



universität
wien

MASTERARBEIT / MASTER'S THESIS

„A constructional approach to analysing idioms: I cried my
eyes out“

verfasst von / submitted by

Kristina Gocev

angestrebter akademischer Grad / in partial fulfilment of the requirements for the degree of
Master of Arts (MA)

Wien, 2017

Studienkennzahl lt. Studienblatt /
degree programme code as it appears on
the student record sheet:

A 066 812

Studienrichtung lt. Studienblatt /
degree programme as it appears on
the student record sheet:

Masterstudium English Language and Linguistics

Betreut von / Supervisor:

Univ. -Prof. Dr. Mathilde Evelien Keizer

Table of contents

1. Introduction.....	1
2. The fuzzy line between grammar and the lexicon: beginnings of Construction Grammar	2
2.1. The generative approach to linguistic knowledge	2
2.2. The Lexico-semantic approach.....	3
2.3. The Functional-Cognitive approach to linguistic knowledge.....	7
3. The scope of idiomatic representation in the English language	11
3.1. Defining ‘idioms’	11
3.2. Typological differentiation among idioms	13
4. Constructions: the basic language units	15
4.1. Constructions: form-meaning pairings	15
4.2. Different construction types	16
4.3. Constructions: a representation of item-specific knowledge.....	18
4.4. Linguistic knowledge: a totality of constructions.....	19
5. Constructional account of the common linguistic tendencies across languages.....	19
6. The architecture of constructional knowledge	21
6.1. Analysing constructions: reductionist vs non-reductionist analysis.....	21
6.2. Construction with many senses vs verb-(class-) specific constructions.....	23
7. Creativity: a combination of constructions	27
8. Semantic analysis and representation of constructions.....	28
8.1. Frame semantics	28
8.2. The semantics of verbs and constructions: participant and argument roles	30
9. Hypotheses	35
10. Data: class of idioms	36
10.1. Compositionality (analysability) of an idiom’s meaning.....	40
10.2. Analysability of the <i>one’s heart out</i> and <i>one’s head off</i> constructions.....	42
11. Lexico-syntactic and lexical-rule analysis	45
11.1. Manner vs path incorporating events	45
11.2. A lexico-syntactic approach considered	47
11.3. A lexical-rule account	54
12. Constructional analysis	55
12.1. Syntactic features	55
12.1.1. Verb features	55
12.1.2. Particle features	58
12.1.3. NP1 and NP2 features	60

12.2.	General semantic features	61
12.3.	Semantic constraints	62
12.3.1.	Unbounded activity	62
12.3.2.	Affective tone	64
12.3.3.	Semantic roles and their compatibility	65
12.4.	Syntactic variability	71
12.5.	Semantic variability	72
12.5.1.	Semantic variability of the nouns used in the first subclass of idioms	72
12.5.2.	Semantic variability of the nouns used in the second subclass of idioms	73
12.5.3.	Semantic variability of the verbs used in the idioms	73
13.	Concluding remarks	75
14.	References:	79
15.	Appendix	83
15.1.	Abstract (English)	83
15.2.	Zusammenfassung (Deutsch)	84

List of figures

Figure 1 Symbolic representation of constructions	11
Figure 2 Types of inheritance links among constructions	23
Figure 3 Frequency of occurrence of instantiations of the <i>one's heart out</i> construction in COHA..	39
Figure 4 Frequency of occurrence of instantiations of the <i>one's head off</i> construction in COHA ...	39
Figure 5 Lexical structure representation of <i>laugh</i>	49
Figure 6 Lexical structure representation of <i>shelf</i>	50
Figure 7 Lexical structure representation of a) Transitive structure b) Unergative verbs	51

List of tables

Table 1: Lexical variation and frequency of the <i>one's heart out</i> construction.....	37
Table 2: Lexical variation and frequency of the <i>one's head off</i> construction	38

1. Introduction

Constructional approaches to linguistic analysis envisage language as a structured repository of interconnected constructions (Evans and Green 2006: 661). More precisely, the constructions are accorded a central place and they are considered to be a unifying whole, consisting of semantic, syntactic, and pragmatic properties at the same time. Basing the appearance of many lexical items in particular syntactic environments solely on their specific lexical properties has been claimed to be a wrong approach (Goldberg 1995:1). Instead, Goldberg (1995: 1) maintains that “particular semantic structures together with their associated formal expression must be recognized as constructions independent of the lexical items which instantiate them”. Moreover, the final interpretation of expressions which are instantiations of a certain construction is not only a combination of the meaning of the verb and the meaning of the construction; rather, it is the specific relation that holds between them that is unique to a certain construction (e.g. the verb can add a means component to the final interpretation of an instantiation of a resultative construction) (Goldberg and Jackendoff 2004: 538). Hence, as Evans and Green (2006 :692) note, “the interaction between the properties of the verb and the properties of the construction” is paid attention to and elaborated in constructionist approaches to language. In addition, Goldberg (1995: 5) states that there is no fine delimiting line between the lexicon and grammar; words as well as phrasal patterns represent a unifying form-meaning whole and all the constructions taken together form “a highly structured lattice of interrelated information”. Thus, according to Goldberg (1995, 2006a) all facets of grammar are to be considered as constructions. As such, Construction Grammar stands in stark contrast to approaches which do not favour connecting the different types of properties into a unifying whole, but consider them as separate aspects of the grammar.

The main objective of this thesis is to examine the structural and semantic properties of two sets of idiomatic expressions which are taken from the English language. The first set of idioms will be referred to as the *one's heart out* construction and the second set of idioms will be referred to as the *one's head off* construction; using the terminology introduced by Jackendoff (2002: 173), their meaning will be referred to as ‘V excessively’ (see Table 1 and Table 2). On the one hand, the two sets of idioms have a single meaning ‘V excessively’, just like individual lexical items do, and on the other hand, they are longer than words and show limited productivity. Hence, they do not only represent a list of expressions whose meaning is to be learned by heart, but also have their own structural properties. The obtained results of

the analysis of their semantic and structural specifications will serve to reject or support the assumption that the expressions analysed in this thesis qualify as constructions, as defined in Construction Grammar. Furthermore, the findings will also be compared with and contrasted to two other approaches to linguistic knowledge: a lexico-syntactic approach and a lexical-rule approach.

This paper is structured as follows. Chapter 2 discusses the beginnings of Construction Grammar and the major strands that have developed from its roots. Chapter 3 delves into the scope of idiomatic representation, which is supported with examples from the English language. Chapter 4 looks into the major features of constructions as basic linguistic units, which as such constitute the core part of the Construction Grammar theoretical framework. In chapter 5, the focus is on the common linguistic usages across languages, which according to the constructionist view on language, are considered tendencies and by no means universal rules. The following chapter addresses the architecture of constructional knowledge, comparing different constructionist approaches to this architecture. Chapter 7 presents the constructionist view on creativity. Chapter 8 deals with the semantic analysis of constructions. Based on the theoretical background shared by construction grammar approaches, in chapter 9 three hypotheses are formulated. In chapter 10 the idiomatic expressions which form the data base are presented. Chapter 11 offers an analysis of the idiomatic expressions applying a syntactic-lexical approach as well as a lexical-rule approach. Chapter 12 gives a constructional account for the existence of the idiomatic expressions under study in this thesis. Finally, in chapter 13 some concluding remarks are made regarding the findings and the hypotheses.

2. The fuzzy line between grammar and the lexicon: beginnings of Construction Grammar

2.1. The generative approach to linguistic knowledge

Within the generative tradition (Taylor 2012: 8, Fillmore et al. 1988: 502), the understanding of linguistic knowledge is a system of lexicon and grammar rules. The grammar rules are the binding relations with the help of which words are put together in a certain fashion that makes sense in a certain language, due to the interpretation “principles of compositional semantics” (Fillmore et al. 1988: 503). As such, the generative tradition delineates different types of governing grammar rules which are a reflection of different types of properties of an expression: phonological, syntactic and semantic (Croft 2007: 464). Each of these three types of properties contributes separately to an overall comprehension of an expression, and hence

should be analysed by linguists as an independent entity. Unifying the different grammar characteristics are the words, because they display phonological, syntactic and semantic features at the same time. Moreover, an adult's way of formulating utterances, according to Generative Grammar postulations, is not different from a child's; both are dependent on the abstract grammar knowledge that people are born with (Tomasello 2007: 1100).

What poses a problem for the founders and supporters of the generative tradition is the treatment of idiomatic expressions (Chomsky 1965: 190). The idiom *to take offence at*, for instance, is a single lexical item from a semantic perspective; however, Chomsky (1965: 190) notes that it can undergo certain syntactic transformations like passivisation (e.g. *I did not think that any offence would be taken at that remark*), which, of course, is impossible with respect to single lexical items. Chomsky (1972: 101) expresses scepticism as to “how an idiom list should be related to a grammar”. However, there are supporters of the generative tradition who try to situate idioms within the grammar of a language (Katz & Postal 1963, cited in Chafe 1968: 112). Chomsky (1980: 149), in his later works, also treats idioms as part of the grammar and claims that idioms have the “syntactic form of non-idiomatic expressions”. However, in the case of idioms which have “familiar pieces unfamiliarly arranged”¹ (Fillmore et al. 1988: 508), Katz and Postal (1963: 251, cited in Chafe 1968: 114) note that the way they are generated cannot be the same as the way other regular syntactic patterns are generated, because compared to them, an idiom such as *by and large* would “contain some ungrammatical strings”. In addition to this, Chafe (1968: 114) also observes that Katz and Postal (1963) fail to clarify why idiomatic expressions show inconsistency with respect to the syntactic transformations they can undergo.

2.2. The Lexico-semantic approach

According to the lexical-rule analysis, as adopted in Pinker (2013), Rappaport and Levin (1998) and Gropen et al. (1989), verbs contain information about the number of semantic arguments that can be realised syntactically. To occur in a particular argument structure, the number of participants has to match with the number of grammatical relations, such as subject, object and subject or object complements. In fact, there is a mapping from the semantic into the syntactic structure, which happens through the application of general linking rules. In the case of the ditransitive construction for instance, the semantic constituent causal agent is linked to its syntactic counterpart, subject, the possessor is linked to the first object

¹ A definition of the type of idioms known as “familiar pieces unfamiliarly arranged” is offered in section 3.2 of this thesis

and the possession to the second object (Gropen et al. 1989: 241). These linking rules are not considered to be acquired in the course of linguistic experience, but rather “near-universal in their essential aspects and therefore may not be learned at all” (Pinker 2013: 292).

The importance of the semantics of particular verbs is pointed out by Gropen et al. (1989) through analysing the ditransitive construction. Following the results of an experiment with native speaking adults, Gropen et al. (1989: 224) conclude that subjects’ choice to use a particular verb in the ditransitive construction is highly influenced by its semantics. Gropen et al. (1989: 224) confirm their hypothesis that adults prefer to use verbs that denote transfer of possession over verbs that do not denote possession in the ditransitive construction. Furthermore, Gropen et al. (1989: 238-239) also conclude that children, when primed with a double-object syntactic structure, use exactly this form with verbs to denote transfer of possession, which proves that children aged at least six, are also semantically biased, just like adults, with respect to the ditransitive construction. In addition, prior to productiveness, children also show slight conservatism because they tend to use verbs in constructions that they have already heard before, instead of using the same verb in another construction (Gropen et al. 1989: 249).

Based on this and additional evidence from their experiments, Gropen et al. (1989: 240-241) explain the existence of the ditransitive construction, which could be paraphrased as ‘X causes Y to have Z’ as a lexicosemantic conversion process from the prepositional dative ‘X causes Y to go to Z’; in other words, where possible, a thing that changes location is reinterpreted as a thing that changes possessor through use of the ditransitive syntactic frame. However, as observed by Gropen et al. (1989: 243) there are verbs that despite denoting change of possession are not used in the ditransitive construction. Consequently, Gropen et al. (1989: 243) propose that in addition to denoting a change of possession as a broad-range rule, these verbs must also belong to one of the “narrow sets of verbs with similar kinds of meanings”, which they try to define. Importantly, in the case where both children and adults produce sentences using verbs which do not belong to the narrowly classified groups of verbs, such as *write*, *put* or *reach*, Gropen et al. (1989: 252) emphasise that this is proof that there is no developmental difference between the two groups of language users: both possess the broad-range dative rule and apply it succinctly to well defined groups of verbs, except for the “one-off innovations”, at times.

In a similar vein, illustrated via the following examples, Pinker (2013: 267) notes that sentence (1a) is an example of an *onto* locative construction, which is the basis for the extension into the *with* locative construction, as exemplified in sentence (1b) below:

1)

- a. Bob *sprayed* paint onto the wall.
- b. Bob *sprayed* the wall with paint.

According to the lexical rule analysis by Pinker (2013: 267), *spray* has two different meanings in (1 a) and (1b) above. In (1a), *spray* has three argument participants: *Bill* (agent), *paint* (theme), and *on the wall* (path/location); the whole sentence means that the subject, which is Bob, causes the object, *paint*, to come to be at the oblique, *onto the wall*. In (1b) *spray* has again three participants, which are different from (1a): *Bob* (agent), *the wall* (patient), and *with paint* (theme) and would imply that the subject, *Bob*, causes the object, *the wall*, to come to be in state of being sprayed with *paint*, by means of spraying paint onto it, which is expressed by an oblique, *with paint*. Hence, in (1b) *spray* has a means component which is lacking in the sense of *spray* in (1a). Likewise, when *load* is used with a *with* locative phrase, as in the following sentence:

2) Bob loaded the wagon with hay.

it is deemed to have an additional means component and the object loaded is ready for further use, as compared to the *onto* locative (Pinker 2013: 276). In other words, sentence (2) paraphrased would mean that Bob has made the wagon ready for its further use, by means of loading hay onto it.

However, Rappaport and Levin (1998: 98) point to a serious problem, resulting from taking the semantics of the verb to be matched with its syntactic construction via linking rules. In fact, the lexicon would proliferate with a great many entries to account for all the different uses that arise from the verbs' appearance in different syntactic constellations. They (Rappaport and Levin 1998: 99) further observe that verbs of the same class, such as verbs of motion of manner, with certain exceptions, appear in the same syntactic structures. Rappaport and Levin (1998: 101) classify verbs into groups according to common semantic properties. Hence, a distinction is made between manner verbs, such as *sweep*, *run* and *whistle*, which inherently carry the manner of the action that the verb specifies, and result verbs, which could encode either resulting state or resulting location. For instance, Rappaport and Levin (1998: 101-102) enlist *break*, *dry* or *widen* as verbs encoding resulting state; *dry* denotes the action

by the completion of which the affected object would change its state into being dry, not involving the manner of the drying process. In addition, *come*, *go* and *arrive* are instantiations of resulting verbs that encode a change of location because they do invoke a change of location as opposed to the manner verb *run*, as an example where only the manner of the motion is implied but not the goal destination.

Moreover, Rappaport and Levin (1998: 106-107) distinguish between two types of meaning components that a verb consists of: a structurally important component, and an idiosyncratic component. The structurally important component defines the syntactic frame a verb occurs in and allows verbs to be grouped together provided they share the same structure, and the idiosyncratic component is structurally irrelevant but helps distinguish between verbs from the same class. Furthermore, Rappaport and Levin (1998: 107) make a distinction between a constant, which is the unique meaningful feature of verbs, and a “particular lexical semantic template” the verbs occur in, also referred to as event structure. *Dry*, for instance, occurs in the following template: $[[X \text{ ACT}] \text{ CAUSE } [\text{BECOME } [y < \text{STATE}>]]]$. Importantly, the constant determines the number of participants that could appear in a particular lexical semantic template and because it bears what is unique about a verb, it is also lexicalised in the verb’s basic meaning (Rappaport and Levin 1998: 108-110); thus, the basic meaning of *dry* would be a change of state. In order for the verb to appear in a particular syntactic template, the constant’s participants have to be able to match the open slots of the lexical semantic template. In those cases, where a verb such as *sweep* is characterised with a two participant constant (sweeper and surface swept) and yet can occur in an activity template ($[x \text{ ACT } <\text{manner } >]$), where it does not realise its argument that indicates the surface swept, Rappaport and Levin (1998: 111) explain that it “must be integrated into the resulting event structure in some other way”. In fact, Rappaport and Levin (1998: 110) claim that the participants in a certain event structure are either a match between the constant’s and event structure template’s participants or a realisation of only the constant’s participants. Hence, in their argumentation it is implied that verbs with more participants usually realise them all. Consequently, participants can be added to the argument structure template. In cases where there is a non-realisation of a constant’s participant, as is the appearance of *sweep* in activity structure ($[x \text{ ACT } <\text{sweep } > y]$), where the thing swept is not accounted for, Rappaport and Levin (1998: 115) justify it because its surface argument is prototypically understood to mean *floor*, hence no need for its overt realisation. With regards to the motion result verb *break* and the non-realisation of its constant’s participant of causer in the intransitive expressions, such as in *The window broke*, Rappaport and Levin reason (1998: 118) that this needs further

research, mentioning that in some languages other than English it is designated morphologically.

Polysemy is a result of a successful matching between a constant's participants of a verb and the arguments of an augmented event structure template (Rappaport and Levin 1998: 118-119). Using the terminology and example introduced by Rappaport and Levin (1998: 120), *sweep* derives its secondary meaning from its successful occurrence in the resultative template, [[X ACT<*sweep*>] CAUSE [BECOME [z < *place*>]]], e.g. *Phil swept the crumbs off the table*, which is an augmented template from the activity template ([x ACT <*sweep*> y]). This realization of *sweep* is possible because the first causing subevent is realised by matching the activity template with the constant's participants of *sweep* and the second subevent of achieved state is also successfully realised by a noun *table*, which designates the place. By the same token, *break*, as a representative of an “externally caused change of state verbs”, would not be able to appear in this event structure; its basic event structure requires a realisation of its patient into a direct object, which can only be subcategorised by the verb itself and not added by the second subevent (Rappaport and Levin 1998: 122). Rappaport and Levin (1998: 122) exemplify this claim with the example: **Kelly broke the dishes off the table*, which is not a grammatically correct sentence because the constant's participant, which in this case is *table*, must be realised as a direct object as part of the first subevent.

In sum, the lexicosemantic analysis as described by Gropen et al. (1989), Pinker (2013) and Rappaport and Levin (1998) presupposes that verbs contain information about the number of arguments they can take, which then need to be successfully matched with a corresponding syntactic structure via linking rules. Gropen et al. (1989) and Pinker (2013) elaborate on the presence of narrow-class lexical rules that allow certain groups of verbs to extend their use in alternate constructions. Such alternate constructions are for instance, the prepositional dative verbs extending into double-object dative verbs or the *onto* locative extending into the *with* locative. Rappaport and Levin (1998) recognise that the verbs that according to their common semantic traits form one class appear in common structural constellations too. In addition, Rappaport and Levin (1998) claim that the verbs have two meaning components; one is idiosyncratic for the verb alone and one is structurally important.

2.3. The Functional-Cognitive approach to linguistic knowledge

According to Functional-Cognitive approaches, among which Construction Grammar, the more abstract grammar knowledge is acquired only after people have experienced enough

language use (Tomasello 2007: 1088, Hilpert 2014: 164). The founders of Construction Grammar claim that the knowledge of a language cannot simply be equated to the knowledge of the dictionary and the binding grammar rules separately, which combined together create the language itself (Fillmore et al. 1988: 504, Hilpert 2014: 6). Indeed, there are a huge number of idioms in the English language, which also show characteristics of applied grammar rules; on the one hand, there are some words within an idiom which are fixed, and on the other hand, there are words which are replaceable only by items of certain grammatical category (Hilpert 2014: 6). For example, considering the following idiomatic expressions:

- Him be a doctor?
- Your brother help me?
- Her write a novel from the Spanish inquisition?

(Fillmore, Kay & O'Connor 1988: 511)

one notes that what all these interrogative sentences have in common is that they all make use of a pronoun in accusative case in a subject position, a verb in the infinitive and that they have an obligatory object. These sentences are an instance of an “extragrammatical schematic idiom” since they have open slots for the subject, predicate and object positions, which could only be filled in in a rule-governed manner, Croft observes (2007: 466-467), and as such, the characteristics they exhibit are of a type of interrogative sentences that are not accounted for in a grammar book. In addition, they are similar to words because they unify phonological, syntactic and semantic features into a particular form, yet differ from words in that they contain a sequence of words, where one or more is replaceable by a same category word (Croft 2007: 467). Hence, according to grammarians within the generative tradition, they should be accounted for as fixed phrases in an appendix, because they behave in an idiomatic, non-predictable for the English grammar way. On the other hand, Fillmore et al. (1988: 511) stress that there are “indefinitely large set” of certain idioms in the English language that have the same structural properties and share an underlying meaning or pragmatic force. In a similar vein, Taylor (2012: 100) claims that the dictionary and grammar view on language “massively undergenerates” by not acknowledging the productiveness of the idiomatic expressions, while it also “overgenerates” because much of what can be expressed in a certain language in compliance with its grammar rules has not been attested yet. Consequently, either the appendix would grow rapidly due to the obvious productivity of this type of interrogatives and many other idiomatic expressions or there should also be an additional grammar part, explaining what type of grammatical categories are allowed within a particular idiomatic

expression. If the first option is to be taken then the result would probably be an immense appendix, or as Fillmore et al. (1988: 511) put it, “no finite number of additions to the lexicon or phrasicon would do the trick”; and if the second option is to be accepted then the fine delimiting line between dictionary and grammar as two distinct elements becomes vague (Hilpert 2014: 6).

The beginnings of Construction Grammar are exactly due to the inability to accept such a view on language as a system of two independent entities: the vocabulary and the grammar of a language, respectively (Croft 2007: 466). The inability to situate idioms in either of the two has caused some of the proponents of Construction Grammar to view and treat the whole knowledge of a certain language as a knowledge of constructions, which, defined in a simplest way, are form-meaning pairings (Hilpert 2014: 10). Indeed, as Fillmore et al. (1988: 534) point out, “the machinery needed for describing the so-called minor or peripheral constructions will have to be powerful enough to be generalised to more familiar structures”. They further add that “the structure building principles of the so-called core” and of the non-core expressions are of the same kind (Fillmore et al. 1988: 534). By the same token, Tomasello (2000: 237) also emphasises that there is a blurred line between the core and non-core constructions and proposes a view on language as on a “structured inventory of constructions”, where some constructions possess features which are common to a lot of other constructions and together they are inclined towards the core, whereas others show commonalities only with a number of other constructions and in that way they tend towards the non-core end. In this light, many of the constructions that theorists in Construction Grammar base their work on are exactly of a non-core type so that the insights gained through investigating them could be applied to core-cases too, which are the more common and hence more systematic linguistic phenomena (Goldberg 1995: 6, Goldberg 2006a: 14).

Importantly, although the initial stages of the existence of Construction Grammar are found in Fillmore et al.’s (1988) seminal work on the idiomatic expression *let alone*, they have inspired other linguists to further their work, which has also resulted in slightly different versions of what they have originally postulated to be a Construction Grammar. More specifically, Goldberg (2006a: 213-215) recognises four main constructionist approaches, which are: the UCxG or Unification Construction Grammar, as developed by Fillmore et al. (1988), CG or Cognitive Grammar as developed by Langacker (1987), RCxG or Radical Construction Grammar as developed by Croft (2001) and CCxG or Cognitive Construction Grammar as developed by Lakoff (1987) and Goldberg (1995). Although all these main constructionist

approaches have in common that they regard constructions, or form-function pairings, as taking a fundamental place in the linguistic knowledge a person possesses, and they all provide a non-derivational account of the linguistic knowledge there are also some crucial differences amongst them. Firstly, the UCxG considers linguistic knowledge as non-redundant in the sense that constructions are stored only at the most abstract level and not as concrete language expressions. CG, RCxG and CCxG on the contrary, as Goldberg (2006a: 215) emphasises, “are all usage-based frameworks”, which implies that they analyse language from the output of language users in order to arrive at the generalisations that underlie certain expressions. At the same time, these three approaches treat generalisations as abstract creations that human beings foster, based on the prolific input they are provided with. CG, RCxG and CCxG further consider generalisations as well as linguistic exemplars to be stored in one’s memory if they appear regularly as part of one’s linguistic experience. As such, the analysis of linguistic data entails that both very concrete linguistic expressions, such as greetings, collocations or metaphorical expressions, on the one hand, and highly abstract constructions, such as the plural of nouns or the transitive construction on the other, are on the same rank of importance (Tomasello 2000: 236). Furthermore, CG, RCxG and CCxG put much more emphasis on the psychological side of language, such as language acquisition, processing and historical change in order to account for the learnability of both the linguistic core, or more regular and abstract grammatical constructions and the more routinized ready-made phrases (Tomasello 2000: 247, Goldberg 2006a: 215).

To conclude, according to approaches within the Construction Grammar tradition, abstract grammar rules are not an inborn feature of human beings, as claimed within the generative tradition. Rather, syntactic rules are an emergent product of a sufficient language use and more general cognitive skills, which are needed in order to learn a language (Goldberg 2006a: 188). With regard to usage-based accounts of linguistic knowledge Langacker (2008: 219) observes that:

Schemas emerge from expressions through reinforcement of the commonalities they exhibit at some level of abstraction. [...] [t]hey arise within expressions, as recurring aspects of the processing activity that constitutes them. They differ from the expressions they characterize only in level of specificity, representing the coarse-grained similarities revealed by abstracting away from fine-grained details.

As such, grammar rules are not the primary concern of linguists working in this tradition but the continuum of lexicon and grammar, which is reflected in the form-meaning pairings, also known as constructions. What a construction represents is symbolically represented in Figure 1 below, which is adapted from Croft (2007: 472). In Croft’s (2007: 472) symbolic

representation, the ‘meaning of constructions’ encompasses semantic, pragmatic and discourse functional properties. In the remaining part of this thesis, the term ‘construction’ will often be referred to as a form-meaning pairing, where the intended concepts behind ‘meaning’ and ‘form’ are all of the properties listed in Figure 1:

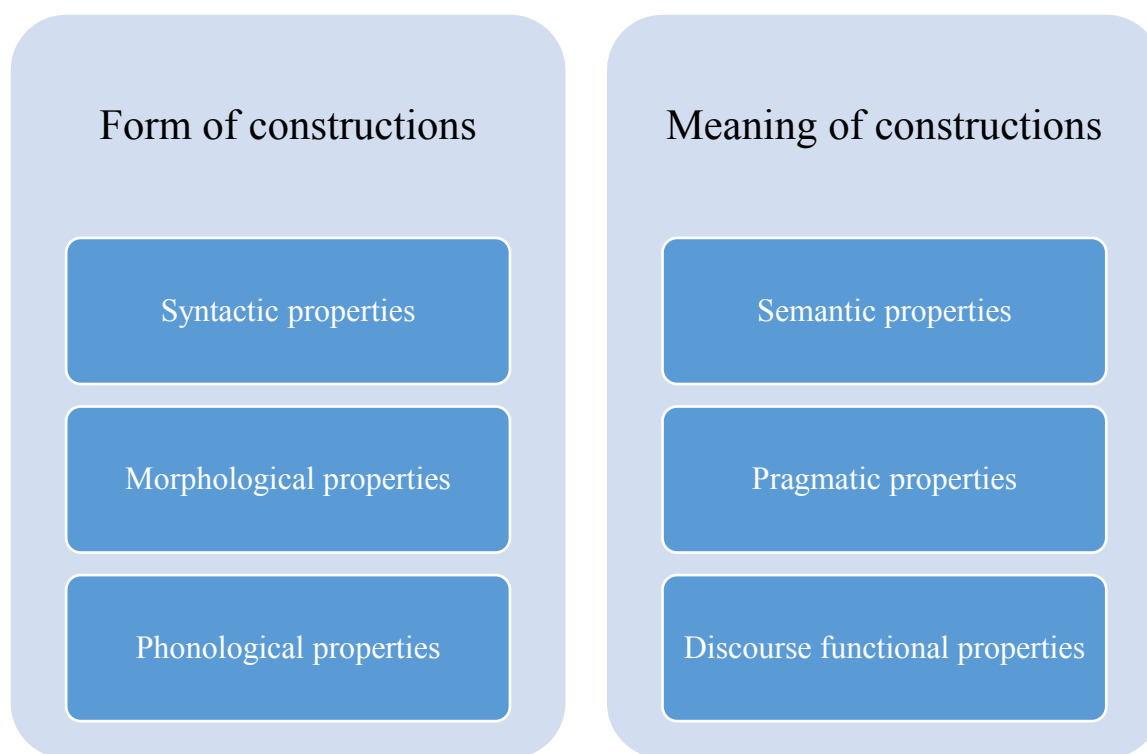


Figure 1 Symbolic representation of constructions

3. The scope of idiomatic representation in the English language

3.1. Defining ‘idioms’

Nunberg et al. (1994: 492) observe that there has not been a succinct definition in the literature that neatly defines what an idiom represents. As a result, Nunberg et al. (1994: 492) claim that ‘idioms’ could be represented by “prototypical examples like English *kick the bucket*, [...] categories like formulae, fixed phrases, collocations, clichés, sayings, proverbs, and allusions”. Nunberg et al. (1994: 492- 493) define the term ‘idiom’ as a linguistic phenomenon that is characterised by such features as: conventionality, syntactic inflexibility, figuration, proverbiality, informality and affect. None of the idioms has to possess all the features, but all of them have to be conventional. It is exactly due to the character of idioms as a multi-layered language phenomenon that in order to describe their features one cannot

confine themselves only within the scope of the grammar; rather, “the figural processes” and “discursive functions that they generally serve” also have to be accounted for (Nunberg et al. 1994: 494). Similar to this description is one offered by Langlotz (2006: 5), who emphasises that “an idiom primarily has an ideational discourse-function and features figuration, i.e. its semantic structure is derivationally non-compositional”. Taylor (2012: 101) adds that the definition of ‘idiom’ can also be extended to include expressions which do not display any semantic or syntactic peculiarities; rather they only have to be part of “the native speaker norms”. Taylor (2012: 105) explains that the “usage norms”, which idioms may represent, “pertain to recurring facets of context, whether ideational (what the speaker wants to say), interpersonal, or textual”. Taylor (2012: 102) uses Halliday’s (1985) definitions of ideational context, or what the speakers intends to say, the interpersonal, or the context that pertains to the relationship between the co-conversationalists and the textual context, which pertains to the way a particular discourse is structured.

For instance, *pull strings* and *resist temptation* are both idiomatic expressions, according to Nunberg et al. (1994: 494-495), despite the initial inclination to put only the former under the category of idioms. *Pull strings* contains most of the above listed features that an idiom can be characterised with, and in that way, it is a prototypical idiom. On the other hand, *resist temptation* lacks some, for instance proverbiality and figuration, and as such it is not a prototypical representative. Both of the idioms contain two component parts with identifiable idiomatic meaning, which makes sense only with respect to one another when they are part of the respective idioms. In addition, according to Talyor (2012: 101), *How far is it* can also be claimed to be an idiomatic expression, if the definition is extended to include merely conventional way of speaking. For instance, *How far is it* is a conventional way of asking for the distance between two points, to the exclusion of other possible phrases such as *What is the distance?*.

In sum, for different authors the scope of what is idiomatic in a given language is of different sizes. Laglotz (2006: 5) highlights the difficulty in providing a wholly delimiting definition for an idiom. He ascribes this to the fact that the degree of conventionalisation, the syntactic, morphosyntactic and lexical inflexibility and “non-compositionality are clines” (Langlotz 2006: 5). Moreover, if the definition includes all the expressions that represent merely a conventional way of saying something, such as *how far is it*, then the list of idioms would be too large to be classified into categories. The next section offers an attempt to providing a

typological classification of idioms, where the expressions that encode only conventionality as well as clichés, proverbs, collocations and allusions are not included.

3.2. Typological differentiation among idioms

As observed by Fillmore et al. (1988: 505), idioms show different degrees of schematicity. At one end are idioms which show schematicity only with respect to certain inflections, also referred to as “substantive idioms”. An example of a substantive idiom with the meaning ‘worsen’ is the following: *He adds fuel to the fire* and *He added fuel to the fire*, where the only difference is the *-s* and *-ed* inflections, for present simple and past simple tense, respectively. Other idioms have a whole component which could be replaced with a word from the same category, such as *have a keen interest in NP*, where NP could be represented by *football*, *pets*, *music*, etc., and the meaning is ‘to have a strong interest in something’. These idioms are referred to as “formal idioms” by Fillmore et al. (1988: 505). At the extreme end, Croft (2007: 468) observes that within the constructionist theoretical framework there are also formal idioms whose members are all schematically represented, such as the Resultative construction, whose schematic representation would be: [NP Verb NP XP].

Another criterion is compositionality of meaning, according to which there are idioms whose meaning is compositional and those whose meaning is not compositional. Nunberg et al. (1994) in Croft (2007: 469) state that idiomatic phrases like *kick the bucket* are non-compositional, but idioms like *spill the beans* are compositional because the meaning of *spill* is metaphorically understood as ‘divulge’ and *the beans* as ‘information’. Taylor (2012: 69) refers to these idioms as semantic idioms, since they are ambiguous semantically; they could be understood literally as well as figuratively. There is nothing exceptional in the syntactic structure of these idioms, as Taylor (2012: 69) notes, because they are represented through an ordinary VP [V NP]. It should be noticed, however, that they do not behave wholly as an ordinary VP. For instance, they do not allow clefting (e.g. **It is the beans she spilled*. **What she spilled is the beans*).

A third criterion makes a distinction between idioms whose component parts are familiar to the language user from the lexicon of a language or those that contain unfamiliar elements, as well as between idioms whose component parts combine according to the grammar rules of a language one is already familiar with or not (Fillmore et al. 1988: 506). Thus, according to Fillmore et al. (1988: 507), one category of idioms contains “unfamiliar pieces unfamiliarly arranged”. To this category belong both substantive idioms whose parts are only found in the

idiom but not elsewhere in the lexicon, such as *spick and span*, and formal idioms such as *the X-er, the Y-er* (e.g. *the more you study, the better you will be*). That the latter formal idiom is unfamiliarly arranged is made obvious by the combination of the definite article, *the*, with a comparative form, unlike with a superlative one, as a language speaker familiar with the English grammar would expect. Fillmore et al. (1988: 508) even express their scepticism and uncertainty as to considering the constituent *the* to be a definite article, and neatly classifying the other constituents as well, due to the difficulty to ascribe them a syntactic category already present in the English language.

A second category of idioms, as Fillmore et al. (1988: 508) note, contains “familiar pieces unfamiliarly arranged”. They illustrate this category through substantive idioms such as *all of a sudden* and *in point of fact*, where the respective constituents are existent in the lexicon of the English language, the unique feature being the way they are arranged together. In this category, formal idioms are also found, which Fillmore et al. (1988: 509) illustrate through the idioms: “*first cousin once removed, first cousin twice removed; ...; second cousin once removed, second cousin twice removed, ...*,” and represent them schematically as: “*n*th cousin *m* times removed”. The semantic and syntactic dimension of those idioms is incompatible with the regular English grammar. These two categories of idioms are referred to as syntactic idioms by Taylor (2012: 69), because they are idiosyncratic syntactically. Finally, the third category of idioms, consist of “familiar pieces familiarly arranged”, the idiosyncratic characteristic being their interpretation (Fillmore et al. 1988: 510). For instance, the idiom *spill the beans* contains constituents which are known to English language users, yet its meaning, ‘tell a secret’, cannot be inferred from the meaning of its respective parts. Similarly, the formal idiom *when did I say you could do that?* is a not a real question but rather a rhetorical one with a scolding connotation.

Two further categories that Taylor (2012: 69-70) notes are the lexical and phrasal idioms. The lexical idioms include lexemes, such as *fun*. *Fun* can be categorised as a mass noun, e.g. *What fun we had*, and an adjective, e.g. *It is a big job, but I think it will be fun and interesting*, like these examples taken from COHA (Corpus of Historical American English) exemplify. However, the fact that *fun* appears in contexts like a mass noun does not provide one with the insight that it could appear in such constructions as: “There is no ____ in V-ing” (Taylor 2012: 55). On the contrary, there is such a small number of mass nouns that could be placed in the designated empty position. Hence, knowing the category a word belongs to is not enough to predict all its uses. The last category listed by Taylor (2012: 95) is the phrasal

group of idioms, whose form is phrase-like, such as *on end*, and again they are distinguished with an idiosyncratic meaning. The categories of idioms, as provided by Fillmore et al. (1988) and Taylor (2012), are listed according to different criteria and the same idiom can be part of different categories.

Fillmore et al. (1988: 534) note that just like the idioms all the syntactic rules can be reanalysed as schematic constructions because “a large part of a language user's competence is to be described as a repertory of clusters of information including, simultaneously, morphosyntactic patterns, semantic interpretation principles to which these are dedicated, and, in many cases, specific pragmatic functions in whose service they exist”. In addition to phrasal patterns, according to Goldberg (2006a: 5), morphological patterns can also be represented as constructions, such as the Plural noun construction, whose representation for nouns which exhibit regular plural would be: [Noun -s], as well as morphologically complex words, such as *timetable*, in which case the only wholly non-schematic entities are the morphologically simple words.

4. Constructions: the basic language units

The core part of Construction Grammar is the analysis of constructions. That all the grammatical knowledge is abstracted as constructions in the human mind, is in fact the central claim of Construction Grammar, as pointed out by Croft (2007: 471). Constructions range from most specific and simple items, such as words, to most schematic and complex linguistic items, such as, for instance, the passive voice construction. Hence, linguistic knowledge such as “morphemes, words, idioms, partially lexically filled and fully lexically filled phrasal patterns” are considered to be constructions (Goldberg 2006a: 5). Section 4.1 offers a first insight into the nature of constructions defined as form-meaning pairings. Next, Section 4.2 is centred around another characteristic of constructions; the presence of features that distinguish them from other constructions. Section 4.3. deals with constructions as representations of item-specific knowledge. In Section 4.4. the question whether the whole linguistic knowledge could be represented as a myriad of interconnected constructions is explored.

4.1. Constructions: form-meaning pairings

The most basic definition of a construction is that it is a generalisation over a number of linguistic samples that share form and meaning; ‘form’ is understood to unite syntactic, morphological and phonological properties, whereas ‘meaning’ unifies the semantic,

pragmatic and discourse-functional properties (see Figure 1). Through finding out what different linguistic expressions have in common, both in terms of which parts of speech and/or grammatical units stay the same and which are variable, the users of a language connect this typical form with the underlying general meaning they convey.

The assumption amongst linguists within the tradition of Construction Grammar (Hilpert 2014: 9) is that once speakers of a language make this generalisation over the samples, they store a ‘construction’, in their minds. “Hence, constructions are first and foremost something cognitive, that is a piece of speakers’ linguistic knowledge” (Hilpert 2014: 9). For instance, considering again the examples in chapter 1 (*Him be a doctor?*, *Your brother help me?*, *Her write a novel from the Spanish inquisition?*), it could easily be stated that in all the examples the speakers show a disbelief in what they are about to say. Hence, the semantic generalisation of disbelief is associated with the particular morphosyntactic form that is in common between them, which is also labelled as the Incredulity Response Construction by Fillmore et al. (1988: 511). The speakers of a language then apply this generalisation to incorporate new lexemes that could fit in the meaning and form of this particular construction. From this it follows that constructions themselves carry meaning, which is then superimposed on the meaning of the words within a sentence (Goldberg 1995: 10). The lexical items themselves are selected in such a way as to be able to closely fit in with the meaning and particular grammatical form of the construction. Thus, the sentence obtains its meaning from the interplay between the construction and the lexical items involved. If the same verbs take part in different syntactic patterns, then the difference in meaning between the expressions is mostly considered to be due to the difference of meaning of the constructions, the respective sentences belong to (Goldberg 1995: 4).

4.2. Different construction types

According to Goldberg and Jackendoff (2004: 533) there are different types of constructions. There is one type of constructions which is characterised with unique syntactic features and/or have a special morphological element, which is atypical of other constructions. In this respect, the interrogative sentences from chapter 1: *Him be a doctor?* - *Your brother help me?* - *Her write a novel from the Spanish inquisition?*, will clearly be samples of the Incredulity Response Construction, because of their unique semantics and syntax. With regards to their semantics they are not real questions, although there is a question mark, but rather an expression of disbelief. Regarding syntax, they all show three mutual constraints: they begin

with a pronoun or a noun phrase including a pronoun in the accusative case, which is the subject of the sentence, and have a verb in the infinitive, which is also not a conventional way of making questions in English. Taylor (2012: 86) also observes that the instances of this construction have a specific pronunciation in that the subject and predicate represent two separate rising intonation units and they are distinguished with a flexible word order, such as in *Be a doctor? Him?*.

Another type of constructions shows lexical idiosyncrasy, while there is nothing remarkable about their syntactic configuration. Such is the *way* construction, which is marked by the lexeme *way*. A few examples of the *way* construction are the following:

3) Frank dug his way out of prison.

4) Frank found his way to New York.

(Source: Goldberg 1995: 199)

What is idiosyncratic about these expressions is that upon hearing them, one also understands that the person came out of the prison and arrived in the New York, respectively. Hence, a motion element is implied, although it is not contained in the *way* lexeme, nor is it contained in the other lexemes (Goldberg 1995: 199). If the following sentences are compared with the previous two,

5) Frank dug his escape route out of prison.

6) Frank found a way to New York.

7) He knows his way around town.

(Source: Goldberg 1995: 199-200)

none would imply a movement, although there are some similarities between them. Goldberg (1995: 199-200) notes that example (5) differs from example (3) in that *way* is substituted by *escape route*, and yet the presence of *escape route* yields another structure, a simple transitive, and hence there is no motion involved; in example (6) what is different is the omission of the possessive pronoun and the interpretation does not involve movement, which also proves that a use of a possessive pronoun is part of the *way* construction; the comprehension of example (7) also does not involve motion because *know* is a stative verb and the syntactic configuration of the *way* construction requires a non-stative verb. All of these features suggest that *way* construction is characterised with specific structural and semantic properties; essential parts of the way construction are the lexeme *way*, a possessive pronoun which precedes the *way* lexeme and the verb has to denote activity.

A third type of constructions are distinguished with a “garden-variety syntax” and semantics which imposes itself on the meaning of the separate constituents (Goldberg and Jackendoff 2004: 533). This type includes, for instance, the resultative construction. An example of this construction taken from COHA is: *Mrs. Frost pushed the door open [...]*. What is typical of this construction is the presence of the result phrase, which in the example sentence taken from COHA is represented by *open*. Hence, all the constructional types described in this section show certain syntactic and/or lexical features which characterise them and at the same time distinguish them from other constructions.

4.3. Constructions: a representation of item-specific knowledge

According to other construction grammarians semantic or formal non-predictability does not have to be a decisive criterion for the existence of constructions (Croft 2012: 19). In particular, it suffices if the same grammatical structure is used often enough to become entrenched in people’s minds. This approach within Construction Grammar is known as the usage-based approach (Langacker 1987: 494, Langacker 2008: 220, Croft 2012: 19). Indeed, even Goldberg (2006a: 5) extends her definition of constructions, in addition to the one she gave before (Goldberg 1995: 4), to include also the predictable forms of language, “as long as they occur with sufficient frequency”. For instance, as Goldberg (2006a: 50) elaborates, although adult language users make a generalisation over the position of adjectives in a sentence and their function to modify nouns, some adjectives do not fulfil some of these properties. Goldberg (2006a: 50) exemplifies this claim through the adjective *occasional*, which in the sentence *She smoked an occasional cigarette*, does not provide a description of the cigarette but the smoking itself. This exception to the general use and function of adjectives in the English language is an example of item-specific, distinctive knowledge that is stored as part of a construction in much the same way as abstract constructions. Furthermore, there are some instances of language use which are more typical or conventional than others, with respect to the frequency with which they are used by native speakers, as opposed to the same content expressed differently but also in accordance with the grammar of the language (Goldberg 2006a: 55-57). By way of illustration, Taylor (2012: 101) mentions that although it is equally grammatically correct to say *What is your height?*, or *What is its length?*, English language users say *How tall are you?* and *How long is it?*, respectively. Consequently, Taylor (2012: 99) claims that “[e]ven though low-level, narrow ranging generalisations may be possible, and these may indeed exhibit a limited degree of

productivity, in the limiting case it is the individual expressions themselves, which need to be learned”.

4.4. Linguistic knowledge: a totality of constructions

According to Goldberg (2006: 5) the whole linguistic knowledge a human possesses can be represented as a network of constructions, since “all levels of grammatical analysis involve constructions”. For instance, Goldberg (2006a: 170) claims that even the broad diversity of Subject-Auxiliary Inversion (SAI) instances share a common function. The specific function that the instances of the SAI construction share is reflected in the non-positive component in most of them and which in turn prompts their common syntactic form. More precisely, a YES/NO question such as *Do you dance?* and a sentence beginning with a negative adverb such as *Never does he dance* are part of the same highly abstract SAI construction due to the common component of non-positivity conveyed in both samples (Goldberg 2006a: 177). However, the YES/NO questions have also a non-declarative feature, and there are also other SAI instantiations which bear features like non-assertive or dependent, which according to Goldberg (2006a: 177), are all found in the abstract generalisation that unites them all.

Fillmore, Lee-Goldman and Rhodes (2012: 327), on the other hand, state that “[t]he value of stating a potentially vague generalisation at a higher level is of dubious value [...]”. The existence of many linguistic expressions which have different functional or meaningful components, yet share the syntactic pattern, such as the aforementioned SAI syntactic pattern, the head-complement, modifier-head or subject-predicate syntactic patterns, is not enough to be ascribed a single highly general meaning (Fillmore, Lee-Goldman & Rhodes 2012: 326-327).

5. Constructional account of the common linguistic tendencies across languages

The fact that communication via language is a special ability that humans possess, which differentiates them from other primates, is not in the slightest doubted by constructivists (Goldberg 2006a: 188). What constructivists do not believe, however, is that this ability is language specific, as a result of a “universal grammar” humans are born with. Instead, they assume that children can learn a language on the basis of the prolific linguistic material they are provided with. In addition, the learning of a language is enabled due to the “conceptual/perceptual apparatus together with the experience of the world” (Goldberg 2006a: 188).

One piece of evidence that according to Lidz, Gleitman and Gleitman (2003: 154) justifies the claim that there is a universal grammar is that “noun phrase number lines up as simply as possible with argument number”, which entails that there is a one-to-one match between the syntactically expressed arguments and the verb’s semantic participants. However, Goldberg (2006a: 188) observes that this claim is not a reliable postulation, neither language-internally, nor when different languages are compared. Goldberg (2006a: 189) provides examples from the English language, such as the simple passive construction. The verbs that are part of the English simple passive construction entail two participants, agent and patient, yet only the patient is overtly realised. As just one example of the non-universality between languages is the fact that in the English language, verbs such as *run*, *swim* and *blow* are intransitively construed, whereas in Ewe they are transitively construed (Goldberg 2006a: 188, following Essegbey 1999). Thus, Goldberg (2006a: 189-201) proposes another explanation for the differing syntactic realisation of semantic participants, both as part of the same language and across languages. Based on the Gricean cooperative principle (Grice 1975), Goldberg (2006a: 190) suggests that all the referents that are overtly expressed in a sentence are “relevant to the message being conveyed” and “any semantic participants [...] that are relevant and non-recoverable must be overtly indicated”. These two more flexible pragmatic postulations account for the fact that in a passive English sentence the agent is not mentioned due to its irrelevancy or easy recoverability. In a similar vein, in the Macedonian language the active intransitive sentence *Odam*, which means ‘I go’, allows for the subject not to be mentioned, because it is recoverable from the morpheme *-m* attached to the verb *odi*.

Furthermore, Goldberg (2006a: 197-198) points out that different languages across the world show different ways of reducing forms that are easily recoverable or used regularly, which all comply with Grice’s (1975) Maxim of Quantity. The existence of the transitive construction in languages that have verbs denoting possession, such as *have*, whereby the possessor is in a subject position (as in English), is just a tendency among languages. There are languages, such as Italian and French, which lack transitive possessive constructions, despite having verbs of possession in their lexicon (Goldberg 2006a: 200-201). Regarding the frequent realisation across different languages of the agent in subject position and the patient in object position, Goldberg (2006a: 186) observes that it does not follow from some linguistically specific way of linking, but from “general facts about human perception and attention”; human beings express agents and patients in conspicuous syntactic positions. Additionally, Tomasello (2000: 234) observes that in early child language use, it very often happens that the agent does not appear in subject position. As an illustration, Tomasello’s (1992: 116) records

of his daughter's early expressions, such as *brush-it hair* or *brush-it teeth*, when she was between 18- and 19-month-old, show that she uses the verb *brush* without even specifying who the agent is. In the same age period, Tomasello (1992: 123) records that the baby utters expressions such as *lemon eat-it* and *bacon eat-it*, where the thing eaten is put in a subject position unlike the typical object position it is usually found in.

Thus, these tendencies for some linguistic phenomena to be present in certain languages but absent in others, or the tendency of an agent to be realised in a subject position are just tendencies but not hard-and-fast rules. This fact also captures one important difference between the CCxG and the generative approaches: unlike generative approaches, CCxG attempts to find the motivation behind a construction rather than the rule, thereby explaining both why a certain linguistic characteristic does not occur in all languages, and why it is possible for more than one language to have the same construction (Goldberg 2006a: 217-220).

6. The architecture of constructional knowledge

6.1. Analysing constructions: reductionist vs non-reductionist analysis

According to the Unification Construction Grammar, as explained by Fillmore and Kay (1993), every construction is made up of smaller elements. Each element is characterised by its own syntactic and semantic features, and together they build the unique semantic and syntactic properties of the construction itself. Hence, an analysis of a construction would lead to reducing it to its smallest parts. Croft (2007: 481-482) further explains the types of features distinguished in UCxG: the [role] feature, which denotes the syntactic relationship of each part of the construction with the whole construction, e.g. the role of a [head] or [filler]; the [val] feature, according to which there are monovalent predicates requiring just an agent argument or poly-valent predicates requiring more arguments; and the [rel] feature, which denotes both the syntactic and semantic relation of the arguments to their predicates, such as the semantic relation of an agent and the syntactic function as a subject. By analysing what kind of features the respective basic elements possess, these elements can be grouped together based on similarities of features and constructions they occur in. However, although they are decomposable into their smallest parts, constructions have their own idiosyncratic meaning and form, which is not found in their constructional mini blocks (Croft 2007: 481, Goldberg 2006a: 7). In the case of semantically similar verbs, such as *refuse* and *forbid*, where the

former occurs in the Ditransitive construction but the latter does not, these constraints would have to be accounted for by introducing exception features (Croft 2007: 496).

Importantly, Construction Grammar “[...] represents information only once in the construction taxonomy, at the highest (most schematic) level possible.” (Croft 2007: 484). For instance, a certain construction is represented in a most abstract way, which encompasses both the central sense and the other existing extensions from the central sense; e.g. the Ditransitive is represented as [Subj V Obj1 Obj2]. Croft (2007: 484) observes that one effect of such a representation is a construction with a form and a highly abstract meaning, such as the Subject-Auxiliary Inversion construction. That happens because there are no mutually shared meaning components amongst all of the constructions found on the lower branches of the taxonomic tree.

As opposed to the reductionist approach to the analysis of constructions, Goldberg (2006a: 222) claims that the approach within CCxG and RCxG are both non-reductionist because they both acknowledge that the combination of the parts the constructions consist of leads to unique features explainable only “at the level of the whole”. Furthermore, the analysis of constructions within the CCxG posits the existence of constructions which could at the same time be part of other constructions (Goldberg 1995: 72-81). For example, Goldberg (1995: 78) notes that the Intransitive motion construction is a subpart of the Caused-Motion construction, because the former exists independently and at the same time has the same semantic and syntactic features as the latter. In addition to a subpart type of relationship, Goldberg (1995: 74-81) claims that there are other links amongst constructions as well: polysemy links, between constructions which share a syntactic form but differ subtly in their meanings; instance links, in cases where, for instance, one lexical item can be an instance of a construction when it shares the constructions’s semantics and syntax, (e.g. *drive* can only occur in the Resultative construction in combination with a result-goal argument that could mean ‘crazy’); and metaphorical links, such as the Resultative construction, which could be seen as a metaphorical extension of the Caused-Motion construction. Moreover, some construction parts can be part of more than one constructions, receiving features of all of them respectively; an example is *drive* in *drive me crazy*, which shares the semantics of *drive* meaning ‘change of location’ (which in *drive me crazy* metaphorically means ‘change of state’), and the syntax and semantics of the Resultative Construction (Goldberg 1995: 98-99). Figure 2, which is adapted from Evans and Green (2006: 681), is a summary of the types of inheritance links that hold between constructions, according to Goldberg (74-99):

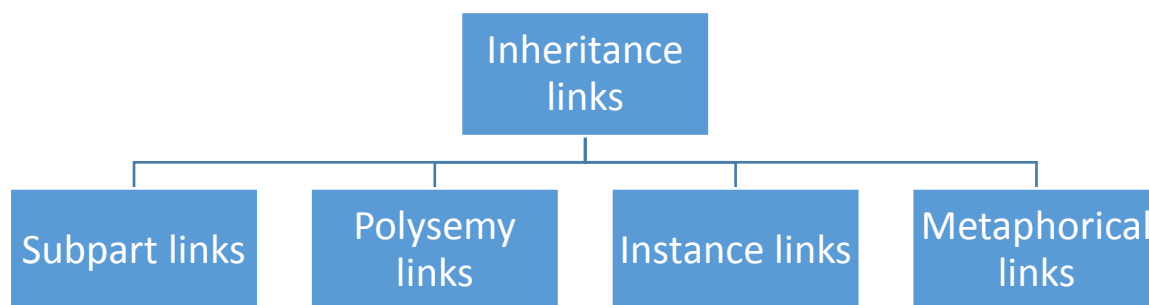


Figure 2 Types of inheritance links among constructions

With respect to how language users store information, according to construction grammarians every construction and its specifications are stored separately, as Goldberg (1995: 74) asserts. Those parts that are shared by different constructions do not, however, uneconomically overload our memory. On the contrary, accessing the shared constructional parts helps language users easily access other constructions, as this common part establishes a tight connection between separate constructions.

Croft (2007: 496) also applies a “non-reductionist” way to the syntactic analysis of constructions, as part of his Radical Construction Grammar (RCG). For him, the non-reductionist approach to constructions entails a treatment of the construction itself as a self-contained entity, whose parts are described with respect to the roles they have in that particular construction only. Unlike Cognitive Construction Grammar, which relies on semantic and syntactic relations between the components of a construction, Croft (2007: 497) relies only on semantic relations amongst the construction’s units. According to the RCG, the syntactic relations are construction-specific and hold between the whole construction as one unit and the separate syntactic elements that constitute the construction. However, no generalisation of syntactic relations across constructions can be made in order to postulate their existence independently. Croft (2007: 498) further recognises no internal constructions as part of bigger constructions. Finally, he objects to the view that language users store information in the most abstract way possible, claiming that linguists have no proof that language users find parallels between generalisations as a result of which they store the most abstract form-meaning combination (Croft 2007: 489).

6.2. Construction with many senses vs verb-(class-) specific constructions

A special kind or relationship between constructions is the polysemous one, whereby constructions “display prototype structure and form networks of associations” (Goldberg

2005: 5). Goldberg (1995) illustrates this through the polysemous nature of the Ditransitive construction, amongst others. In the following list, which is adapted from Goldberg (1995: 75), the first one is the central sense and the other five are extensions from it:

- a) 'X CAUSES Y to RECEIVE Z' (central sense). Example verbs are: *give, pass, kick, serve, bring, and take*. Example: *Joe gave Sally the ball*.
- b) Conditions of satisfaction imply 'X CAUSES Y to RECEIVE Z'. Example verbs are: *promise, guarantee, owe*. Example: *Joe promised Bob a car*.
- c) 'X ENABLES Y to RECEIVE Z' Example verbs are: *permit* and *allow*. Example: *Joe permitted Chris an apple*.
- d) 'X CAUSES Y not to RECEIVE Z' Example verbs are: *refuse* and *deny*. Example: *Joe refused Bob a cookie*.
- e) 'X INTENDS to CAUSE Y to RECEIVE Z'. Example verbs are: *bake, make, cook, get, win* and *grab*. Example: *Joe baked Bob a cake*.
- f) 'X ACTS to CAUSE Y to RECEIVE Z at some future point in time'. Example verbs are: *bequeath, allocate* and *grant*. Example: *Joe bequeathed Bob a fortune*.

The central sense of the Ditransitive construction denotes actual physical transfer, whereas its extensions share some components of the meaning of 'transfer' but ultimately differ from it. For instance, in (b), the constructional sense 'X CAUSES Y to RECEIVE Z' specifies that there is a condition to be fulfilled before the actual transfer happens; the semantics of verbs such as *promise, owe* or *guarantee*, successfully fit in the semantics of this sense. In the last example, the verb *grant*, does not entail actual and immediate transfer but a transfer which is supposed to happen in the future and consequently fits in the constructional sense of 'X ACTS to CAUSE Y to RECEIVE Z at some future point in time'. Hence, these constructional senses, as well the others listed above, all have something in common with the central sense semantically, yet differ at least minimally from it. The verb classes listed under each sense share certain semantic components with the constructional meaning but some of them completely gain the meaning of 'transfer' from the construction itself, such as *bake, cook, get, make*. What they all share is the syntactic form, which, according to Goldberg (1995: 33-35), makes them all part of the Ditransitive construction, which represents a family of related senses as a polysemous extension from the central sense. That the central sense is taken to involve actual transfer is justified by the fact that concrete meanings are taken to be more basic and easily related to the other meanings a construction has. Furthermore, Goldberg

(1995: 34) opposes abstractionist views, according to which the Ditransitive construction implies that the 1st object is the most affected, because there are such verbs used in this construction such as *bake*, where the 1st object might not be affected at all. Goldberg (1995: 35) also opposes the abstractionist claim that the 1st object denotes a prospective possessor. Again, the verb *bake* in this construction implies that something is intended to be transferred to the entity denoted by the 1st object; however, whether exactly she will be the prospective possessor cannot be claimed for sure. Importantly, expressions like *Cry me a river* are also considered to be extensions from the central sense of the Ditransitive construction (Goldberg 1995: 150). This is unlike the abstractionist view on meaning, according to which, such sentences would have to be either excluded or impossible to explain and thus neglecting its semantic and syntactic similarity with the Ditransitive construction.

Croft (2012: 376-377) on the other hand, rejects the possibility of a polysemous nature of the constructions. Instead of constructional polysemy, he claims that the different senses as denoted by Goldberg (1995: 75) are simply due to the different semantic components of the verb classes themselves. Hence, what Goldberg terms as different senses, for Croft are different constructions that due to the resemblance of meaning and form represent a family of the Ditransitive constructions (Croft 2012: 378). He further asserts that in some of the Ditransitive constructions not all the members of a verb class are part of the respective constructions. Hence, citing Croft (2003: 58), Croft (2012: 378-379) distinguishes between verb-class-specific constructions and verb-specific constructions. An example of the latter would be one subtype of the Ditransitive construction, whose form is: [Sbj *refuse* Obj1 Obj2] with a meaning ‘negative transfer of possession by refusing’ (Croft 2012: 378). Goldberg (2006a: 28) disagrees with this claim, asserting that exactly the antonymy between verbs such as *give* and *refuse* is proof that there exists a higher more general construction which unifies them, in this case the Ditransitive construction, as antonyms are usually highly associative of one another. Hence, there are no reasons why they would not be part of the same form-meaning generalisation. Croft (2012: 378), however, further elaborates his claim that such a verb-specific construction is needed due to the incongruity of verbs such as *prevent*, *disallow* or *forbid*, which lack a realisation in the Ditransitive construction, despite their common semantic features with *refuse*.

The need for postulating verb-specific constructions, is further justified by Croft (2012: 389) through the following examples:

8) He forgave her her sins.

9) He envied the prince his fortune.

In these examples the verbs *forgive* and *envy* appear in the Ditransitive construction, despite the lack of a transfer of possession meaning. Croft (2012: 389) claims that this is due to the fact that in the history of the English language these verbs used to denote ‘give, grant’ and ‘give grudgingly, refuse to give’, respectively. As such, they had been stored in the mental lexicon of its users as part of verb-specific constructions which have endured even though the verbs *forgive* and *envy* have undergone a semantic shift over the years. Otherwise, if verbs appear only in verb-class-specific constructions, then the appearance of *forgive* and *envy* in the Ditransitive construction cannot be explained. As a matter of fact, they still appear in the Ditransitive construction, which is in line with Croft’s insistence on a usage-based model where verbs are stored as part of whole constructions; either together with other verbs as part of verb-class constructions or as part of verb-specific constructions, like in the case of *forgive* and *envy*. According to Croft (2012: 393):

Actually occurring utterances are closest to verb-specific constructions. [...] there are idiosyncrasies in the form-meaning mapping that show that we cannot discard them for more general constructions. The idiosyncrasies are due to the fact that construal of events is constrained in part by the conventions of the speech community. The process of learning language forms [...] is actually the organisation of exemplars of utterances and of verb-specific constructions into greater or lesser size, with greater or lesser syntactic and semantic coherence.

Croft (2012: 380-381) also argues that Goldberg’s (1995: 44) assumption that a verb has its basic meaning and the construction it occurs in adds to this basic meaning is based on false premises. In particular, the idea that the verb *bake* occurs in a lower-valency construction, such as in *She baked a cake*, cannot be the right criterion to consider the meaning it carries in this construction as more basic than the one *bake* has in the Ditransitive construction. This is because there are verbs such as *eat*, whose appearance in lower-valency constructions (e.g. *I eat*) is considered to be derived from the higher-valency examples (e.g. *I eat meat*). Indeed, every verb occurs in certain argument structures and how could we know which one carries its more basic meaning? Tomasello and Brooks (1999: 181) and Goldberg (2006: 77-78) claim that it is the verb frequency of the verbs together with its argument structures that are learned early in life that help people establish form-meaning pairings. Thus, if *bake* is used more often in a lower-valency construction in early childhood, then its basic meaning will be associated with that construction. On the other hand, according to Croft (2012: 383), the only fact that linguists analysing language know, with respect to both the meanings of verbs and constructions, is the verbs’ appearance in particular argument structure constructions.

Consequently, the meaning of a verb should always be treated as part of a “whole verb-specific or verb-class-specific syntactic structures. [...] A verb- (class-) specific construction represents a particular construal of an event that is taken to be denoted by the verb, or narrow verb semantic class” (Croft 2012: 383). Generalisations across expressions sharing the same verb forms or argument structure realisation is not excluded nor is it the rule. When language users use a certain verb, such as the verb *bake*, or a certain construction, such as the Ditransitive construction, repeatedly, then they could eventually match the verb with the Ditransitive construction to fulfil some communicative purpose, such as has already happened in the English language (Croft 2012: 393). However, it does not follow from that particular use that all the uses of the verb *bake*, or of the combinations of other verbs with the Ditransitive construction, would entail the same meaning as the one found when *bake* appears in the Ditransitive construction. Indeed, a generalisation over that particular instance of use cannot predict that verbs such as *envy* or *kick* could also appear in the Ditransitive construction. Croft (2012: 393) claims that it “is in fact the great asset of language, its flexibility in communication – although it poses major challenges to natural language processing and to formal models of syntax and semantics of any type”.

Thus, Croft’s model of analysis combines the lexical class analysis, which emphasises the need for treating correlated verbs as a family of narrow verb semantic classes, and the constructional analysis, which treats the meaning of a verb only as part of the construction it occurs in but not separately.

7. Creativity: a combination of constructions

For constructionists, creativity arises from the free combination of different constructions, so long as their arrangement in a sentence is not incongruous (Goldberg 2006a: 22). As an example, Goldberg (2006a: 19) gives the following sentence: *A dozen roses, Nina sent her mother!*, claiming that it is a host of eleven separate constructions, which are: the Ditransitive construction (*Nina sent her mother a dozen roses.*) Topicalisation construction (*A dozen roses, Nina sent her mother*), VP construction (*sent her mother a dozen roses.*), NP construction (*A dozen roses, Nina, her mother*), Indefinite determiner construction (*A dozen roses*), Plural construction (*roses*), *dozen*, *rose*, *Nina*, *send*, *mother* constructions. As evidenced from the exemplified sentence, one expression can be an instantiation of more constructions at the same time, such as *A dozen roses* is a realisation of both the NP and Indefinite determiner constructions.

8. Semantic analysis and representation of constructions

According to the constructionist view, the fundamental sentence types, which are also the simplest or basic sentence types, are instantiations of form-meaning combinations as part of argument structure constructions (Goldberg 1995: 24, Goldberg 2006a: 23). Consequently, the view on the meaning of the separate lexemes that take part in a basic sentence type and the meaning of the construction they are part of merits attention. As already pointed out in section 4.1, according to the Construction Grammar view (Goldberg 1995, Goldberg 2006a), a verb occurring in more than one constructions is not associated with more than one meanings in isolation; rather, its additional meanings are complemented by the construction it occurs in. This view stands in stark contrast to the lexicosemantic analysis, according to which there are lexico-semantic rules operating on classes of verbs which are then matched with an appropriate construction (Rappaport and Levin 1998, Pinker 2013). Croft (2012: 383) merges these two views on meaning in his Radical Construction Grammar view on language. On the one hand, based on their semantic similarity, verbs form narrow semantic classes, as it is pointed out in the lexical rule analysis; on the other, the meaning of utterances is not contained in the particular lexical items only but it is contained in the constructions they appear in as a whole, as pointed out in Cognitive Construction grammar.

In the next section, the general postulations of Fillmore's frame semantics (1982) will be presented, which is accepted among Construction Grammar proponents (Goldberg 1995: 24, Croft 2012:11). Section 8.2. offers a first insight into the interplay between the frame semantic specifications of the verbs and the constructions that the verbs are embedded in.

8.1. Frame semantics

According to formal semantic theories, an expression is truth-conditioned with respect to rules of interpretation, which are supposed to reflect some objective truth in the world (Croft 2012: 5). Unlike formal semantics, frame semantics stresses the "continuities, rather than the discontinuities, between language and experience" (Fillmore 1982: 111). In particular, to understand a word's meaning, one has to be able to understand the particular event which is the cause for the existence of such a word. At the same time, that is not to say that frame semantics is truth-conditional; its point of departure from truth-conditional semantics is that it acknowledges "presuppositions in the semantic representation of concepts" (Croft 2012: 13). Fillmore (1982: 116) exemplifies this claim with the lexemes *sell* and *buy*, which evoke the same scene of a person selling goods to another person. The difference in the meanings of *buy*

and *sell* would lie in the parts that are profiled: what the buyer does and what the seller does, respectively. Hence, to understand the terms *buy* and *sell*, one has to be able to anchor them within a semantic frame consisting of such lexemes as *buyer*, *seller*, *goods*, *money*, *negotiate* and similar other lexemes in connection with trading. Another illustrative example presented by Fillmore (1982: 121) is the distinction between *shore* and *coast*, because they ultimately denote the same referent. Hence, if the semantics of a lexeme is dependent only on the referent it denotes in the real world then there would be no semantic difference between *shore* and *coast*. Nevertheless, the sentences:

10) It swept me back to *shore*. (COHA)

11) She travelled to the *coast* alone, carrying Daniel in her arms. (COHA)

exemplify a possible semantic nuance that differentiates the meaning of the whole expressions under (10) and (11). Whereas *shore* is more often used to refer to the land-water borderline when trips occur on water, *coast* is more often used to denote land-water borderline when trips occur on land. This semantic difference relies in the different semantic frames that the respective lexemes provide access to: upon mentioning *shore* and *coast*, respectively, the language user interprets *shore* with respect to water and *coast* with respect to land. Clearly, the different perception of the world we live in, which ultimately reflects our rich encounter and experience with it, is a motivation enough for the existence of different lexemes to express it. This experience can be tightly connected to “some body of understandings, some pattern of practices, or some history of social institutions, against which we find intelligible the creation of a particular category in the history of the language community” (Fillmore 1982: 119). A word such as *heretic*, for instance, would make sense only in cultures where there are religions. The kinship terms are much more numerous in some cultures, which means that they belong to rather different semantic frames than those of cultures possessing only a few.

Goldberg (1995: 29-31) brings to light the essence and imminence of the broader semantic frame a lexical entry is bound to be embedded in, by highlighting its importance in the use of adverbs in a sentence and the nature of preemption and translation. The semantic frames of *speeding* and *driving*, for instance, differentiate in the inclusion of *driving too fast* in the domain of *speeding*. Hence, whereas a sentence: *He was driving slowly* would make sense, the sentence: *He was speeding slowly* would not make sense, as *fast driving* is already presupposed by *speeding*. Secondly, when children by analogy apply an *-ed* suffix to a verb such as *come*, and after a while comprehend that it is wrong to say *comed* but instead they

should say *came*, then *came* automatically hinders or preempts the use of *comed* because the two verbs forms belong to the same semantic frame, so the second one felicitously replaces the first version of it. Thirdly, no translation or interpretation would be appropriate if one does not know exactly the semantic framework a lexical entry is part of. On the contrary, it would lead to the wrong or at least insufficient interpretation.

8.2. The semantics of verbs and constructions: participant and argument roles

Rappaport and Levin (1998: 98) acknowledge the interdependency between verbs' meanings and the constructions it occurs in, by stating that "the variation in syntactic context correlates with variation in meaning". They also point out the fact that when a verb occurs in different syntactic configurations, then the structure itself contributes to the meaning formation, which Rappaport and Levin (1998: 106) name the "structural component of verb meaning". Construction Grammar, takes such claims one step further, asserting that syntactic structures are associated with an inherent meaning, irrespective of the verb that they are complemented with (Goldberg 1995: 29).

According to the Cognitive Construction Grammar view on linguistic knowledge, as explained in Goldberg (1995: 43), there should be made a distinction between the participant roles of the verb and the argument roles of the construction. The different types of semantic roles have to be felicitously matched in order for a verb to occur in a particular construction.

The participant roles are the roles that the verb is characterised with, irrespective of the construction it is part of. In addition, participant roles are a reflection of its frame-semantic specifications.

As an illustration, the verb *spray*, possesses three participant roles: < a sprayer, a liquid and a target > (Goldberg 1995: 178). The verb *spray* thus has these three participant roles, irrespective of the construction it occurs in, because they rely on its frame-semantic interpretation. The participant roles are further divided into roles that are obligatorily realised within a syntactic construction, or profiled roles, and those that do not have to be syntactically realised. More precisely, by profiled roles Goldberg (1995: 44-46) understands the features of a verb's semantic frame which are the most conspicuous and hence must be linguistically realised. In general, some participant roles are more often lexically profiled than others. For instance, "participants which are instances of the more general categories 'agent' or 'patient' tend to be the best candidates for a profiled status" (Goldberg 1995: 48). In addition,

Goldberg and Jackendoff (2004: 548) emphasise that a participant role is profiled “if and only if an expression involving the verb in active, simple past tense without the argument is ill-formed”.

In Goldberg’s model (1995: 45), the participant roles that are part of the frame-semantic understanding of the verbs *rob* and *steal* are the ones in brackets:

rob < **thief** **target** goods >

steal < **thief** **target** **goods** >

The boldfaced lexemes stand for the participant roles that are at the same time the profiled roles; the ones that are most conspicuous and as such require their presence in a sentence. Goldberg justifies this through the following sentences, which are adapted from Goldberg (1995:45):

12) Jesse robbed the rich (of all their money).

13) Jesse stole money (from the rich).

In sentence (12) the verb *rob* requires lexical realisation of the ‘thief’ (*Jesse*) and the ‘target’ (*the rich*), but the goods (*all their money*) are only obligatorily realised. However, in (13) the participant roles ‘thief’ and ‘goods’ of the verb *steal* are obligatorily realised because they are the verb’s profiled roles.

The argument roles, such as agent, patient and goal, are more wide-ranging than the participant roles and belong to the construction (Goldberg 1995: 43). They are syntactically realised through the appropriate grammatical relations, such as subject, object and their subject and object complements. There is also a distinction made between profiled and non-profiled argument roles. An argument role is profiled only if it is realised via a direct grammatical relation, which could be one of three types: subject, direct object or indirect object (Goldberg 1995: 48-49). The Ditransitive construction, for instance, is represented by Goldberg (1995: 50) as: CAUSE-RECEIVE < **agt** **rec** **pat** >, where CAUSE-RECEIVE is a short representation for the meaning of the construction and the labels in the brackets denote the argument roles (agent, recipient and patient, respectively). They are all profiled, since all are realised via direct grammatical relations (subject, direct object and indirect object).

Goldberg (1995: 50) further postulates two important principles that underlie the successful combination of verbs and constructions. The first principle is the semantic coherence principle. According to this principle, a participant role can be fused with an argument role only if they are semantically well-matched. This, in turn, means that either a participant role

can be construed as an instance of an argument role or vice versa. For instance, the verb *spray* can appear in the Causative construction (e.g. *He sprayed the wall with paint*) because the verb's participant role < sprayer > can be construed as an instance of the argument role agent or cause of the Causative construction. Consequently, the two roles are fused in the syntactic relation 'subject'.

The second principle is the correspondence principle (Goldberg 1995: 50). According to this principle, there has to be a corresponding profiled argument role for the profiled participant roles. However, should there be more profiled participant roles than there are profiled argument roles, then the profiled participant role is matched with a non-profiled argument role. The contrary is also allowed: sometimes the verb has less profiled roles than the construction does. In that case the construction contributes a role to the expression. For instance, the participant roles of the verb *kick* are a person who kicks, i.e. < **kicker** > and a thing or person that is kicked, i.e. < **kicked** > (Goldberg 1995: 54). In line with the semantic coherence principle, the two participant roles are semantically compatible with the Ditransitive construction's argument roles of the agent, *He*, and the patient, *the ball*, in: *Joe kicked Bill the ball*. The third obligatory argument role of a recipient, *Bill*, is thus added by the construction itself, which is in line with the correspondence principle.

The ability of the verbs to be part of different constructions is attributable to the possibility of the verb's participant roles to be construed as different argument roles of the constructions they appear in. This is captured in the semantics coherence principle (Goldberg 1995: 179). For instance, the verb *spray* can appear in the Caused-motion construction, the Causative construction and the Intransitive motion construction. As Goldberg emphasises (1995: 178) the verb *spray* would have its three participant roles designated as follows: < sprayer, **target**, **[liquid]** >. They are matched with the respective argument roles of cause, path/location and theme when they are part of the Caused-motion construction, as exemplified with an expression taken from COHA: *helpless lookers sprayed water on him*. When they are part of the Causative construction, the participant roles of the verb can be construed as the Causative construction's argument roles: agent, patient and instrument, respectively, as in the following sentence *He sprayed streets with automatic fire* (COHA). The participant role < liquid > is put into square brackets since it denotes an obligatory role and yet it can be omitted if it is easily understood from the context. This phenomenon is termed as the definite null complement (Goldberg 1995: 59). The definite null complement justifies the appearance of *spray* in expressions such as: *The skunk sprayed the car []* (Goldberg 1995: 178), where the liquid is

supposedly well known to the co-conversationalists. That the <sprayer> is only obligatorily realised is made obvious through expressions that do not contain the person doing the spraying: *Water sprayed onto the lawn* (Goldberg 1995: 178).

Based on these two principles of matching semantic roles of the verbs with roles of the constructions, the next question is how one should know which verbs can combine with which constructions. Put in other words, since according to Goldberg's representation (1995: 50), there could be: more profiled participant roles than there are argument roles and there could also be the same number of corresponding roles matched in an expression, the definition leaves language users with quite a flexible choice of possible linguistic creations. Croft (2012: 366-368) expresses doubts about Goldberg's (1995) way of describing the semantics of verbs and construction by recognising two types of semantic roles: the participant roles of the verb and the argument roles of the constructions. In particular, Croft (2012: 368) disapproves with Goldberg's correspondence principle, claiming that it does not accurately predict the range of verbs that could appear in particular argument constructions. Providing the following example: **The lawn sprayed with water*, Croft (2012: 368) claims that although the obligatory argument roles of location (*the lawn*) and instrument (*with water*) are successfully matched with the obligatory participant roles < **target** > and < **liquid** >, still such an example has been unaccounted for in the English language and hence it is held unacceptable. On the other hand, in the everyday English language use, there are also such examples as the following: *The broken fire hydrant sprayed water all afternoon*, where the participant role < **target** > is not at all lexically realised and yet the sentence is fully grammatical (Croft 2012: 367). Hence, these two examples illustrate, according to Croft (2012: 366-368), that the correspondence principle fails to predict the (non)-appearance of certain verbs in certain constructions on the basis of a felicitous match between their respective semantic roles.

As a solution to this problem, Croft (2012: 368) posits that it is all dependent on the construal of the event denoted by the verb: if a verb's construal can be matched with the construction's construal itself, then it can appear in that particular construction. Hence, *spray* can occur in the Transitive construction, without the realisation of the 'target', not because the 'target' should be redefined as a non-profiled participant but because it can be construed as a substance emission event which would then match the semantics of the Transitive construction. Other verbs' non-appearance in the Transitive construction, although they are semantically similar with *spray*, in terms of their profiled participant roles and ability to

appear in the Caused-move construction, is because they cannot be construed as substance or throwing emission events (Croft 2012: 368). Thus, Croft (2012: 371-372) claims that the crucial factor whether a verb appears in a particular argument structure construction is whether a verb has the semantic potential to be construed compatibly with the particular construction's meaning. However, the assumption that underlies this argument is not much different from Goldberg's (1995: 50) definition of the semantic coherence principle, where the verbs' semantic roles are construable as instances of the constructions' semantic roles and vice versa. For instance, Goldberg and Jackendoff (2004: 552) state that although usually animate participants are instigators of an action, they show through an example from the Resultative construction that *a mechanical doll* is construable as an instigator and hence is fused with the argument role of agent: *The mechanical doll wiggled itself loose*.

In fact, Goldberg (1995: 60) also notes that there are some combinations of verbs with constructions which according to these two principles are compatible but have not yet been attested in real language use. For instance, according to Goldberg (1995: 60) *sadden*, *anger* or *regret* are characterised with participant roles that could be matched with the agent and patient roles of the Ditransitive construction. The argument role of recipient would have to be contributed by the construction, and yet, Goldberg (1995: 60) points out that an example such as the following has not been attested yet: **Joe angered Bob the pink slip*. ('Joe gave Bob a pink slip, causing Bob to become angry'). Goldberg (1995:60) claims that one basic reason for the successful integration of a verb in a certain construction is their mutual semantic similarity. For instance, a verb that inherently has a component of transition is highly probable to appear in the Ditransitive construction and a verb that can cause a change from a certain state into another is likely to be found in the Resultative construction. In addition, the means component present in some verbs provides a good basis for certain verbs to appear in given constructions. An example is *kick*, whose appearance in the Ditransitive construction is sanctioned by the fact that it represents the means of causing somebody to receive something (Goldberg 1995:60-62). Another instance is the appearance of the verb *dig* in the *way* construction (e.g. *He dug his way out of the room*), where the act of digging is interpreted as the means by which the person has left the room. Alternatively, a verb can also denote the precondition, whose fulfilment will lead to the realisation of the event encoded in the construction. An illustrative example is the appearance of the verb *bake* in the Ditransitive construction; it specifies the precondition for the transition to occur (Goldberg 1995:65). Ultimately, "the semantics associated with the construction defines a semantic frame, and the verb must inherently designate a particular salient aspect of it" (Goldberg 1995:65).

To conclude, lexemes can never denote a self-contained concept without any relation to a bigger frame of related concepts, which are tightly connected to and dependent on people's world experience. They indeed relate a concept to an encyclopaedic knowledge about the world (Goldberg 1995: 26). In other words, "to speak of one part of a frame is to bring to consciousness, or to raise into question, its other components" (Fillmore 1982: 129). In addition, according to constructionist approaches, and what is of no less importance, the constructions themselves carry meanings on their own. For Goldberg (1995) and Goldberg and Jackendoff (2004), the successful application of the semantic coherence principle and the correspondence principle is the basis for a successful verb integration into a particular construction.

9. Hypotheses

As claimed in the previous chapters of this thesis, constructions are characterised by a particular syntactic form and at the same time they are assigned an autonomous semantic value. In fact, constructions are regarded as "syntactic configurations whose structure contributes semantic content above and beyond that contained in the constituent lexical items" (Jackendoff 1997: 553). The purpose of positing the existence of constructions in a language is to account for phrasal patterns which are productive, but whose distributional and semantic properties cannot be inferred from the rest of the grammar. Furthermore, acknowledging the presence of constructions has helped linguists to account for the appearance of lexical items in certain syntactic frames, without having to attribute additional senses to these lexical items (Goldberg 1995, Jackendoff 1997, Jackendoff 2002, Goldberg and Jackendoff 2004). Avoiding circularity by treating linguistic knowledge as a repository of constructions is closely connected to this (Goldberg 1995: 11). In particular, Goldberg (1995: 11) argues that a circular argument arises by claiming that a verb can have as many arguments as the number of constructions in which it appears as well as that a verb can appear in a certain number of constructions due to the number of arguments it can have. Alternatively, in construction grammar this circular argument is avoided by ascribing meaning to the constructions and in that way the construction itself adds to the meaning of the verbs.

Based on a constructional view of linguistic phenomena, the following two hypotheses were formulated:

H1: The *one's heart out* and *one's head off* constructions instantiate idiomatic expressions, whose semantic and syntactic properties are unique to this family of instantiations.

H2: The analysis of the semantic and syntactic properties of the *one's heart out* and *one's head off* constructions supports the view that languages possess low-level form-meaning generalisations.

Another focus in this thesis is compositionality of meaning. The expectations in this thesis stand in contrast to a claim made by Mateu and Espinal (2007:52) that all expressions possess an identifiable, structurally determined compositional meaning. Instead, it is assumed that certain semantic aspects on the level of the literal meaning of the *one's heart out* and *one's head off* constructions are not contained in any of their separate constituent parts. Thus, the following hypothesis was formulated:

H3: The semantics of the *one's heart out* and *one's head off* constructions is an amalgamation of the semantics of their separate constituents and the meaning of their syntactic configuration.

The rest of this thesis is structured as follows. In chapter 10 the idiomatic expressions which form the data for the linguistic analysis are presented. Chapter 11 offers an insight into the lexico-syntactic and semantico-lexical approaches, as alternative ways of dealing with the idiomatic expressions under study. Chapter 12 offers an in-depth analysis of the distributional and semantic properties of the idiomatic expressions. Chapter 13 presents the conclusions with respect to the posited hypotheses and the findings in this thesis.

10. Data: class of idioms

Tables 1 and 2 below show the data which formed the basis of the empirical analysis in this thesis. Most of the examples were taken from COHA (Corpus of Historical American English) and hence their source is not additionally specified next to the sentences. The source of an example is only given (in brackets) when it is not taken from COHA. Other than COHA, the following type of sources were used: COCA (Corpus of Contemporary American English), NOW (News on the Web), OED (the Oxford English Dictionary) and one scientific article (Jackendoff 2002). The first subclass of idioms is presented in Table 1 and is referred to as the *one's heart out* construction. The second subclass of idioms is presented in Table 2 and is referred to as the *one's head off* construction. In addition, the diagrams below the tables display the frequency of occurrence of the particular idiomatic expressions in COHA.

Table 1: Lexical variation and frequency of the *one's heart out* construction

No.	<i>One's heart out</i> construction	Frequency
1	Argue one's heart out (NOW)	1
2	Cough one's heart out	2
3	Cry one's eyes out	100
4	Cry one's heart out	37
5	Eat one's heart out	92
6	Fight one's heart out	1
7	Grieve one's heart out	3
8	Laugh one's heart out	2
9	Play one's heart out	15
10	Pray one's heart out	3
11	Scream one's heart out	1
12	Sing one's guts out	2
13	Sing one's heart out	16
14	Sing one's lungs out	1
15	Sob one's heart out	18
16	Weep one's eyes out	11
17	Weep one's heart out	6
18	Work one's arms out	1
19	Work one's daylights out (OED)	n.a
20	Work one's eyes/bones/brains/ out (OED)	n.a
21	Work one's finger out	2
22	Work one's guts out	2
23	Work one's heart out	7
24	Work one's life out	3
25	Work one's soul out	1
26	Work one's tongue out	1
27	Worry one's heart out	2
28	Worry one's life out	3
29	Worry one's soul out	1

Table 2: Lexical variation and frequency of the one's head off construction

No.	<i>One's head off construction</i>	Frequency
1	Bark one's head off	8
2	Cook one's head off (Jackendoff 2002)	n.a.
3	Cough one's ass off (COCA)	1
4	Dance one's can off (OED)	n.a.
5	Drink one's head off	5
6	Eat one's head off	10
7	Knit one's head off (Jackendoff 2002)	n.a.
8	Laugh one's ass off	9
9	Laugh one's butt off	1
10	Laugh one's ears off	1
11	Laugh one's head off	45
12	Program one's head off (Jackendoff 2002)	n.a.
13	Read one's ass (arse) off	1
14	Run one's legs off	15
15	Scream one's head off	34
16	Sing one's head off	10
17	Sneeze one's head off	8
18	Swim one's head off (Jackendoff 2002)	n.a.
19	Talk one's ears off	2
20	Talk one's head off	27
21	Work one's arms off	1
22	Work one's ass off	35
23	Work one's ball off	1
24	Work one's buns off	3
25	Work one's butt off	19
26	Work one's can off	1
27	Work one's fingers off	6
28	Work one's hair off	1
29	Work one's hands off	5
30	Work one's nails off	1
31	Work one's socks/ nuts/knackers off (OED)	n.a.
32	Work one's tail off	18
33	Work one's wings off	1
34	Yell one's head off	31

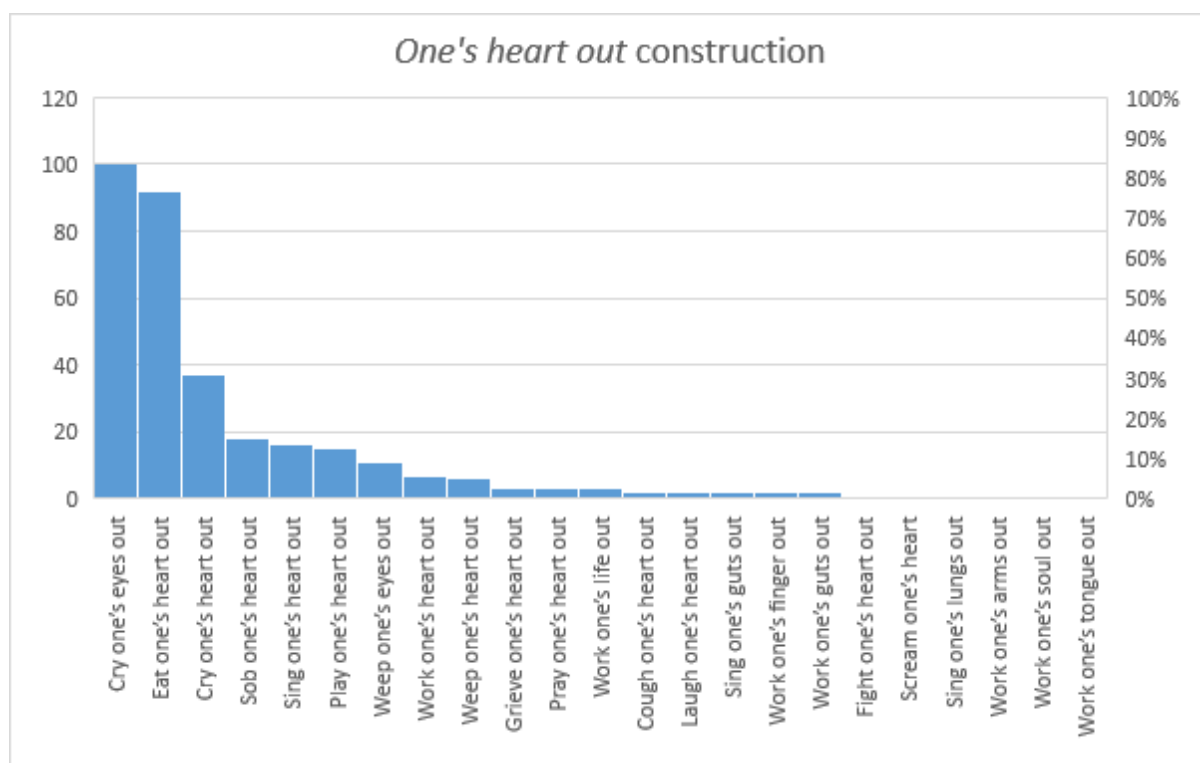


Figure 3 Frequency of occurrence of instantiations of the *one's heart out* construction in COHA

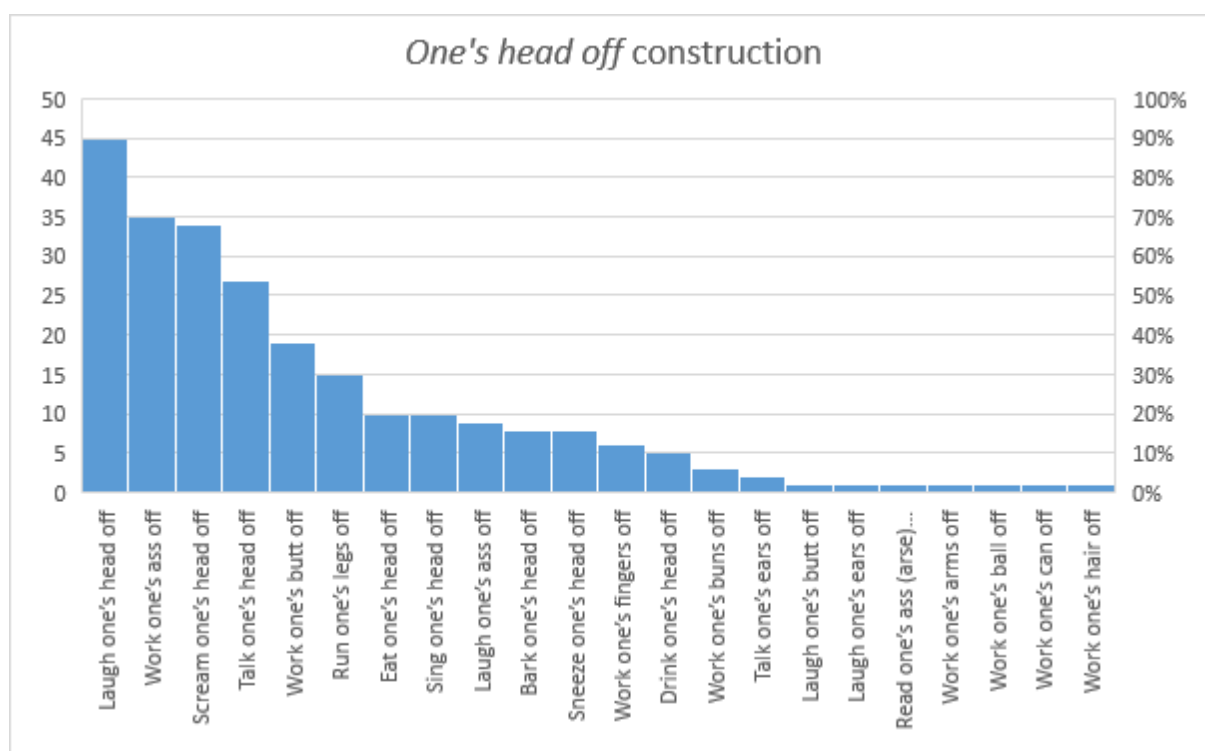


Figure 4 Frequency of occurrence of instantiations of the *one's head off* construction in COHA

In line with the features that an idiom could possess, as stated by Nunberg et al. (1994: 492-493) and also outlined in chapter 3 of this paper, the class of idioms under study are prototypical idioms; they possess most of the features an idiom can be characterised with. For instance, the English speaking population conventionally associates this class of idioms with a ‘V excessively’ meaning. Furthermore, they also represent a metaphorical figure of speech. In addition, they display syntactic inflexibility to a certain degree (e.g. * *It is my eyes that were cried out*). Regarding the interpersonal context of use, they belong to an informal register and clearly reflect an emotional stance towards what is being said.²

With regards to the typological differences between idioms, as outlined in chapter 3, there are further observations about this class of idioms worthy of note. For instance, considering the distinction between formal and substantive idioms, which is made by Fillmore et al. (1988: 505), the idiomatic expressions which are analysed here are formal idioms, since three of the constituents are replaceable with a lexeme of the same syntactic category, and only the particles *out* and *off* are constant. Furthermore, in line with Taylor’s (2012: 69) distinction between semantic and syntactic idioms, it is difficult to assign them exclusively to one of these categories only. Thus, the idioms all display both semantic and syntactic peculiarities, as will be explained in more detail in chapter 12 below. Finally, they could be regarded as “familiar pieces, familiarly arranged”, because all the constituents are common to the English language speakers and their syntactic shape is regular.

10.1. Compositionality (analysability) of an idiom’s meaning

Nunberg et al. (1994: 496) claim that the meaning of many of the idioms is compositional, despite the assertions by many authors that idioms generally have non-compositional meanings. For instance, in *pull the strings*, *pull* is metaphorically taken to mean ‘exert’ and *strings* ‘personal connection’, but only when they co-occur as parts of the idiom. This type of idioms that contain “identifiable parts of their idiomatic meanings” are referred to as idiomatically combining expression (Nunberg et al. 1994: 496). A second type of idioms distinguished by Nunberg et al. (1994: 497) are the phrasal idioms, whose frequency of occurrence is substantially lower than the former type. The meaning of the phrasal idioms cannot be decomposed into their constituent parts; rather the idioms taken as a whole carry a single meaning, such as *kick the bucket*, which means ‘die’.

² All of these features will be further elaborated in chapter 12

In support of the claim that many idioms are idiomatically combining expressions, Nunberg et al. (1994: 500-503) maintain that parts of the idioms can be individuated syntactically, which clearly indicates that these parts are separate semantic constituents. For instance, an example like *this number had to be taken with a large grain of salt* (COHA), shows that some constituent parts of the idioms can be modified. Nunberg et al. (1994: 501) also provide the following examples as proof for constituent parts of idiomatically combining expressions: they can be: a) quantified (e.g. *touch a couple of nerves*), b) topicalized (e.g. *Those strings, he would not pull for you*), c) ellipted (e.g. *My goose is cooked but yours isn't*) and d) antecedent for anaphora, such as *my goose* in *My goose is cooked but yours isn't*. Some idioms can also be passivized, as in: *Advantage seems to have been taken of Pat* (Nunberg et al. 1994: 506). By contrast, according to Nunberg et al. (1994: 508), parts of phrasal idioms cannot be highlighted via passivization, topicalization or clefting, which is indicative of their semantic wholeness; their meaning is not distributed to the meanings of their separate constituents individually (**The bucket was kicked*).

However, the differentiation between idioms that can undergo syntactic operations and those that cannot does not always accord with the distinction between idiomatically combining expressions and phrasal idioms, as defined by Nunberg et al. (1994). Taylor (2012: 80) points out that *kick the bucket*, on its idiomatic reading, can undergo certain syntactic transformations despite its non-transparent semantics. For instance, there are attested samples of the idiom, where *bucket* is pre-modified, although it does not correspond to a semantically delineated unit:

14) if Mikaso kicks the damned bucket we could lose all ties to the Philippines - COCA

15) squeeze in as much travel as you can before you kick the proverbial bucket. - NOW

However, even though in the above two examples *damned* and *proverbial* modify the following element, it should be noted that *damned* and *proverbial* usually modify the whole expression (e.g. *There's another word, damned.* (COHA), *Not yet proverbial, the Mickey was, in Chicago of 1902, a new innovation* - COHA).

Furthermore, there are also attested instantiations of the idiom where it does not refer to a human being but to objects, such as finances or clothes, as it is illustrated in the following two examples below:

16) in dying as author the writer kicks the financial bucket as well. - NOW

17) Here's an outfit, set up in 1986, which [...] should probably have kicked the glitter-packed bucket ages ago. - NOW

In addition, Taylor (2012: 81) also mentions *kick it* as a possible new idiom that language users have coined on the basis of the older *kick the bucket* (e.g. *My old computer finally kicked it*).

Regarding the parallel between compositionality and syntactic versatility of idioms, Langlotz (2006: 38) appeals to psycholinguistic experiments. Langlotz (2006: 38) concludes that idioms whose meaning can be decomposed into separate figurative meanings of their constituent parts display bigger lexical and syntactic variability than those idioms which are semantically more opaque. Hence, there is a cline of syntactic flexibility as much as there is a cline of semantic compositionality (analysability) of the given idioms in a language.

10.2. Analysability of the *one's heart out* and *one's head off* constructions

As highlighted in the previous section, Nunberg et al. (1994: 496-497) make a distinction between idiomatically combining expressions, whose meaning is decomposable, and phrasal idioms, whose meaning is non-decomposable. Langlotz (2006: 28) uses the term 'analysability' to refer to what Nunberg et al. (1994: 496-497) designate as compositionality. More precisely, analysable idioms are decomposable idioms, which are characterised with a "figurative-literal isomorphism" (Langlotz 2006: 112).³ Idiomatic compositionality is a term Langlotz (2006: 111) uses to refer to the "literal contribution of a constituent to the idiomatic meaning". For instance, if at least one constituent part of an idiom retains its literal meaning on the level of its idiomatic meaning, then those idioms are "partially compositional idioms" (Langlotz 2006: 112).

In line with a cognitive-linguistic view on compositeness, Langlotz (2006: 98) asserts that:

An entrenched construction remains analysable if the contribution of its immanent component substructures can still be recognised by a speaker or hearer. This is certainly true for *grasp the nettle*; its compositeness is the reflex of the cogniser's ability to activate the idiomatic constituents, *grasp* and *nettle* and the constructional schema [sbj verb obj], which underlies their integration.

In contrast to idioms like *grasp the nettle*, on the other end of the scale, there are lexicalised idioms like *red herring* whose constituent parts' semantics do not add to the overall comprehension of 'deception' (Langlotz 2006: 100). Whereas there is a transparent link of figuration between the constituent parts of *grasp the nettle* and its idiomatic meaning *tackle a*

³ This terminology will further be elaborated below in this section

problem, in *red herring*, Langlotz (2006: 105) claims that this link is “fully opaque”. As OED indicates, the figurative meaning of *red herring* is ‘a clue or piece of information, which is or is intended to be misleading’. Accordingly, Langlotz (2006: 105) claims that the lexicalisation process of *red herring*, in turn, is reflected on the morphosyntactic features: for example, *red* in *red herring* cannot be intensified.

In contradiction to this claim, the NOW corpus provides evidence that *red herring* can be intensified, although such expressions are rarely attested (e.g. 18). In addition, the NOW corpus also indicates that *red* in *red herring* can be modified (e.g. 19-21) and on rare occasions *red* can also be substituted by *green* (e.g. 22):

- 18) I must say, Caron, to bring up English votes for English laws is a *very red herring*, though your reasoning about Tory power would be correct if that was the motive.
- 19) This is all a *big red herring* to enrich some STB importers/resellers.
- 20) The ‘community argument is a *factually incorrect red herring*’.
- 21) She said the reason given is the usual “*idiotic red herring*” that they were spreading hatred among communities.
- 22) Thus, “concentrating on killing a single pipeline” like Keystone is, as Burn notes, a “green herring”.

Hence, although *red herring* is a fully opaque idiom, it still displays syntactic and lexical variability to a certain degree.

Langlotz (2006: 113) uses the term ‘motivation’ in order to account for the transparency of mapping from the literal meaning onto the idiomatic meaning. An idiom, such as *rock the boat*, which means ‘spoil a comfortable situation’, is well motivated, as there is a transparent correlation between literally rocking a boat and spoiling a situation. Furthermore, the correlation between the constituents on the level of the idiom’s literal meaning and the constituents on the level of the idiomatic meaning is isomorphic (analysable); the semantic constituents *rock* and *the boat* correspond to *spoil* and *a difficult situation* of the figurative meaning, respectively (Langlotz 2006: 115). Another example of a well-motivated idiom is *grasp the nettle*, while the motivation for the intended figurative meaning of *red herring* is lost to the present day English language user. Langlotz (2006: 119) mentions *spill the beans* (‘reveal the secret’) as an idiom, which displays isomorphism between its constituents and their correspondents on its figurative reading; yet, it cannot be claimed to be as well motivated as *rock the boat*, because there are no “rich conceptual similarities between BEANS and SECRET”. *Spin one’s wheels* (‘fail to achieve anything satisfactory’), on the

other hand, is well-motivated due to the metaphoric links between the literal and idiomatic meaning, but there is no isomorphism (analysability) present.

Jackendoff (2002: 173) defines the overall meaning of the two subclasses of idioms under study in this thesis as ‘do to excess’ and ‘V excessively’. The latter description of the two is going to be used in this thesis to refer to the semantics of the idioms. With respect to their compositionality, they can be said to be partially compositional idioms. That is due to the fact that one constituent part of the idioms, represented by the verbs (e.g. *cry*, *work*, *worry*, *sing*, *drink*, *shout*, *read*), retains its literal meaning on the level of the idiomatic meaning. Furthermore, the class of idioms under study are well-motivated idioms since there is a transparent correlation between their literal meaning as a whole and their semantic extension ‘excessively’; when someone does an action until a body part is detached, it is highly probable that the action is done to excess. However, although they are well-motivated idioms, it cannot be said that the part of the idioms without the verb, *one’s NP out/off*, corresponds isomorphically to the second constituent of the figurative interpretation, ‘excessively’. In fact, the type of semantic extension, which is a source of motivation between the literal and idiomatic meanings, is applied to the literal meaning of the idiomatic expressions as a whole. The link of figuration is the conceptual metaphor: doing an activity to excess is doing an activity until a body part is removed. This complex conceptual metaphor is based on two different metaphors. In the case of the *one’s heart out* construction the body is metaphorically understood to be a container, since the complement of *out*, in its spatial sense, is construed as a container (e.g. *I took it out of the box*). In the case of the *one’s head off* construction the body is conceived of as a composite entity, because *off*, in its spatial sense, takes a complement that is construed as a composite entity (e.g. *I took the glass off the table*).

Mateu and Espinal (2007: 46-56), applying a lexico-syntactic approach to the analysis of the idioms, account for the semantics of the ‘V excessively’ class of idioms in both English and Catalan by regarding it as a combination of a syntactically dependent compositional meaning and a metaphoric extension from it. More precisely, Mateu and Espinal (2007:52) conclude that both idiomatic and non-idiomatic expressions “have identifiable structural meanings; and the syntactically encoded meaning is composed by their building blocks”. The non-compositional or encyclopaedic meaning is not a random match with the particular syntactic configuration that the idioms are characterised with, but a result of “various metaphoric and metonymic processes” (Mateu & Espinal 2007: 53). Mateu and Espinal (2007: 55) thus claim that a complex conceptual metaphor that they define as ‘an excessive action is an excessive

exhaustion-detachment of a body part' is at play at the final interpretation of this class of idioms. The meaning of 'excess' is the only one that is projected from the source domain into the final target domain of this conceptual metaphor, whereas the actual physical action of detaching a certain body part is not projected.

While it is certainly true that the final interpretation of the idiomatic expressions instantiated via the *one's head off* and *one's heart out* constructions is metaphorically understood to mean 'V excessively', the idea of the existence of compositional literal meaning to which the metaphorical extension is applied should be taken with caution. As will be argued below, the constituent parts of the class of idiomatic expressions display semantic and syntactic idiosyncrasies which are relative to the specific form-meaning pairing that the idioms represent. In order to account for such idiosyncrasies, the existence of constructions as form-meaning pairings needs to be acknowledged. As a result, the term 'compositionality' is best understood as an amalgamation of the semantics of the separate lexical items and the semantics of the construction itself.

11. Lexico-syntactic and lexical-rule analysis

11.1. Manner vs path incorporating events

According to representatives of the cognitive semantics tradition (Talmy 2000, 2007), in some languages the verbs denote manner and motion at the same time, whereas in others the verbs code motion and path at once.

Talmy (2000: 216) defines macro-events as events that are "prone to conceptual integration and representation by a single clause". The main event within the macro-event is, according to Talmy (2000: 217-219), a framing event which is characterised by four features: 'the figural entity', which is the entity whose behaviour is of essential importance; 'ground entity', representing the reference point with respect to the figural entity; 'activation process', representing the dynamic or static relationship between the figural and ground entities; and, the 'association function' which denotes the type of association between the ground entity and the figural entity. The framing event as such represents the gist of an expression, which bears the temporal and spatial characteristics with respect to the macro-event. In addition, the framing event dictates the argument structure of the whole expression.

Talmy (2000: 222) further classifies the world's languages into two types, depending on whether they encode the association function and/or the ground entity within the verb or within a satellite; the former type of languages is termed as verb-framed languages and the

latter as satellite-framed languages. A ‘satellite’ is defined as the constituent “that is in a sister relation to the verb root” (Talmy 2000: 222). By way of illustration, Talmy (2000: 223) gives an example from English as a satellite-framed language: *The bottle floated out*. In this sentence, *out* represents the associative relation of a path between the figure entity, *the bottle*, and the ground entity, which in this case is omitted. The verb *float* incorporates the manner of the action it denotes, which is the type of movement. In a verb-framed language such as Spanish, the same sentence would be translated as: *La botella salio flotando* (‘The’ ‘bottle’ ‘moved out’ ‘floatingly’), where the association between the figure and ground entities is again that of a path. However, in the Spanish sentence, the path ‘out’ is not expressed as a separate sentence constituent but incorporated within the directional verb *salio* (‘moved-out’). The manner, on the other hand, is expressed in a satellite next to the verb: *flotando* (‘floatingly’). Croft (2012: 296 - 298) observes that the English language also has verbs which conflate path in them, such as *enter*, *exit*, *ascend*, *descend* or *cross*, alluding that such a strict language-specific typology is wrong. Talmy (2000: 228) observes as a matter of fact the same, adding that these motion verbs are typically of Romance origin and mostly used in more formal situations. However, Talmy (2000: 240) also emphasises that the English language is generally a satellite-framed language when it comes to motion verbs; it frames the association between the figure and ground entities, which in the case of motion verbs is path, within a satellite next to the verb.

Furthermore, the path could be represented only by the satellite or it could also involve a preposition (Talmy 2007: 141). The preposition is sometimes followed by a nominal denoting the ground. This is exemplified in the sentence taken from Talmy (2007:142): *The coin melted free (from the ice)*, where the satellite, *free*, is followed by the preposition, *from*, after which the ground, *the ice*, follows. In fact, the previous example is a representative of the resultative construction, where the path-satellites semantically differ from denoting a prototypical path. In a similar manner, Croft (2012: 295) also observes that the English language proves to be a satellite-framing language not only with respect to motion verbs but also with respect to the resultative construction, where the result phrase is realised in a satellite next to the main verb, such as in *She wiped the table clean*.

Regarding the data analysed in this thesis and in consonance with Talmy's (2000) typology, the English language, as a satellite framed language, linguistically realises the path element via the particles *out/off*.⁴

In addition, the manner is incorporated within the verb itself (e.g. *cry*, *work*, *worry*). Idiomatic expressions with semantics 'V excessively' are also present in the Catalan language. However, the argument structure of Catalan samples differs from the one that English samples have. Mateu and Espinal (2007: 44-45) note that the difference is in accordance with Talmy's (2000) typology; Catalan is a verb-framed language and the manner is realised as an adjunct in a satellite position. In addition, there is no path particle, because it is already incorporated within the directional verb. An example from Catalan idiomatic expression 'V excessively' as given below, where the directional verb *petar-se* ('break out') incorporates the directional particle *out*, and the manner *riure* ('laughing') is realised as an adjunct in a coda position of the idiom:

- petar-se el cul (de tant riure)
- break+out+CL the butt (of much laughing)
- 'laugh one's butt off' (English translation)

(Example taken from Mateu & Espinal 2007: 41)

11.2. A lexico-syntactic approach considered

As alluded to in the previous section, the class of idioms under study in this thesis exists both in English and Catalan and their syntactic configuration is different. Based on a lexico-syntactic analysis of the idioms under study of both English and Catalan sample sentences, Mateu and Espinal (2007: 50) conclude that the idioms display different "typological patterns" due to the different morphosyntactic features the respective languages possess. Not only the presence of these idiomatic constructions but also the existence of other constructions in the English language that contain directional particles, such as the resultative or the *time away* constructions, is ascribed to the different morphosyntactic features of the two languages (Mateu & Espinal 2007: 39).

A lexico-syntactic approach is advocated by Hale and Keyser (2002: 1), according to whom, argument structure represents "a syntactic configuration projected by a lexical item". In fact, "argument structure is determined by properties of lexical items, in particular, by the syntactic

⁴ The distinction between prepositions and particles is discussed in section 12.1.2.

configurations in which they must appear” (Hale and Keyser 2002: 1). Furthermore, Hale and Keyser (2002: 1) distinguish only two syntactic relations: a complement and a specifier. For instance, according to Hale and Keyser (2002: 2), the reason why *I broke the pot* is grammatical but **I coughed the engine* is ungrammatical can be explained in syntactic terms. More precisely, the verb *break* is characterised with a verbal component and a complement; the complement is equivalent to the root, which has the same semantic and phonological properties that the lexical item *break* does; In addition, the root is characterised with a specifier (*the pot*). The verb *cough* is also characterised with a verbal component and a complement; the complement is also equivalent to the root (*cough*). However, in the case of *cough*, the root does not entail a specifier. Hence, Hale and Keyser (2002: 15) argue that the different argument structures that *break* and *cough* have are a reflection of the different syntactic configurations that *break* and *cough* project; while *break* projects a specifier, *cough* does not and that is why *cough* cannot appear in transitive sentences “in the *simple* manner” [original emphasis].

In addition, *cough* is an intransitive verb that requires an agent, whereas there are also intransitive verbs which are primarily associated with lack of agentivity (Shetreet et al. 2010; Perlmutter 1978). The former verbs are also called unergative verbs, and the latter type of verbs are known as unaccusative verbs (Perlmutter 1978: 162-163). Perlmutter (1978: 162) provides the main criteria which help make a distinction between unaccusative and unergative verbs. Unergative predicates mainly denote volitional acts (e.g. *work, play speak*) or involuntary acts (e.g. *cough, sneeze, hiccough*). On the other hand, unaccusative predicates form a bigger subclass of intransitive verbs and Perlmutter (1978: 162-164) provides six different criteria for distinguishing them from other intransitive verbs. For instance, two types of unaccusative verbs are predicates that have a patient argument (e.g. *burn, fall, drop*) and predicates that denote existing (e.g. *exist, happen, transpire*). In addition, Perlmutter (1978: 163-164) also mentions verbs like *slide*, which could be considered as unergative if the act of sliding is volitional, or unaccusative, if the act of sliding is non-volitional.

Unergative verbs are the most numerous type of verbs in the class of idioms under study in this thesis. According to Hale and Keyser (1993: 54) “the lexical structure representation of an unergative verb, such as *laugh*, involves incorporation, into an abstract V, of the nominal head N of its NP complement”. This is shown in Figure 5 which is taken from Hale and Keyser (1993: 55):

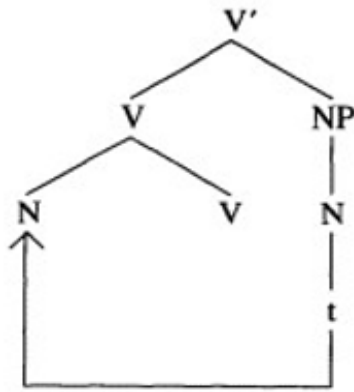


Figure 5 Lexical structure representation of laugh

In addition, although the constructions under study contain in most cases an intransitive verb, in their argument structure there is also a postverbal noun phrase which takes the position of direct object (e.g. *my eyes*, *my heart*, *my guts*, etc.). Applying a lexico-syntactic approach to the analysis of the idiomatic expressions under study, Mateu and Espinal (2007: 46-47) claim that the argument structure of the idioms is a conflation of a transitive argument structure and an intransitive one. Mateu and Espinal (2007: 46) argue that the transitive argument structure of the idiomatic expressions under study is similar to that of the location and locatum verbs as presented in Hale and Keyser (1993: 57-58). Clark and Clark (1979: 772) define location verbs as primarily transitive verbs that are derived from a noun that encodes the location where the object moves to (e.g. *shelve*) and locatum verbs are, according to Clark and Clark (1979: 769), derived from a noun that encodes the thing whose location is moved with respect to the entity denoted by the noun in a direct object position (e.g. *saddle*). For instance, Hale and Keyser's (1993: 56-58) present the l-syntactic structures of locatum and location verbs (e.g. *shelf*), where the N element is first merged into the P element and together they are fused with the V element (Hale and Keyser 1993: 57-58). This is illustrated in Figure 6, which is taken from Hale and Keyser (1993: 58):

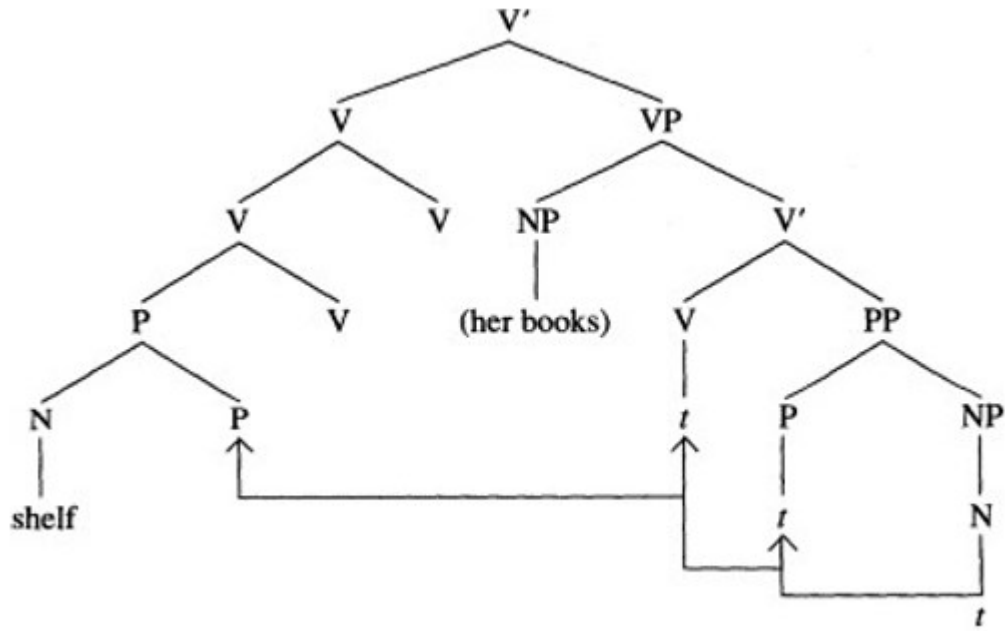


Figure 6 Lexical structure representation of *shelve*

As such the noun *shelf* undergoes three movements in order for the verb *to shelve* to be derived.

In a parallel fashion, the transitive argument structure of the constructions under study is characterised with an empty verb V1 that subcategorises for a small clause; the clause consists of a determiner phrase (e.g. *one's eyes*) and a complement represented by the particles *out* or *off*. The P element *out* is not incorporated into the null verb (V1), unlike the P element in the case of locatum and locative verbs (Figure 6). The satellite position of the particles *out/off*, in turn, enables the incorporation of an intransitive argument structure of an unergative verb into the null verb of the transitive structure (Mateu and Espinal 2007: 47-48). This is exemplified in Figure 7, which is taken from Mateu and Espinal (2007: 47):

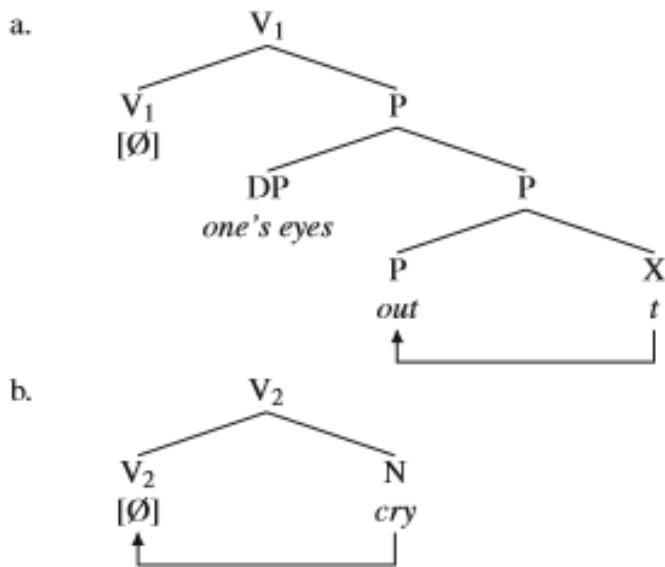


Figure 7 Lexical structure representation of a) Transitive structure b) Unergative verbs

However, regarding the lexico-syntactic explanation of the particular argument structure characterizing the idioms, a few observations need to be made. For instance, Mateu and Espinal (2007: 39) draw a parallel between the argument structure of these idioms in English (e.g. *argue one's heart out* as in example (23) and the existence of telic path constructions, e.g. *float out of the cave* as in example (24). The path particle *out* is present in both of the constructions as a satellite next to the verb, due to the fact that it is not conflated in the main verbs *argue* and *float*, respectively:

23) the debaters continue *arguing their hearts out*, in a desperate attempt to hog imaginary glory. – NOW

24) The boat *floated out* of the cave.

(Example 24 is taken from Mateu & Espinal 2007: 56)

Undoubtedly, as originally observed and pointed out by Talmy (2000), English is a language where path particles exist as separate constituents in the utterances, which is also exemplified through the two expressions above. However, drawing a parallel between the two expressions under (23) and (24) does not seem appropriate, since they differ syntactically and semantically in a number of ways.

Firstly, in example (24) the path particle *out* is complemented by the prepositional phrase *of the cave*. Such complementation is not possible when the idioms are used:

25) *The debaters continued arguing their hearts out *of their bodies*.

Secondly, whereas *float* is an unaccusative verb, *argue* is an unergative activity verb. According to Mateu and Espinal (2007: 48), the direction particles *out* and *off* could be combined with activity verbs due to the satellite nature of the particles (Mateu and Espinal 2007: 48). However, *float* can be used intransitively, i.e. it may, but need not be followed by the particle *out* (e.g. 26 a). *Argue*, on the other hand, cannot be followed only by the particle *out*, as is exemplified in (27b) below. It would also not make any sense to use *argue* with a direct object only that denotes a body part, as in (27c) below:

26)

- a. The boat floated.
- b. The boat floated out.

27)

- a. They argued.
- b. *They argued out.
- c. *They argued their hearts.

There are also further syntactic characteristics that distinguish the verbs and particles that are part of the idiomatic expressions under study from other verb-particle combinations. The syntactic features will be addressed in more detail in chapter 12 of this thesis.

Regarding the semantics of the expressions, one of the cited meanings of *float* in the OED is ‘to move quietly and gently on the surface of a liquid’. The meaning of *float out* is compositional; it combines the meaning of ‘movement’ contained in *float* with the meaning of *out*, which is defined in the OED as ‘in an outward direction’.

Argue, on the other hand, is listed in the OED with the meaning: ‘to bring evidence, convict, prove, indicate’. If analysed compositionally together with the particle, like *float out* above, the meaning would be a ‘to bring evidence in an outward direction’. However, this is not how this verb-particle combination is interpreted. *Argue out* makes only sense if it is used with second noun phrase in an object position, which is coreferential with the subject. For instance, on the level of literal reading, the sentence: *I argued my heart out*, intensifies the meaning of *argue* until the person’s heart has come out. Metaphorically, the detachment of this body part is conventionally understood to mean ‘V excessively’.

In addition, the constructions under study have similar semantic properties as the English resultative construction; in both constructions a change of state from one condition into another is implied (Goldberg 1995: 180). Furthermore, the causative path resultative, as

defined by Goldberg and Jackendoff (2004: 540), has the following syntactic shape: NP1 V NP2 PP3, which is also similar with the syntactic shape of the constructions under study. Basing his analysis on the resultative construction, such as *the clock ticked the baby awake*, (this example is taken from Hoekstra 1988: 115), Hoekstra (1988: 116-117) claims that treating the result phrase and the noun that precedes it (*the baby awake*), as a small clause is the suitable approach to the analysis of the resultative construction. More precisely, some of the verbs used in the resultative construction are intransitive (e.g. *tick*) and hence, there is no close semantic relationship between the verb and the noun phrase that follows (*ticked the baby*). On the contrary, there is tight semantic relationship between the noun phrase and the predicative phrase that follows (e.g. *the baby awake*), which is treated like a small clause. Moreover, even if a verb used in a resultative construction is transitive: *wash* in *He washed the soap out of his eyes*, (this example is taken from Hoekstra 1988: 116), the semantic relationship between the verb and the noun phrase (*washed the soap*) does not make sense, whereas the combination of the noun phrase and the following adjective does (*the soap out of his eyes*). Hoekstra (1988:117) also points out that “the verb (or the construction as a whole) acquires a causative meaning and, related to this, the predicate has a result interpretation”. Hence, Hoekstra (1988: 117) states that either the verb or the construction as a whole obtains a causative meaning and as a consequence, the small clause obtains a result meaning. If one accepts the fact that the verb has acquired a causative meaning, then one would also expect to find the verbs *tick* with the causative meaning in other uses as well, and not only as part of the resultative construction. However, this is hardly the case. Alternatively, if the verbs are not ascribed a causative sense then the question regarding the criteria that sanction the combination of a small clause and the verbs they are combined with remains open.

One solution that Goldberg and Jackendoff (2004: 535) offer, is to regard the resultative construction as a family of constructions with related syntax and semantics. The causative meaning is ascribed not to the verbs that take part in the construction but to the construction: X1 CAUSE [Y1 BECOME Z3]. In addition, the verb retains its original meaning and when used in the resultative construction has a means component to it. Thus, there is no need to treat the predicate as a small clause that obtains a result interpretation.⁵ Consequently, the claim made by Mateu and Espinal (2007: 46) that all structures, disregarding if they are idiomatic or not, have their compositional meanings which is contained in their building blocks is not correct in all cases. While there exist verb-particle combinations, such as *float*

⁵ The comparison between a small clause analysis and a constructional analysis is further pursued in section 12.1.1. of this thesis

out in example (24) above, whose meaning is compositional, there are also particles as parts of expressions, which cannot be treated as a semantically unified whole with the verbs they follow alone. Among these are the particles *out* and *off* that take part in the formation of the class of idioms under study in this thesis. They neither form a meaning together with the verbs only in isolation nor do they behave syntactically like other verb-particle combinations, such as *float out*. Hence, the claim made by Mateu and Espinal (2007: 53), that the combination of “an open-ended list of unergative/unergativised verbs” with the path particles *out* and *off* can be explained on purely syntactic grounds is called into question. As will be elaborated in chapter 12, there are numerous syntactic discrepancies between the verb-particle combination in (24) and the idiomatic expression in (23): the number of arguments they can take and the complementation of the particles being some of the differences. In addition, the limitations of treating of the postverbal noun phrase and the particles *out/off* as a small clause is further elaborated in section 12.1.1. of this thesis.

11.3. A lexical-rule account

If an analysis of idiomatic expressions with semantics ‘V excessively’ is done in line with a lexical-rule account, then the verbs would have to be considered as complex verbs that include the particles *out/off*. As such, the verbs together with the particles would have other senses. In fact, the verb-particle combination would have to have undergone a semantic shift to mean something like ‘V excessively’.

However, the verb-particle combinations found in these idioms are not listed in the lexicon with the meaning ‘V excessively’. Rather, some of them are listed together with the noun phrase that functions as the object. For instance, in the OED, a definition of *cry one’s eyes out* or *work one’s ass off* can be found with the possessive pronoun and the noun following the verbs *cry* and *work* clearly listed. Conversely, there are also such idiomatic expressions as *work/worry one’s life out* and *cough/sneeze/bark one’s head off*, which are not recorded in the OED. That speakers of English use these expressions is clear from the fact that sample sentences containing them can be found in COHA. Hence, the phrasal pattern with syntactic structure NP1 V NP2 OUT/OFF and semantics ‘V excessively’ undoubtedly shows a certain degree of productivity, and that is why not all of the idiomatic expressions that instantiate it are listed in the dictionary.

Therefore, a theory is required which could explain why they are productive in the first place. As will be explained in the section below, productivity can only be explained if one accepts the fact that language users abstract a meaning out of a particular syntactic structure.

Rather than limiting our view to the claim that the semantics of this class of idioms is arrived at by adding the semantic values of the separate constituents, or to the view that the verbs have undergone a semantic shift in order to mean ‘V excessively’, one can view this type of idioms as a form-meaning pairing open to any class of sentence constituents that could pragmatically and semantically fit into it.

12. Constructional analysis

12.1. Syntactic features

The syntactic form of the idioms under study can be schematically represented as follows:

NP1 V NP2 OUT/OFF

In what follows, the syntactic features of each of the elements that constitute the idiomatic expressions is analysed separately.

12.1.1. Verb features

The verbs that take part in this class of idioms are all followed by a noun phrase, NP2 (e.g. *our hearts*, *my ass*). Moreover, as Jackendoff (2002: 173) also observes, when the verbs appear in these idiomatic expression, they cannot additionally be followed by a noun phrase in a direct object position.

28) *We ate *hamburger* our hearts out.

29) *I read *a book* my ass off.

Furthermore, no other linguistic elements, such as adverbs, can be inserted between the verb and the second noun phrase:

30) *Then she cried *slowly* her heart out.

31) *I read *slowly* my ass off.

The examples (28)-(31) show that the NP2 syntactically takes a direct object position, since the verbs cannot select noun phrases in a direct object position on their own nor can any other element between the verbs and the NP2 be inserted. By contrast, Hoekstra (1988: 124) notes that it is impossible for two objects to appear in a sentence that contains a small clause, such

as *our hearts out* and *my ass off* in example (28) and (29), respectively. In fact, Hoekstra (1988: 124) mentions the Small Clause Rule (SCR), which predicts three things: the verb is complemented by a small clause, the verb's internal arguments are removed and the verb acquires a causative interpretation. Thus, according to the SCR, if the verb selects a direct object, like *eat* and *read* when used transitively, then it would be removed once a small clause is added. However, there are a lot of verbs whose arguments could theoretically be removed in order to be combined with the small clause, NP OUT/OFF, but do not appear in the constructions under study. Hence, one limitation to the small clause analysis is the lack of criteria that state which types of verbs can be combined with a small clause in order for an expression to encode a causative interpretation. Furthermore, if the internal arguments of the verbs are removed when a small clause is added, then the question why the NP2 syntactically behaves like an argument of the verb is also left open. Another possible drawback is the fact that certain languages, like the Romance languages, do not have small clauses, like the ones found in the English resultative or *way* constructions (Mateu 2005: 58). Although Mateu (2005: 60) ascribes this cross-linguistic variation to a different typological classification that the respective languages belong to, the major drawback to the Mateu's (2005) lexical-syntactic approach are some findings which are highlighted in section 11.2.

Some of the intransitive verbs that appear in the idiomatic expressions under study also have a transitive counterpart. However, even though these verbs license a direct object, they do not license the direct object complements that are found in this class of idioms. Such arguments are not attested independently of the verbs' uses in these idioms, because semantically it does not make sense to say such sentences as in examples (32), and (33), except maybe metaphorically:

32) *We eat our hearts.

33) *She works her ass.

Hence, the NP2 that takes up a direct object position in the idiomatic expression has to be a contribution of the construction itself. A most obvious case that the direct object is indeed a contribution of the construction is the occurrence of unergative verbs, which as the name suggests, do not license direct objects at all:

34)

a. I cried my eyes out.

b. *I cried my eyes.

35)

- a. I coughed my head off.
- b. * I coughed my ass.

In addition, although sentences with noun phrases in direct object position normally can undergo a passive, it-cleft or wh-cleft transformation, as shown by the examples in (36), a noun phrase with the role of NP2 within the idiomatic expressions under study cannot do so, as exemplified in (37).

36)

- a. We pick out Drew - Drew is picked out.
- b. We pick out Drew - It is Drew we pick out.
- c. We pick out Drew - Who we pick out is Drew.

37)

- a. I cried my eyes out – *My eyes were cried out.
- b. I cried my eyes out - *It is my eyes I cried out.
- c. I cried my eyes out - *What I cried out are my eyes.

The ungrammatical passive sentence in (38 a) below should not be confused with the passive sentence in (38b), which is the passive equivalent of an active sentence such as in (38c). As is evident from example (38c), NP1 ('Belle') is not co-referential with NP2 ('my life'), and the paraphrased meaning is not 'to worry excessively' but 'to worry somebody excessively'.

38)

- a. * My life is worried out by me.
- b. My life is worried out of me by these stupid niggers. (COHA)
- c. Oh, Belle, you worry my life out of me! (COHA)

Moreover, Jackendoff (1997: 548) also notes that this class of idioms cannot undergo *tough* movement (e.g. 39a) and cannot be questioned (e.g. 39b), whereas they do allow pronominalization (e.g. 39c) and ellipsis (e.g. 39d):

39)

- a. *His heart was terrifyingly easy for Bill to eat out.
- b. *Whose/which heart did Bill eat out?
- c. Bill ate his heart out over Sally on Wednesday, then he ate it out over Jessica on Thursday.

- d. Bill ate his heart out over Sally, and Harry ate HIS out over Jessica.

(The examples are taken from Jackendoff 1997: 548)

However, although according to Jackendoff (1997: 548) pronominalization and ellipsis are possible syntactic processes for this class of idioms, there are no such sample sentences attested in COHA. Of course, a corpus is just a finite collection of texts and the fact that such samples have not been attested in COHA does not necessarily mean that they have not occurred or never will occur. However, it may in fact be possible that they really do not occur or at least only seldom occur. There is a high probability that the reason is pragmatic; there rarely occurs an occasion where it is of essential importance for the language users to conjoin two similar ideas into language units that both include the same idiom. In particular, there have been rare occasions where a participant in the language exchange process mentions that a subject has done something excessively, whereby an idiom of the sort analysed here is used, and then joins this idea with a similar one including the idiom again. When the same idiom is used for the second time then ellipting or pronominalizing a part of it would be possible syntactic movements, as shown in examples (39c) and (39d) above.

12.1.2. Particle features

The sentence elements *out* and *off* are referred to as particles and not as prepositions in order to highlight the fact that their syntactic behaviour differs when compared to their syntactic behaviour when they are used as regular prepositions, as in (40) and (41) below:

40) He walks off stage (COHA)

41) Georgeanne walks out the door (COHA)

As also emphasised in Cappelle (2005: 29), a distinguishing feature of the prepositions is that they take a complement, which is the noun phrase that follows them. For example, in sentence (40) the preposition *off* forms a prepositional phrase together with the prepositional object *stage*. Cappelle (2005: 30-31) also cites a set of syntactic tests that can be applied that show whether certain sentence elements are to be regarded as prepositions or particles. For instance, some syntactic tests that show that *off* in (40) is a preposition are these: *off* cannot be placed after the noun phrase (e.g. **He walks stage off*), the noun phrase can be ellipted (*He walks off*) and no passive equivalent is possible (e.g. **The stage is walked off*).

On the other hand, when *off* and *out* are part of verb-particle combinations they form a sentence constituent together with the verb (Cappelle 2005: 29-30):

42) They turn off the lights. (COHA)

43) NEKESA does not blow out the candle. (COHA)

The syntactic tests that were applied to sentences (40) and (41) yield different results when they are applied to sentences (42) and (43). For instance, the noun phrases following *off* and *out* in (42) and (43) can also appear before them (e.g. *NEKESA does not blow the candle out*). Furthermore, the noun phrase cannot be ellipted (e.g. **NEKESA does not blow out*) and passivisation is possible (*The candle is blown out*). Although it sometimes happens that the results gained from applying some of the defined set of syntactic tests does not accord with the distinction between particles and prepositions, the application of most of the tests supports a view that treats particles and prepositions as separate syntactic categories (Cappelle 2005: 32-33).

The sentence elements *out* and *off* in the idioms under study are particles because they do not form a constituent with the NP2. In particular, they fail most of the syntactic test that show that *off* and *out* are prepositions. For instance, regarding the three syntactic test applied to *out* and *off* in this section, the following can be said: firstly, the NP2 noun phrases do not follow the particles, unlike is the case when *out* and *off* are prepositions and the noun phrase cannot be ellipted (**I cried off*). However, unlike is the case with typical particles, passivisation is not possible (**My eyes are cried out*).

In addition, the particles *out* and *off* show other features as well that distinguish them from other, more typical particles. For instance, verb-particle combinations that consist of motion verbs and the direction particles *out* and *off* are often characterised by the fact that the particles can occur in two positions; they can occur both before and after the direct object. Examples (44a – d) illustrate the sentence position flexibility of the *out* and *off* particles:

44)

- a. Doc *stuck* his head *out* of the galley. (COHA)
- b. He *stuck out* his hand and grinned. (COHA)
- c. I *took off* my great coat and put it over her shoulders [...] (COHA)
- d. I *take* my hat *off* and put it on the table and sit. (COHA)

Conversely, when the *out* and *off* particles are part of the *one's heart out* and *one's head off* constructions, they have a fixed sentence position; they always appear after the second noun phrase (NP2). Sentences containing this class of idioms, where the particles *off* and *out* are

placed before NP2 and immediately after the verb, such as in examples (45b) and (46d) below, are not attested in COHA ⁶:

45)

- a. A blackbird is *singing* his heart *out* in the willow by the pond. (COHA)
- b. * A blackbird is *singing out* his heart in the willow by the pond

46)

- a. We *laugh* our heads *off* at trouble. (COHA)
- b. * We *laugh off* our heads at trouble.

Thus, the fact that the particles *out* and *off* have fixed sentence position as well as the fact that they the idiomatic expressions cannot be passivized, unlike typical verb-particle combinations, show that the *one's heart out* and *one's head off* constructions are syntactically less flexible when compared to regular verb-particle combinations.

12.1.3. NP1 and NP2 features

The first noun phrase, NP1, is always an animate entity (e.g. *He, She, Doc, I*), whereas the second noun phrase, NP2, stands for a possessive pronoun followed by a noun. The subject referent is nearly always a human, with the exception of *bark*, where the subject referent is an animal. The possessive pronoun is always co-referential with the subject of the sentence:

47) * He sobbed *her* heart out.

Although the first participant is an animate entity, it could not be said that it instigates the action until the metaphorical result state of a 'body detachment' is reached. There are verbs that are found the idiomatic expression under study, such as *cough, cry, or scream* which could be performed both intentionally as well as involuntarily. As a result, it can be said that what the animate entity does merely brings about the result state of a 'body detachment'; it is not a direct initiator of the newly achieved state. Hence, the first participant is best described as force or the "cause of an action" (Brinton 2000: 267).

The reason why the NP1 is always an animate entity follows from the semantics of the constructions 'V excessively'. In particular, an animate entity is needed in order for the activities to be performed excessively. This condition, in turn, semantically constrains the appearance of types of verbs in the constructions under study. In fact, the fulfilment of this

⁶ Some idiosyncrasies are observed in section 12.4 of this thesis

condition stipulates that verbs that have a participant role that can be construed as the constructions' agent are the ones that fit the semantics of the two constructions.

12.2. General semantic features

Under the present, constructional analysis, the semantics of the construction 'V excessively' imposes itself on the semantics of the respective verbs that participate in it (e.g. *cry*, *work*, *sob*, *argue*, etc.). Hence, the semantic component 'excess' is not contained in the verbs themselves but is complemented by the *one's heart out* and *one's head off* constructions they are part of. Jackendoff (1997: 554) points out that

the construction rather than the verb determines the argument structure; the way the verb is integrated into the interpretation of the clause comes from the construction, not from the verb itself; and all the semantic properties come from the meaning associated from the construction.

Importantly, one cannot arrive at the literal interpretation only by adding the semantic values of the separate constituents. That this is so is clear from the fact that if one or more of the constituent parts that form the class of idioms under study are removed or substituted, such as in (48a) and (48b), or if an adverb is placed between the second noun phrase and the particle, as under (48c), then such expressions do not make sense at all:

48)

- a. * I cried my eyes.
- b. * I cried *them* out.
- c. * I cried my eyes *completely* out.

Moreover, the positioning of the particles *out* and *off* in a fixed non-adjacent position with the verbs, as outlined in section 12.1.2. is indicative of the fact that they are different from other verb-particle combinations that consist of motion verbs and direction particles. Hence, 'the detachment of body part' component, which is metaphorically taken to mean 'V excessively' is not contained in the verbs nor is it contained in the verb-particle combination as a whole. Rather, it can only be evoked by the whole combination of linguistic items with a syntactic shape: NP1 V NP2 OUT/OFF.

Schematically, the semantics of the construction represented by the class of idioms is represented in the following way:

Semantics (literal meaning): X does V to causing Y out/off

Semantics (metaphorical extension): X does V excessively

The only exception within the first subclass of idioms is *to eat one's heart out*, where the intended meaning of the particular idiom is not 'to eat excessively' but, as noted in the OED: 'to suffer pangs of vexation, longing, envy, regret, etc.'. In addition, *eat one's head off* is used in contexts meaning 'eat excessively' as well as in contexts referring mostly to animals, as indicated in the OED: 'said of an animal that costs more for food than it will sell for'. The following section aims at presenting the semantic constraints of the constructions which explain much of the distributional features of the separate constituent parts.

12.3. Semantic constraints

12.3.1. Unbounded activity

A semantic constraint of the *one's heart out* and *one's head off* constructions is that their final interpretation, 'V excessively' implies unboundedness. When we consider their separate constituent parts, however, it becomes clear that some of them imply boundedness.

One of the component parts that hints at boundedness (telicity) is the particle *out/off*. Indeed, the inherent meaning of the particles *out* and *off* imply boundedness. For instance, one of the meanings of *out*, according to the OED is 'emphasising the completion of an action', such as in *hear out* or *last out*, which of course indicate boundedness. Likewise, boundedness is implied by *off* as part of verb-particle constructions such as in *clear off* or *drink off*, where, according to the OED, *off* has the meaning 'so as to exhaust or finish'. Whether a certain expression designates boundedness can be tested and proved if time expressions such as *in a day* or *in an hour* are acceptable sentence proceedings immediately after the particles themselves. This is exemplified in the sentences (49a) and (49b), which are taken from COHA:

49)

- a. Should dry out *in a day or two*.
- b. that any small boy, in fact, could tear them off *in an hour*,

On the other hand, most of the verbs that take part in the instantiations of the *one's head off* and *one's heart out* constructions are activity verbs that are not inherently bounded. Such are, for instance: *cry*, *laugh*, *talk*, *work*, *worry*, *eat*, *sing* or *laugh*. The general test for unboundedness proves this feature clearly:

50)

- a. I laid down my pen, and cried and laughed *for an hour*. (COHA)

- b. He talks *for hours* about art. (COHA)

However, in addition to activity verbs that code unboundedness, which form the majority, verbs that inherently designate boundedness, such as *sneeze*, *cough* or *bark* are also part of the idiomatic expressions:

51)

- a. It seems that grass makes her sneeze her head off! (COHA)
- b. He is sitting in front of a water pipe and coughing his ass off. (COHA)
- c. The little dog kept barking his head off. (COHA)

Irrespective of the presence of the particles *out* and *off* as well as the verbs which inherently imply boundedness, the COHA corpus does not provide evidence that the idiomatic expressions under study are bounded or telic. This can be seen from the time adverbial modifiers in (52a) and (52b). More precisely, the attested sample sentences are modified by a time phrase beginning with the preposition *for*, which is indicative of the unboundedness of the event being described in the expressions.

52)

- a. Pat, and damn' near cried my eyes out *for three days*.
- b. A girl can work her fingers off for you *for years*,

In the cases where verbs that independently imply boundedness are used, such as in example (51) above, what is understood is not a single activity but a series of repeated actions. This, in turn, leads to an interpretation of the expressions as atelic or unbounded.

In order to arrive at such an interpretation one has to take into account the meaning of the whole construction. Indeed, it is the semantics of the whole construction, 'V excessively' that leads to an interpretation of *sneeze*, *cough* and *bark* not as single activities but as a series of activities. In fact, if the sentences under (53) are paraphrased with the intended meaning 'V excessively', then the time phrase for unboundedness fits well, as opposed to a time expression beginning with *in* that implies boundedness:

53)

- a. Laugh one's head off- I laughed excessively for 3 hours/*in three hours.
- b. Worry one's soul out – I worried excessively for 3 day/*in three days.
- c. Work one's ass off- I worked excessively for the last few days/*in the last few days.

To conclude, the inherent semantics of the particles and some of the verbs include boundedness. The inherent meaning of the construction does not; its aspectual distinction is unboundedness, which is reflected in the final interpretation of the instantiations of this class of idioms.

12.3.2. Affective tone

On their own, without any surrounding linguistic context, the *one's heart out* and *one's head off* expressions have an emotive tone. Instead of linguistically realising the activity which is done to excess via an activity verb and an adverb that has the meaning of 'excessively', one combines the verb denoting the activity with a body part and the particles *off* or *out*. Hence, instead of *I cried a lot*, one can say *I cried my eyes out*. The latter way of expressing oneself is much stronger in that it intensifies the action denoted by the verb. The source of intensification is contained in the NP2 and particles *out/off*.

The following sentences taken from COHA are all instantiations of the *work one's ass off* idiomatic expression and the immediate context makes the intended emotive tone clearer:

54)

- a. And I've *worked my ass off* for women's rights. No skinny flat chested grump is going to chat me up on masturbation.
- b. I *worked my ass off* for a million years and all it got me is having to sit here and listen to somebody like you.
- c. It's my house. I *worked my ass off* for it.
- d. I'd *worked my ass off* at the office for years while she puttered away in her sculpture studio.

Example (54a) communicates that the person is proud and passionate about working a lot in order to gain more women's rights and at the same time unyielding in her resolution not to be submissive in front of other people that do not deserve attention. In Example (54b) the person is disappointed from the position they achieved despite the long work experience they have; presumably, the person expected a lot more than they achieved through excessive working. In (54c), the emphasis is on the ownership of the house thanks to the strenuous work they did; the implication is that no one else has bigger rights over it than the speaker does. Example (54d) implies irony and sarcasm towards the time the other person has idled away, whereas they devoted an enormous effort working in the office.

12.3.3. Semantic roles and their compatibility

Given their autonomous semantic structure, the *one's heart out* and *one's head off* constructions are consequently characterised with their own argument structure. Accordingly, the semantics and arguments structures of both constructions can be designated as

V-EXCESS <**agent**, **patient**, goal>

For instance, on the level of literal meaning, in the sentence: *I cried my eyes out*, the agent, *I*, causes the patient, *my eyes*, to come out. To assign an argument role as 'patient' the *do to NP test* should be felicitously applied (Jackendoff 1997: 545). As illustrated under example (55) the *do to NP test* can felicitously be applied to the class of idioms under study:

55) What I did to my eyes is cry them out.

Using the terminology and the way of representation introduced by Goldberg (1995: 49), the designated three arguments of the constructions are going to be referred to as 'argument roles'. The argument roles that are written in bold represent the profiled argument roles; they are realised via the direct grammatical relations subject and object, and hence are characterised with a semantic and pragmatic prominence. Semantically prominent are often entities characterised with agent or patient semantic roles, which are often realised through the grammatical relations subject and object (Langacker 2008: 364-365). Furthermore, old topics serve often as a more prominent pragmatic candidate to take a subject position than a new topic. However, Langacker (2008: 365) highlights that argument roles that serve to focus the attention are the ones that are pragmatically prominent roles. Using Langacker's (2008:70) terminology, a *trajecor* is understood to be the participant that has the "primary focus" and the landmark as the participant with "secondary focus". In particular, "a subject is a nominal that codes the *trajecor* of a profiled relationship; an object is the one that codes the landmark" (Langacker 2008: 365).

The profiling of the participant roles of the verb and the argument roles of the construction can be explained using the following two examples:

56) I mailed her a ticket to New York. (COHA)

57) I mailed my donation to the Audrey Hepburn Children's Fund today. (COHA)

Mail is a verb whose frame-semantic specification requires that the person who sends something and the thing that is sent are obligatorily realised participant roles. The recipient is

only optionally overtly realised. Thus, Goldberg (1955: 53) represents the participant roles of *mail* as follows:

mail <**mailer**, **mailed**, mailee>

In sentence (56) the two profiled roles as well as the non-profiled role of *mail* are fused with the three profiled argument roles of the construction. In sentence (57), the non-profiled role <mailee> can be only optionally lexically realised. In particular, the sentence would be fully grammatical without mentioning the mailee (*the Audrey Hepburn Children's Fund*). In addition, in sentence (57) the <mailee> participant role is not matched with a direct nor with an indirect object, which means that the argument role is not constructionally profiled.

Regarding the *one's heart out* and *one's head off* constructions, the only argument role which has to be matched with an independent participant role is the agent role. The patient and goal are added by the construction itself.

For instance, in the following sentence:

58) She could be singing her lungs out. (COHA)

The agent, *she*, is a profiled argument role realised in a subject position; the patient *her lungs*, is a profiled argument role realised in a direct object position and the goal, *out*, is realised as an object complement. Of course, that there is a patient and a goal is captured only on the level of literal meaning: the patient, *her lungs*, undergoes a change of location, which, in turn, is designated by the particle *out*. The means of undergoing the change of location is the verbal subevent, *sing*. Presented on their literal reading, there is a parallel between their semantics and the semantics of the resultative construction, as explained in Goldberg and Jackendoff (2004).

In sections 12.1. and 12.2. it was argued that the direct object and the complements *off* and *out* are arguments of the constructions but not of the verb itself. It was also argued that the particles *out* and *off* do not behave syntactically like other particles. Moreover, the direct object also shows some idiosyncratic properties that can be attributed only to the present constructions; some of the verbs do not select direct objects outside of their use in these constructions and all of them are usually not found with the specific noun phrases that take up the direct object position in the present two constructions. It was also argued that the second noun phrase, which has the argument role of patient, is indeed a direct object because there could be no other noun phrase inserted between them and the verb. In addition, the noun

phrase in a direct object position can undergo certain syntactic operations typical of direct objects.

The remaining question is then what are the criteria that sanction the appearance of the verbs in the *one's heart out* and *one's head off* constructions. According to Goldberg's view (1995), which is also the view adopted here, the verb's semantic frame has to be semantically compatible with the argument structure of the construction in question, and vice versa. For the semantics of verb and construction to be mutually compatible, there must be a compatibility between the verb's semantic roles and the construction's semantic roles. Semantic compatibility is in fact the essence of the semantic coherence principle; the argument roles of the constructions have to be able to be construed as the participant roles of the verbs themselves or vice versa. In addition, the fulfilment of the correspondence principle implies that each of the lexically profiled participant roles have to have a corresponding profiled argument role. If there are more profiled participant than argument roles, one of the profiled roles may be matched with a nonprofiled argument role. In addition, if there are more profiled argument roles, one of the argument roles could be matched with a nonprofiled participant role. A participant role is profiled "if and only if an expression involving the verb in active, simple past tense without the argument is ill-formed" (Goldberg and Jackendoff 2004: 548).

The verbs that take part in the constructions under study can be classified into two main groups according to the number of participant roles that they have. The first group of verbs are primarily intransitive verbs. The following intransitive verbs are found embedded in the *one's heart out* and *one's head off* constructions: *talk, work, cough, argue, sneeze, yell, bark, weep, cry, sob, eat* (when it is used figuratively in the *one's heart out* construction with the meaning 'worry'). They usually have just one participant role that is realised in an active, simple past sentence (e.g. *I laughed. I cried. I talked.*). For instance, the obligatorily realised participant role of the verb *laugh* can be represented as follows:

laugh <**laugher**>

The verb's only profiled role can be felicitously fused with the agent argument role of the *one's head off* construction in expressions like:

59) She laughed her head off.

Thus, the profiled participant role <**a laugher**> can be construed as an agent, which is in accordance with the semantic coherence principle, and hence they also share the same subject sentence position, which is in accordance with the correspondence principle. The patient and

goal argument roles, which are realised as direct object and a complement are contributions of the *one's head off* construction, which is in line with the correspondence principle: if there are more argument roles than participant roles, then they are contributed by the construction.

The second group of verbs could be used both transitively and intransitively. The following verbs constitute this group of verbs: *eat, drink, sing, cook, pray, read, knit and play*. When these verbs fill the constructions under study, it is their intransitive counterpart that is able to be integrated in the meaning of the construction. More precisely, it is always the semantic and syntactic properties of the construction that determine and constrain the type of verbs that can be embedded into a particular construction (Goldberg and Jackendoff 2004: 564, Jackendoff 1997: 554). With respect to the present constructions, as already noted, the meaning conveyed is that an action is done to excess. Another feature of the present constructions is that two lexical items mark them and delineate them from other constructions in the language; one is the noun phrase that denotes a body part and takes up a direct object position and the other is the complement *out/off*. Hence, a verb that has two profiled participant roles, as is the case with transitive verbs, is not possible be integrated in the constructions because that would not be in line with of the correspondence principle; there would be two separate patient semantic roles that cannot share the same syntactic position: one that belongs to the verb and one that belongs to the construction.

As a way of illustration, the verb *sing* analysed into its participant roles can be represented as follows:

sing <**a singer**, a theme sang>

Hence, there is one profiled participant role, <**a singer**>, and there is one nonprofiled participant role <a theme sang>. The verb's appearance in the *one's heart out* construction is sanctioned by the fact that the verb's participant role <**a singer**> can be construed as the agent argument role of the *one's heart out* construction. Consequently, the participle role <**a singer**> is fused with the argument role agent, according to the semantic coherence principle. In addition, the participant role, <a theme sang>, as a nonprofiled participant role of the verb, is not fused with any of the remaining two argument roles of the construction, because there is no corresponding semantic argument role. In other words, <a theme sang> cannot be fused with a patient argument role nor can it be fused with a goal argument role. However, its non-appearance in the argument structure of the *one's heart out* construction is in line with the correspondence principle; only profiled participant roles have to be matched with profiled or non-profiled argument roles. In this light, the profiled participant role <**a singer**> corresponds

with the profiled argument role agent and the argument roles ‘patient’ and ‘goal’ are contributions of the construction itself.

On the other hand, if one considers a verb that is obligatorily transitive (e.g. *injure*), then the verb’s semantics will be represented by two profiled participant roles. That follows from their frame semantic meaning; in the specific semantics of obligatory transitive verb it is entailed that the action is transferred from their agent semantic role to the patient semantic role. Hence, both the agent and the patient have to be syntactically realised. For instance, the participant roles of *injure* can be represented in the following manner:

injure <**injurer**, **injured**>

The constructional subevent encompasses the syntactic realisation of the argument role that denotes an affected body part from the action performed (e.g. *head*, *eyes*, *butt*, *ass*, etc.) and the result state (*out/off*). If a verbal subevent, for instance *He injured his back*, is combined with a constructional subevent, for instance ‘he made his heart come out from injuring himself’, then the resulting sentence would be: **He injured his back his heart out*. Such a sentence is incomprehensible and hence it is not well-formed. The ill-formedness is due to the fact that two patient roles, one that belongs to the verb (<**injured**>) and one that belongs to the construction <**patient**> are syntactically realised. However, the correspondence principle does not allow that. According to the correspondence principle, the verb’s profiled roles have to be fused with or added to the argument roles of the construction and consequently realised in the syntactic positions that are sanctioned by the construction. Since the construction licenses only one direct object position where the affected entity is realised, the double realisation of the two different patient roles leads to an ill-formed sentence. In addition, as pointed out by Goldberg (1995: 190), verbs whose participant roles are not semantically compatible with the argument roles of the construction cannot appear in the construction under study. Goldberg (1995: 190) exemplifies this claim with *become*, whose participant roles <**patient**, **result-goal**> cannot be fused with the argument roles of the resultative construction. In a parallel fashion, *become* can also not be part of the *one’s heart out* construction, due to the fact that the verb lacks a participant role that matches the agent argument role of the construction.

By contrast, according to Mateu and Espinal (2007: 38), certain verbs cannot appear in the *one’s heart out* and *one’s head off* constructions due to a syntactic constraint. In fact, Mateu and Espinal (2007: 38) claim that, despite Jackendoff’s (2002: 173) observation that “the verb is totally free, within pragmatic constraints”, only unergative verbs can be part of the

idiomatic expressions. The following two examples, which are taken from Mateu and Espinal (2007: 38) contain an unaccusative and an obligatorily transitive verb, respectively, which do not fit the class of idioms under study:

60) *John disappeared his head off.

61) *John frightened his head off.

However, the inability of *disappear* and *frighten* to occur in this class of idioms can also be explained on semantic grounds. In the first example, the verb *disappear* is not characterised with an agentive participant role that has to be fused with the agent argument role of the construction. Rather, *disappear* has only one obligatorily realised participant role, <**patient**>, which hence cannot be fused with any of the argument roles of the construction itself. This, in turn, shows a violation of both the semantic coherence principle and the correspondence principle. In the case of *frighten*, the obligatorily realised participant roles are: <**frightener, frightened**>. In order for *frighten* to appear in the *one's heart out* and *one's head off* constructions, its profiled participant roles must be construed as argument roles of the constructions. The participant role 'frightener' can be construed as the agent argument role of the constructions. However, the participant role 'frightened' can only be construed as an experiencer. Hence, there is no semantically corresponding argument role in the argument structure of the constructions for 'frightened' to be fused with.

One verb that would be left unaccounted for is the verb *cook*, if the analysis is done according to the lexico-syntactic approach applied by Mateu and Espinal (2007). *Cook* is a verb, which has one obligatorily realised role as patient, as in *The potatoes are cooking* (Brinton 2000: 274-275). Since the entity in subject position is not an instigator of an action but undergoes the action denoted by the verb, *cook* is to be put into the class of verbs which are defined as unaccusatives. In line with Mateu and Espinal (2007)'s argument that unaccusatives are not allowed in the constructions under study, *cook* cannot appear in the *one's head off* construction. However, according to Jackendoff (2002: 173) *cook* can fill in the verb's slot in the *one's head off* construction. Its appearance is a result of the fact that *cook* can also occur in sentences where the agent is syntactically realised but the patient is ellipped as in *She is cooking (the potatoes)* (Brinton 2000: 274). This particular semantic specification of the verb *cook* is the reason why its appearance in the *one's head off* construction is licensed.

With regards to the syntactic form of the constructions, it can be represented as follows:

SUBJ VERB OBJ OBJ-COMPL

The syntactic relations that the respective arguments are linked to can be explained in terms of general principles about predicates that have a subject and an object (Goldberg 1995: 117). In fact, that the agent takes up a subject position is clear due to the fact that agents are usually associated with a prominent subject position. Affected entities are generally associated with objects and the particles *out/off* are realised in an object complement position due to the fact that they more narrowly specify the condition of the direct object.

12.4. Syntactic variability

The *one's heart out* and *one's head off* constructions are characterised with limited structural variability, which was described in some detail in section 12.1. of this thesis. One of the constructions' syntactic peculiarities is that the particles *out/off* display noticeable distributional properties which differ slightly from the properties that most of the regular particles share; *out/off* have a fixed coda position, unlike ordinary particles whose position can alternate between two sentence positions: they can be placed either before or after the noun phrase found in a direct object position. However, regarding the fixed coda position of the particles, there are a few idiosyncrasies present amongst the instantiations of the constructions, as illustrated below with examples taken from COHA:

62)

- a. No Soldiers marching, no Dancers dancing, no Singers *singing out their Lungs*
- b. the wood thrushes *sang out their souls* in the tickets across the river
- c. Dante was *eating out his heart* in exile
- d. The two of us could *cry out our hearts* together.
- e. I was able to throw myself on my [...] and *sob out my heart*
- f. Oh! *Weep out your hearts* for the loss of your mother
- g. The woman to *grieve out her heart* in a home for women

Hence, the specific instantiations of the *one's heart out* construction *eat/cry/sob/grieve/ one's heart out*, as well as *sing one's lungs/soul out* show variability in the position of the particle *out*, just like other regular particles do; they appear both before and after the postverbal NP.

According to Croft (2012: 383), as also outlined in chapter 8, the idiosyncrasies in the form-meaning mapping are indicative of the fact that linguists cannot subsume these idiosyncratic expressions under a more general form-meaning mapping. On the contrary, they should be treated either as a verb-specific or verb-class-specific construction. Hence, the examples

above, would be treated as different constructions, which due to their resemblance in form and meaning would form a family of constructions.

Alternatively, according to Goldberg (1995: 98), constructions can inherit properties of two autonomous constructions. Thus, the above listed expressions are part of the *one's heart out* construction, but inherit syntactic properties of both the *one's head off* construction and the verb-particle construction. An alternative view that treats the *one's head off* construction as part of a verb-particle construction would not be felicitous because the rest of the instantiations do not alter the position of the particle *off*. In addition, there are also semantic differences which would render the two constructions separate.

12.5. Semantic variability

12.5.1. Semantic variability of the nouns used in the first subclass of idioms

The second noun phrase, NP2, consists of a possessive pronoun and a noun denoting a body part. As could easily be observed from the data presented in Table 1, the body part most often combined with different verbs is *heart*. In fact, *heart* could be combined with all of the different verbs that are attested in this subclass of idioms.

An exception to the observation that the NP2 includes a noun denoting a body part are the following idiomatic expressions: *work one's soul/life/daylights out*, and *worry one's soul/life out*. As indicated in the OED, the definition of *soul* is 'the principle of intelligence, thought, or action in a person (or occasionally an animal), typically regarded as an entity distinct from the body'. Thus, although *soul* is not a body part, when used as part of the *one's heart out* construction it is construed as a body part which is detachable. *Life* and *daylights* are the other two nouns which do not represent body parts. The presence of *life* and *daylights* in the *one's heart out* construction does not change the final interpretation, 'do excessively'. However, although there is an implication that the person has spent their whole life/daylights working, it is not specified that a body part has been affected by it. The motivation of the appearance of *life* and *daylight* is likely to be related to the verb *work*, or any other verb denoting an activity, which is tightly connected to a time period that a person spends working/performing an activity. Hence, the generalisation that a body part is detached due to performing an activity excessively has been expanded to include the time period a person spends working. Hence, these two instantiations of the construction represent idiosyncratic instances of the *one's heart out* construction. According to Goldberg (1995: 136), idiosyncrasies within the same constructions "are tolerated because speakers associate words with the constructions

idiosyncratically”. In addition, the productivity of the set of nouns that do not denote a body part is likely to be limited because their low type frequency entails that new instances are not going to be added to the existing lexical entries.

12.5.2. Semantic variability of the nouns used in the second subclass of idioms

The second subclass of idioms with syntactic form NP1 V NP2 OFF also possesses some semantic properties which differ from the general ones that it shares with the first subclass of idioms. Firstly, in this subclass of idioms, as well as in the first subclass of idioms, there is one noun whose frequency of occurrence with different verbs outnumbers the frequency of occurrence of the other nouns contained in NP2; the noun *head* can be combined with almost all of the verbs that take part of the second subclass, with the exceptions of *dance*, *cough*, *run*, *read*, and *work*. Another feature that the two subclasses share is that there are few nouns that are part of the NP2 but do not denote a body part. One exception is the noun *socks*. The other four exceptions are, according to OED, slang uses for nouns denoting body-parts: *knackers* stand for ‘testicles’, *nuts* for ‘brains’, *wings* for ‘arms’ and *can*, *bun* and *tail* represent slang items for ‘buttocks’ in the USA.

12.5.3. Semantic variability of the verbs used in the idioms

The verbs that fill in the *one’s heart out* and *one’s head off* constructions can be divided into a few semantically based subclasses of verbs, according to the mutual semantic components that the respective verbs possess:

63) Verbs of physical activity:

- a. Verbs of actual physical action: *work*, *play*, *swim*, *run*, *fight*;
- b. Activity verbs expressing thoughts/opinion: *talk*, *argue*;
- c. Activity verb of saying a prayer: *pray*;
- d. Activity verbs expressing animal’s disposition: *bark*;
- e. Activity verbs encoding (involuntary) bodily activities: *cough*, *scream*, *sneeze*, *yell*, *laugh*;
- f. Activity verbs of mourning: *sob*, *cry*, *weep*, *grieve*, *yell*, *worry*, *eat* (‘worry’);
- g. Activity verbs of rejoicing: *sing*, *laugh*;
- h. Activity verbs of creation: *cook*, *knit*, *program*;

The fact that the number of verbs that form the different subclasses of verbs varies provides support for the assumption that productivity is tightly connected with type frequency (Goldberg 1995: 134). More precisely, the token frequencies of the *one’s heart out* and *one’s*

head off constructions in COHA, which consists of more than 400 million words, are relatively low. As could be observed from Figure 3, *cry one's eyes out* is the most frequent instantiation of the *one's heart out* construction, occurring a hundred times in COHA. Figure 4 shows that the most frequent instantiation of the *one's head off* construction is *laugh one's head off*, occurring forty-five times in COHA. In addition, apart from the first two instantiations in Figure 3 and the first four instantiations in Figure 4, the rest of the constructional instantiations occur even less than twenty times. However, even though the token frequency of both constructions whose samples are taken from COHA is low, the type frequency is high: there are a total of 14 different verbs which take part in the 26 instantiations of the *one's heart out* construction and 12 different verbs which appear in the 27 instantiations of the *one's head off* construction. Hence, considering the low frequency of the constructions under study, it may be said that the constructions are productive, since the type frequency is relatively high. In addition, it may be expected that the subclasses containing more lexical entries, such as the verbs of actual physical action or verbs of mourning are more probable to be productive than verbs of animal's disposition. The reason why the subclasses of verbs with greater type frequency would be more productive is due to the nature of memory; "memory is associative", so the greater the type frequency of a certain subclass of verbs, the greater the likelihood that the list with semantically similar verbs would be expanded (Goldberg 1995: 133).

In addition, the appearance of different verbs is constrained by the semantics of the construction: 'V excessively'. Thus, all the verbs used denote an activity (e.g. *work, cry, worry, sing, scream, play*) and no verb denotes a state. Hence, verbs such as *seem* cannot appear because it cannot be construed as an action that could be done to excess.

Another characteristic of the verbs from the first subclass of constructions is that *work* is most often combined with different nouns as part of the NP2 (e.g. *heart, guts, fingers, eyes, bones, brains, arms, head, tongue, fingers*). In addition, the first attested sample sentence of the particular idiom *to* — *one's heart out*, as noted in the OED, is *to work one's heart out* in the book *All for Money* by Thomas Lupton, which was published in the year 1578 (e.g. *He is not worthie to liue I make god a vowe, That will not worke his hearte out for both you.*).

Hence, in the first subclass of idioms, the most frequent referent of the NP2 slot is *heart*, the verb mostly used is *work* and the first attested sample, according to OED, is *to work one's heart out*. Although it is beyond scope of this thesis to describe how this class of idioms expanded to include the verbs and nouns that it synchronically is used with, one viable

explanation is that *'to work one's heart out'* represents the earliest prototypical expression. The generalised meaning 'V excessively' of that particular idiomatic expression might then have been expanded to include novel verbs and nouns that pragmatically and semantically fit this generalisation.

Thus, the constructions under study display both lexical and syntactic variability to a certain degree. However, Langlotz's (2006) assumption that idioms whose meaning can be decomposed into separate figurative meanings of their constituent parts display bigger lexical and syntactic variability than those idioms which are semantically more opaque cannot be supported nor declined. This is so because the figurative meaning 'V excessively' is attributed to the whole construction and not to a certain constituent part of the idiomatic expressions.

13. Concluding remarks

The primary concern of this master thesis was to describe the semantic and distributional properties of specific instances of the *one's heart out* and *one's head off* constructions within a constructional grammar approach to linguistic analysis. The biggest part of the data on which the analysis was based was gathered from COHA (Corpus of Historical American English). A smaller part of the data consists of sample sentences taken from COCA (Corpus of Contemporary American English), NOW (News on the Web), OED (the Oxford English Dictionary) and one scientific article (Jackendoff 2002). The main findings are summarised below.

The distributional properties of the specific instances of the constructions are not fully predictable from those of the specific lexical items that instantiate the construction. For instance, some of the verbs are obligatorily intransitive (e.g. *sneeze*), whereas others are primarily intransitive (e.g. *argue*). The former type of verbs do not license direct objects and the latter type of verbs do not specify independently the direct objects they are complemented with in the idiomatic expressions. However, in the idiomatic expressions both types are followed by noun phrases which take up a direct object position. That the position that the NP2 occupies syntactically has the role of a direct object can be inferred from a few facts: no other noun phrase that the verbs independently select as a direct object can be inserted and no adverb can be inserted between the verbs and the NP2. On the other hand, the second noun phrase (NP2) also shows properties which are unlike typical direct objects. The NP2 which has the syntactic position of a direct object in the idiomatic expressions does not undergo syntactic movements such as passivisation, *it*-cleft and *wh*-cleft transformations. Furthermore,

while the idiomatic constructions under study allow pronominalisation and ellipsis, they cannot be questioned, nor can they undergo *tough* movement. Regarding the path particles *out/off*, it was observed that they are syntactically less flexible than regular verb-particle combinations; they cannot be placed immediately after the verbs and the lack of passivisation is also not a feature of typical verb-particle combinations. Hence, the distributional properties of the second noun phrase and the particles show both similarities and discrepancies when compared to prototypical direct object and verb-particle combination.

In addition to the structural properties, the idiomatic expressions under study also show semantic peculiarities. Importantly, one does not arrive at the literal interpretation of the idiomatic expressions, ‘V excessively until a body part is removed’, by adding the semantic values of the separate constituents. This is clear from the fact that certain constituent parts cannot be removed (e.g. **I cried my eyes*), or substituted (e.g. **I cried them out*) without a loss of meaning. In addition, placement of adverbs between the second noun phrase and the particle is also impossible (e.g. **I cried my eyes completely out*). The semantic wholeness of the idiomatic expressions under study is further justified by the fact that the instantiations display certain semantic constraints: they project unboundedness, although the particles and some of the verbs code boundedness and they also display an emotive stance in a way that the action denoted by the verb is intensified. For the purposes of the present thesis, the arguments outlined above support the third hypothesis: the idiomatic expressions under study encode a meaning that is a combination of the meaning of its separate constituents and the meaning which is associated with their syntactic shape (NP1 V NP2 OUT/OFF).

In addition, the semantics wholeness of the idiomatic expressions under study as well as their specific structural properties is evidence for the first two hypotheses: the idiomatic expressions under study in this thesis are instantiations of a small-scale form-meaning generalisations, which are known as constructions in the construction grammar approach to language. The idiomatic expressions with syntactic shape NP1 V NP2 OUT were referred to as the *one’s heart out* construction, whereas the idiomatic expressions which share the syntactic shape: NP1 V NP2 OFF were referred to as the *one’s head off* construction. Both constructions share the meaning ‘V excessively’. Since the constructions are associated with a meaning of their own, they are also characterised with their own frame-semantic specifications. The verb’s frame-semantic properties must be compatible with the constructions’ frame semantics, for a verb to be able to appear in the constructions. In particular, both the constructions and the verbs are characterised with frame-specific

participants which must be semantically compatible in order to share the syntactic positions the constructions have. Semantic compatibility means that one must be able to construe the semantic roles of the verb as roles of the construction and vice versa. Moreover, the obligatorily realised or profiled semantic roles of the verb and the arguments of the construction must be overtly realised in the syntactic positions licensed by the constructions. Thus, a close look at the frame-semantic characteristics of the verbs that are attested in the *one's heart out* and *one's head off* constructions, presented in section 12.3.3., proved that they are compatible with the constructions' frame-semantics.

These findings are contrasted to the assumptions made in Mateu and Espinal (2007), according to whom the existence of the constructions under study in this thesis is predictable from the morphosyntactic properties the English language possesses. Applying a lexico-syntactic analysis to the idiomatic expressions, Mateu and Espinal (2007) claim that it is due to the satellite position of the particles *out/off* that an unergative verb can be embedded into an empty verb slot of a transitive syntactic structure. Hence, Mateu and Espinal (2007: 38) base their analysis on purely syntactic grounds and claim that the semantics of the constructions is compositional and that it is contained in their building blocks. However, that the semantics of the expressions is not contained solely in the building blocks of the idiomatic expressions is made obvious if some of its constituent parts are left out. For instance, as it was claimed in chapter 12, if *out* in *I argued my heart out* is omitted, then the meaning of the new sentences would not be that the person argued moderately. In fact, such a sentence would not make sense at all. In addition, although telic path constructions (e.g. *the boat floated out*) also contain a path particle in a coda position, a parallel cannot be drawn between such sentences and the idioms under study; while *float out* is characterised with a meaning of its own, *argue out* is not. In addition, the findings of this thesis stand in contrast to a lexical-rule account. According to a lexical rule analysis, the verb-particle combination identified in the idiomatic expressions (e.g. *cry out*, *sneeze off*, *bark off*, *eat off*, *argue out*) would have gone a lexical shift to mean something like 'V excessively'. However, such verb-particle combinations are not listed in a dictionary without the second noun phrase (e.g. *head*, *eyes*, *ass*). Moreover, the idiomatic expressions cannot all be listed in a dictionary because they show productivity.

One limitation of this thesis is the inability to prove or deny the assumption held by Goldberg (1995, 2006) that the knowledge of grammar can be equated with a repository of constructions, which differ in their degree of schematicity and complexity. Another limitation is the inability to prove whether the constructions under study in this thesis, as well as the

idiosyncrasies amongst them, are subsumed under a higher, overarching generalisation. In the opinion of the author, it would be interesting to pursue this topic further, especially in direction of psycho-linguistic evidence. It would be interesting to investigate if people form and store abstract generalisations based on the commonalities they find among expressions as well as the level of abstraction that these generalisations are associated with.

14. References:

- Akhtar, Nameera; Tomasello, Michael. 1997. "Young children's productivity with word order and word morphology". *Developmental Psychology* 33(6), 952-965.
- Bates, Elizabeth; Bretherton, Inge; Snyder, Lynn. 1988. *From first words to grammar: individual differences and dissociable mechanisms*. New York: Cambridge University Press.
- Boyd, Jeremy K.; Goldberg, Adele E. 2011. "Learning what not to say: the role of statistical pre-emption and categorisation in a-adjective production", *Language* 87(1), 55-83.
- Brinton, Laurel J. 2000. *The structure of modern English: a linguistic introduction*. Amsterdam: John Benjamins.
- Brooks, P.; Tomasello, Michael. 1999a. "How young children constrain their argument structure constructions". *Language*, 75(4), 720-738.
- Brooks, P.; Tomasello, Michael. 1999b. "Young children learn to produce passives with nonce verbs". *Developmental Psychology*, 35(1), 29-44.
- Cappelle, Bert. 2004. "The particularity of particles, or why they are not just intransitive prepositions". *Belgian Journal of Linguistics* 18(1), 29-57.
- Casenhiser, Devine; Goldberg, E. Adele. 2005. "Fast mapping between a phrasal form and meaning". *Developmental Science* 8(6), 500-508.
- Chafe, Wallace L. 1968. "Idiomatcity as an anomaly in the Chomskian paradigm". *Foundations of Language* 4(2), 109-127.
- Chomsky, Noam. 1965. *Aspects of the theory of syntax*. Cambridge Massachusetts: MIT Press.
- Chomsky, Noam. 1976. *Studies on semantics in generative grammar*. (3rd edition). Paris: The HAGUE.
- Chomsky, Noam. 1980. *Rules and representations*. New York: Columbia University Press.
- Chomsky, Noam. 1981. *Lectures on government and binding*. Dordrecht: Foris.
- Clark, Eve V.; Clark, Herbert H. 1979. "When nouns surface as verbs". *Language* 55(4), 767-811.
- COHA. 1810s-2000s. *Corpus of Historical American English*. <http://corpus.byu.edu/coha/> (19 March 2017).
- COCA. 1990-2015. *Corpus of Contemporary American English*. <http://corpus.byu.edu/coca/> (19 March 2017).
- Croft, William. 2001. *Radical construction grammar*. Oxford: Oxford University Press.
- Croft, William. 2003. "Lexical rules vs. constructions: a false dichotomy". In Cyckens, Hubert; Berg, Thomas; Dirven, Rene; Panther, Klaus-Uwe (eds.). *Motivation in Language: studies in honour of Günter Radden*. Amsterdam: John Benjamins, 49-68.
- Croft, William. 2007. "Construction grammar". In Geeraerts, Dirk; Cuyckens, Hubert (eds.). *The Oxford handbook of cognitive linguistics*. Oxford: Oxford University Press, 463-509.
- Croft, William. 2012. *Verbs: aspects and causal structure*. New York: Oxford University Press.
- Dąbrowska, Ewa; Lieven, Elena. 2005. "Towards a lexically specific grammar of children's question constructions". *Cognitive Linguistics* 16(3), 437-474.
- Dąbrowska, Ewa. 2014. "Recycling utterances: A speaker's guide to sentence processing". *Cognitive Linguistics* 25(4), 617-653.
- Elman, Jeffrey L. 2004. "A different view of the mental lexicon". *Trends in Cognitive sciences*. 8(7), 301-306.

- Essegbey, James. 1999. "Inherent complement verbs revisited: towards an understanding of argument structures in Ewe". PhD Thesis, Max-Plank-Institute, Nijmegen.
- Evans, Vyvyan; Green, Melanie. 2006. *Cognitive linguistics: an introduction*. Edinburgh: Edinburgh University Press.
- Ferreira, Victor S.; Bock, J. Kathryn. 2006. "The functions of structural priming". *Language and Cognitive Processes* 21, 1011-1029.
- Fisher, Cynthia; Hall, Geoffrey D.; Rakowitz, Susan; Gleitman, Lila. 1994. "When it is better to receive than to give: syntactic and conceptual constraints on vocabulary growth". *Lingua* 92, 333-375.
- Fillmore, J. Charles. 1982. "Frame semantics". In Linguistic Society of Korea (ed.). *Linguistics in the Morning Calm: selected papers from SICOM-1981*. Seoul: Hanshin Publishing Company, 111-137.
- Fillmore, Charles J.; Kay, Paul. 1993. *Construction grammar coursebook*. Berkeley: University of California at Berkeley.
- Fillmore, Charles J.; Kay, Paul; O'Connor, May Catherine. 1988. "Regularity and idiomaticity in grammatical constructions: the case of let alone". *Language* 64(3), 501-538.
- Fillmore, Charles J.; Lee Goldman, Russell R.; Rhodes, Russell. 2012. "The FrameNetConstruction". In Boas, Hans C.; Sag, Ivan A. (eds.). *Sign-based Construction Grammar*. Stanford: CSLI, 283-299.
- Gentner, Dedre; Markman, Arthur B. 1997. "Structure mapping in analogy and similarity". *American Psychologist* 52(1), 45-56.
- Goldberg, Adele E. 1995. *Constructions: a construction grammar approach to argument structure*. Chicago: The University of Chicago Press.
- Goldberg, Adele E.; Jackendoff, Ray. 2004. "The English resultative as a family of constructions". *Language* 80(3), 532-568.
- Goldberg, Adele E.; Casenhiser, Devin M.; Sethuraman, Nitya. 2004. "Learning argument structure generalisations". *Cognitive Linguistics* 15(3), 289-316.
- Goldberg, Adele E.; Casenhiser, Devin M.; Sethuraman, Nitya. 2005. "The role of prediction in construction learning". *Journal of Child Language* 32(2), 407-426.
- Goldberg, Adele E. 2006a. *Constructions at work: the nature of generalisations in language*. Oxford: Oxford University Press.
- Goldberg, Adele E. 2006b. "The inherent semantics of argument structure: the case of the English ditransitive construction". In Geeraerts, Dirk (ed.). *Cognitive Linguistics: Basic readings*. Berlin: Mouton de Gruyter, 401-437.
- Goldberg, Adele E. 2011. "Corpus evidence of the viability of statistical preemption." *Cognitive Linguistics* 22(1), 131-153.
- Grice, H. Paul. 1975. "Logic and conversation". In Cole, P. ad Morgan, Jerry. L. (eds.). *Syntax and Semantics, Vol 3: Speech acts*. New York: Academic Press, 41-58.
- Gropen, Jess; Pinker, Steven; Hollander, Michelle; Goldberg, Richard; Wilson, Ronald. 1989. "Learnability and acquisition of the dative alternation in English". *Language* 65(2), 203-257.
- Hale, Kenneth; Keyser, Samuel Jay. 1993. "On argument structure and the lexical expression of syntactic relations. In *The View from building 20. Essays in honor of Sylvain Bromberger*. Hale, Kenneth and Keyser, Samuel Jay. (eds.). Cambridge, MA: The MIT Press, 53-109.
- Hale, Ken; Keyser, Samuel Jay. 2002. *Prolegomenon to a theory of argument structures*. Cambridge, MA: The MIT Press.
- Halliday, M.A.K. 1985. *An introduction to functional grammar*. London: Edward Arnold.

- Hilpert, Martin 2014. *Construction grammar and its application to English*. Edinburgh: Edinburgh University Press.
- Hoekstra, Teun. 1988. "Small clause results". *Lingua* 74, 101-139.
- Jackendoff, Ray. 1997. "Twisin' the night away". *Language* 73(3), 534-559.
- Jackendoff, Ray. 2002. *Foundations of language: brain, meaning, grammar, evolution*. Oxford: Oxford University Press.
- Katz, Jerrold J.; Postal, Paul; 1963. "Semantic interpretation of idioms and sentences containing them". *Quarterly Progress Report of the MIT Research Laboratory of Electronics* 70, 275-282.
- Lakoff, George. 1987. *Women, fire and dangerous things: what categories reveal about the mind*. Chicago: University of Chicago Press.
- Landau, Barbara; Gleitman, Lila R. 1985. *Language and Experience: Evidence from the Blind Child*. Cambridge, Massachusetts: Harvard University Press.
- Langacker, Ronald W. 1987. *Foundations of cognitive grammar, Vol. 1: theoretical prerequisites*. Stanford, California: Stanford University Press.
- Langacker, Ronald W. 2008. *Cognitive grammar: a basic introduction*. Oxford: Oxford University Press.
- Langlotz, Andreas. 2006. *Idiomatic creativity*. Amsterdam: John Benjamins Publishing Company.
- Levelt, Willem J.M. 1999. "A blueprint of the speaker". In M. Brown, Colin; Hagoort, Peter (eds.). *The Neurocognition of Language*. Oxford: Oxford University Press, 94-122.
- Litz, Jeffrey; Gleitman, Henry; Gleitman, Lila. 2003. "Understanding how input matters: verb learning and the input of universal grammar". *Cognition*. 87(3), 151-178.
- Lieven, Elena; Behrens, Heike; Speares, Jenifer; Tomasello, Michael. 2003. "Early syntactic creativity: A usage based approach". *Journal of Child Language* 3(2), 330-370.
- Loebell, Helga; Bock, Kathryn. 2003. "Structural priming across languages". *Linguistics* 41(5), 791-824.
- MacDonald, Maryellen C. 2013. "How language production shapes language form and comprehension". *Frontiers in Psychology* 4, 1-16.
- Mateu, Jaume. 2005. "Arguing our way to the Direct Object Restriction on English resultatives". *Journal of Comparative Germanic Linguistics* 8(1), 55-82.
- Mateu, Jaume; Espinal, M. Teresa. 2007. "Argument structure and compositionality in idiomatic constructions". *The Linguistic Review* 24(1), 33-59.
- NOW Corpus. 2010-yesterday. *News on the Web*. <http://corpus.byu.edu/now/> (19 March 2017).
- Nunberg, Geoffrey; Sag, Ivan; Wasow, Thomas. 1994. "Idioms". *Language* 70, 491- 538.
- Perlmutter, David M. 1978. "Impersonal passives and the unaccusative hypothesis". *Proceedings of the Annual Meeting of the Berkeley Linguistic Society* 38, Berkeley, California: Linguistic Society of America, 157-189.
- Pinker, Steven. 2013. *Learnability and cognition: the acquisition of argument structure*. Cambridge: Cambridge, MA: MIT Press.
- Pullum, Geoffrey K. 1988. "Citation etiquette beyond thunderdome". *Natural Language & Linguistic Theory* 6(4), 579-588.
- Radden, Günther; Dirven, Rene. 2007. *Cognitive English Grammar*. Amsterdam: John Benjamins.
- Rappaport Hovav, Malka; Levin, Beth. 1998. "Building verb meanings". In Butt, Miriam; Geuder, Wilhelm (eds.). *The projection of arguments: lexical and compositional factors*. Stanford: Centre for the study of Language and Information Publications, 97-134.

- Shetreet, Einat; Friedmann, Naama; Hadar, Uri. 2010. "The neural correlates of linguistic distinctions: unaccusative and unergative verbs". *Journal of Cognitive Neuroscience* 22(10), 2306-2315.
- Talmy, Leonard. 2000. *Toward a cognitive semantics, Vol. 2: typology and process in concept structuring*. Cambridge, MA: MIT Press.
- Talmy, Leonard. 2007. "Lexicalisation patterns: semantic structure in lexical forms". In Shopen, Timothy (ed.). *Language typology and syntactic description, Vol.3: grammatical categories and the lexicon*. (2nd edition). Cambridge: Cambridge University Press, 66 -169.
- Taylor, John R. 2012. *The mental corpus: how language is represented in the mind*. Oxford: Oxford University Press.
- The Oxford English dictionary* (OED). <http://www.oed.com.uaccess.univie.ac.at/> (19 March 2017).
- Tomasello, Michael. 1992. *First verbs: a case study of early grammatical development*. Cambridge: Cambridge University Press.
- Tomasello, Michael; Patricia Brooks. 1998. "Young children's earliest transitive and intransitive constructions". *Cognitive Linguistics* 9(4), 379–395.
- Tomasello, Michael; Patricia Brooks. 1999. "Early syntactic development: a construction grammar approach". In Barrett, Martyn (ed.). *The development of language*. London: Psychology Press, 76–111.
- Tomasello, Michael. 2000. "Do young children have adult syntactic competence?". *Cognition* 74: 209–53.
- Tomasello, Michael. 2006. "First steps toward a usage-based theory of language acquisition". In Geeraerts, Dirk (ed.). *Cognitive Linguistics: Basic readings*. Berlin: Mouton de Gruyter, 439-458.
- Tomasello, Michael. 2007. "Cognitive linguistics and first language acquisition". In Geeraerts, Dirk; Cuyckens, Hubert (eds.). *The Oxford handbook of cognitive linguistics*. Oxford: Oxford University Press, 1092-1112.
- Wray, Alison; Trott, Kate; Bloomer, Aileen; Reay, Shirley; Butler, Chris. 1998. *Projects in linguistics. A practical guide to researching language*. London: Arnold.

15. Appendix

15.1. Abstract (English)

Constructional approaches to language analysis assume the existence of constructions: form-meaning pairings which unify syntactic, semantic and pragmatic properties at the same time. The knowledge of language is viewed as knowledge of constructions, whose degree of abstraction can vary from most concrete linguistic entities to wholly schematic. The main objective of this thesis is to determine whether two sets of idiomatic expressions which are taken from the English language qualify as constructions, as they are defined in constructivist approaches to language.

Most of the idiomatic expressions which form the data for the linguistic analysis were taken from COHA (Corpus of Historical American English). The first set of idiomatic expressions was defined as *one's heart out* construction and the second set as *one's head off* construction. The two sets of idioms have the same meaning: 'V excessively' and their syntactic shape is [NP1 V NP2 OUT/OFF].

The analysis of the structural and semantic properties of two sets of idiomatic expressions supports the assumption that they represent a low-level form-meaning pairing. In particular, it is argued that the meaning of instantiations of the *one's heart out* and *one's head off* constructions is best understood as a combination of the meanings of the individual lexical items and the meaning that the constructions are associated with. Furthermore, the two sets of idioms also possess syntactic specifications which are relative to the particular form-meaning generalisation they represent. In essence, the individual items that the two constructions consist of display distributional characteristics that are unlike the distributional properties of the syntactic categories they are assumed to belong to.

15.2. Zusammenfassung (Deutsch)

Konstruktionsansätze zur Sprachanalyse unterstellen die Existenz von Konstruktionen: formabhängige, bedeutungsgebende Paarungen, die gleichzeitig syntaktische, semantische und pragmatische Eigenschaften vereinen. Sprachkenntnis wird als Kenntnis der Konstruktionen betrachtet, deren Abstraktionsgrad sich von den konkretesten sprachlichen Einheiten bis hin zu gänzlich schematischen unterscheiden kann. Das Hauptziel dieser Arbeit ist es, zu bestimmen, ob zwei Gruppen von idiomatischen Ausdrücken aus der englischen Sprache als Konstruktionen zu qualifizieren sind, wie sie in konstruktivistischen Sprachansätzen definiert sind.

Die meisten der idiomatischen Ausdrücke, die die Daten für die linguistische Analyse bilden, wurden aus COHA (Corpus of Historical American English) entnommen. Die erste Gruppe von idiomatischen Ausdrücken wurde als *one's heart out* Konstruktion und die zweite als *one's head off* Konstruktion definiert. Beide Gruppen von Idiomen haben eine gemeinsame Bedeutung: 'V übermäßig' und ihre syntaktische Form ist [NP1 V NP2 OUT / OFF].

Die Analyse der strukturellen und semantischen Eigenschaften von den zwei Gruppen von idiomatischen Ausdrücken stützt die Annahme, dass sie auf einem niedrigen Niveau eine formabhängige, bedeutungsgebende Paarung darstellen. Insbesondere wird gezeigt, dass die Bedeutung von Instanziierungen der *one's heart out* und *one's head off* Konstruktionen am besten als eine Kombination der Bedeutungen der einzelnen lexikalischen Einheiten und der Bedeutung, mit der die Konstruktionen verbunden sind, verstanden wird. Darüber hinaus besitzen beiden Gruppen von Idiomen auch syntaktische Spezifikationen, die sich auf die jeweilige formabhängige, bedeutungsgebende Verallgemeinerung beziehen, die sie darstellen. Im Wesentlichen weisen die einzelnen Elemente, aus denen die beiden Konstruktionen bestehen, andere distributionelle Eigenschaften auf als die syntaktischen Kategorien zu denen sie gehören.