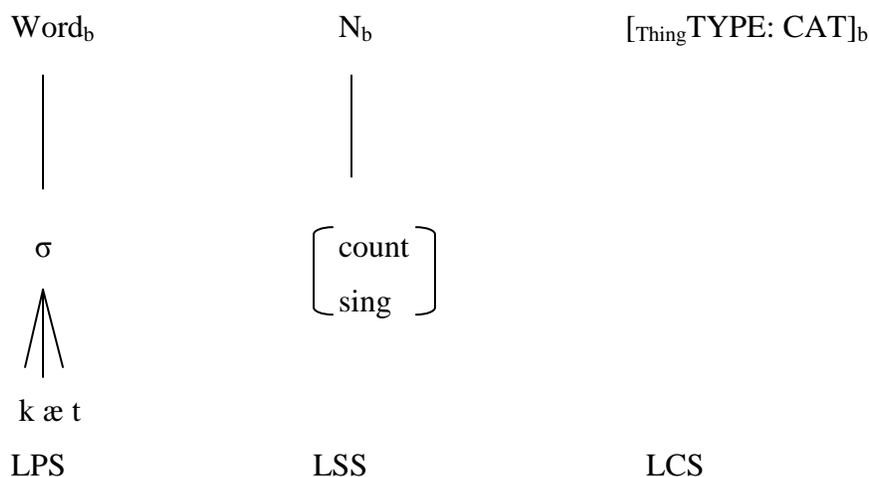
SIL<sub>CS</sub> – Syntactic Interface Level Conceptual Structure

This diagram represents a lexical item, which typically consists of a chunk of phonological, syntactic and semantic information. The lexical form in Jackendoff’s (1997) terms is an interface representation between a lexical syntactic structure (LSS) and a lexical phonological structure (LPS). A lemma is information about a lexical item’s “meaning or sense” (Levelt; 1989: 11) and forms an interface representation between an LSS and a lexical conceptual structure (LCS).

As discussed above, in lexical insertion (Chomsky; 1965), phonological and semantic features of lexical items are taken through the syntax inertly. Although present in the syntax, the syntactic module is unable to interpret these features which only become interpretable once the derivation crosses into phonetic or semantic form. However, according to Jackendoff’s (1997: 89) lexical licensing, lexical items are not elements that are inserted into the syntax with their phonological and semantic features. Rather, lexical items are considered elements that connect representations in syntactic structure with information in phonological and conceptual structure. Within his model of lexical licensing, “[a] lexical item is to be regarded as a correspondence rule, and the lexicon as a whole is to

be regarded as part of the PS-SS and SS-CS interface modules.” (Jackendoff; 1997: 89) As a lexical item carries information from each of the three generative modules, it is a mixed representation, consisting of a bit of phonology (LPS), syntax (LSS) and semantics (LCS). In a formal representation of a lexical entry, these three pieces of information are all linked by the subscript  $_b$  in example Figure 4. Consider the representation of the lexical item *cat* (cf. Jackendoff; 1997: 89) on the following page.

Figure 4



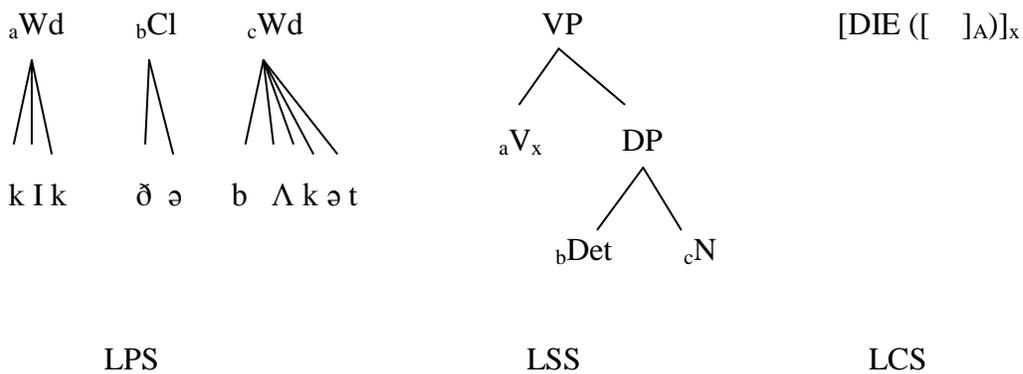
There are obvious parallels between the theory of lexical licensing and the “late insertion” model advocated by DM. The three entries in Figure 4 can be regarded as belonging to the three sets of lexical inventory postulated by DM. The LPS corresponds to a vocabulary item, the LSS is a syntactic terminal, and the LCS is the encyclopaedic knowledge associated with this lexical entry. The indices that link the LPS and the LCS to the LSS in Figure 4 capture what is achieved through the late insertion-process that associates encyclopaedic and vocabulary information with terminal nodes in syntax.

As Jackendoff (1997) demonstrates, his lexical licensing model offers an elegant way of formalising the lexical entry of idiomatic expressions. The information associated with phrasal idioms must be learned and is therefore also listed in the mental lexicon of a speaker. A non-compositional idiom such as (20.) comprises of three bits of phonology that

are linked to three bits of syntax, but that are associated with only one entry – DIE – of semantic information in conceptual structure (cf. Jackendoff; 1997: 169). See Figure 5.

(20.) kick the bucket

Figure 5



My analysis of idioms is based on the model of lexical licensing developed by Jackendoff (1997).

## 2.5. Summary

In this chapter I have laid out the theoretical framework necessary for this thesis. It draws from both the Minimalist Program (MP) (Chomsky; 1995) and Jackendoff's (1997) lexical licensing within representational modularity. In section 2.1. I discussed UG and the PPT. The importance of adopting a principles and parameters approach, in terms of my study, is that the principles within UG apply to all languages. By examining one language, one may come to an understanding of the principles in UG. The computational system of language and some key assumptions of the MP were also discussed in this chapter; among them were assumptions about the nature of the interfaces between the generative systems of

phonology, syntax and semantics, the operations merge and move and the inclusion of functional categories in the syntax. I also discussed the nature of the interface between the lexicon and grammar, and compared the process of lexical insertion with the account of lexical licensing assumed by Jackendoff (1997) and Halle and Marantz’s (1993) theory of distributed morphology. Chapter three to follow discusses some of the prominent theories of idiom processing, comprehension and storage, thereby comprising my literature review.

## Chapter Three

### Idioms and Other Fixed Expressions

As mentioned in the previous chapter, defining idiomaticity is not a clear-cut task. For this reason, it is paramount that I offer a clear definition of idiomaticity that will form the basis of this thesis. The first section of this chapter will outline the definitions of idioms that have been provided by prominent theorists in this field (Weinreich; 1969; Bobrow and Bell; 1973; Langacker; 1987; Nunberg, Sag and Wasow; 1994 amongst others) as well as a reminder of my definition of idiomaticity, outlined in chapter one. The second part of this chapter outlines models of idiom processing, comprehension and storage, including but not limited to the standard pragmatic model of idiom comprehension (Katz and Postal; 1963), the three stage model of metaphor comprehension (Searle; 1979), the unitisation hypothesis (Swinney and Cutler; 1979) and Fraser’s idiom frozenness hierarchy (1970).

#### 3.1. Defining Idiom

Weinreich (1969: 26) defines an idiom as a complex expression whose meaning cannot be derived from the meaning of its elements. Bobrow and Bell (1973) suggest that idiomatic meaning appears to be understood by combining more than one word into a complex “idiom word” and by finding the meaning of this complex word by searching through a mental “idiom word” dictionary. This follows from the idea that fixed expressions are listed in the mental lexicon in the same way that a simple lexeme is which has been suggested by Langacker (1987) and Nunberg, Sag and Wasow (1994). Many multiword units (such as greetings – *how are you* or clichés – *to kill two birds with one stone*) are, arguably, stored in the lexicon as whole units as they are usually learnt word combinations that, like idioms, function in their entirety. According to Nunberg, Sag and Wasow (1994: 495), if you hear an idiom such as *pull strings* in isolation, having never encountered it before, it would be as difficult to ascertain its meaning in the same way as it would be the case when coming

across a new word. Recall that the idea that the meaning of phrasal idioms has the same status as the meaning of a word root also underlies Marantz’s (1996) concept of special meaning. A linguistic entity has special meaning if its meaning is not attainable from the literal meanings of its parts. Idioms, then, as well as words, have special meaning that is listed in the encyclopaedic part of the lexicon (see chapter one section 1.1.3.); they are listemes in Pinker’s (1994) sense.

As far as a simple definition of idiomaticity is concerned, Nunberg, Sag and Wasow (1994: 492) state that there are a number of properties that idioms can exhibit:

1. Idioms are *conventionalised*; their meanings cannot be predicted without prior experience of their individual parts when they appear in isolation.
2. Idioms are *inflexible*, which means they can usually “appear only in a limited number of syntactic frames or constructions, unlike freely composed expressions.”
3. Idioms are *figurative*, a property which concerns the notion that idioms typically involve some kind of metaphorical speech or figuration.
4. *Proverbiality*, is the fourth property as idioms are typically used to discuss a particularly topical social situation to which many people can relate.
5. A further property of idioms is *informality*, because idioms are usually considered to form part of colloquial speech rather than academic or formal speech.
6. Idioms are often used to illustrate a certain standpoint or opinion towards something – a property that Nunberg, Sag and Wasow (1994: 492) call *affect*: idioms do not usually denote situations that are regarded neutrally but rather are used to assign a value to something about which different opinions exist.

However, many idioms exist that do not conform to all of these six properties. According to Nunberg, Sag and Wasow (1994: 492), only one property applies obligatorily to idioms, and that is conventionality. Nevertheless, Nunberg, Sag and Wasow (1994: 492) state that, when we encounter an idiom that is missing several of these properties, we become less inclined to give it the label of idiom.

Despite many differences in the definition of idiomaticity, one commonality that many authors (Chomsky; 1995; Cutting & Bock; 1997; Gibbs & Gonzalez; 1985; Gibbs, Nayak, Bolton & Keppel; 1989; Jackendoff; 1997; Tabossi, Fanari & Wolf; 2008; Titone & Connine; 1999; Nunberg, Sag & Wasow; 1994) agree on is that idioms display a strange kind of compositionality. This strange compositionality is due to their full meaning being difficult to ascertain from the literal meanings of its constituent parts. In the next chapter (chapter four), compositionality will be discussed with regard to idioms, and I address the question of the degree to which idioms can be considered compositional. In the remainder of this third chapter however, I discuss various theories of idiom storage, use and production, to situate this thesis in the current body of work that exists on this topic.

To sum up, I would like to restate my definition of idiomaticity: an idiom is a multiword unit, either sentential or phrasal, whose meaning is not based on the literal meanings of its parts. Stated in another way, idioms have special meaning in the sense of Marantz (1996).

### **3.2. Models of Idiom Processing, Comprehension and Storage**

Dik (1989) states that idioms can be regarded as phrases whose interpretations are not directly connected to the literal meanings of their individual components. This claim is echoed in Fraser (1970); Katz and Postal (1963); Weinreich (1969) and Wood (1986). Research that has challenged this viewpoint has focused on the mental representation of idioms and how much of a role, if any, their literal meaning plays in their interpretation (Cutting & Bock: 1997).

**The standard pragmatic model of idiom comprehension** (Katz & Postal; 1963; Bobrow & Bell; 1973) and the **three stage model of metaphor comprehension** (Searle; 1979) are very similar in that they both advocate that idioms are stored in much the same way that words are, in whole chunks in something like an ‘idiom word lexicon’. In both models, when a comprehender encounters an idiomatic string, the general lexicon is first searched for a literal interpretation for this idiomatic string and if this fails to fit the context or contravenes world knowledge, the idiom lexicon is searched for an appropriate interpretation. Importantly, the standard pragmatic model advocates two separate lexicons – one in the traditional sense of Chomsky (1995) and another, separate idiom lexicon. The three stage model puts forward that when a literal interpretation fails, a metaphorical mode is initiated and meaning is retrieved from a ‘metaphor list’ rather than an entirely separate lexicon. This is different from Marantz’s (1996) conception of special meaning which puts forward that the special meaning of words and idioms is stored in the encyclopaedia. In Marantz’s model there is no principled distinction between the special meaning of words and the special meaning of idioms. For both of these models (the standard pragmatic and three stage), literal interpretation obligatorily precedes figurative interpretation (Cieslicka; 2006: 116). Finally, both the standard pragmatic model and the three stage model of metaphor comprehension rely on the property of idioms of being conventionalised – we can only have a ‘metaphor list’ or ‘idiom lexicon’ if we have encountered the figurations previously and added them to this list.

In contrast to these two models, the **unitisation hypothesis** (Swinney & Cutler; 1979) asserts that an idiom is represented as a single unit in the general lexicon rather than in a special idiom lexicon. An idiom is treated in the same fashion as a long complex word would be, and both the literal and figurative meanings of the string are activated simultaneously (for example with *kick the bucket* both the literal meaning of “a violent motion towards a bucket with your foot” and the idiomatic meaning DIE would be activated). Idioms within the unitisation hypothesis are single units with no internal components that can be recognised as individual constituents that can undergo any kind of

semantic, syntactic or lexical modification. However, we know that this implication of the unitisation hypothesis is not realised, as many idioms can indeed undergo these modifications. For example, certain idioms can be passivised or be modified by adjectives or quantifiers without losing their original idiomatic interpretation, as, for example in *the hatchet was buried by those men* or *those men buried all their hatchets*. Data such as these become problematic for a hypothesis that assumes that idioms are stored in their entirety and not created online. If this were the case, then idioms would be completely frozen, but the above examples show that not all idioms resist modification or passivisation.<sup>11</sup>

According to Cutting and Bock (1997), a **production model** could also be derived from one of the two representational models (the unitisation hypothesis and the lexical representational model) that would assume “that idioms are represented and accessed as whole units” (ibid 58). Furthermore, and in contrast to what is assumed by the standard pragmatic and the three stage model, Cutting and Bock (1997: 58) argue that only figurative meanings are accessed during idioms production:

“Speakers have in mind the idea that is to be conveyed before the idiom, and that idea presumably maps onto figurative meaning. For example, a speaker who intends to convey the idea that somebody died suddenly can say ‘he kicked the bucket’ without accessing the literal interpretation ‘he knocked the pail over with his foot.’”

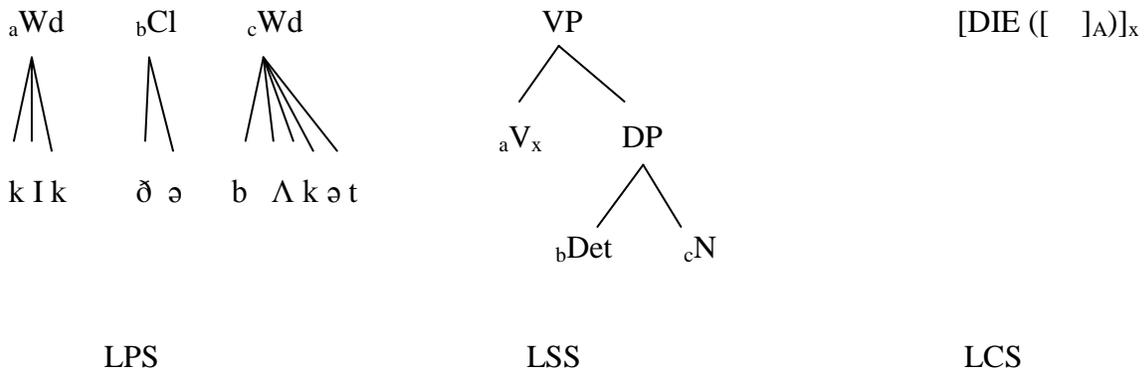
Fraser holds the view that an idiom is a single lexical item and that it contains “multiple complex symbols (syntactic features and phonemic representations) but a single semantic marker” (1970; 25). This latter idea is comparable to Jackendoff’s (1997) interpretation of idiom processing that was introduced in chapter two. In Jackendoff’s theory of the composition of the lexicon – lexical licensing – an idiom is represented as having distinct entries for its phonological and syntactic parts (corresponding to the words used) but just a

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<sup>11</sup> The unitisation hypothesis is also consistent with **the lexical representational model** (Swinney & Cutler: 1979) which holds that idioms are stored and retrieved similarly to long words, once again negating any kind of internal structure.

single entry in the lexicon for its semantic portion as shown in Figure 5 repeated from chapter two.

Figure 5



This theoretically solves the problem that many authors (Bobrow and Bell; 1973; Nunberg, Sag and Wasow; 1994; Jackendoff; 1997) have identified: some idioms are far more ‘flexible’ than others (i.e. idioms allow modification to varying degrees). If an idiom consists of one semantic marker, but is also formed by individual units of syntax and phonology, it follows that these individual units are accessible by the rules of syntax and phonology, in which case they should be modifiable. If a part of an idiom is modified, however, the overall meaning of the idiom will be slightly modified as well.

In order to account for this disparity in the lexical flexibility of idioms, Fraser (1970: 39) proposed the **idiom frozenness hierarchy**. Fraser analyses idioms in terms of the transformations they can undergo. These transformations form seven categories or levels:

**L(evel)Ø** idioms are **completely frozen** and cannot be modified in anyway. Idioms belonging in this level according to Fraser (1970: 41) are *bite off one’s tongue*, *let off some steam* and *sit on pins and needles*.

- L1** idioms can undergo “**adjunction** of some non-idiomatic constituent into the idiom” (Fraser; 1970: 36). This involves the adjunction of phonological information for grammatical purposes – the transformation of *John kicked the bucket* to *John’s kicking of the bucket*. In the transformation involved here, the progressive *-ing* must be adjoined to the verb. Other idioms belonging here are *burn the candle at both ends* and *dance up a storm*.
- L2** idioms can undergo **insertions**. These idioms can have another constituent (that does not belong to the original idiom) inserted into them. An example of this is the idiom *drop a line to* as in *David dropped a line to Paul* which after the transformations involved in insertion would become *David dropped Paul a line*. In this case the indirect object is thought of as being inserted into the idiom after the verb and before the direct object.
- L3** idioms can undergo “**permutations** of two successive constituents of the idiom” (37). Idioms belonging to this level can have the particle movement rule applied to them creating a verb-particle-NP structure – from *bring down the house* to *bring the house down* or from *put down one’s foot* to *put one’s foot down*.
- L4** idioms are characterised by **extraction**. This involves “the extraction of some constituent of the idiom to some extra-idiom position in a sentence” (36). Fraser (1970: 38) claims that the particle movement rule involves extraction, but it is unclear how this differs from permutation. Another transformation belonging to this level is the passivisation rule. According to Fraser the rules involved in transforming the active *her father laid down the law* to the passive *the law was laid down by her father* extracts the direct object NP *the law* and places it outside of the idiom (outside of the VP) in the subject position.

- L5** involves **reconstitution** – idioms belonging in this level can be reconstituted into another constituent structure. Fraser (1970: 37) claims that idioms in this level can undergo transformations that result in the constituent structure of the idiom being different from that of the original e.g. *he laid down the law to his daughter* transformed to *his laying down of the law to his daughter*. According to Fraser (1970: 37) “the subject NP (not part of the idiom) functions as a determiner in addition to having the possessive marker attached and the VP now functions as a noun in addition to having the progressive *-ing* attached to the verb-particle combination”.
- L6** is a theoretical level, in which no idioms belong, as it is **unrestricted** in terms of the transformations that these idioms could hypothetically undergo. No idioms can belong in this level because no idiom can be modified in unrestricted ways (Fraser; 1970: 39).

One of the important factors about this hierarchy, according to Fraser (1970: 39) is that if an idiom belongs in L5, for example, it will also fall in all the levels below it (with the exception of the mutually exclusive LØ), but obviously not in any above it. An idiom belonging to L5 will also fall into L4, L3, L2, and L1. Therefore Fraser holds that “the higher up on the hierarchy, the more syntactically unfrozen the idiom” (1970: 42). The advantage of this hierarchy is that in it, idioms are shown to be plotted on a continuum of flexibility rather than belonging to two or three exclusive categories (e.g. transparent, quasi-transparent or opaque (Cacciari and Glucksberg; 1991: 229)), which are often difficult to categorise into. The problem however is that is difficult to ascertain into which level an idiom falls. Fraser (1970: 41) himself acknowledged this problem.

Cacciari and Tabossi (1988) have put forward a model “in which idiomatic meaning is comprised of a distributed representation rather than a lexical entry.” (Titone & Connine; 1999: 1660) Their **configuration hypothesis** posits that an idiomatic interpretation can only be reached after an adequate segment of the idiom has been experienced. Up until this

point the string is interpreted literally. The ‘adequate segment’ is determined by the point at which the ‘idiomatic key’ is encountered, from here an idiomatic rather than literal interpretation ensues. For example, when we come across the idiom *he gave her the cold shoulder* we interpret this as a literal sentence up until we hear/ see the word *shoulder*. Before this idiomatic key is encountered the sentence could have been interpreted literally and has the potential to result in a literal interpretation such as *he gave her the cold beer*. At the point of discovering the idiomatic key, we ascribe an idiomatic meaning rather than a literal one. This model purports then, that *cold* is only ascribed its idiomaticity in the presence of *shoulder* and *kick* only in the presence of *bucket* which is similar to the view that Marantz (1997) puts forward which is discussed in chapter two.

This configuration hypothesis is not unlike Glucksberg’s (1993) **phase-induced polysemy** model (PIP). According to this model, individual idiom parts become polysemous or develop more than one meaning because of their association with the context of an idiom. In the case of PIP, this dual meaning refers to the idiom having both a literal and a figurative meaning – the literal meaning is compositional and not lexically stored whereas within this PIP model (Glucksberg; 1993: 21) the idiomatic meaning is not compositional and therefore is stored in the mental lexicon. Due to this polysemy when we encounter an idiom, our understanding of this idiom rests on our selecting the appropriate sense of each idiom constituent depending on the context (Panou; 2008: 77).

Another system of idiom classification that has been proposed by Cacciari and Glucksberg (1991: 229) classifies idioms into three different classes according to their level of compositionality:

1. Opaque idioms
2. Transparent idioms
3. Quasi-transparent idioms

Opaque idioms are those which are uninterpretable without prior experience, including *trip the light fantastic*, (categorised by Fraser (1970: 39) into LØ), and *kick the bucket*, which is considered more interpretable (categorised into L1 (Fraser; 1970: 39)), but still requires prior experience. Transparent idioms are those where there is a clear connection between the idiomatic and literal referents in the idiom, such as *bury the hatchet* where there is a relationship between the literal and idiomatic instances of the sentence as illustrated in (1.) taken from chapter two:

- (1.)   bury                =       RECONCILE  
        the hatchet       =       AN ARGUMENT

Lastly, quasi-transparent idioms are those where the literal and idiomatic referents have a metaphorical relationship. Within my judgement an idiom that could fall into this category would be *I raise my hat to you*, as the connection between the physical act of hat raising and the convention that this indicates a greeting of respect towards the listener is a metaphorical relationship.

The model of idiom processing that I adopt was introduced in chapter two and is discussed in more detail in chapter four, namely Jackendoff’s tripartite parallel architecture. This model proposes that idioms are syntactically and phonologically complex, that is they are composed out of items drawn from the lexicon. However these items, once composed only receive a single semantic interpretation that applies to the entire idiom, and not to its parts in isolation.

### 3.3.                Summary

In this chapter I sought to give a broad introduction to the literature that exists on the subjects of idioms. Through this I intended to give an overview of some authors in this field, but also to reiterate my definition of idiomaticity and reaffirm the framework within

which I am working. This overview included a discussion of the definition of idioms according to researchers such as Weinreich (1969), Bobrow and Bell (1973), Langacker (1987) and Nunberg, Sag and Wasow (1994). In addition the various models of idiom processing, comprehension and storage were discussed, such as the configuration hypothesis, the phase induced polysemy model and Fraser’s (1970) idiom frozenness hierarchy. Chapter four to follow is concerned with idiom compositionality and how this affects parts of an idiom in terms of their mobility and transferability.

## Chapter Four

### Compositionality: Syntactic Mobility and Transferability

This chapter is largely devoted to the discussion of the concept of compositionality. This discussion will address the compositionality of sentences and idioms. The principle of compositionality or Frege’s principle (Frege; 1948) states that the meaning of the whole is a function of the meanings of the parts and of the way they are syntactically combined. It is clear how this applies, in that words combine syntactically to form sentences and the meaning of sentences is based on the meanings of the words and their syntactic configuration. A sentence then, is compositional if the meaning of the sentence is a function of the literal meaning of its words and how they are syntactically combined. The above view of compositionality originated in Aristotle’s “Metaphysics” (1953), although it was not applied to language. This definition of compositionality is pertinent when we look at idioms as “multiword units, either phrasal or sentential, whose meanings are not based on the literal meanings of their parts” (see the definition provided in chapter one). How can we say then, that idioms exhibit any kind of compositionality, when the definition for idioms that was presented in chapter one implies that being non-compositional is a defining feature of an idiom? My answer is this: an idiom's meaning is not based on the *literal* meanings of its parts, but this in itself does not entail that an idiom's meaning cannot be compositional. It is possible that at least some idioms exhibit compositionality, a compositionality that is based on figurative rather than literal meaning of its parts.

In the first section of this chapter I discuss both ‘traditional compositionality’ (the compositionality of literal phrases and sentences) as well as ‘idiomatic compositionality’ (the compositionality of figurative meanings found in idioms). I will discuss two viewpoints on the compositionality of idioms: Jackendoff’s (1997) representational modularity and Marantz’s (1996) distributed morphology. Jackendoff’s (1997) standpoint, as discussed in chapter two is that an idiom is stored in the lexicon in one chunk as a whole, with special meaning, and he postulates the existence of both compositional and non-

compositional idioms. Jackendoff’s analysis also accounts for an idiom’s internal structure as the idiom is not interpreted syntactically as one chunk<sup>12</sup>, only semantically – one piece of the conceptual structure is linked to more than one piece of phonology and syntax. This elegant description of idioms can account for ‘idiomatic compositionality’ as we interpret the idiom semantically as a whole (with the idiom retaining its internal syntactic structure) rather than as an individual (literal) phrase. Marantz (1996), however, puts forward a different strategy for the construction of idiomatic meaning – all words are credited with special meaning in the same way that idioms are. Parts of idioms are stored in the lexicon in one form, i.e. there will not be an entry for *bucket* (idiom) and *bucket* (literal). Idiom parts then get their special meaning in relation to one another. *Bucket* gets its idiomatic special meaning (which is different from its literal meaning) in the context of *kick*. All idioms are hence composed of parts with special meanings.

The second section of this chapter consists of a discussion of syntactic mobility (introduced in chapter one) with regard to idioms. Idioms are often considered frozen expressions which entails that their constituents are therefore unable to undergo any movement. However, as I will show in section 4.2., the parts of some idioms can undergo movement operations (e.g. in passive constructions) without losing their idiomatic reading. Establishing to what extent this is the case is an aim for the study carried out for the purpose of this thesis, the results of which are reported in chapter five.

The third section of this chapter discusses the operation that I have termed transferability. Transferability refers to the ability of parts/constituents of a sentence to be replaced with different parts/constituents of the same lexical category (e.g. DPs with DPs or Vs with Vs), while retaining the same sentence ‘sense’. I wish to explore whether it is possible to replace a part of an idiom with another semantically related part with the resulting collocation retaining an idiomatic reading. This section aims to find a background to the question: if certain idioms can undergo the operations of mobility while still retaining an idiomatic

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<sup>12</sup> If it were the case that an idiom was interpreted as consisting of only one terminal node, then the idiom would be syntactically frozen and therefore immobile.

reading, can certain idioms also undergo the operations of transferability and still preserve a somewhat changed, idiomatic ‘sense’? To gain some insight into the transferability of idiom parts in English is another aim of the research I conducted.

#### 4.1.                    **Compositionality**

According to Aronoff (2008: 803), all linguists share the assumption that all natural languages are compositional. The expressions of natural language are composed of parts that are combined in specific ways and that both the parts and the way they are combined contribute to the final meaning of the whole. A natural question that follows from this definition is: What can the ‘parts’ be defined as (de Saussure; 1975, Partee; 1994, Aronoff; 2008)? As it is not entirely within the scope of this thesis to discover exactly what these ‘parts’ are, I am going to just briefly mention what I consider them to be. Parts can correspond to morphemes or words. For example the word *antidisestablishmentarianism* can be considered compositional as it can be broken down into morphemes which, when combined, define the meaning of the whole word:

(21.) [[anti[[[dis[[**establish** <sub>v</sub>]ment <sub>N</sub>]]]arian <sub>ADJ</sub>]] ism <sub>N</sub>]]

A word such as (21.) above illustrates that words can be compositional: they are composed of parts that contribute to the meaning of the whole in the specific way in which they are combined (so the combination of the verb *establish* and the suffix *-ment* derives the noun *establishment*, which combines with the prefix *dis-* etc.). In the case of (21.) the ‘parts’ correspond to (either root or bound) morphemes that are combined in a particular way to compose the final meaning of the whole. Morphemes by themselves, however, are not compositional – they are the smallest meaning-bearing units of language, and we acquire their meaning through continued experience with them. It is through this experience that they come to be stored in our mental lexicon (Aronoff; 2008: 805).

We can also take the basic ‘parts’ of a complex linguistic expression as being words. Consider the sentence in (22.):

(22.) Katherine plays on the slides with Hannah.

This sentence is compositional if we take each word for having a literal meaning. The sentence meaning is a result of the literal meanings of all of its words in isolation. This is where idioms differ from literal sentences in that their meanings are not the result of the literal meanings of their parts in isolation. Idioms display a different type of compositionality where in some cases, they can be decomposed into constituent parts that add to their idiomatic meaning. For example, the VP in the sentence (23.) below:

(23.) Joseph let the cat out of the bag.

can be roughly decomposed as in (23.a.) (Jackendoff; 1997):

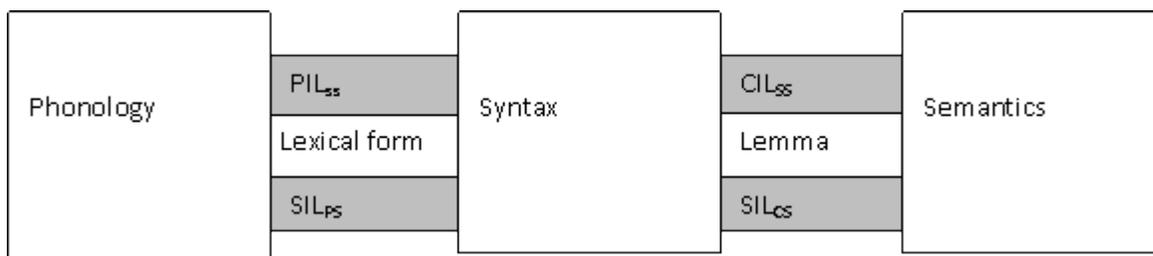
(23.)	(a.)	the cat	=	A SECRET
		let [...] out of the bag	=	REVEALED

Idioms have long been described as being non-compositional – that is “the essential feature of an idiom is that its full meaning... is not a compositional function of the meanings of the idiom’s elementary parts” (Katz & Postal; 1963: 275). Katz (1997) reiterates that an idiom should be considered a constituent whose semantic interpretation is not a compositional function of the parts of which it is composed. This is because idioms do not get their meanings from the literal meanings of their syntactic parts. Chomsky (1980: 149) agrees that idiomaticity is based on an idiom’s meaning being “non-compositional”. However, idioms do display a degree of compositionality as I have shown in the above example (23.) and other examples throughout. The following two sections explore idioms and compositionality as discussed by Jackendoff (1997) and Marantz (1996).

#### 4.1.1. Idioms within representational modularity (RM)

As discussed in chapter two section 2.4., according to Jackendoff’s architecture, the grammar consists of three parallel domains, phonology, syntax and semantics, as represented in Figure 3 from chapter two. These domains are connected via interfaces:

Figure 3



Note: The interfaces are indicated by the grey areas.

$PIL_{SS}$  – Phonological Interface Level of Syntactic Structure

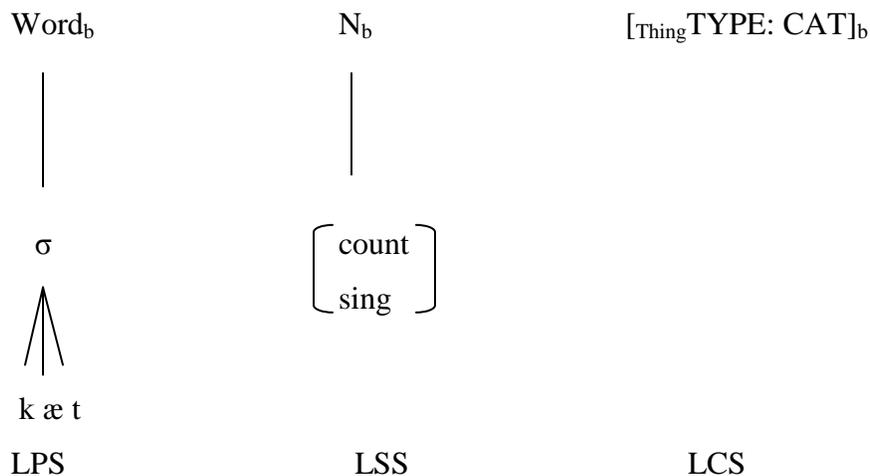
$SIL_{PS}$  – Syntactic Interface Level of Phonological Structure

$CIL_{SS}$  – Conceptual Interface Level of Syntactic Structure

$SIL_{CS}$  – Syntactic Interface Level Conceptual Structure

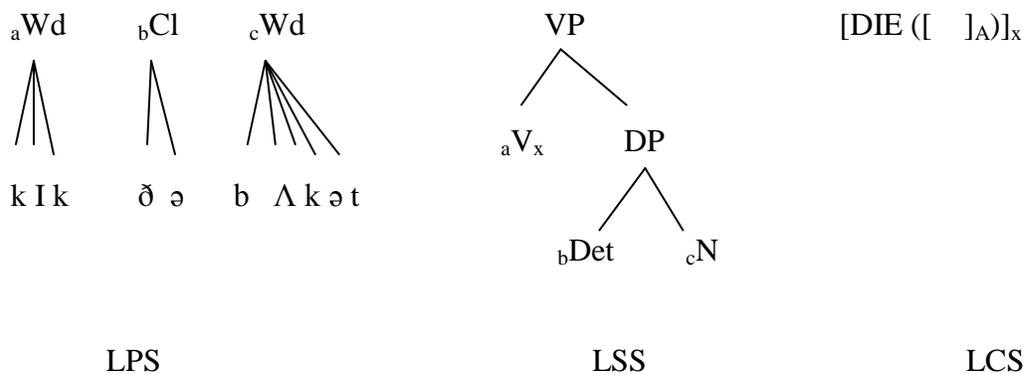
The following Figure 4 repeated from chapter two represents a single lexical item, which provides a piece of phonological, a piece of syntactic and a piece of semantic information. The information from these different modules is connected via linking indices, and the lexical item, which provides these indices, is therefore a correspondence rule that operates at the interfaces between these levels.

Figure 4



How do lexical correspondence rules work when a lexical item is larger than a single word, as in the case of idioms? Recall that it is not necessary that a single entry in the LCS corresponds to single entries in the LSS and LPS, as in Figure 4. Therefore in the case of idioms, the formal entry is as below (repeated from chapter two):

Figure 5



(Jackendoff; 1997: 169)

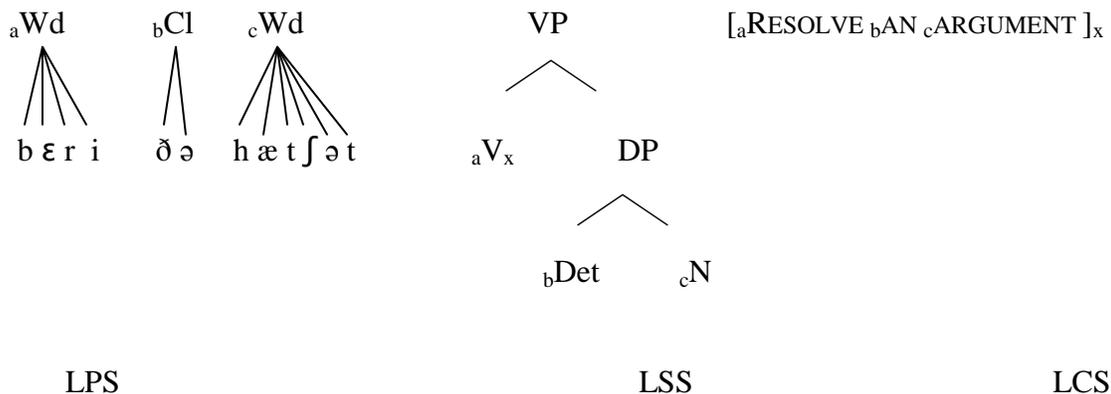
In Figure 5, the representation of *kick the bucket*, the single meaning expressed by the LCS, corresponds to the entire phrasal structure in the LSS and three phonological elements in the LPS. The linking subscripts *b* and *c* that connect the phonological elements to the syntactic terminals do not have corresponding entities in the LCS, which means that they do not receive an independent interpretation when they form part of the idiom. According to this view, idioms are phrasal lexical items or “lexical items larger than  $X^0$ ” (Jackendoff; 1997: 153). This way of representing idioms is elegant as it identifies idioms as being stored as whole chunks in the lexicon but reflects the fact that their internal structure is the same as that of literal sentences.

The important aspect of the representation in Figure 5 is that in an idiom such as this, the direct object, e.g. *bucket*, has no independent meaning and because of this it also has no theta role. Due to the individual elements lacking individual meanings and theta roles, the elements have to be connected syntactically which means the entry in the LSS cannot be modified in terms of movement of its parts.

Consider the above representation of *kick the bucket* from Jackendoff (1997: 169) in contrast to the one on the following page (Jackendoff; 1997: 168):

(24.) (a.) bury the hatchet

Figure 6



The difference between the lexical representation of this idiom and the one in Figure 5 is that the linking subscripts in Figure 6 *do* connect each terminal node in the syntax and its phonology to a corresponding element the LCS, which means that these nodes have independent interpretations. However the subscript <sub>x</sub> in the LCS maps onto the verb and indicates that this interpretation is still only available in the context of the idiom. The empty argument (subscript <sub>A</sub>) according to Jackendoff (1997: 169) will be filled by the CS of the subject that is external to the idiom. The way in which the representation in Figure 6 differs from Figure 5 is as follows: In Figure 5 the SS does not specify a VP constituent and the V and DP are not syntactically connected. This DP then does not receive an independent theta role, which entails that the constituents of this VP idiom can undergo the operation move. An idiom such as *bury the hatchet* is thought of as exhibiting a kind of compositionality whereas an idiom like *kick the bucket* is not compositional.

What then is the relevance of this to the compositionality of an idiom? In Jackendoff's theory, an idiom is stored in the lexicon, with its whole complex syntactic structure linked to a single special meaning, or with parts of the syntax linked to parts of special meaning in the LCS. This view entails that idioms can be both compositional and non-compositional.

Idioms like *kick the bucket* cannot be compositionally analysed because their individual parts do not carry idiomatic meanings on their own and their syntactic structure is fixed due to the constituents’ lack of theta roles. Parts of idioms like *bury the hatchet*, in contrast, do carry idiomatic meaning because their internal structure has been retained and their constituents’ meanings are mapped onto more than a single meaning in the LCS (RECONCILE A DISAGREEMENT), unlike *kick the bucket* which just maps onto DIE.

#### 4.1.2. Idioms within distributed morphology (DM)

In chapter two, I explored the organisation of grammar according to the theory of distributed morphology. According to this non-lexicalist approach, grammar does not include a (pure) lexicon in the traditional sense of the MP, but rather according to Marantz (1996: 1), three lists that are accessed during various stages of the derivation. These three lists are:

1. the narrow lexicon, which provides the units that the syntax works with – the syntactic terminals;
2. the vocabulary, which provides phonological forms to the syntactic terminals and;
3. the encyclopedia or the list of special meanings associated with particular roots relative to their syntactic context.

The list that is relevant here is the encyclopedia as this contains the special meanings of words or larger units such as phrases or sentences. The encyclopedia creates the connection between certain elements (words, phrases or sentences) and their non-compositional meanings i.e. their special meanings. According to Marantz (1996: 9) then, the encyclopedia assigns special meaning to the products of syntactic composition. This is the crux of the Marantzian argument: Constituents of an idiom are assigned special non-compositional meaning in relation to one another. “When a specialized context is listed in

the encyclopedia that ‘bleaches’ or negates the (canonical/default) semantic effect of the choice of a vocabulary item, this is a case of special non-compositional meaning.”

(Marantz; 1996: 9) To illustrate this, Marantz (1996: 9) uses the idiom *kick the bucket* to show how *bucket* loses its default interpretation (“container”) in the syntactic context of *kick*, which in the syntactic context of *bucket* also loses its default interpretation (“to exert force on something with one’s foot”). *Kick* and *bucket* now no longer have individual interpretations: Together they form the meaning DIE. Marantz (1996: 9) emphasises that although this syntactically conditioned special meaning seems to imply composition (as the syntax is composed out of elements that become associated with vocabulary items) this is not the case. The encyclopedia contains information about the non-compositional meaning of constituents in a syntactic environment, and it is the syntactic environment rather than the syntax that is compositional. The encyclopedia cannot contain special compositional meanings as they cannot exist (Marantz; 1996: 9) and they cannot exist because by nature, special meanings are non-compositional.

The next section of this chapter deals with the issue of mobility with regard to idioms. The above discussions of compositionality are relevant to the question of whether parts of an idiom are mobile. In Jackendoff’s (1997) framework, idioms are stored as complex phrasal items in the lexicon, and depending on whether the LSS stipulates a specific structure or not, elements in idioms will or will not be mobile. If an idiom can be mapped onto independent meanings in the LCS which receive independent theta roles, then this idiom should have mobile parts. In Marantz’s theory, the situation is quite different, because only atoms that are non-compositional have special meaning. The words or phrases in an idiom get awarded a special non-compositional meaning that is different from their canonical meaning, but only when they are placed in the syntactic environment of their corresponding idiom constituent, for example *kick* is only awarded this non-default meaning in the correct syntactic context of *the bucket*. The theory predicts that idiom parts should be mobile as they only have to co-occur in a syntactic structure to be awarded special meaning, so this theory does not account for why certain idioms cannot undergo movement while retaining an idiomatic reading. Marantz’s theory also predicts that idioms should not have parts that

are transferable as an idiom with a transferred object or verb will receive a literal interpretation.

## 4.2. Mobility

Mobility refers to the ability of parts of a sentence to undergo movement operations. As mentioned earlier, movement is central within the MP, and occurs (in part) for certain features to be checked in the syntax. An example of one of these features is the extended projection principle (EPP) (mentioned in chapter two). Another example of movement that was discussed in chapter two is the passive construction. It was noted that in English all sentences containing a transitive verb (a verb that takes a single internal argument) can be passivised, however, this is not uncontroversially the case. Jackendoff (1997: 166) observes that idioms “have strangely restricted properties with regard to movement”.

The following examples are taken from Jackendoff (1997: 167) and illustrate the resistance of many idioms to the passive (# shows that these examples cannot receive an idiomatic reading):

- (25.) (a.) # The bucket was kicked by John.  
 (b.) # The towel was thrown in by Bill.  
 (c.) # The breeze was shot by the coal miners.  
 (d.) # The fat was chewed by Lisa and Janet.

The examples in (25.) result from idioms that have undergone movement in line with the operation that I have termed *mobility*. In this thesis mobility refers to the (in)ability of parts of idioms to undergo movement, while keeping the idiomatic interpretation. In Jackendoff's examples above, the idioms have been passivised, which entails that the determiner phrase which constituted the original object in the idiom has been moved to subject position. However, the idioms in (25.) are fixed expressions which, once passivised, are not able to

retain their idiomatic meaning. Machonis (1985: 299) claims that “there seems to be no single feature that enhances or inhibits passivisation” in idioms and suggests that certain idioms have a [+/-passivisation] feature included in their lexical entry. However, I wish to show that the passivisation of idioms is not determined randomly and that the reason that some idioms cannot be passivised is that these idioms are not compositionally constructed i.e. they are noncompositional. The DP *the bucket* in (25.a.), for example, does not have an independent meaning that could be preserved when the object is “removed” from the other parts of the idiom. In contrast, according to Jackendoff (1997: 168), an idiom such as *bury the hatchet* “can be taken as having a sort of metaphorical semantic composition”, which means that its parts can be associated with individual special meanings that can be combined to derive a meaning like “reconcile a disagreement”. According to Jackendoff, it is for this reason that the DP-object of this idiom can be passivised and still retain its idiomatic reading (see Jackendoff; 1997: 168):

(26.) The hatchet seems not to have been buried yet by those skaters.

The example in (26.) shows that the parts of compositional idioms, then, can undergo movement operations: They are *mobile*.

The mobility of certain parts of idioms is one of the phenomena I have set out to test in the research carried out for the purpose of this thesis. Whether certain parts of idioms are mobile is relevant for this study and for the construction of special meanings as it reflects the relative compositionality of idioms and how this compositionality affects the production of special meaning. The next section of this chapter is devoted to a discussion on transferability, and how transferability gives insight into the construction of special meaning and compositionality of idioms.

### 4.3. Transferability

Consider the following example:

- (27.) (a.) She was the apple of her father’s eye.  
 (b.) She was the onion of her father’s eye.

In (27.b.) this idiom’s direct object *the apple* has been replaced by the DP *the onion*. This replacement of an idiom constituent can potentially create a new idiom with a different meaning to the original idiom. It could also lead to the new sentence receiving a literal or ridiculous interpretation. I have termed this process of replacement, ‘transferability’ in this thesis. The aim of this section on transferability is to gain more insight into whether an idiom can have one of its parts replaced with a part of the same syntactic category, while retaining an idiomatic sense.

In replacing a part of an idiom with a new part, a new idiom or neo-idiom<sup>13</sup> is potentially created (alternatively, the sentence receives a literal interpretation) (possibly) with a semantic connection to the original. An important question in this context is: Would it be possible to predict the meaning of the resulting neo-idiom? If neo-idiomatic meanings are predictable then special meaning might be *transferable* from one part of an idiom to a new part.

For example:

- (28.) (a.) They buried the hatchet.  
 (b.) They dug up the hatchet

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<sup>13</sup> I have chosen this term to differentiate between conventionalised idioms and the idioms that have been created for the purpose of this thesis.

- (29.) (a.) The doctor spilled the beans.  
(b.) The doctor spilled the peas.
- (30.) (a.) My uncle gave me the cold shoulder.  
(b.) My uncle gave me the cold leg.

The original idioms (28.a.), (29.a.) and (30.a.) have been modified (by replacing either the verb or the direct object). In the process one neo-idiom (28.b.) with a new special meaning and two sentences (29.b.) and (30.b.) with literal meanings were created. At least according to my own judgement (respondents' judgements are reported in chapter five), the idiom *dig up the hatchet* in (28.b.) retains an essential part of the idiomatic sense denoted by the original idiom (28.a.) as its meaning can be located inside the overarching topic of “disagreements”, i.e. either to revisit an old argument or to resolve a current one, respectively. The two potential neo-idioms in (29.b.) and (30.b.) seem to have no idiomatic meaning whatsoever they do not become neo-idioms but remain literal sentences.

I am not aware of any literature or research done in the area of transferability. In carrying out this study I hope to gain further insight into the mechanisms involved in the construction of special meanings and whether special meaning can be transferred from one constituent to another, in the right contexts. If special meaning can in fact be transferred, then this would indicate that special meanings are not only stored in combination with phrasal idioms as a whole in the lexicon (Jackendoff; 1997), but can also be constructed ‘on the fly’. In addition the transferral of special meaning in an idiomatic sense would also indicate that constituents in an idiom do not get their idiomatic reading when placed in the correct syntactic environment with their corresponding constituents because only one of those constituents will be present in the neo-idiom following Marantz’s (1996) argument presented above.

#### 4.4. Summary

In this chapter I have looked at the concept of compositionality with regard to words and literal sentences in the broad sense and with regard to idioms in the narrow sense. The principle of compositionality was introduced. The principle entails that the meaning of the whole is a function of the meaning of the parts and the way they are syntactically combined. The compositionality of idioms was then discussed within the frameworks of Jackendoff’s representational modularity and then within Marantz’s distributed morphology, respectively, and the implications behind adopting these differing viewpoints were discussed. The next two sections built upon the processes of mobility and transferability in idioms. In addition, I put forward various reasons as to why an analysis of these two processes is relevant – this analysis yields results that help us to gain some insight into the construction and the composition of special meaning.

The first half of the next chapter lays out the methodology employed in testing an idiom’s ability to retain its idiomatic reading after undergoing the operations of mobility and transferability. The second half of the next chapter presents the results of the research conducted and discusses their implications for the creation of special meaning.

## Chapter Five

### Methodology and Data Analysis

In this thesis I have sought to discover a deeper connection between special meaning and the specific structure to which it is connected, with regard to idioms in English. To do this I have attempted to research two aims: 1. to determine how dependent special meaning is on structure and 2. to ascertain how reliant special meaning is on individual parts to carry the meaning of the whole. To achieve this I have looked at lexical items larger than  $X^0$  with special meaning, or more specifically, idioms. To research the above two aims (amongst others that are subsidiary to these) I have looked at the operations of mobility and transferability with regard to idioms, which were detailed in the previous chapter. This current chapter discusses how a selection of idioms were modified and given to a group of respondents to test whether the idioms would retain an idiomatic reading. The results gained are then used to answer the above research aims. Section one of the current chapter outlines the conceptual design and methodology of the study, including a description of the sample group and a presentation and justification of the instruments used. This section closes with a description of the data collection process and a discussion of my research predictions both in a narrow and broad sense. Section two presents the results of this study and then subsequently discusses the narrow and broad observations of the data.

## SECTION ONE - METHODS

### 5.1. The Sample

My respondent sample consisted of 20 English mother tongue speakers who were students, in their second semester of their first year of study at the University of KwaZulu-Natal.<sup>14</sup> Students from a first year linguistics module were asked to volunteer, without remuneration, either in the form of money or extra course credit. First year students are not far enough advanced in their study of Linguistics to have background knowledge in idiom processing, hence they lack the background knowledge that would allow them to pre-empt the purpose of the study.

Ethical clearance for the empirical study was obtained from the University of KwaZulu-Natal’s Ethics committee. Respondents were asked to sign an informed consent form.<sup>15</sup>

The respondents’ informed consent forms were connected to their questionnaires by a letter and number combination ID, for example 01XE01B which was a combination of the following elements:

**01** corresponds to the order in which the respondent was interviewed, these numbers span from 01 to 20;

**X or Y** corresponds to the respondent’s sex, X for female and Y for male;

**E** refers to the home language of the respondent, in this case, it is only English;<sup>16</sup>

**01, 02 or 03** correspond to the year of study this student is socially;

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<sup>14</sup> Students enrolled in a first year course may not necessarily be in their first year of academic study.

<sup>15</sup> See appendix 1.

<sup>16</sup> I plan to conduct future research in languages other than English so have planned for this in my current coding method so that I will not have to alter it to allow for these additional languages.

**B, G, P or Y** correspond to the four different questionnaires used to organise the test questions. These letters refer to the colour of the questionnaire (blue, green, pink, yellow) that the respondent received, they were given out in the order listed here.

The respondents’ names were not listed on the questionnaires to ensure their anonymity within the study.<sup>17</sup>

## 5.2. The Instruments

To test the relationship between special meaning and structure in a selection of idioms (which were chosen at random), I constructed a data set of 32 sentences, based on eight idioms. For each idiom there were four variations in the data set:

- (i.) the original idiom (e.g. *my uncle gave me the cold shoulder*);
- (ii.) a transferred version of the idiom with a different verb (“transferred<sup>verb</sup>”; e.g. *my uncle provided me with the cold shoulder*);
- (iii.) a transferred version of the idiom with a different object (“transferred<sup>object</sup>”; e.g. *my uncle gave me the cold leg*);
- (iv.) a passivised “mobile” version of the idiom in which the object-part of the original idiom has been moved to subject position (e.g. *I was given the cold shoulder by my uncle*).

Henceforth I refer to these four variations of the idiom as its idiom group. The resulting total of 32 test sentences was then divided across four different questionnaires, named “blue”, “green”, “pink” and “yellow”, for ease of reference. Each member of an idiom group would be assigned to a different colour; therefore, no test sentences from the same group would appear on the same questionnaire. For example, if the blue questionnaire contained the test sentence *my uncle gave me the cold shoulder* it would

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<sup>17</sup> This was so that the respondents could not be judged in a negative light for their answers.

not also contain the transferred<sup>object</sup> test sentence *my uncle gave me the cold leg*. This was done in order to avoid priming a respondent towards assigning an idiomatic reading to a modified idiom because the special meaning of the original idiom was already lexically activated.

Two examples of each of the four variations (i.)-(iv.) would be assigned to each questionnaire, so that each questionnaire included two unmodified idioms; two transferred<sup>verb</sup> idioms; two transferred<sup>object</sup> idioms and two mobile idioms.

24 control sentences were added to these eight test sentences in each questionnaire. These control sentences were always non-idiomatic, but could sometimes be interpreted figuratively (as in metaphors e.g. *your boyfriend is a dog* or similes, e.g. *the sumo wrestler eats like a pig*). The figurative sentences were included to avoid a stark disparity between very literal control sentences and the idiomatic test sentences. If only idiomatic test sentences and literal control sentences were included, respondents may have guessed the aim of the study and provided an idiomatic interpretation whenever a test sentence was not strictly literal. The syntactic structure of the control sentences was varied so that they did not ‘sound’ monotonous or homogenous. The same 24 control sentences were used in every questionnaire. A complete list of all sentences used in the study is provided in Table 1 in section 5.4.1. below.<sup>18</sup>

Each of the four questionnaires (blue, green, pink or yellow) was then given to five respondents, (so there were five “blue” respondents, five “pink” respondents etc.) with the exception of the green questionnaire as one respondent dropped out.<sup>19</sup> As a result each of the 32 test sentences (including 24 sentences with mobile or transferred idioms) was read and interpreted by five English mother tongue speakers.<sup>20</sup> Each respondent was given twenty minutes to complete the questionnaire.

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<sup>18</sup> For the questionnaires used in this study, see appendix 2.

<sup>19</sup> In addition for sentence 23 in the yellow questionnaire, one respondent failed to give any interpretation.

<sup>20</sup> With the two exceptions i.e. the one mentioned in footnote 18 and due to the fact that one respondent who was given the green questionnaire dropped out.

### 5.3. Justification of methods

As mentioned in chapter two, the current data collection process is informed by the assumptions of universal grammar, part of which is the principles and parameters approach described earlier. The approach that I have used is based on the intuitions of native speakers and because of this reliance on intuitions rather than language use, this approach has been widely criticised. However, Schütze (1996: 2), lists various key reasons as to why linguistic research that seeks to describe peoples’ competence both in understanding and producing language is based on intuition rather than actual speech behaviour. Three of Schütze’s (1996: 2) reasons that are relevant to the research conducted here are the following:

1. “By eliciting judgements, we can examine reactions to sentence types that might occur only very rarely in spontaneous speech or recorded corpora.”
2. “To obtain a form of information that scarcely exists within normal language use at all – namely negative information, in the form of strings that are not part of the language.”
3. “When merely observing speech, it is difficult to reliably distinguish slips, unfinished utterances etc. from grammatical production.”

The relevance of these points for the purpose of this thesis is that the test sentences used in this study are unlikely to occur in spontaneous speech, which means the test sentences could also provide negative information. For example, a respondent might give an answer such as “no one would ever say this”, but we could not gain this information if it was never spontaneously uttered.

#### 5.4. Research Predictions

The data I intended to elicit from the eight test sentences was information about whether a modified idiom could retain an idiomatic reading. I anticipated that this information would reveal which kinds of idioms are more susceptible to mobility and transferability while preserving an idiomatic interpretation.

##### 5.4.1. Narrow predictions

Table 1 below consists of both the eight test sentences and the 24 control sentences used in my study each sentence is shaded according to the colour of the questionnaire it appeared in.

Table 1

	A	B	C	D
	<b>Original</b>	<b>Transferred<sup>verb</sup></b>	<b>Transferred<sup>object</sup></b>	<b>Mobile</b>
1.	John kicked the bucket.	John booted the bucket.	John kicked the pail.	The bucket was kicked by John.
2.	The man let the cat out of the bag.	The cat was released from the bag.	The cat was let out of the sack.	The cat was let out of the bag.
3.	The doctor spilled the beans.	The doctor knocked over the beans.	The doctor spilled the peas.	The beans were spilled by the doctor.
4.	Curiosity killed the cat.	Nosiness killed the cat.	Curiosity killed the Julie.	The cat was killed by curiosity.
5.	My uncle gave	My uncle provided	My uncle gave me	I was given the

	me the cold shoulder.	me with the cold shoulder.	the cold leg.	cold shoulder by my uncle.
6.	I lift my hat to you.	I raise my hat to you.	I lift my fedora to you.	His hat was lifted.
7.	They buried the hatchet.	They dug up the hatchet.	They buried the axe.	The hatchet was buried by them.
8.	I'm going to bring home the bacon.	I'm going to return with the bacon.	I'm going to bring home the ham.	The bacon was brought home by him.
<b>Controls</b>				
9.	I have never been to China.			
10.	The boys like soccer.			
11.	The fireman was bitten by the dog.			
12.	The girls smoke.			
13.	That sumo wrestler eats like a pig.			
14.	Steven told Margaret that he liked her.			
15.	Gary ate ice-cream and I ate cake.			
16.	Kate is the lady with the dark hair.			
17.	Your boyfriend is a dog.			
18.	He liked her, and that was the secret.			
19.	We went to the beach.			
20.	Cheese goes well with biscuits.			

21.	The trees danced in the wind.
22.	Everybody knows Troy.
23.	The Springboks won their match.
24.	Those children are behaving like animals.
25.	Some species of penguin live in Cape Town.
26.	My favourite animal is the giraffe.
27.	She runs like a cheetah.
28.	That he was late bothered her.
29.	Jane liked looking at herself in the mirror.
30.	I froze half to death.
31.	If you want to be a good student, you should read a lot.
32.	The zebra loves to eat the greenest grass.

As noted above, the data consists of both simple and complex sentences, and both literal and figurative sentences are used as controls (sentences (9.) to (32.)).

Table 2 on the following page illustrates my predictions about the compositionality of each of the test idiom groups – that the more compositional an idiom is, the more likely it is to have parts that are mobile and transferable. My results are analysed by comparing the respondents’ judgements with my predictions. The information in Table 2 is based on my intuitions as an English mother tongue speaker and on Jackendoff’s (1997) assumptions about the syntactic and semantic compositionality of idioms, discussed in chapter two.

Table 2

<b>Idiom</b>	<b>Classification</b>	<b>Decomposition</b>
<i>John kicked the bucket.</i>	Non-compositional	Cannot be decomposed into parts with individual meanings
<i>The man let the cat out of the bag.</i>	Compositional	<i>let out of the bag</i> = reveal <i>the cat</i> = a secret
<i>The doctor spilled the beans.</i>	Compositional	<i>spilled</i> = reveal <i>the beans</i> = a secret
<i>Curiosity killed the cat.</i>	Compositional	<i>curiosity</i> = unnecessary investigation <i>killed the cat</i> = was his undoing
<i>My uncle gave me the cold shoulder.</i>	Compositional	<i>gave me</i> = treated me <i>the cold shoulder</i> = with disdain
<i>I lift my hat to you.</i>	Compositional	This idiom is associated with the action it denotes – if that connection is known the idiom is compositional.
<i>They buried the hatchet.</i>	Compositional	<i>buried</i> = resolved <i>the hatchet</i> = an argument
<i>I'm going to bring home the bacon.</i>	Compositional	<i>bring home</i> = to earn <i>the bacon</i> = a living

To reiterate, I predict that if an idiom is considered compositional, then it has parts that are mobile and (possibly to a lesser degree) transferable.

In the remainder of this first section of this chapter, I discuss each of the eight idiom groups used in my study – and provide reasons for why each one was chosen.

1. The first test idiom group was based on *John **kicked the bucket***<sup>21</sup> with the meaning being “John died”. Due to the large amount of literature that exists on the inflexibility of this idiom, it could prove to be a “test idiom” (a judge of internal reliability) in that if a respondent judges its parts to be mobile or transferable then that respondent is more liberal in their judgements overall than a respondent who does not judge this idiom’s parts to be mobile and/or transferable. In addition, if many respondents judge parts of this idiom to be mobile or transferable then this could indicate a change in how this idiom is being conceptualised with regard to its inflexibility. This idiom was passivised to form the test sentence for mobility *the bucket was kicked by John*. To test for transferability, this idiom’s verb (*kick*) and object (*the bucket*) were replaced with the synonyms *booted* and *the pail* respectively. As I claim that this idiom is non-compositional I predict that its parts will not be mobile or transferable. Conversely, if the respondents give both the transferred examples an idiomatic reading, I predict that this meaning will be the same as the original: “John died”. This prediction is because the verb and the object were replaced with synonyms. However, I predict that this sentence will only be given an idiomatic reading in its original form and that all other forms will receive a literal interpretation. The reason I predict this is due to the fact that many authors identify this idiom as the pinnacle of idiom inflexibility, allowing only slight modification (e.g. Fraser; 1970).
  
2. The second test idiom group was derived from the idiom *the man **let the cat out of the bag***. The meaning of this sentence is “the man revealed a secret”. The idiom was passivised to test whether its parts were mobile forming the test sentence *the cat was let out of the bag*. As the idiom can be used colloquially in both its active and passive forms, I suspect that this idiom’s parts are mobile, at least in terms of passivisability. To test whether the idiom’s parts were also transferable, the verb (*let*) as well as the following preposition (*out of*) and the object of the preposition (*bag*) were replaced with synonyms. As this idiom is deemed to be compositional in this study, I anticipate that all the test sentences (under mobility and both variations of transferability) will retain their idiomatic meaning. Once again, because these

<sup>21</sup> The test sentence is presented in italics while the part of the sentence that constitutes the idiom is highlighted in bold. Hence sentential idioms appear in both bold and italics.

replacements were by synonyms I did not expect the idiom’s meaning to change in the transferred test sentences if they were given idiomatic interpretations. I anticipate, however that this idiom will be deemed to have an idiomatic reading in its mobile, transferred<sup>object</sup> and transferred<sup>verb</sup>.

3. The next test idiom group was based on the sentence *the doctor spilled the beans*, which literally means, “the doctor divulged a secret”. To test whether the idiom’s parts were mobile, this idiom was passivised to *the beans were spilled by the doctor*, which seems to me to retain its idiomatic reading. Under the test for transferability, firstly the verb *spilled* was replaced with *knocked over* creating *the doctor knocked over the beans* and secondly the object *the beans* was replaced with *the peas* to form *the doctor spilled the peas*. Both of these tests for transferability are predicted to yield the same results for the meaning of the neo-idioms and the original idiom. It is expected, that all of these transformations will be accepted as idiomatic as *spill the beans* is considered to be a compositional idiom.
  
4. ***Curiosity killed the cat***, a sentential idiom which entails that, “curiosity can be dangerous” provided the basis for the fourth test idiom group. The mobile test sentence is a passivisation of the original idiom – *the cat was killed by curiosity*. Note that omission of the by-phrase adjunct (i.e. *the cat was killed*) would make this construction uncontroversially literal. The sentences that were used to test whether parts of this idiom are transferable were firstly *nosiness killed the cat* under transferred<sup>verb</sup> and *curiosity killed the Julie* under transferred<sup>object</sup>. I anticipate that the transferred<sup>verb</sup> test sentence will yield the same idiomatic interpretation as the original. The test sentence for the transferred<sup>object</sup> is a contentious choice as it violates English syntax in that proper nouns are not preceded by determiners. This syntactic deviance may create a closer connection between this transferred idiom and the original idiom as this deviance is marked. Its ungrammaticality could make the idiomatic interpretation of the example more easily available as there might be no other interpretation that is accessible. Consider the existing idioms *trip the light fantastic* or *by dint of*. Without having encountered them, it would be easy to grant them idiom status without being aware of their meanings as they are syntactically

and semantically anomalous. I anticipate that the meaning that the respondents will get from this idiom is something like “a person called Julie was very curious and this got her into trouble”. Alternatively the respondents could point out that this sentence is ungrammatical and therefore fail to give a semantic interpretation.

5. The fifth test idiom group is based on the sentence *my uncle gave me the cold shoulder*, which can be rephrased as “my uncle behaved in a cold manner towards me”. Passivisation produced the test sentence for mobility *I was given the cold shoulder by my uncle*. Under transferability, the following two sentences were formed: *my uncle provided me with the cold shoulder* for the transferred<sup>verb</sup> sentence and *my uncle gave me the cold leg* for the transferred<sup>object</sup> sentence. I anticipate that respondents would understand both the transferred<sup>object</sup> and transferred<sup>verb</sup> test sentences literally, which is contrary to the predictions indicated in table two above. This prediction indicated here (as opposed to the one in table two) is based on my own personal intuition that these transferred test sentences do not retain the idiomatic interpretation of the original. However, if the respondents were to give an idiomatic reading for the transferred<sup>verb</sup> sentence, then it should not differ from the original, and if the transferred<sup>object</sup> sentence was deemed idiomatic, then its meaning should be similar to the original, but possibly the respondents might find that the transferred<sup>object</sup> enhances the meaning as compared to the original idiom i.e. “my uncle behaved in an incredibly cold manner towards me”. In this unlikely case the meaning of the transferred<sup>object</sup> idiom would be more extreme than the meaning of the original idiom because the leg is a bigger cut of meat than a shoulder. However in this case I rather expect the transferred<sup>object</sup> and transferred<sup>verb</sup> test sentences will not be interpreted idiomatically by the respondents while the mobile test sentence will.
  
6. *I lift my hat to you* was the basis for the sixth idiom group used in this study. This idiom expresses that the speaker respects another person. This sentence was passivised to form the mobile test sentence *his hat was lifted*. According to my own judgement, which follows from the intuition that this is a compositional idiom, both of these test sentences (original and the passivised) are equally acceptable with an idiomatic reading. In order to form the test sentences for transferability, the idiom’s

verb (*lift*) and direct object (*my hat*) were replaced with *raise* and *fedora* respectively. If these transferred sentences are judged to retain an idiomatic reading by the respondents (which, due to their compositional nature, I anticipate that they will), I predict that the meaning will remain the same as the meaning of the original idiom above as these replacements are near synonyms of *lift* and *hat*. One potential difficulty with the transferred<sup>object</sup> sentence could be that not all respondents might be aware that a “fedora” is a type of hat, so they may lose the meaning of the neo-idiom because of this. Despite this lack of knowledge, I anticipate that all of these modifications (mobile, transferred<sup>verb</sup> and transferred<sup>object</sup>) will be accepted. In addition, the lifting of a hat is, in fact, a sign of respect. Therefore, even if the respondents did not assign an idiomatic meaning to the transferred sentences, these still denote the same respectful gesture that the original idiom denotes.

7. Test idiom group number seven was based on the idiom *they buried the hatchet*, which describes a situation in which a group of people resolved an argument. This idiom was passivised to form *the hatchet was buried by them*. According to Jackendoff (1997: 168), this passivised form should be an accepted modification of this idiom; as mentioned in chapter one, it does have mobile parts (corroborated by Bresnan; 1978; Ruwet; 1991; Nunberg, Sag and Wasow; 1994; Wasow, Nunberg, Sag; 1984). The idiom’s object (*the hatchet*) was replaced to form the test sentence *they buried the axe*. For this transferred<sup>object</sup> sentence I expect the respondents to give either a literal interpretation, or an idiomatic interpretation closely related to the original idiom’s interpretation. The transferred<sup>verb</sup> test sentence was *they dug up the hatchet*. If the original idiom is indeed mobile, and if this mobility is due to the individual special meanings associated with the parts of the idiom then this transfer should produce an interesting change in the interpretation. I predict that the transferred<sup>verb</sup> test sentence is interpreted as “they revisited an old argument”. Since the verb *bury* has been replaced by its antonym, the newly derived special meaning should be the opposite of the original. I anticipate that the mobile and transferred<sup>verb</sup> test sentences to be accepted in line with the idiom’s compositional nature but the transferred<sup>object</sup> sentence to be rejected as in my own intuition, this does not retain the idiomatic reading of the original idiom.

8. The eighth and final test idiom group was based on *I'm going to bring home the bacon* which denotes a situation where a speaker expresses that she/he is going to be a family's main provider. This sentence was passivised to form the test sentence *the bacon was brought home by him*. I anticipate that the respondents will ascribe the same meaning to the mobile version as they would have to the original idiom. This idiom was tested for transferability of its parts, firstly by replacing the verb *bring home* with *return* forming the transferred<sup>verb</sup> test sentence *I'm going to return with the bacon*<sup>22</sup>, and secondly by replacing the object *the bacon* with the related *the ham* forming the transferred<sup>object</sup> test sentence *I'm going to bring home the ham*. Finally, I predict that the mobile and transferred<sup>verb</sup> test sentences will be accepted as idiomatic in line with the compositional nature of this original idiom, but that the transferred<sup>object</sup> test sentence will not be accepted as idiomatic as in my intuition it reads as literal. If an idiomatic reading is given, I predict that the meaning of these two transferred test sentences will be judged as being the same as the original idiom.

#### 5.4.2. Broad predictions

As was discussed in previous chapters, it is well-known that there are certain idioms which seem to allow syntactic operations like the passive permutation to apply to them without losing their idiomatic reading. In some of the cases discussed above, for example in the test idioms (2.) and (6.), both the active and passive forms appear to me to be equally acceptable with an idiomatic reading. I expect that most respondents will concur, and I therefore predict that my research will show that at least some idioms are “mobile” in the sense discussed above. In the case of a mobile idiom, all of the parts the original idiom is composed of remain part of the construction, although they appear in a different syntactic configuration (e.g. the idiomatic object will appear in the subject position in the case of passivisation). I expect that at least with some idioms, the more liberal of the respondents will be able to reconstruct the original position of the moved idiom part and in these instances recover the idiomatic interpretation.

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<sup>22</sup> This change of verb also required a change of complement from a DP to a PP.

Transferability on the other hand is different from mobility in that not all parts of the original idiom are present – in order to interpret the transferred idiom, the respondent has to transfer the meaning of an original idiom part onto a new part that has been substituted for it. Furthermore, a transferred idiom is a less common kind of expression (created specifically for the purpose of this thesis) for a respondent to encounter than a passivised (mobile) idiom. Therefore, I predict that the respondents will accept the mobile idioms more readily than the transferred<sup>verb</sup> and transferred<sup>object</sup> idioms. I expect overall that the acceptance rate of the transferred idioms will be low.

However, *if* some respondents accept certain transferred idioms, i.e. *if* they are able to assign an idiomatic reading to an expression created by replacing a part of an idiom with a synonym or antonym, then I predict that these respondents will be more likely to also accept mobile idioms than less liberal respondents who do not accept transferred idioms.

Finally, I predict that there will be no difference between the respondents acceptance of the two types of transferred idioms. In other words, I expect a correlation between respondents' acceptance of a transferred<sup>verb</sup> idioms and transferred<sup>object</sup> idiom.

If these predictions are confirmed, then the results gained here will show that special meaning is not entirely dependent on the specific structure with which it is associated. By this, I mean that, within the rules of English grammar, idioms (or chunks of special meaning larger than  $X^0$ ) do have parts that will prove to be mobile or transferable without the idiomatic meaning being lost entirely. In line with this, I also predict that this is because these parts can carry the meaning of the whole and this is why the transformations involved in mobility and transferability will be possible.

## SECTION TWO – DATA ANALYSIS

The data collected is illustrated in Table 3 below. Each numbered column represents an idiom group – for example, the column numbered (4.)<sup>23</sup> represents the original idiom *John kicked the bucket* and its three modifications: *John kicked the pail*; *the bucket was kicked by John* and *John booted the bucket*. The rows are labelled according to the colour of the questionnaire. For example, the first row shows the eight test sentences that appeared on the blue questionnaire. Each test sentence was given a score out of five<sup>24</sup> (the number of respondents who provided answers). This score represents how many respondents gave this test sentence an idiomatic reading. In addition, these scores are shaded differently according to the degree of agreement amongst respondents:

- if five out of five respondents judged the test sentence to be idiomatic, the block is black;
- if three or four out of five judged the test sentence as idiomatic, the block is dark grey;
- the block is light grey if one or two out of five respondents judged the test sentence to be idiomatic and;
- if no respondents judged the test sentence to be idiomatic, the block is white.

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<sup>23</sup> The columns are numbered according to where each sentence appeared in the original questionnaire (i.e. as 4<sup>th</sup> sentence, 9<sup>th</sup> sentence, 11<sup>th</sup> sentence etc).

<sup>24</sup> With the exception of the green questionnaire, which only had 4 respondents and test sentence 23 in the yellow questionnaire.

Table 3

Blue	4	9	11	14	20	23	27	30
Sentence	John kicked the bucket.	The cat was released from the bag.	The doctor spilled the peas.	The cat was killed by curiosity.	My uncle gave me the cold shoulder.	I raise my hat to you.	They buried the axe.	The bacon was brought home by him.
Idiomatic Int	3 out of 5	2 out of 5	2 out of 5	4 out of 5	5 out of 5	5 out of 5	3 out of 5	3 out of 5
Green	4	9	11	14	20	23	27	30
Sentence	John kicked the pail.	The man let the cat out of the bag.	The doctor spilled the beans.	Questioning killed the cat.	My uncle gave me the cold leg.	Consider my hat lifted.	They buried the hatchet.	I'm going to return with the bacon.
Idiomatic Int	0 out of 4	3 out of 4	3 out of 4	3 out of 4	3 out of 4	4 out of 4	4 out of 4	0 out of 4
Pink	4	9	11	14	20	23	27	30
Sentence	The bucket was kicked by John.	The cat was let out of the bag.	The doctor knocked over the beans.	Curiosity killed the Julie	I was given the cold shoulder by my uncle.	I lift my hat to you.	They dug up the hatchet.	I'm going to bring home the ham.
Idiomatic Int	1 out of 5	3 out of 5	2 out of 5	2 out of 5	5 out of 5	5 out of 5	2 out of 5	3 out of 5
Yellow	4	9	11	14	20	23	27	30
Sentence	John booted the bucket.	The cat was let out of the sack.	The beans were spilled by the doctor.	Curiosity killed the cat.	My uncle provided me with the cold shoulder.	I lift my fedora to you.	The hatchet was buried by them.	I'm going to bring home the bacon.
Idiomatic Int	1 out of 5	3 out of 5	5 out of 5	5 out of 5	4 out of 5	3 out of 4	4 out of 5	4 out of 5
	5 out of 19	10 out of 19	13 out of 19	14 out of 19	17 out of 19	17 out of 18	13 out of 19	10 out of 19

The first observation that can be made is that only two of these test sentences received a zero out of four score (represented by the white blocks). I anticipated a far higher rejection rate of the test sentences. Strikingly, however, it must be noted that only eight out of 32 total test sentences were accepted unanimously and only half of these were original, unmodified idioms. I anticipated that respondents would accept the original idioms uncontroversially; so the fact that they did not went against this expectation and shows that not all respondents were familiar with all the idioms used. Nevertheless, with the exception of the idiom *spilled the beans* (whose passivised form was accepted by more respondents than its active form was), the original, unmodified idiom always received the highest acceptability score. This confirms my view that mobility and transferability are operations that reduce the acceptability of idiomatic expressions.

The next section presents the results for each test sentence with reference to the predictions discussed in section one of this chapter.

## 5.5. Narrow Observations

### 5.5.1. By idiom

1. The idiom *kick the bucket* received the lowest scores overall, and only three out of five respondents gave an idiomatic interpretation for the original, unmodified idiom, which is a low score for a conventionalised idiom. *John kicked the pail* was unanimously given a literal interpretation which was predicted above. However the passivisation *the bucket was kicked by John* and the transferred<sup>verb</sup> test sentence – *John booted the bucket* were given an idiomatic reading by one person each (two different respondents). As mentioned before, this idiom is reportedly resistant to any kind of modification and these low scores (five out of a total 19 test sentences were given an idiomatic interpretation) are evidence for that. The fact that two respondents gave two of these transformations an idiomatic reading is attributable to them being more liberal in their assessment of idiomaticity. It also shows that, at least for some speakers, even a “frozen” idiom may be transferable under certain conditions, but that more interpretations would be needed in order to gain more conclusive results about this idiom, a point to which I return in the limitations section in the next chapter.
  
2. The idiom *let the cat out of the bag* also got low scores with only three out of four respondents giving the original, unmodified idiom an idiomatic reading. Three out of five respondents gave the mobile test sentence an idiomatic reading. This confirmed my own judgement mentioned in section one, that both the active and modified passive test sentence are equally acceptable in the case of *let the cat out of the bag*. The transferred<sup>object</sup> test sentence however, also received a three out of five score, which for the purposes of this research, puts it on a par with the original idioms and mobile neo-idioms in this group. Finally, the transferred<sup>verb</sup> test sentence was only

given an idiomatic reading by two respondents, with the rest giving it a literal reading.

3. The idiom *the doctor spilled the beans* provided interesting data in that the mobile test sentence *the beans were spilled by the doctor* was judged as being more acceptable (in terms of idiomaticity) than its active counterpart – five out of five respondents deemed the passivised sentence idiomatic, where only three out of four interpreted the original as being idiomatic. Both the transferred<sup>verb</sup> and transferred<sup>object</sup> received a two out of five score.
  
4. The idiom *curiosity killed the cat* received the second highest score in terms of overall acceptance – this is possibly because this test sentence cannot be meaningfully interpreted literally unless (as one of my respondents pointed out) *Curiosity* is the name of a woman with a vendetta against cats (or in the case of the transferred<sup>object</sup> test sentence, *Julies*). As this test sentence cannot be interpreted literally, respondents would have to have been forced into giving it an idiomatic reading. The passive test sentence in this case – *the cat was killed by curiosity* – also got a high score with only one respondent giving it a literal interpretation. The transferred<sup>verb</sup> test sentence also received a high score – three out of four, but the transferred<sup>object</sup> got only two out of five, which could be attributable to the ungrammaticality of the test sentence. In the main, if respondents gave this transferred<sup>object</sup> test sentence a literal interpretation they said something similar to this quote from respondent 11EX03P (number 11, female, 03 year of study, pink questionnaire) “Curiosity was the name of the dog that killed the cat named Julie”.
  
5. The idiom *my uncle gave me the cold shoulder* was tied for having the highest idiomaticity scores overall with 17 out of the 19 test sentences being assigned an idiomatic reading. Both the original and the mobile test sentence were accepted unanimously as being idiomatic which is evidence that this idiom’s parts can be interpreted separately and receive special meanings. Further evidence for this idiom’s parts having individual meanings is that only one respondent (for each) rejected the transferred<sup>object</sup> and transferred<sup>verb</sup> test sentences as being idiomatic. However, this

could also be because the literal interpretation of this group of test sentences proves to be nonsensical, which means that respondents would be more inclined towards giving an idiomatic interpretation. This is reminiscent of Grice’s (1975) cooperative principle in conversation. Very briefly, if speakers are observing the maxims of the cooperative principle they are unconsciously trying to be informative, truthful, relevant and perspicuous. If we assume that a speaker (or a writer in this case) is observing these maxims, then we as hearers (or readers) try to find meaning in their utterances, even if this meaning appears obscure.

6. The idiom in (5.) was tied with *I lift my hat to you* for the highest score (17 out of 18 respondents deemed the variations of this test sentence to be idiomatic). A possible reason for why one of the respondents did not provide an idiomatic reading for the transferred<sup>object</sup> test sentence was that they did not know that a fedora was a kind of hat. With the exception of this one literal judgement<sup>25</sup>, all other respondents deemed all the transformations of this test sentence to be idiomatic. This is a remarkable finding as this idiom can be readily ascribed a literal meaning that does not prove nonsensical (in contrast to (5.) above). Either this idiom is highly susceptible to the transformations described in this thesis or alternatively, the action of “hat raising” is highly conventionalised to mean “a respectful action”.
  
7. The idiom *they buried the hatchet* was (surprisingly, given my predictions) awarded low scores (13 out of 19). The original idiom was unanimously accepted as idiomatic and the mobile test sentence was acknowledged as idiomatic by all except one respondent. The transferred<sup>verb</sup> test sentence was only accepted as being idiomatic by two out of five respondents with the transferred<sup>object</sup> test receiving the higher score of three out of five. I was hopeful that these scores would be higher because this is the only transferred test sentence in which the transferred element was an antonym as opposed to a synonym. Had this test sentence been accepted as idiomatic, then this would have been evidence that meaning can be transferred to both synonyms and antonyms.

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<sup>25</sup> Due to the fact that two respondents did not give interpretations, this idiom group only had a total of 18 interpretations.

8. Lastly, *I'm going to bring home the bacon* also got low scores with only 10 out of 19 test sentences receiving an idiomatic interpretation. The original idiom had four out of five respondents giving it an idiomatic interpretation. The mobile test sentence and transferred<sup>object</sup> got three out of five each, but the transferred<sup>verb</sup> got zero out of four. In general, I had anticipated that the transferred<sup>verb</sup> test sentences in this study would get higher scores than the transferred<sup>object</sup> test sentences – but in this idiom group this was not the case, (and also not in idiom group two – *the cat was let out of the bag*).

### 5.5.2. By transformation clusters

In the following I describe the data based on transformation clusters i.e. within the clusters of (1.) original idioms, (2.) mobile idioms, and (3.) transferred idioms.

1. Unsurprisingly, the highest idiomaticity scores were gained by the original, unmodified idioms. On the rare occasion that the respondents did not accept an original idiom, they probably had not encountered it before. In the case where respondents did not provide an idiomatic reading for the original idiom they gave literal interpretations, with no indication of knowing the idiomatic meaning at all. The following is an example where a literal interpretation was provided: “On a cold Tuesday morning, after breakfast, John kicked the bucket that was full of water.” (13XE01B). In most cases however, respondents gave the original idioms an idiomatic reading, for example: “John died.” (09XE01B and 01XE01B) or in the case of *the man let the cat out of the bag* respondents gave answers such as “The man has said something that was supposed to remain a secret” (14XE02G and 06XE01G).
2. Test sentences that had undergone a movement operation to test whether parts of these idioms were mobile had the second highest idiomaticity scores. Unsurprisingly, the neo-idiom *the bucket was kicked* only had one instance where it was accepted as idiomatic. The neo-idioms *The beans were spilled by the doctor*; *I was given the cold shoulder by my uncle* and *consider my hat lifted* were all however, unanimously accepted as being idiomatic. Respondent 04YE02Y interpreted *the beans were spilled by the doctor* as “The doctor told them the bad news”, which is similar to the

responses received by the other four respondents who were given this test sentence. In the same way, respondent 07XE01P interpreted the neo-idiom *I was given the cold shoulder by my uncle* as “the uncle was ignoring this person”, which was in line with the other assessments for this test sentence. Finally, the neo-idiom *consider my hat lifted* was interpreted by all respondents who received the green questionnaire as referring to some kind of respectful action. The acceptance of these three mobile idioms is in accordance with Jackendoff’s (1997) claim that certain idioms can be broken down into parts which can carry individual meanings. Consequently, the individual parts of such an idiom are mobile.

3. Transferred<sup>object</sup> and transferred<sup>verb</sup> test sentences received almost the same score (one point of difference) overall, with only half of the respondents deeming that all of these transformations created for the purpose of this study were acceptable idiomatic interpretations. No respondents granted *John kicked the pail* and *I’m going to return with the bacon* idiomatic interpretations. Instead the following literal interpretations were given: “When I arrive back I will have bacon” (14XE02G), “I promised mum, after school I was going to return with the bacon so she could prepare supper” (10XE01G). Five out of five respondents assessed the neo-idiom *I raise my hat to you* as being idiomatic but only two out of five assessed the example *they dug up the hatchet* as idiomatic. Interestingly enough, three out of five accepted the sentence *they buried the axe* as idiomatic which I anticipated would be taken literally. One respondent however did seem hesitant and pointed out “it’s supposed to be ‘hatchet’ though isn’t it?” (09XE01B), and another respondent claimed that this was “similar to ‘bury the hatchet’” (17XE01B).

## 5.6. Summary

Section one of the current chapter outlined the conceptual design of this study – namely the methods used with a description of the sample group, instruments and the predicted outcomes. Section two presented the empirical data and an analysis thereof including some narrow observations of the results gained. The next chapter forms the conclusion

of this thesis. The final chapter consists of broader observations that can be made based on the data collected in this study, as well as a discussion of the limitations of the study and includes suggestions for further research.

## Chapter Six

### Conclusion

The aim of this thesis is to gain further insight into the mechanisms behind the syntax-semantics interface, through an investigation of the compositionality of idioms in English. The previous chapters (one – five) have situated this research within the broader context of idiom comprehension as well as providing my standpoint in the field of idiom comprehension. Thus far I have laid out the theoretical frameworks which I have largely been working in. As a general framework I use the Minimalist Program (MP) (Chomsky; 1995) but I have chosen not to use lexical insertion (Chomsky; 1965) which is used in the MP. Instead I chose lexical licensing (Jackendoff; 1997) as an alternative which seems to fit my data better than lexical insertion. Chapter three comprised of my literature review which situated the research within the broader field of idiom comprehension and idiom classification research (cf. Weinreich; 1969, Bobrow and Bell, 1973; Langacker; 1987, Nunberg, Sag and Wasow; 1994 amongst others). With specific reference to the scope of this thesis, chapter four discussed transferability and mobility, the two operations which I tested with regard to idioms. Mobility refers to the ease with which an idiom is able to undergo any movement operation (in this study, passivisation) while retaining an idiomatic interpretation. Transferability (a term and operation developed for the purpose of this thesis) refers to a process where a constituent of the idiom is replaced with a constituent of the same syntactic category that bears a semantic resemblance to the original. This similarity would include being a synonym or antonym. Finally, chapter five reiterated my research aims, and discussed the methodology used to answer these questions as well as providing the results obtained during the research process and a discussion thereof. This final chapter concludes this thesis, by way of a final analysis of the results gained during the data elicitation as well as acknowledging the limitations of the study and proposing ideas for future research.

### 6.1. Broad Observations

That the original, unmodified idioms received the highest score is a good indicator for both the reliability and validity of this method of research. The idioms that were chosen for the purpose of this study were neither obscure nor unknown, so there was a good chance that all 20 respondents would have had contact with them at some point in their lives. A very high percentage (82%) of respondents gave these original idioms idiomatic interpretations and the other 18% of respondents gave literal interpretations. These literal interpretations could be explained by the respondents not being familiar with these particular idioms. Unfortunately, one of the variables that could not be controlled for in this study, was whether a respondent was familiar with a specific idiom.

The fact that in this study the mobile idioms received the next highest score (74% of respondents deemed them to be idiomatic) is significant as this is in line with both Marantz’s (1996) and Jackendoff’s (1997) predictions outlined in the previous chapters. In terms of Marantz’s (1996) framework, parts of an idiom are awarded a new special meaning in the context of other parts of that idiom – *bury* is interpreted literally unless it appears in the context of *the hatchet*. Marantz’s (1996) view predicts that idioms would have mobile parts, as they are compositional in a broad sense. With regard to Jackendoff (1997), the outcome is similar – individual parts of idioms carry individual meanings that differ from their canonical meanings. This means that the canonical meaning of *bury* is close to the circumscription “conceal something in the ground” but in the context of this idiom *bury*’s new meaning is RESOLVE. The idea that individual parts have discrete meaning predicts that idiom parts can be mobile (as this study has attempted to show), but not only can idiom parts be mobile – their parts are also predicted to be able to have meaning that can be transferred onto parts not present in the original idiom – they can be transferable.

The results gained in this study do not show unequivocally that all idioms have parts with transferrable meaning. However, what the results do show is that this process is possible. It

is possible to take a well-known idiom, such as *I was given the cold shoulder*, and replace one of its parts with a semantically related part to form *I was given the cold leg* (*shoulder* and *leg* are semantically related in that they are both body parts), and for this neo-idiom to retain a similar meaning to the original idiom. It seems to be possible for this meaning to be modified by the transferred word in that if the transferred word is an antonym rather than a synonym of the original lexical item, the meaning of the neo-idiom could be the opposite of the original idiom. However, the single example of this process in my study received low acceptance rates, so this process needs more investigation. My claim is this: The reason transferral of meaning is possible is because the meaning of the whole does not equal the sum of its parts. Individual parts of some idioms carry meanings that are able to modify the meaning of the entire idiom. This, of course, is not uncontroversially the case – certain idioms cannot be modified in the same way as others, *kick the bucket* being a prime example.

With the “meaning of the whole does not equal the sum of its parts” in mind, it becomes apparent that the case for idiom compositionality is not straightforward, in that it may only apply to one group of idioms but not others. However, what this study seems to indicate is that the difference in the way that idioms can be modified exists on a continuum. This is contrary to the view that idioms can be classified into specific sets such as specifically compositional or non-compositional. These sets tend to be mutually exclusive and if a certain idiom lacks a single characteristic, then this idiom becomes difficult to classify. The compositionality of idioms should not be considered an all-encompassing category, but rather it should be considered on a gradual scale of compositionality. The advantage of an idiom continuum or idiom scale would be that the increments on the scale would not be mutually exclusive and an idiom could have one or more features, without obligatorily having another. This idiom continuum could extend from compositional to non-compositional on either end with all of the available modifications existing in between – a less exclusive version of Fraser’s frozenness hierarchy (1970).

To conclude, I would like to revisit the questions posed very early on in this current chapter, namely: 1. how dependent is special meaning on structure? and 2. how reliant is special meaning on individual parts to carry the meaning of the whole? In response to 1. I assume that special meaning is not completely reliant on the structure it is embedded in. This reliance of special meaning on structure, does depend on the idiom as cases can vary from inflexible (*kick the bucket*) to flexible (*I lift my hat to you*) with many modifications in between. A shortfall of this study is that it does not explore the limits to which these modifications can extend, i.e. how modifiable is a flexible idiom such as *I lift my hat to you*, how many modifications could be applied to it before it loses its idiomaticity? Question 2. cited above seems to be answerable in terms of a continuum – in certain cases parts of an idiom can “stand in” for the whole idiom which entails that these parts are able to signal the meaning of the whole. This ability to signal the meaning of the whole is why transferability is possible in certain cases, while the inability of individual parts to signal the meaning of the whole may be the reason why transferability fails in other cases.

## 6.2. Limitations

The most obvious limitation of this study is the small number of respondents as well as the limited size of the test sentence corpus. Each test sentence (encompassing the original, mobile, transferred<sup>verb</sup> and transferred<sup>object</sup> idioms) was only viewed by five (or fewer in some cases) respondents each. For this reason, the results gained here may not be reliable in the case that this study was replicated with more respondents. The problem that was faced involved the fact that for each original idiom used, three modifications needed to be included. Therefore each time a new idiom was introduced into the study, four new test sentences were included in the corpus. This meant that my idiom corpus would increase quite drastically with the addition of a single idiom, which meant that (in the interests of not taking up too much of a respondent’s time) more respondents would have to be conscripted. In addition to this problem with the corpus, each respondent could only see one instance from each idiom group to avoid priming them toward giving an idiomatic

interpretation, where one was not readily available. As both time and resources were limited, I tried to find the balance between using fewer test sentences and enough respondents to validate the results gained. This balance resulted in eight original idioms (as “heads” of eight idiom groups) being used and included in four questionnaires, which were each completed by five different respondents. For any results gained in this study to be valid, these questionnaires had to be completed by mother tongue English speakers. It was because of this that I insisted that the questionnaires be filled in, in my presence, by the respondents instead of creating an online questionnaire where it would be impossible to prove whether the respondents were being truthful about their mother tongue or any of the other controlled variables such as age or level of study. However, it is possible that this kind of control over variables can be forgone in the place of a bigger sample group that will yield a larger set of data from which to draw conclusions.

A second limitation of this study is that there is no way of being sure whether a respondent is familiar with a certain idiom, without priming them beforehand, which is something to be avoided. For example, instead of giving respondents the questionnaires with the test sentences ‘out of the blue’, respondents could have been given a passage to read that included all the sentences (both test and control) before completing the questionnaire. The problem with this would have been that in a passage, these idioms would appear in context. This would signal to the respondent what the intended meaning of these neo-idioms was which would nullify any results.

Alternatively, my research could have been done in two stages, with the respondents being required to complete two rounds of questionnaires with a significant period of time (perhaps a month) between them. In the first round, respondents could have been given a passage containing the eight original idioms investigated in this thesis, without any of the three modifications. This passage would also contain instances of other figurative language, such as metaphors and similes, as in the control sentences used in this current research. The respondents could then have been asked to explain the contents of the passage without making use of similes, metaphors or idioms. If the respondents were able to explain each

idiom correctly, then they would have been selected for the second round of research. The second round of research would then have been conducted in the same way as this current research was, with the hope that there was enough time between the two rounds of study to avoid priming the respondents. The problem with this approach is whether this period in between each round of research would prove enough time for the respondents to forget if they guessed the point of the research.

The biggest limitation with this research is one that could plausibly be dealt with by increasing the amount of idioms used in the study. The results gained from this research show very little definite patterns and they therefore cannot be generalised to form predictions about the behaviour of all idioms.

Another possible limitation of this study is the heterogeneity of the test sentences used due to the fact that these idioms were chosen at random. These test sentences were different in terms of syntactic structure and what movement they could undergo. For example *John kicked the bucket* and *my uncle gave me the cold shoulder* differ as the former has a single object whilst the latter is a double object construction. This difference in structure also results in a difference in terms of the movement operation that was applied to them. Firstly, idioms should have been chosen with a more homogenous structure. Secondly, under the transformations involved in mobility, only one movement operation should have applied to every idiom – such as only passivisation or only fronting. Lastly, under the transformations involved in transferability both of the verb and object, a more uniform transformation should have also applied: only synonyms or antonyms should have been used. In addition, in terms of the transferred<sup>object</sup> test sentences that were used, the transformation should have applied to either the direct or the indirect object in all cases and not a mixture of the two. Lastly, under transferability, the synonyms used are arguably not semantic equivalents in all cases such as in test sentence eight – *bring home* and *return with*. These limitations were only brought to the fore during the course of this research, when it was too late to change the design of the research.

### 6.3. Future Research

In order to address the above limitations, a recreation of this study would include a larger sample group of respondents to ensure that each test sentence would have been interpreted by more respondents. Information about whether respondents are familiar with each idiom used will need to be gained prior to the respondents completing the final questionnaire. This information will certify that respondents do not give literal interpretations merely because they are not familiar with the original idioms. In addition, the corpus of idioms used needs to be made more homogenous so that there are less variables involved. Finally, the limits of the transformations used in this study (mobility and transferability) need to be explored, in order to discover how many times or how much an idiom can be modified (and in what ways) without losing an idiomatic interpretation.

### 6.4. Summary

This thesis has aimed to gain further insight into the mechanisms involved in constructing special meaning in English with a deeper look at the syntax-semantics interface. To do this, I have analysed the compositionality of a selection of English idioms and tried to ascertain how dependent special meaning is on the structure to which it is connected. The first three chapters of this thesis situated the research aim in the broader context of idiom comprehension and the construction of special meaning in English, and included the theoretical framework I employed. That idioms behave ‘strangely’ with regard to movement is a phenomenon that has been observed by many authors. Early on, I hypothesised that an idiom’s ability to have parts that are mobile (or transferable) is connected to whether they are considered compositional or non-compositional. However, in the analysis of the data it became apparent that even two such broad sets as compositional or non-compositional become ‘all or nothing’ categories and it seems to be clear that idioms cannot be classified into only two factions. Instead, I proposed that idioms could be plotted onto a continuum that allows for a high amount of differentiation amongst idioms.

The operations involved in mobility and transferability provide evidence that special meaning (or the kind involved in idioms at least) is not entirely dependent on the structure with which it is associated. Not only can some idioms be passivised whilst retaining an idiomatic interpretation (their parts are mobile), but some idioms can have some of their parts replaced and have their idiomaticity preserved (their parts are transferable).

In looking at the data presented in the previous chapter, it is evident that it may not be possible to *dig up the hatchet*. However, what has become evident is that idioms might not be as inflexible as previously thought – their parts may be both mobile *and* transferable, the latter being an operation that has not been explored prior to this thesis.

## References

- Aristotle. (1953). *Metaphisica*. In Ross, W.D. (Ed) *Aristotle's Metaphysics: A Revised Text with Introduction and Commentary*. Oxford University Press academic monograph reprints.
- Aronoff, M. (2008). In the beginning was the word. *Language*, 83(4), 803 - 830.
- Baker, M. (2002). *The atoms of language: The mind's hidden rules of grammar*. New York: Basic Books.
- Baker, M., Johnson, K., & Roberts, I. (1989). Passive arguments raised. *Linguistic Inquiry*, 20(2), 219 - 251.
- Bobrow, S., & Bell, S. (1973). On catching on to idiomatic expressions. *Memory and Cognition*, 1(3), 291 - 308.
- Bresnan, J. (1978). A realistic transformational grammar. In M. Halle, J. Bresnan & G. A. Miller (Eds.), *Linguistic theory and psychological reality*. Cambridge, Massachusetts: MIT Press.
- Cacciari, C., & Glucksberg, S. (1991). Understanding idiomatic expressions: The contribution of word meanings. In G. B. Simpson (Ed.), *Understanding word and sentence* (pp. 217 - 240). Holland: Elsevier Science Publishers.
- Cacciari, C., & Tabossi, P. (1988). The comprehension of idioms. *Journal of Memory and Language*, 2, 668 - 683.

- Carnie, A. (2007). *Syntax: A generative introduction* (Second ed.). Oxford: Blackwell Publishing.
- Chomsky, N. (1965). *Aspects of the theory of syntax*. Cambridge, Massachusetts: MIT Press.
- Chomsky, N. (1972). *Studies on semantics in generative grammar*. The Hague: Mouton.
- Chomsky, N. (1980). Rules and representations. *Behavioural and Brain Sciences*, 3, 1 - 21.
- Chomsky, N. (1995). *The minimalist program*. Cambridge, Massachusetts: MIT Press.
- Chomsky, N. (2000). Minimalist inquiries: The framework. In R. Martin, D. Michaels & J. Uriagereka (Eds.), *Step by step: Essays on minimalist syntax in honour of Howard Lasnik* (pp. 89 - 155). Cambridge, Massachusetts: MIT Press.
- Chomsky, N. (2004). Beyond explanatory adequacy. In A. Belletti (Ed.), *Structures and beyond: The cartography of syntactic structures, volume 3* (pp. 104 - 131). New York: Oxford University Press.
- Chomsky, N., & Lasnik, H. (1995). The theory of principles and parameters. *The minimalist program* (pp. 13 - 128). Cambridge, Massachusetts: MIT Press.
- Cieślicka, A. (2006). Literal salience in on-line processing of idiomatic expressions by second language learners. *Second Language Research*, 22(2), 115 - 144.
- Cutting, J. C., & Bock, K. (1997). That's the way the cookie bounces: Syntactic and semantic components of experimentally elicited idiom blends. *Memory and Cognition*, 25(1), 57 - 71.

- De Saussure, F. (1975). *Cours de linguistique Générale*. Paris: Payot.
- Dik, S. C. (1989). Idioms in a computational functional grammar. In M. Everaert & E. Van der Linden (Eds), *Proceedings of the First Tilburg Workshop on Idioms*, Tilburg: ITK Proceedings, 41 - 55.
- Fraser, B. (1970). Idioms within a transformational grammar. *Foundations of Language*, 6(1), 22 - 42.
- Frege, G. (1948). Sense and reference. *The Philosophical Review*, 57(3), 209 - 230.
- Frege, G. (1892). Über Sinn und Bedeutung. In P. Geach and M. Black (Eds.), *Translations from the Philosophical Writings of Gottlob Frege* (pp. 56 - 78). Oxford: Blackwell.
- Freidin, R. (1992). *Foundations of generative syntax*. Cambridge: MIT Press.
- Gibbs, R. W., & Gonzales, G. P. (1985). Syntactic frozenness in processing and remembering idioms. *Cognition*, 20, 243 - 259.
- Gibbs, R. W., & Nayak, N. P. (1989). Psycholinguistic studies on the syntactic behaviour of idioms. *Cognitive Psychology*, 21, 100 - 138.
- Gibbs, R. W., Nayak, N. P., Bolton, J. L., & Keppel, M. E. (1989). Speakers' assumptions about the lexical flexibility of idioms. *Memory and Cognition*, 17(1), 58 - 68.
- Glucksberg, S. (1993). Idiom meaning and allusional content. In C. Cacciari, & P. Tabossi (Eds.), *Idioms: Processing, structure, and interpretation* (pp. 3 - 26). Hillsdale, New Jersey: Lawrence Erlbaum.

- Grice, H. P. (1975). Logic and conversation. In P. Cole, & J. L. Morgan (Eds.), *Syntax and semantics III: Speech acts* (pp. 41 - 58). New York: Academic Press.
- Halle, M., & Marantz, A. (1993). Distributed morphology and the pieces of inflection. In K. Hale, & S. J. Keyser (Eds.), *The view from building 20* (pp. 111 - 176). Cambridge: MIT Press.
- Harley, H., & Noyer, R. (1999). Distributed morphology. *Glott International*, 4(4), 3 - 9.
- Hornstein, N., Nunes, J., & Grohmann, K. K. (2005). *Understanding minimalism* (Third ed.). Cambridge: Cambridge University Press.
- Jackendoff, R. (1990). *Semantic structures*. Cambridge, Massachusetts: MIT Press.
- Jackendoff, R. (1997). *The architecture of the language faculty*. Cambridge, Massachusetts: MIT Press.
- Katz, J. J. (1997). Compositionality, idiomaticity, and lexical substitution. In S. R. Anderson, & P. Kiparsky (Eds.), *A festschrift for Morris Halle* (pp. 357 - 376). Nanterre: University of Paris.
- Katz, J. J., & Postal, P. (1963). Semantic interpretation of idioms and sentences containing them. *Quarterly Progress Report*, 70, 275 - 282.
- Lasnik, H. (2002). The Minimalist Program in syntax. *Trends in Cognitive Science*, 6(10), 432 - 437.
- Lakoff, G., & Johnson, M. (1980). *Metaphors we live by*. Chicago: University of Chicago Press.

- Langacker, R. (1987). *Foundations of cognitive grammar: Theoretical prerequisites* (1st ed.). Stanford, CA: Stanford University Press.
- Levelt, W. J. M. (1989). *Speaking: From intention to articulation*. Cambridge, Massachusetts: MIT Press.
- Löbner, S. (2002). Descriptive, social and expressive meaning. *Understanding semantics* (pp. 19 - 38). United Kingdom: Oxford University Press.
- Machonis, P. A. (1985). Transformations of verb phrase idioms: Passivisation, particle movement and dative shift. *American Speech*, 60(4), 291 - 308.
- Marantz, A. (1996). Cat as a phrasal idiom: Consequences of late insertion in distributed morphology. Unpublished manuscript. Cambridge, Massachusetts.
- Marantz, A. (1997). No escape from the syntax: Don't try morphological analysis in the privacy of your own lexicon. In A Dimitriadis (Ed.), *21st Annual Penn Linguistics Colloquium*, 4(2), 201 - 225.
- McGinnis, M. (2002). On the systematic aspect of idioms. *Linguistic Inquiry*, 33(4), 665 - 672.
- Nunberg, G., Sag, I., & Wasow, T. (1994). Idioms. *Language*, 70(3), 491 - 538.
- Panou, D. (2008). L2 idiomatic comprehension: Do idioms reveal beans or spill secrets. *Patras International Conference of Graduate Students in Linguistics*, University of Patras, Greece, 1 75 - 85.
- Partee, B. H. (1994). Lexical semantics and compositionality. Unpublished manuscript. University of Massachusetts.

- Pinker, S. (1994). *The language instinct*. London: Penguin.
- Pitt, D., & Katz, J. J. (2000). Compositional idioms. *Language*, 76(2), 409 - 432.
- Radford, A. (2004). *Minimalist syntax: Exploring the structure of English* (Third Ed.). United Kingdom: Cambridge University Press.
- Ruwet, N. (1991). *Syntax and human experience*. Chicago: University of Chicago Press.
- Sabel, J., & Zeller, J. (2006). Wh-Question formation in Nguni. *Selected Proceedings of the 35th Annual Conference on African Linguistics*, Somerville, Massachusetts. 271 - 283.
- Schütze, C. T. (1996). *The empirical base of linguistics: Grammaticality judgements and linguistic methodology*. United States of America: University of Chicago Press.
- Searle, J. R. (1979). *Expression and meaning: Studies in the theory of speech acts*. Cambridge: Press Syndicate of the University of Cambridge.
- Swinney, D. A., & Cutler, A. (1979). The access and processing of idiomatic expressions. *Journal of Verbal Learning and Verbal Behaviour*, 18, 523 - 534.
- Tabossi, P., Fanari, R., & Wolf, K. (2008). Processing idiomatic expressions: Effects of semantic compositionality. *Journal of Experimental Psychology: Learning, Memory and Cognition*, 34(2), 313 - 327.
- Titone, D. A., & Connine, C. M. (1999). On the compositional and noncompositional nature of idiomatic expressions. *Journal of Pragmatics*, 31, 1655 - 1674.

Wasow, T., Nunberg, G., & Sag, I. (1984). Idioms: An interim report. *Proceedings of the 13th International Congress of Linguists*. (pp 102 - 115) The Hague: CIPL.

Weinreich, U. (1969). Problems in the analysis of idioms. In J. Puhvel (Ed.), *Substance and structure of language* (pp. 23 - 81). Berkeley and Los Angeles: University of California Press.

Wood, M. (1986). *A definition of idiom*. Indiana: Bloomington: Indiana University Linguistics Club.

Zwart, J. W. (1998). Review article: The minimalist program. *Journal of Linguistics*, 34, 213 - 226.

**Appendix 1**

**INFORMED CONSENT FORM**

Dear Participant,

I am a Masters student at the University of KwaZulu-Natal. I am collecting data for my thesis. Participation in this research project is entirely voluntary. If you agree to participate, you will be asked to look 32 sentences and answer some questions relating to their meaning. Please note that you will remain completely anonymous, the data that you provide will be made available to you should you so wish, and that you have the right to withdraw your participation from the study at any time.

(Please indicate your answer with an X)

1. Have you been adequately informed about the research?
2. Have you had the opportunity to discuss further questions with the researcher?
3. Do you understand that you are free to refuse to answer any questions?
4. Do you understand that you may withdraw from the study at any time without giving your reasons?
5. Do you understand that any information that you provide will be treated as confidential?
6. Do you agree to take part in the study?

Yes	No

Thank you for your time.

Should you have any further questions, please feel free to contact me, Julia Sutherland on 205514582@ukzn.ac.za or my supervisors, Jochen Zeller (zeller@ukzn.ac.za) and Heike Tappe (tappe@ukzn.ac.za) .

I have read the above information and agree to participate in this study. I understand that I will remain anonymous and may withdraw my participation at any time should I wish to do so.

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Signature of Participant: .....Date: .....

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Signature of Researcher: .....Date: .....

Signature of Supervisor:.....Date: .....

Signature of Supervisor:.....Date: .....

**Appendix 2.1.**

**Blue Questionnaire**

Age:

Home language:

Year of study:

Have you signed an informed consent form?            YES                                    NO

For each of the following sentences, provide a context in which the sentence could be used, or explain the sentence’s meaning.

E.g.                    The little boy kicked the ball.

Answer:            All the children were playing soccer and as soon as the little boy got it, he kicked the ball.

1. I have never been to China.
  
  
  
  
  
  
  
  
  
  
2. The boys like soccer.
  
  
  
  
  
  
  
  
  
  
3. The fireman was bitten by the dog.
  
  
  
  
  
  
  
  
  
  
4. John kicked the bucket.
  
  
  
  
  
  
  
  
  
  
5. The girls smoke.
  
  
  
  
  
  
  
  
  
  
6. That sumo wrestler eats like a pig.

7. Gary ate ice-cream and I ate cake.

8. Steven told Margaret that he liked her.

9. The cat was released from the bag.

10. Kate is the lady with the dark hair.

11. The doctor spilled the peas.

12. Your boyfriend is a dog.

13. He liked her and that was the secret.

14. The cat was killed by curiosity.

15. We went to the beach.

16. Cheese goes well with biscuits.

17. The trees danced in the wind.

18. Everybody knows Troy.

19. The Springboks won their match.

20. My uncle gave me the cold shoulder.

21. Those children are behaving like animals.

22. Some species of penguin live in Cape Town.

23. I raise my hat to you.

24. My favourite animal is the giraffe.

25. She runs like a cheetah.

26. That he was late bothered her.

27. They buried the axe.

28. Jane liked looking at herself in the mirror.

29. I froze half to death.

30. The bacon was brought home by him.

31. If you want to be a good student, you should read a lot.

32. The zebra loves to eat the greenest grass.

**Appendix 2.2.**

**Green Questionnaire**

Age:

Home language:

Year of study:

Have you signed an informed consent form?            YES                            NO

For each of the following sentences, provide a context in which the sentence could be used, or explain the sentence’s meaning.

E.g.                    The little boy kicked the ball.

Answer:            All the children were playing soccer and as soon as the little boy got it, he kicked the ball.

1. I have never been to China.
  
  
  
  
  
  
  
  
  
  
2. The boys like soccer.
  
  
  
  
  
  
  
  
  
  
3. The fireman was bitten by the dog.
  
  
  
  
  
  
  
  
  
  
4. John kicked the pail.
  
  
  
  
  
  
  
  
  
  
5. The girls smoke.
  
  
  
  
  
  
  
  
  
  
6. That sumo wrestler eats like a pig.

7. Gary ate ice-cream and I ate cake.

8. Steven told Margaret that he liked her.

9. The man let the cat out of the bag.

10. Kate is the lady with the dark hair.

11. The doctor spilled the beans.

12. Your boyfriend is a dog.

13. He liked her and that was the secret.

14. Questioning killed the cat.

15. We went to the beach.

16. Cheese goes well with biscuits.

17. The trees danced in the wind.

18. Everybody knows Troy.

19. The Springboks won their match.

20. My uncle gave me the cold leg.

21. Those children are behaving like animals.

22. Some species of penguin live in Cape Town.

23. Consider my hat lifted.

24. My favourite animal is the giraffe.

25. She runs like a cheetah.

26. That he was late bothered her.

27. They buried the hatchet.

28. Jane liked looking at herself in the mirror.

29. I froze half to death.

30. I’m going to return with the bacon.

31. If you want to be a good student, you should read a lot.

32. The zebra loves to eat the greenest grass.

**Appendix 2.3.**

**Yellow Questionnaire**

Age:

Home language:

Year of study:

Have you signed an informed consent form?            YES                            NO

For each of the following sentences, provide a context in which the sentence could be used, or explain the sentence’s meaning.

E.g.                    The little boy kicked the ball.

Answer:            All the children were playing soccer and as soon as the little boy got it, he kicked the ball.

1. I have never been to China.
  
  
  
  
  
  
  
  
  
  
2. The boys like soccer.
  
  
  
  
  
  
  
  
  
  
3. The fireman was bitten by the dog.
  
  
  
  
  
  
  
  
  
  
4. John booted the bucket.
  
  
  
  
  
  
  
  
  
  
5. The girls smoke.
  
  
  
  
  
  
  
  
  
  
6. That sumo wrestler eats like a pig.

7. Gary ate ice-cream and I ate cake.

8. Steven told Margaret that he liked her.

9. The cat was let out of the sack.

10. Kate is the lady with the dark hair.

11. The beans were spilled by the doctor.

12. Your boyfriend is a dog.

13. He liked her and that was the secret.

14. Curiosity killed the cat.

15. We went to the beach.

16. Cheese goes well with biscuits.

17. The trees danced in the wind.

18. Everybody knows Troy.

19. The Springboks won their match.

20. My uncle provided me with the cold shoulder.

21. Those children are behaving like animals.

22. Some species of penguin live in Cape Town.

23. I lift my fedora to you.

24. My favourite animal is the giraffe.

25. She runs like a cheetah.

26. That he was late bothered her.

27. The hatchet was buried by them.

28. Jane liked looking at herself in the mirror.

29. I froze half to death.

30. I’m going to bring home the bacon.

31. If you want to be a good student, you should read a lot.

32. The zebra loves to eat the greenest grass.

**Appendix 2.4.**

**Pink Questionnaire**

Age:

Home language:

Year of study:

Have you signed an informed consent form?            YES                            NO

For each of the following sentences, provide a context in which the sentence could be used, or explain the sentence’s meaning.

E.g.                    The little boy kicked the ball.

Answer:            All the children were playing soccer and as soon as the little boy got it, he kicked the ball.

1. I have never been to China.
  
2. The boys like soccer.
  
3. The fireman was bitten by the dog.
  
4. The bucket was kicked by John.
  
5. The girls smoke.
  
6. That sumo wrestler eats like a pig.

7. Gary ate ice-cream and I ate cake.

8. Steven told Margaret that he liked her.

9. The cat was let out of the bag.

10. Kate is the lady with the dark hair.

11. The doctor knocked over the beans.

12. Your boyfriend is a dog.

13. He liked her and that was the secret.

14. Curiosity killed the Julie.

15. We went to the beach.

16. Cheese goes well with biscuits.

17. The trees danced in the wind.

18. Everybody knows Troy.

19. The Springboks won their match.

20. I was given the cold shoulder by my uncle.

21. Those children are behaving like animals.

22. Some species of penguin live in Cape Town.

23. I lift my hat to you.

24. My favourite animal is the giraffe.

25. She runs like a cheetah.

26. That he was late bothered her.

27. They dug up the hatchet.

28. Jane liked looking at herself in the mirror.

29. I froze half to death.

30. I’m going to bring home the ham.

31. If you want to be a good student, you should read a lot.

32. The zebra loves to eat the greenest grass.