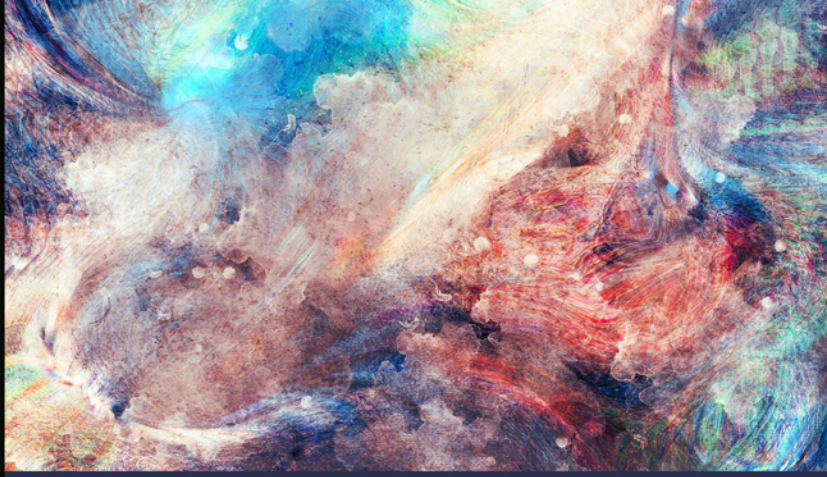

A Syntactic Study of Idioms

Psychological States in English and Their Constraints

Anna Dąbrowska

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All shortcomings in this work are, of course, my own responsibility.

LIST OF ABBREVIATIONS

A	- Adjective
Adv	- Adverb
AP	- Adjective Phrase
AdvP	- Adverb Phrase
ApplH	- High Applicative
ApplHP	- High Applicative Phrase
ApplL	- Low Applicative
ApplLP	- Low Applicative Phrase
COCA	- The Corpus of Contemporary American English
CP	- Complementiser Phrase
Det	- Determiner
DOC	- Double Object Construction
DP	- Determiner Phrase
FI	- Feature Inheritance
Gen	- Genitive
ICE	- Idiomatically Combining Expressions
IdP	- Idiomatic Phrases
iF[val]	- Valued interpretable features
LF	- Logical Form
O	- Object
OE	- Object Experiencer
P	- Preposition
PF	- Phonetic Form
PP	- Prepositional Phrase
Pr	- Predication
PrP	- Predication Phrase
SC	- Small Clause
SE	- Subject Experiencer
SEM	- Syntax-Semantics Interface
Spec	- Specifier
TP	- Tense Phrase
uF[ ]	- unvalued uninterpretable features
v	- Light / Little Verb
*v*P	- Light / Little Verb Phrase
V	- Verb
VP	- Verb Phrase

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INTRODUCTION

In the field of English phraseology, linguists have shown a constant interest in idioms (cf. Knappe 2004: 3). Undoubtedly, not only are idioms an important part of the language and culture of the society (Ji-Xin 2009), but they also carry more impact than non-idiomatic expressions because of their close identification with a particular language and culture (Nida 2001: 28). The linguistic units which are the core of interest in this book, will be referred to as "phraseological units," "fixed phrases," "idiomatic expressions," "idiomatic phrases," or "idioms" for short. Definitions and various aspects concerning the concept of idioms are reviewed and integrated into a framework which is rooted in the linguistic discipline of phraseology.

Since the general tendencies of present-day English are towards more idiomatic usage (Seidl and McMordie 1978: 1), indeed, it seems to be worth paying attention to the role phraseological units play in a language. Undoubtedly, it is difficult to speak or write English without using idioms (Seidl and McMordie 1978: 4), especially while describing one's emotional or mental condition. In the same vein, Wierzbicka (1972) says that, in contradistinction to thoughts which have a structure that can be rendered by means of words, feelings do not have it. All a person can do, therefore, is "to describe in words the external situations or thoughts which are associated in our memory or in our imagination with the feeling in question and to trust that our reader or listener will grasp what particular feelings are meant" (Wierzbicka 1972: 59). Therefore, it seems that it is interesting and worthwhile to make an attempt to analyse both the language of phraseological units and emotions. In other words, this book is to focus not only on idioms, but also on one's psychological condition. However, the aim of the book is neither to discuss the issues of idioms and emotions from the psychological point of view, nor provide a conceptual analysis of emotional metaphors. Instead, the objective of the book is to analyse idioms referring to psychological states in English from the perspective of syntax, focusing particularly both on the syntactic structure of this specific set of verbal psych-idioms, and on the constraints on the way they are built.

For the purpose of the book, the recent compositional model of idiomaticity, represented by Cacciari and Tabossi (1988); Gibbs, Nayak, and Cutting (1989); Gibbs (1990); Cacciari (1993); Cacciari and Glucksberg (1991); and Keysar and Bly (1995, 1999), among many others, is adopted. The compositional model objects to the standard view of idioms as non-compositional strings, typical of generative grammar (Katz and Postal 1963; Fraser 1970; Katz 1973; Swinney and Cutler 1979; Gibbs 1980; and Machonis 1985; among others). Most idioms are viewed here to be flexible and able to undergo syntactic and lexical modifications, in contradistinction to a few totally frozen phraseological units. Hence, following Nunberg, Sag, and Wasow's (1994) taxonomy of idioms, two types of idioms are distinguished, i.e. (i) *idiomatically combining expressions* (e.g. *pull strings* "to use connections"), and (ii) *idiomatic phrases* (e.g. *kick the bucket* "to die"). *Idiomatically combining expressions* (ICEs) are referred to as decomposable / compositional or analysable idioms, and they comprise idioms with a derivable idiomatic interpretation (normally or abnormally, literally or figuratively). *Idiomatic phrases* (IdPs), in turn, are known as non-decomposable / non-compositional, frozen, opaque, or unanalysable, and include idioms with an idiomatic interpretation not derived from their constituent parts.

Furthermore, this book follows the theoretical approaches according to which the syntax of a verbal predicate and the range of syntactic realizations of its arguments are determined by a verb's semantic representations (e.g. Croft 2012; Dowty 1991; Goldberg 1995; Jackendoff 1990; Langacker 1987; Pinker 1989; Rappaport Hovav and Levin 1998; van Valin and LaPolla 1997; and Grafmiller 2013). Consequently, the study relates to the syntax-semantics interface within which phraseological units are to be better comprehended. The semantic dimensions of idiomaticity, the event structure of verbal predicates, and their aspectual properties are to be discussed, as well.

The syntactic study is based on the database of 161 English verbal idioms which describe one's emotional / mental / psychological condition, and hence correspond to standard psychological verbs (psych-verbs), e.g. *to love*, *to fear*, *to annoy*, or *to matter to*. On the basis of the well-known studies represented by Belletti and Rizzi (1988), Pesetsky (1995), and Landau (2010), among others, it can be specified that psych-verbs express (a change in) mental or/and emotional state and a relation between the two arguments: an *Experiencer* and the *Cause* / *Theme* of such a psychological condition. Cross-linguistically and within different languages, psych-verbs are classified similarly to the three-way division offered by Belletti and Rizzi (1988), as in (0.1) below.

(0.1) Belletti and Rizzi's (1988) tripartite classification of psych-verbs:
Class I: *Mark* ***loves*** *bats*. (SE psych-verbs)
Class II: *The bats* ***frightened*** *Mark*. (OE psych-verbs)
Class III: *This film* ***appeals to*** *Joanne*. (OE psych-verbs)

As shown in (0.1), an Experiencer can be realized as either a subject (class I) or as an object (class II and class III). In addition, in the overview of some crucial syntactic approaches to psych-verbs, the focus is laid on Object Experiencer (OE) psych-verbs, and their "special" syntactic properties, called "psych-effects," revealed in their non-agentive reading (cf. Belletti and Rizzi's 1988 unaccusative approach to OE psych-verbs, Landau's 2005, 2010 locative approach, Fábregas and Marín's 2015 layer theory, and Grafmiller's 2013 recent account of psych-verbs). Indeed, what makes OE psych-verbs special and worth analysing is their aspectual ambiguity, (between stative, eventive non-agentive and eventive agentive reading) rather than their Experiencer argument (cf. Arad 1998, 1999; Landau 2010; Alexiadou and Iordachioaia 2014; among others).

With reference to psych-verbs, the psychological idioms under scrutiny, such as those in (0.2) and (0.3), are to become the object of syntactic analysis carried out in this book.

(0.2) The examples of idioms and the SE (class I) psych-verbs they correspond to:
a. Y **loves** X:
carry a torch for X
fall head over heels in love with X
have a soft spot for X
set Y's heart on X
b. Y **enjoys** X**:**
paint the town (red)
raise the roof
have a ball
kick (up) Y's heels
get a buzz out of X

(0.3) The examples of idioms and the OE (class II-III) psych-verbs they correspond to:
a. X **annoys** Y (class II):
get the hump
raise Y's hackles
get a rise out of Y

put Y through wringer
give Y the pip
drive Y batty / nuts/ bananas / bonkers / crazy

b. X **depresses** Y (class II):
upset the applecart
dampen/damp Y's spirits
cast a gloom / a shadow over Y
take the wind out of Y's sails
cut Y down to size
give Y a bad / hard time/ the blues / the run around
bring Y low

c. X **appeals to** Y (class III):
float Y's boat
whet Y's appetite
set / put Y on Y's ear

Importantly, both the psych-predicates and the psychological VP-idioms to which the predicates correspond, comprise a participant who experiences some emotional or mental state, i.e. an *Experiencer* (Y), and a *Stimulus / Causer / Cause / Target* (X), which has contributed to this specific state or become a target of it. The Experiencer (Y) may be situated either in the subject position, i.e. in Subject Experiencer (SE) psych-verbs, as illustrated in (0.2), or in the object position, *viz*. in Object Experiencer (OE) psych verbs, as shown in (0.3). In short, the idioms in question are to correspond to the psychological states referred to by psych-predicates.

Moreover, the bipolar division of idioms into IdP and ICEs (cf. Nunberg *et al*. 1994; Harwood *et al.* 2016) is of much significance in the syntactic study of psychological idioms, and the constraints on the way these idioms are built, which is to be undertaken in the book. Even though some previous analyses of idioms (e.g. Nunberg *et al*. 1994; O'Grady 1998; and Bruening 2010) are expected to be useful, not all puzzles of idiomaticity can be resolved by relying on them. Therefore, the most current research, performed within the scope of the Phase Theory and the *Idioms as Phases Hypothesis* (cf. Svenonius 2005; Stone 2009; Harwood 2013, 2016, 2017; Harley and Stone 2013; Kim 2014, 2015; and Corver *et al*. 2017; among others) is chosen to address certain syntactic problems that idioms pose. As a result, the analysis of psychological idioms in the light of the Phase Theory, provides some evidence for DPs, ApplHP, and PrPs phases that can be formed in verbal idioms, in addition to *v*Ps.

The book is organised in four chapters. The aim of Chapter One is to present the definitions of an idiom, taken both from dictionaries,

encyclopaedias, and put forward by linguists (e.g. Pulman 1993; Gläser 1998; Knappe 2004; Mäntylä 2004; Carine 2005; Liu 2008; and O'Dell and McCarthy 2010; among many others), and to discuss different semantic dimensions of idiomaticity. Among the most crucial characteristics of idioms presented here, there is idiom metaphoricity, idiom literalness, familiarity, predictability, and idiom (non-)compositionality, among others. This chapter deals with idiom taxonomies, models and hypotheses of idiom representation and processing, as well, offered by Makkai (1972), Nunberg (1978) and his followers, i.e. Gibbs and Nayak (1989) and Titone and Connine (1999), but also by Cacciari and Glucksberg (1991), Sag, Baldwin, Bond, Copestake, and Flickinger (2002), and the classification of idioms by Yoshikawa (2008), to list just a few. For the sake of this book, the bipolar taxonomy of idioms, offered by Nunberg *et al.* (1994), and adopted by Harwood *et al*. (2016), has been adopted, in which idioms are divided into *idiomatically combining expressions* (ICEs), and *idiomatic phrases* (IdPs).

Chapter Two sheds light on predicates which denote a mental or emotional condition, such as *fear, love, worry, frighten,* or *surprise*, which a human participant (Experiencer) experiences. Consequently, this part of the book is devoted to providing a brief, yet not truly comprehensive, analysis of psychological verbs. The chapter opens with a discussion concerning the fundamental syntactic, semantic and aspectual characteristics of psych-verbs. Then, both the working definition of psych-verbs, offered by Landau (2010), and the tripartite syntactic classification of these predicates (class I, II, and III), proposed by Belletti and Rizzi (1988), are presented as the ones adopted for the sake of the book (cf. Dowty 1991; Pesetsky 1995; and Landau 2010). Chapter II also deals with the event structure of psych-predicates (Vendler 1967; Dowty 1979; Grimshaw 1990; and Alexiadou and Iordăchioaia 2014; among others). To be precise, the discussion concerns the aspectual typology of class I-III psych-verbs within the Lexicon-Syntax Interface, and the syntactic tests to distinguish between stative, eventive non-agentive, and eventive agentive readings of class II OE psych-verbs (cf. Arad 1998, 1999). Finally, this chapter offers a brief overview of the syntactic approaches to psych-verbs, most discussed in the literature, i.e. Belletti and Rizzi's (1988) unaccusative approach to OE psych-verbs, Landau's (2005, 2010) locative approach, Fábregas and Marín's (2015) layer theory, and Grafmiller's (2013) recent account of psych-verbs.

The aim of Chapter Three is first and foremost to elicit psych-verbs which constitute a representative set of this type of predicates; and then to determine idioms which correspond to the psych predicates listed, and

which are to be analysed in Chapter Four. To meet these objectives, the methodology adopted in data selection is explained. It involves two stages of the corpus study. In the first stage the most frequent class I and III psych-verbs (cf. Belletti and Rizzi 1988), with the top occurrence in *The Corpus of Contemporary American English* (COCA), are elicited; the top psych-verbs of class II are adopted after Grafmiller (2013). In the second stage of the corpus study, idiomatic phrases corresponding to the psychological verbs just selected are searched. Following the convenient typology suggested in Belletti and Rizzi (1988), the data are divided into three classes, in the same way as their psych-verbal equivalents. The elicited idioms are arranged according to the twelve syntactic patterns they exhibit, while the exemplary sentences for those idioms, taken from the COCA and/or obtained *via* the Google Search, are listed in APPENDICES 1-3. The search results are extensively commented upon.

Chapter Four lays the theoretical foundations for the analysis of English psychological idioms, elicited in Chapter Three. One of the central concerns of this analysis is to decide, in the light of the recent approaches within generative grammar, which of the theories provides the best insight into the syntactic rules idioms are governed by. With this in mind, the chapter first deals with the semantic properties of both *idiomatically combining expressions* (compositional) and *idiomatic phrases* (non-compositional) (cf. Nunberg *et al.* 1994), with special reference made to psych-idioms. Then, syntactic and semantic flexibility of *psychological idiomatically combining expressions* is thoroughly discussed, with the exemplary sentences, taken either from the COCA Corpus, obtained *via* the Google Search, or tested against native speakers' judgments. Furthermore, Chapter Four deals with syntactic constraints imposed on idiomaticity by the grammar. The most important approaches to the behaviour of idioms are reviewed, *viz.* Nunberg *et al*.'s (1994) semantic alternative to the *Hierarchy Constraint*, and O'Grady's (1998) *Continuity Constraint*. Finally, the syntactic structure of psychological idioms is examined within the scope of the Phase Theory (cf. Svenonius 2005; Stone 2009; Harwood 2013, 2016, 2017; Harley and Stone 2013; Kim 2014, 2015; and Corver *et al.* 2017; among others) to check the validity of the phase-bound approach for the data analysed. Last but not least, some space is devoted to the position of an Experiencer and the aspectual properties the idioms under scrutiny reveal, with some reference made to the aspectual structure of psych-verbs to which psychological idioms correspond.

Chapter Four is followed by the final part of the book, *viz*. Summary and Conclusions, which gathers the main points from all the four chapters.

CHAPTER ONE

TOWARDS DEFINING AN IDIOM

1.1 Introduction

The aim of Chapter One is to present the definitions of the notion of an idiom and its characteristics. The chapter comprises five sections. Section 1.2 provides a wide range of definitions of an idiom, taken from dictionaries and encyclopaedias, followed by the definitions put forward by linguists. Section 1.3 discusses different dimensions of idiomaticity, meant here as the characteristics of idioms. This part of the chapter opens with an analysis of idiom metaphoricity, and the notion of metaphor and figurative language. Then, various taxonomies of idioms, idiom processing mechanisms, their metaphorical interpretation, as well as analysability and ambiguity of idioms are studied. Besides, this section deals with idiom non-compositionality, i.e. the fixedness of form and internal structure of idioms. Finally, among the characteristics of idioms analysed here, there is idiom literalness, familiarity and predictability, with the focus laid on the role of context, well-formedness of idioms, and the level of their formality. Section 1.4 concentrates on the models and hypotheses of idiom representation and processing commonly referred to in the literature. In section 1.5, the working definition of an idiom is established, on the basis of the aforementioned dimensions of idiomaticity. Finally, section 1.6 summarises all the aspects discussed in this chapter.

1.2 The definition of an idiom

The study of idioms is generally considered problematic for the majority of linguists. In his book *Idiomatic Creativity*, Langlotz (2006) argues that "idioms are peculiar linguistic constructions that have raised many eyebrows in linguistics and often confuse newcomers to a language" (Langlotz 2006: 1). They constitute a "subset of the fixed expressions in a language community" (Glucksberg 2001: 68), and on account of their complex nature, idioms give rise to a broad range of definitions. Thus, it is extremely difficult to provide a brief definition of an idiom, encompassing

all entities subsumed under this label. What is more, linguists have not reached any solution in form of a unified approach and view related to idioms so far, nor is it possible to offer in this book an explicit description of what the term *idiom* refers to. Nevertheless, in this section of the book, an attempt will be made to provide some clues as to how to define an idiom. The starting point in the discussion is an encyclopaedic and a dictionary definition, presented in section 1.2.1, followed by the concepts of linguists and scientists regarding the definitions of an idiom, outlined in section 1.2.2.

1.2.1 Dictionaries and linguistic encyclopaedias as the sources of definitions of the notion of idiom

To begin with, the word *idiom*, dating back to 1565-1575, derives from Latin idioma "special property," and from Greek ἰδίωμα–idiōma, "special feature, special phrasing." As defined by McArthur (1992: 495) in *The Oxford Companion to the English Language*, *idiom* means a combination of words which have a figurative meaning owing to their common usage. Meetham and Hudson (1969) in *The Encyclopaedia of Linguistics, Information and Control* describe an idiom as "a habitual collocation of two or more words whose combined meaning is not deducible from a knowledge of the meanings of its component words and of their grammatical syntagmatic relations to each other" (Meetham and Hudson 1969: 667).

Besides, in their book *English Idioms and How to Use Them*, Seidl and McMordie (1978) stress that, even though some idioms may be completely regular and logical, "an idiom is a number of words which, taken together, mean something different from the individual words of the idiom when they stand alone. The way in which the words are put together is often odd, illogical or even grammatically incorrect" (Seidl and McMordie 1978: 4).

Additionally, Simpson and Weiner (1989), in *The Oxford English Dictionary on CD-ROM*, rank an *idiom* as a smaller unit within language, defining it as "a form of expression, grammatical construction, phrase, etc., peculiar to a language; a peculiarity of phraseology approved by the usage of a language, and often having a signification other than its grammatical or logical one" (Simpson and Weiner 1989: sub verbo *idiom* n. 3a). However, this definition comprises not only idiomatic phraseological units and idiomatic word-formation products, but also non-lexical "idioms" or typical grammatical constructions (cf. Knappe 2004: 14).

What is more, in his *Longman Dictionary of Idioms*, Hill (1990) underlines the metaphorical rather than literal nature of idioms, and maintains that "[t]hey are also more or less invariable or fixed in form or order in a way that makes them different from literal expressions. Because they are metaphorical, one cannot usually discover their meanings by looking up the individual words in an ordinary dictionary" (Hill Long 1990: viii).

Finally, in her *Webster's New World Dictionary*, Neufeldt (1991) offers a more detailed definition of an idiom which is seen as "a phrase, construction, or expression that is recognized as a unit in the usage of a given language and either differs from the usual syntactic patterns or has a meaning that differs from the literal meaning of its parts taken together" (Neufeldt 1991: 670).

In a nutshell, encyclopaedic and dictionary definitions of an idiom treat it as a habitual unit of language, the meaning of which cannot be deduced by summing up the meanings of its individual components. Instead, idioms are fixed phraseological units by their long usage and have to be learned as a whole.

1.2.2 Linguists' and scientists' definitions of an idiom

Being aware of the fact that providing a definition for the term *idiom* is a challenging and difficult task, a great tribute should be paid to linguists and other scientists who have approached this problem from various angles throughout the history of language. Some of the definitions given by the specialists will be provided now before the specific characteristics of idioms are discussed.

First of all, an idiom is conventionally defined as "a complex expression whose meaning cannot be derived from the meanings of its elements" (Weinreich 1969: 26). And some decades earlier Willey (1939) formed a definition, saying:

> Idiom or idiomatic phrase (...) is a phrase the meaning of which cannot be deduced from its component parts. The following are examples of idiomatic phrases: *to bring about* (accomplish); *to bring to pass*; *to carry out* (make effective, accomplish); *to come by* (obtain); *to go hard with* (to be painful or harmful to); *to put up with* (tolerate, endure); *to set about* (begin). An examination of these phrases shows that the meaning of each (when used in its idiomatic sense) belongs to the phrase as a single element, and is not a composite effect made by joining the meanings of its parts. The peculiarity of such phrases becomes apparent if we compare them with phrases that are not in this sense idiomatic; as, "to get to the

> city," "to sleep late in the morning" where every word has a meaning that is contributory to the meaning of the phrase.
>
> (Willey 1939: 221)

In addition, for Weinreich (1969), "any expression in which at least one constituent is polysemous, and in which a selection of a subsense is determined by the verbal context, is a phraseological unit (…). [Thus,] a phraseological unit that involves at least two polysemous constituents, and in which there is a reciprocal contextual selection of subsenses, will be called an idiom" (Weinreich 1969: 42). Consequently, Weinreich's definition recognizes idioms as phraseological units or multiword expressions which comprise lexical items that function with two or more related meanings, i.e. they are polysemous. These meanings ("subsenses"), contextually dependent, may be combined to form either a literal or an idiomatic meaning (cf. Everaert's 2010: 83 example of the idiom *kick the bucket* "to die").

Similarly, Lipka (2002) identifies idioms with phraseological units; and consequently, he forms a definition as follows: "A phraseological unit is a semantic unit consisting of a group of word-forms not beyond the sentence level" (Lipka 2002: 89). This definition makes "phraseological units" comparable to word-forms as concrete realizations of lexemes. On the abstract level, a phraseological unit recognized this way may be seen as the realization of a "phraseme," while the word-forms may be seen as realizations of "lexemes" (cf. Lipka 2002: 84, 89-90, 94-96). A "lexeme" will be treated then as an independent sign on the abstract linguistic level of the lexicon. It embraces both "simple lexemes" as morphologically non-composite lexemes, and "complex lexemes" as morphologically including more than one segment (morpheme or formative). In Lipka's (2002: 89-90) terminology, the notion of "complex lexeme" also covers "phrasal lexemes" or "discontinuous lexical items," which relate to the notion of idiomatic phraseological units as understood here (cf. Knappe 2004: 6). Going further, Lipka (2002: 87) introduces the term "lexematic formative" to distinguish phraseological combinations of formatives (e.g. *put up with* "bear, tolerate") or those containing one or more of such formatives (e.g. *tit* and *tat* in *tit for tat* "revenge") from word-formation products containing so-called "cranberry morphemes" such as *Fri* in *Friday* and *cran* in *cranberry.* Yet, these also fall under the definition of formatives as "minimal formal units without identifiable meaning" (Lipka 2002: 87).

What is more, Adkins (1968: 149) names idioms as modes of expression or phrases which are peculiar to a given language, and which are the basis for understanding the language, since they constitute a large part of it. Wadepuhl (1928) comments that "any construction that could

not be translated literally from one language into the other has been considered an idiom" (Wadepuhl 1928: 68). Having noticed that idioms are hardly ever translated literally, Adkins (1968) adds that often the dictionary is of little aid to provide the meaning of a particular expression. Idioms have meanings different from the meanings of the words which compose them. Moreover, idioms cannot be understood from the way they have been formed, which has been exemplified by Adkins ((1968: 149) by means of idioms such as, *make a beeline for*, meaning "to take the shortest route," and *be short-handed*, meaning "to have insufficient help." Other idioms are composed of verbs and prepositions, such as *to fill in*, meaning "to substitute for" or "to complete the blanks on a form," or built of verbs and adverbs such as *to look forward*, meaning "to anticipate."

Besides, O'Dell and McCarthy (2010) define an idiom as a fixed expression whose meaning is not immediately obvious from looking at the individual words in the idiom (cf. McCarthy and O'Dell 2002). Likewise, Fraser (1970) treats idioms as multi-word phraseological units, whose meaning is not predictable from their constituent parts, "I shall regard an idiom as a constituent or a series of constituents for which the semantic interpretation is not a compositional function of the formatives of which it is composed" (Fraser 1970: 22; cf. Makkai 1972). In short, Fraser (1970) underlines the fact that the individual elements of an idiom cannot provide the overall meaning of the idiom. Correspondingly, Palmer's (1986: 36) view of a genuine idiom implies a phrase covering more than one word, whose meaning is unpredictable from the individual idiom constituents. Additionally, he notices that even though idioms behave like single words in semantic perception, grammatically they cannot be recognized as such units since idioms normally do not undergo changes (e.g. cannot form the past tense).

Furthermore, Kavka (2003) discusses the expressions with idiomatic nature in general, defining them as "multiword chunks consisting of elements, or constituents, which are bound together lexically and syntactically" (Kavka 2003: 12). Yet, he further makes a division of these idiomatic expressions into *collocations* (that are semi-compositional) and *idioms proper* (genuine idioms that are characterized with non-compositionality and invariability), and mentions that idioms are "a non-literal alternative from possible options of a literal interpretation" (Kavka 2003: 14, 25).

Then, the picture of an idiom as "a unique and fixed combination of at least two elements some of which do not function in the same way in any other combination (of the kind) or occur in a highly restricted number" is presented by Čermák (2007: 142). Moreover, he stresses that *anomaly* is

one of the core characteristics of idioms since "the more anomalies a phraseme displays, the more idiomatic it is and vice versa" (Čermák 2001: 7). Thus, according to Čermák (2007: 84), syntagmatic and paradigmatic deviations are mainly emphasized as the chief features of idioms.

On the other hand, Nunberg, Sag, and Wasow (1994) underline idiom unpredictability and conventionalism when they say, "Idioms are conventionalised: their meaning or use can't be predicted, or at least entirely predicted, on the basis of a knowledge of the independent conventions that determine the use of their constituents when they appear in isolation from one another" (Nunberg *et al.* 1994: 492). Having presented the examples of the idiom *kick the bucket* which means "to die" and *spill the beans* "to reveal a secret," they conclude that the meanings of both idioms and their forms do not result from any basic grammatical principle or from our knowledge of the world, but simply have to be learned.

In addition, Fernando (1996: 1) treats idioms as multiword expressions which are conventionalised and usually with a non-literal nature, though not in all cases. Besides, she believes that expressions which demonstrate a tendency towards higher variability may show idiomaticity, but they cannot be considered as genuine idioms. Fernando (1996) states her stance as follows: idioms are "indivisible units whose components cannot be varied, or only varied within definable limits" (Fernando 1996: 30). And to develop her definition of the term, she adds that "only those expressions which become conventionally fixed in a specific order and lexical form, or have only a restricted set of variants, acquire the status of idioms and are recorded in idiom dictionaries" (*ibid.*: 31). Thus, as specified by Fernando, the invariance of idioms is one of the best characteristics of idioms.

Furthermore, idiomatic expressions are often treated by linguists the same way as lexical units which function as one semantic entity and have one meaning. As explained by Moon (1998), when a multi-word idiom is recognized as a unit of one single meaning, it is lexicalized. Lexicalization is a "process by which a string of words and morphemes becomes institutionalised as part of the language and develops its own specialist meaning and function" (Moon 1998: 36). In this process, lexicalization and institutionalization accompany each other indispensably, and a string of words is not properly lexicalised if its meaning or function is not known widely enough. As soon as the meaning and function of the expression have become accepted and generally recognized in a language, the process of lexicalization comes to an end, and then the idiomatic meaning becomes institutionalized. Additionally, institutionalization requires a certain amount of frequency in use. However, as Moon (1998: 7) points

out, most idioms are rather infrequent, i.e. they may be restricted to certain registers and uses of speech, or to certain accents or dialects of the English language. Schraw *et al*. (1988: 424) conclude that both lexicalization and familiarity contribute to the likelihood of idiomatic preferences, while only lexicalization contributes significantly to the comprehension of idiomatic meanings.

Likewise, both Everaert *et al*. (1995: 3-5; 2010: 81) and Fernando (1996: 2-3) define idioms, or phraseologisms, so-called in Polish linguistic literature, as always conventionalised multiword expressions, characterised by semantic opacity, i.e. the fact that the meaning of the whole is not the sum of the components (cf. Szymańska 2008: 116). "Idioms are conventionalized linguistic expressions which can be decomposed into potentially meaningful components and exhibit co-occurrence restrictions that cannot be explained in terms of rule-governed morphosyntactic or semantic restrictions" (Everaert 2010: 81). Moreover, for Everaert (2010), idioms include "all formulaic expressions including sayings, proverbs, collocations" (Everaert 2010: 77). Similarly, Kjellmer (1994) considers idioms as a type or subset of collocation, while others consider "restricted collocations" (e.g. *cardinal error* / *sin* / *virtue* / *grace*) to be a type of idiom (Cowie and Mackin 1975; Cowie, Mackin, and McCaig 1983).

Similarly, for Saberian (2011a: 1231), the term "idiom" has been used to cover a wide variety of different types of multi-word units (MWUs), which are treated as vocabulary items consisting of a sequence of two or more words. These words constitute a meaningful and inseparable unit. Yet, Grant and Bauer (2004) state that the term MWU refers to both idioms as well as open and restricted collocations, excluding phrasal verbs. However, for Grant and Bauer (2004), open collocations are the freest kind of MWU, while core idioms are the most restricted ones. Similarly, Aisenstadt (1979) argues that collocations differ from idioms as "R[estricted] C[ollocation]s are not idiomatic in meaning; they do not form one semantic unit; their meaning is made up as the sum of the meanings of their constituents. They have a much greater variability and usually occur in patterns with a number of interchangeable constituents" (Aisenstadt 1979: 1).

What is more, according to Fillmore, Kay, and O'Connor (1988), some conditions should be met to name a phrase idiomatic or not, since "constructions may be idiomatic in the sense that a large construction may specify a semantics (and/or pragmatics) that is distinct from what might be calculated from the associated semantics of the set of smaller constructions that could be used to build the same morphosyntactic object" (Fillmore *et al*. 1988: 501). Furthermore, Fillmore *et al*. (1988: 506-510)

distinguish between substantive (lexically filled) and formal (lexically open) idioms. Substantive idioms are lexically fixed (e.g. *once upon a time*), while formal idioms as abstract patterns show special semantics and/or pragmatics, and permit some lexical variation (e.g. *the sooner the better*, i.e. "the x-er the y-er," where x and y can correspond to various adverbs or adjectives). Fillmore *et al*. (1988: 505) also distinguish grammatical idioms (when words can fill expected places in grammatical structures) and extragrammatical ones (with anomalous structures, e.g. *by and large* "generally speaking").

Szymańska (2008: 116-117) adds that it is grammatical idioms and formal idioms that, from the point of view of Construction Grammar, contribute profoundly to the most revealing insights into the mechanism of form-meaning pairings or constructions (cf. Lakoff and Johnson 1980; Lakoff 1987; Goldberg 1995; Fillmore and Kay 1995; Fillmore 2001; among others). To be more precise, the basic assumption of Construction Grammar, as referred to by Szymańska (2008: 111), is the fact that the linguistic knowledge of a language user is best represented in terms of constructions, i.e. language patterns "dedicated to some particular semantic or pragmatic purpose" (Fillmore 2001: 36). Besides, Szymańska (2008) points out that some idiomatic expressions may show certain systematicity, and may be internally structured, becoming recognizable to language users as semantically more constrained options of more regular patterns. She also states that, from the perspective of Construction Grammar approach, the fact that grammatical structures (including formal idioms) convey meaning independent of lexical items may actually prove linguistic creativity of the expressions in question (Szymańska 2008: 146).

Additionally, due to the fact that some idiomatic strings have both a literal and a non-literal meaning; contextual clues appear to be helpful to distinguish whether a given MWU has a literal or an idiomatic interpretation. Alexander (1987) defines idioms as "multi-word units which have to be learned as a whole, along with associated sociolinguistic, cultural and pragmatic rules of use" (Alexander 1987: 178).

Furthermore, Langlotz (2006: 2) admits that the heterogeneity of linguistic terminology surrounding idioms encountered by linguists is really troublesome. That heterogeneity of idiomatic expressions stands in a dialectical relation to the abundance of linguistic terminology developed to capture and classify these constructions. Langlotz (2006) defines an idiom as "an institutionalized construction that is composed of two or more lexical items and has the composite structure of a phrase or semi-clause, which may feature constructional idiosyncrasy. An idiom primarily has an ideational discourse-function and features figuration, i.e. its semantic

structure is derivationally non-compositional. Moreover, it is considerably fixed and collocationally restricted" (Langlotz 2006: 5). Accordingly, by treating an idiom as a multiword conventionalized expression which is non-compositional, with some irregularity, Langlotz highlights its function to communicate experiences or events. However, he concludes that any definition of idioms is never finite as their discursive functions mutually overlap, leaving for each of them a unique "degree of idiomaticity" (Langlotz 2006: 5).

Besides, Glucksberg (2001) categorises idioms as "a subset of the fixed expressions in a language community" (Glucksberg 2001: 68), aside from other fixed expressions, such as compounds, names, film and book titles. He also points out that idioms are different due to "their 'non-logical' nature, that is, the absence of any discernable relation between their linguistic meaning and their idiomatic meaning" (*ibid.*). Glucksberg (2001) further notices that not all idioms are fixed or frozen, "Some idioms are syntactically flexible, appearing, for example, in both active and passive forms. (...) Some idioms can also be modified internally. (...) Semantic variations that make sense (...) are also permissible" (Glucksberg 2001: 68, 73).

Nevertheless, since idioms have been mostly referred to as fixed expressions whose figurative meaning is not clear from the literal meaning of their individual constituents, most authors – especially generative grammarians of the early stage of idiom research – have made an essential distinction between literal and figurative language (cf. Chomsky 1965; MacKay and Bever 1967). Thus, from the generative point of view, the fact that an expression is not interpretable in a literal way inevitably denotes that it is a fixed (non-compositional) expression. More pragmatically oriented studies use the terms "true idioms" (Wood 1986: II) or "pure idioms" (Howarth 1998: 28) to refer to the "idiomatic = fixed" relationship and allow other non-literal phrases to be idiomatic but non-fixed at the same time. Yet, Abel (2003) argues that these assumptions only apply to a subgroup of idioms and that it is more adequate to think of idioms as being represented in a dual way that combines not only the lexical but also the conceptual level of idioms, and integrates their representation in the first language (L1) as well as in the L2 lexicon.

Finally, as noted by Knappe (2004: 7), the status of idioms as phraseological units has been much discussed between lexicology, syntax, and word-formation. Earlier transformational grammar had to face up with the problem of integrating idiomatic phraseological units within its system, which sharpened, as a consequence, the awareness of the various grades of both lexical and syntactic characteristics for different kinds of

phraseological units. Hence, some idiomatic phraseological units have received from cognitive linguistics the key arguments supporting the view that those units may be coded in the mental lexicon in the same way as lexical units are (cf. Dobrovol'skij 1997: 10). As proposed above, idioms and their figurative meanings are recognised as the units stored separately in the mental lexicon, in the same way as the meanings of individual words are listed in a dictionary, and that this meaning must be learnt as a whole (Becker 1975; Gasser and Dyer 1986; Wilensky and Arens 1980; Gibbs 1989).

To sum up, this section has focused on providing a definition of an idiom, with its all potential arrays of diversity. In spite of the difficulties in forming an accurate definition of an idiom, it is possible to find some general characteristics that most of the definitions share, namely: (a) some subset of idioms has a fixed word order, which implies they have a restricted set of variants, and (b) it is impossible to guess the meaning from the individual words that make up an idiom. Moreover, dictionary and encyclopaedic sources, evoked as the starting point, recognize an idiom as a habitual unit of language, the meaning of which cannot be deduced from its components. Thus, not only are idioms varied as far as their forms are concerned, ranging from two-word expressions to entire sentences, but their inconsistent semantic and lexico-grammatical properties can also bring about opposing views concerning their nature. Idioms then show an excessive array of diversity (Sučková 2010: 3). At this stage, an attempt to point out the specific characteristics of idioms seems to be crucial before a working definition of an idiom is offered to be adopted in this book.

1.3 The characteristics of idioms

This section concentrates on features typical of idioms and their various taxonomies. Taken for granted is the fact that the range and intensity of literalness and figurativeness (analysed in section 1.3.1), and their mutual relationship appear to be crucial while characterising idioms. However, there are other features of idioms that have also been considered in the literature, such as their metaphoricity (referred to in section 1.3.1), analysability (see section 1.3.2), as well as their fixedness of form and internal structure (discussed in section 1.3.3). Lastly, section 1.3.4 deals with idiom familiarity and idiom predictability. The priority of some characteristics over others has varied, depending on the linguist's emphasis put on the role an idiom plays within a discourse (Nenonen 2002: 6). Yet, as mentioned by Mäntylä (2004: 28), although some

features of idioms are more noteworthy than others, several elements are required for an expression to be categorised as an idiom (cf. various taxonomies of idioms, outlined in section 1.3.1.2). Still, there are expressions that are more prototypical idioms than others, and sometimes it is a mission hardly possible to distinguish idioms from other types of fixed and / or metaphorical expressions, which can be easily noticed in the discussion below. The first property of idioms to be embarked on in the subsequent section is idiom metaphoricity and figurativeness.

1.3.1 Metaphoricity / figurativeness

Idioms have been functioning under the aegis of frozen and dead metaphors (Weinreich 1969; Fraser 1970; Swinney and Cutler 1979; and Cowie 1981; among others) for a long time until that viewpoint has been re-examined in the past few years (Lakoff and Johnson 1980; Lakoff 1987; and Gibbs 1990, 1992: 485; 1993: 57-61; among others). Then, "dead" phrases implied forgotten metaphorical and arbitrary meanings with undetected origins, while "frozen" used to mean fixed in form and limited as regards most transformations and variations. Thus, learning them entailed memorizing them as entities since the link between their form and meaning has not been recognized. More recent works, with a great input of psycholinguistic studies (cf. Fernando 1996; and Moon 1998; among others), have found a great number of idioms, far from being dead or frozen, but instead, marked with possible alterations, metaphoricity and noticeable origins of their meanings.

1.3.1.1 The notion of metaphor and figurative language

Adkins (1968: 149) explains that a language which is not literal, often employing metaphors, is called figurative language. While no attempt has been made to classify figurative language, it should be noted that the term "figure of speech" or "figurative language" covers such examples as simile, metaphor, personification, and hyperbole.

Čermák (2001: 5) adds that the very notion of metaphor, dating from Aristotle, appears to have rather unclear boundaries, and doubts whether a metaphor can be treated as a reliable and general condition to characterise an idiom. Lakoff and Johnson (1980), on the other hand, underline that the metaphor is omnipresent in everyday life, in whatever thought, action or language. They argue that "our ordinary conceptual system, in terms of which we both think and act, is fundamentally metaphorical in nature" (Lakoff and Johnson 1980: 4), and add further that "the English

expressions are of two sorts: simple literal expressions and idioms that fit the metaphor and are part of the normal everyday way of talking about the subject" (Lakoff and Johnson 1980: 46).

In addition, Mäntylä (2004) stresses that figurativeness (metaphoricity) is one of the most commonly acknowledged features of idioms, and that the roots of metaphoricity often derive from real situations or acts (e.g. *hang up one's boots),* or an image created by the connection between the idiom and its meaning (e.g. *the fat is in the fire).* She also makes a remark that the reason why idioms have been recognized as "dead," or arbitrary, is that the relation between the origins of an expression and its meaning has faded (e.g. *kick the bucket*, which means "to die"), or the literal context belongs to a special field unknown to the ordinary language user (e.g. *kick something into touch*, which means "to send the ball out of play"), making the association very difficult to discern (Mäntylä 2004: 28-29).

Moreover, Horn (2003), providing a thorough analysis of idioms, metaphors and their syntactic mobility, credits Jackendoff (1997), and Nunberg *et al.* (1994), for introducing the term "a sort of metaphorical semantic composition" (Jackendoff 1997: 168; Horn 2003: 246) to describe mobile expressions. Jackendoff (1997) states that idioms having this property "can be partitioned into chunks that correspond to the "sub-idiomatic" readings of the syntactic idiom chunks" (Jackendoff 1997: 168). Fixed idiomatic phrases, in contrast, lack this property, as exemplified by Horn (2003) by means of the well-known and much-discussed fixed VP idioms, such as those in (1.1), and the examples of mobile VP idioms, as in (1.2) below:

(1.1) a. Bill *kicked the bucket.* [Bill died]
b. We *shot the bull* all evening.
[We were engaged in trivial conversation]
c. The bad guys *flew the coop.* [The bad guys escaped]
(Horn 2003: 246)

(1.2) a. Fred *spilled the beans.* [Fred revealed the secret]
b. Bill *let the cat out of the bag.* [Bill revealed the secret]
c. The Government *drew the line with* Milosevic.
[The Government established a limit / made / enforced a distinction]
d. Bill *pulled strings* to get the promotion.
[Bill used his influential power to get the promotion]
e. They *buried the hatchet* after years of fighting.
[They reconciled/ended/settled a disagreement after years of fighting]

f. They shall *beat their swords* into plowshares.
[They shall forge offensive weapons into peaceful tools]
(Horn 2003: 246)

Referring to the examples in (1.1) and (1.2), Horn (2003: 245-247) explains that fixed idioms are the ones whose NP objects cannot undergo syntactic operations, such as passivation. This is illustrated by the unacceptability of the sentences in (1.3), used in their idiomatic sense.

(1.3) a. **The bucket was kicked* by Bill.[1]
b. **The bull was shot* all evening.
c. **The coop was flown* by bad guys.
(Horn 2003: 245)

Mobile idioms, on the other hand, can occur in the passive, as in (1.4) below:

(1.4) a. *The beans were spilled* by Fred.
b. *The cat was let out of the bag* by Bill.
(Horn 2003: 245)

The mobility of VP idioms is correlated by Jackendoff (1997) with a property called "metaphorical semantic composition." He states that idioms with this property "can be partitioned into chunks that correspond to the "sub-idiomatic" readings of the syntactic idiom chunks"[2] (Jackendoff 1997: 168). Fixed expressions, in turn, lack this property, which in fact is proved finally by Jackendoff (1997) himself to be an insufficient condition for mobility (cf. Horn 2003: 246).

Furthermore, Horn (2003) makes an attempt to replace Jackendoff's (1997) property of metaphorical semantic composition with a property of "thematic composition," and explains that "an expression has thematic composition if the thematic structure of the verb in its literal sense and that of the verb in its idiomatic sense are identical" (Horn 2003: 246). Having defined the thematic structure as a set of semantic roles that a verb assigns

[1] The sign * [asterisk] is used in the thesis to mark the sentence / phrase as unacceptable in terms of grammar.
[2] This appears to be similar to the property of composition proposed by Nunberg *et al*. (1994), who explain that if an idiom is compositional, then elements of its interpretation can be assigned to its various components "in such a way that each constituent will be seen to refer metaphorically to an element of its interpretation" [after the meaning of the idiom is known] (Nunberg *et al*. 1994: 496, 499).

to its NP arguments, Horn (2003) further argues that the property of "thematic composition" is "a sufficient condition for mobility" (Horn 2003: 245). Consequently, Horn (*ibid*.) introduces a property of transparency that distinguishes two types of mobile expressions, *viz*. *metaphors* and *mobile idioms*, a division discussed neither by Jackendoff (1997) nor by Nunberg *et al*. (1994). In short, the properties of thematic composition and transparency interact to define three classes of VP idioms: *fixed idioms, mobile idioms* and *metaphors*. Yet, fixed idioms and mobile idioms, need to be encoded as phrasal idioms in lexical entries, while metaphors do not have to be encoded in this way. Finally, all expressions which have the property of thematic composition are mobile to some extent, and all expressions that lack the property of thematic composition display highly restricted mobility (Horn 2003: 270-271).

To sum up, nearly all studies treat metaphoricity as an essential property of an idiom (e.g. Cronk *et al.* 1993; Gibbs 1980, 1985; and McGlone *et al.* 1994; among others). From the traditional viewpoint, idioms appear to be frozen and conventional phrases, quite different from metaphors, which are often "novel and fresh" (Glucksberg 2001: 67). Nevertheless, scientists argue that idioms "may not be that different after all. (…) some types of idioms behave exactly like metaphors, while others behave exactly like literal language" (Glucksberg 2001: 67). This idiomatic diversity is responsible for various taxonomies of idioms, analysed in the subsequent section.

1.3.1.2 Various taxonomies of idioms

Idioms have been classified in multiple ways by different researchers based on their semantics, syntax, and function (Jackendoff 1997; Horn 2003; and Grant and Bauer 2004; among others). This section describes some taxonomies: the one of Makkai (1972); these of Nunberg (1978) and his followers (Gibbs and Nayak 1989: 104; Titone and Connine 1999); the one of Cacciari and Glucksberg (1991), the one proposed by Sag *et al.* (2002), and the classification of Yoshikawa (2008). These taxonomies seem to be more complex (cf. Saberian 2011a: 1232), compared to the classifications proposed by other linguists, i.e. Alexander (1987), Fernando and Flavell (1981), Cowie *et al*. (1983), Nunberg, Sag, and Wasow (1994), Fernando (1996), Howarth (1998), Moon (1998), among others.

A. Makkai's (1972) taxonomy

According to Makkai's study (1972: 117), there are two idiomaticity areas in English to which an idiom can belong: lexemic and sememic. The lexemic idiomaticity area, (the class of the so-called "polylexonic lexemes") comprises expressions of more than one word, which are "subject to a possible lack of understanding, despite familiarity with the meanings of the components, or the erroneous decoding: they can potentially mislead the uninformed listener, or they can disinform [sic] him" (Makkai 1972: 122). Disinformation or misunderstanding take place when an idiom is decoded, or understood in a semantically wrong way. Instead, the semantic idiomaticity area (the class of the so-called "polysememic sememes[3]") contains expressions of more than one word, which have both a logical literal meaning and a moral or a deeper meaning, e.g. proverbs. On the basis of this theory of idiomaticity, Makkai (1972) classifies all idioms either under the category of *lexemic idioms* or under the label of *sememic idioms*. Lexemic idioms are shorter and function as parts of speech, whereas sememic idioms function as sentence idioms.

Consequently, Makkai (1972) divides all *lexemic idioms* longer than one word and shorter than a sentence into six types, presented in *Table 1-1* below.

Types of lexemic idioms	Example	Meaning
(1) Phrasal verb idioms	*give in*	to admit to be defeated or not to be able to do sth; to agree to do sth against one's will
(2) Tournure idioms	*to fly off the handle*	suddenly and completely lose one's temper
(3) Irreversible binomial idioms	*spick-and-span*	very clean and tidy
(4) Phrasal compound idioms	*the White House*	the president of the U.S. and his officials; the official home of the president of the U.S.
(5) Incorporating verb idioms	*to baby-sit*	to look after or mind somebody's children
(6) Pseudo-idioms	*kith and kin*	somebody's relatives

Table 1-1. Types of lexemic idioms (Makkai 1972: 135-169)

[3] A *sememe* is a semantic language unit of meaning, analogous to a morpheme, relevant in structural semiotics (cf. Stanojević 2009).

As shown in *Table 1-1*, class (1) of *phrasal verb idioms* includes both phrasal and prepositional verbs, with the constituent structure of verb + particle. A phrasal verb (e.g. *put up*) can carry a separate literal meaning, apart from its one or more idiomatic meanings (*put up* "accommodate" / "give the idea") (Makkai 1972: 135-136).

Furthermore, class (2) of *Tournure idioms* (often verbal idioms) are made of at least three words and have a phrase-like structure. "Tournure" means a mode of expression, so tournure idioms are the type of expressions that people generally identify idioms with, e.g. *kick the bucket* "to die" (Makkai 1972: 153-154). Some tournure idioms have a compulsory *it*, which differentiates these tournure idioms from phrasal verb idioms, (e.g. *to have it out* "to discuss a problem to solve it" (Makkai 1972: 148)). In addition, tournure idioms often contain a compulsory definite or indefinite article, and they can only show variation in inflection (past tense, future tense, etc.) (*ibid.*: 148).

Moreover, class (3) of *Irreversible binomial idioms* have a fixed structure since their word order cannot be reversed, e.g. *spick-and-span* "very clean and tidy" but not **span-and-spick* (Makkai 1972: 164; Travis 1984).

Class (4) of *Phrasal compound idioms* comprises nominal compounds, that first have to be institutionalised and widely recognised in their specific meanings, but which denote a specific, commonly known object, using common nouns, e.g. "White House." Makkai even claims that within this approach all proper nouns could count as idioms, even personal names (Makkai 1972: 168).

Class (5) of *Incorporating verb idioms* consists of the first element that is either a noun or an adjective, which is attached to a verb, e.g. *to baby-sit*, *to sight-see*. For Makkai (1972), due to their ambiguous literal interpretation, *incorporating verb idioms* may be idiomatic. For instance, when *to baby-sit* is interpreted literally, it may mean "to make baby or babies sit" or "sitting with regard to, or on account of a baby or babies" (Makkai 1972: 168).

Finally, class (6) of *Pseudo-idioms* represents the last type in Makkai's (1972) classification, encompassing all idioms in the lexemic idiomaticity area which have a cranberry morph as a constituent, e.g. *hither and yon* "in many different directions or places; here and there," *kit and caboodle* "the whole lot; everything," *tit for tat* "an action of revenge" (Makkai 1972: 340).

Additionally, Makkai (1972: 172-179) divides his *sememic idioms* into nine types according to their origin or function in a language, as presented in *Table 1-2* below.

Types of sememic idioms	Example	Meaning
(1) First-base idioms	*Never to get to first base.*	To fail to achieve the first state of significance in an activity, rendering future success unlikely.
(2) Idioms of institutionalized politeness	*May I ask who's calling.*	Identify yourself!
(3) Idioms of institutionalized detachment or indirectness	*It seems that…, I can't seem to find my glasses.*	I'm unable to find my glasses (but I refuse to give up).
(4) Idioms of proposals encoded as questions	*How about a drink?*	I'm offering you a drink.
(5) Idioms of institutional greetings	*How do you do!*	Greeting. Good day!
(6) Proverbial idioms with a moral	*Curiosity killed the cat.*	One may pay dearly for one's curiosity.
(7) Familiar quotations as idioms	*A little more than kin,and less than kind. (Hamlet I.ii.65)*	
(8) Idiomaticity in institutionalized understatement	*It wasn't too bad. It wasn't exactly my cup of tea.*	Approval. Displeasure.
(9) Idiomaticity in institutionalized hyperbole	*As cold as a witch's tit He won't lift a finger..*	Extremely cold. He is very idle.

Table 1-2 Types of sememic idioms (Makkai 1972: 172-179)

In Makkai's (1972) classification of *sememic idioms*, depicted in *Table 1-2*, class (1) of *First-base idioms* derive from a cultural background, sayings or proverbs which relate to culturally specialized fields, e.g. American baseball, as in *never to get to first base* "to fail to achieve the first state of significance in an activity, rendering future success unlikely." Secondly, class (2) of *Idioms of institutionalized politeness* covers imperatives in traditional, polite forms, treated by Makkai (1972) as idioms, due to the fact that they rarely expect literal replies, e.g. *Do you mind if I ... Not at all* / *No, I don't.* The third class, *Idioms of*

institutionalized detachment or indirectness, covers traditional forms of speech which hint at detachment or indirectness, e.g. *It seems to be snowing* → "It is snowing (but I hate to say so)." Fourthly, *Idioms of proposals encoded as questions*, which, if answered literally, indicate misunderstanding, or deliberate refusal to co-operate, e.g. *Why don't you sit over here?* "come and sit down here" → "because I don't like that chair!" The fifth category, *Idioms of institutional greetings*, comprises items lexemically unchangeable, usually used for greetings, and no literal answer is expected as a reaction to them. Another class, *Proverbial idioms*, with a moral and a standard form, is commonly recognized and cannot be much altered as regards person, tense or anaphors. The seventh group, *Familiar quotations as idioms*, has to be institutionalized and known well enough to be easily recognized. It often happens that the person using these items invokes authority. Class eight, *Idiomaticity in institutionalised understatement*, reduces the impact of a dull statement or denotes approval of something. Finally, *Idiomaticity in institutionalised hyperbole*, often considered as vulgar, implies mainly exaggerated terms that have been widely accepted and become idiomatic. They are used both in speech and writing to exaggerate what is expressed with the intention of making something sound more impressive than it really is.

B. Nunberg's (1978) and his followers' taxonomies

Before Jackendoff's (1997) and Horn's (2003) subdivisions of idioms, relying on their metaphorical semantic/thematic composition and transparency, were proposed, there existed an initial taxonomy of Nunberg (1978), which takes into account the meanings of parts of an idiom that contribute to the figurative meaning of the whole. On the basis of Nunberg's taxonomy (1978), semantic taxonomies have been postulated to describe how idioms differ in their compositionality, and how these differences may influence the process model of idiom comprehension (Nunberg 1978; Gibbs and Nayak 1989: 104; and Titone and Connine 1999). Both Nunberg (1978) and his followers create semantic taxonomies classifying idioms into: *normally decomposable idioms*, *abnormally decomposable idioms*, and *non-decomposable idioms*.

The first category of *normally decomposable* idioms, whose individual components contribute to the figurative meaning, includes the so-called one-to-one semantic relationship between the words constituting an idiom and the components of the idiom meaning. In this type of idioms, a part of the idiom is used literally, or there are clearly noticeable metaphorical correlations between the words constituting the idiom and the elements of

that idiom figurative meaning. Gibbs and Nayak (1989) and Gibbs *et al*. (1989a) exemplify this category with the idiom *break the ice,* when the word *break* links to the idiomatic sense of changing a mood or tense atmosphere, while the word *ice* relates figuratively to social tension. Similarly, in the idiom *pop the question,* the noun *question* quite clearly refers to a "marriage proposal," while the verb *pop* to the act of expressing it (cf. Gibbs *et al*. 1989b: 59; and Cieślicka 2004: 95; among others).

The second category of idioms includes the so-called *abnormally decomposable* idioms, whose individual components have some metaphorical relation to their idiomatic referents (e.g. *buck* in the idiom *pass the buck*, with its meaning "to attribute to another person or group one's own responsibility") (Gibbs and Nayak 1989: 109). Likewise, as argued by Gibbs *et al.* (1989a), "we can understand the hitting of certain buttons in *hit the panic button* as a conventional metaphor for how we react in extreme circumstances" (Gibbs *et al.* 1989a: 578). Consequently, an abnormally decomposable idiom may be viewed as somewhat lexically flexible (cf. Gibbs *et al*. 1989b: 65). Additionally, the difference between normally and abnormally decomposable idioms lies in the fact that, compared to the former category, in which the words constituting an idiom denote directly some component of the idiomatic reference, the latter contains such idioms which only refer to some metaphorical relation between the individual part and the referent (cf. Cieślicka 2004: 95).

Thirdly, *semantically non-decomposable* idioms are the ones whose individual constituents do not contribute to the overall figurative meaning, e.g. *chew the fat*, which means "to gossip or make a small talk" (Titone and Connine 1999). This category resembles the traditional approach to idiomatic expressions, which are not compositionally derived from their constituent words that build the string. Thus, Gibbs *et al*. (1989a) provide a definition of semantically non-decomposable idioms in the following words, "the individual components of phrases such as *kick the bucket* or *chew the fat* are not in the same semantic field as their respective figurative referents (i.e. "to die" and "to talk without purpose") and should not be viewed as semantically decomposable" (Gibbs *et al*. 1989a: 578; and cf. Cieślicka 2004: 95).

Having provided the division of idioms founded on Nunberg's (1978) initial taxonomy, Gibbs *et al*. (1989b: 59) mention the syntactic variability of idioms. On the basis of the results of their experiments, they prove that the more decomposable an idiom is, the more syntactically productive the idiom is expected to be. Therefore, normally decomposable idioms (e.g. *pop the question*) have been found much more syntactically productive than either abnormally decomposable (e.g. *carry a torch*,

which means "to love or to be romantically infatuated with") or semantically non-decomposable idioms (e.g. *chew the fat* "to talk without purpose"). These conclusions largely support the predictions of the idiom decomposition hypothesis, making a suggestion that the syntactic behaviour of idioms can be analysed through examination of their internal semantics.

To wrap up, in their subsequent studies of idioms, Nunberg, Sag, and Wasow (1994), followed by Espinal and Jaume (2010), and Harwood *et al.* (2016), among others, propose a bipolar classification of idioms, dividing them into *idiomatically combining expressions* (ICE) and *idiomatic phrases* (IP). While the typical example of *idiomatically combining expressions* is *pull strings* ("to use connections"), in which the overall idiomatic interpretation is distributed among its parts, even though these are associated with conventional meanings (e.g. pull → use, and strings → connections); the example of *idiomatic phrases*, commonly cited in the literature, is *kick the bucket* "to die," the meaning of which is completely not derivable from its components (both "kicking" and "the bucket" do not contribute to the overall meaning of the idiom).

C. Cacciari and Glucksberg's (1991) and Glucksberg's (1993) taxonomies

In their taxonomy of idiom compositionality, Cacciari and Glucksberg (1991), and Glucksberg (1993) categorize idioms as *opaque / compositional-opaque*, *transparent / compositional-transparent, quasi-metaphorical*, and *non-decomposable / non-compositional.*

First of all, *opaque idioms* are phrases, such as *kick the bucket*, in which there is some degree of semantic constraint on interpretation of the idiom. Here the meanings of individual elements can still constrain the way in which the idiom is interpreted and used. Hence, even if the idiom *kick the bucket* is opaque, in that its constituent words do not map onto its figurative reading, the semantics of the verb "to kick" can still constrain the interpretation of the idiom. Since kicking is a distinct act and involves a swift action, saying that "he was kicking the bucket all week" is inappropriate, even if saying that "he lay dying all week" is perfectly suitable (cf. Cieślicka 2004: 97).

On the contrary, *transparent idioms* are phrases with a direct mapping of literal constituent meanings to idiomatic meanings. For example, *spill* in the idiom *spill the beans,* which is literally translated as "to divulge a secret," straightforwardly draws our attention to the verb "divulge," and the word *the beans* directly implies "a secret" (cf. Saberian 2011a: 1232).

Furthermore, idioms classified as *quasi-metaphorical* phrases are those in which the overall literal meaning of the phrases metaphorically maps onto the idiomatic meaning. To provide Glucksberg's (1993) example, "*giving up the ship* is simultaneously an ideal or prototypical exemplar of the act of surrendering and a phrase that can refer to any instance of complete surrender" (Glucksberg 1993: 18). Likewise, *carry coals to Newcastle* denotes an idea of bringing something to a place which has a wealth of that thing, while *bury the hatchet* indicates any example of making peace, not essentially including the once ritual action of burying physically the hatchet. Such quasi-metaphorical idioms, reveal their meaning via allusion (Glucksberg 1993, 2001), which means that at the same time they denote an ideal paradigm of a concept and the contextually determined referent in a specific communicative situation (cf. Cieślicka 2004: 98; and Saberian 2011a: 1232).

Finally, the last category of *non-decomposable / non-compositional* idioms embraces expressions where there is no relation between the idiom constituent parts and the overall figurative reading, as in the phrase *by and large* "in all possible circumstances; generally speaking," or *trip the light fantastic* "to dance or move to musical accompaniment." Such non-compositional idioms are opaque due to the fact that, in contradistinction to transparent idioms, the idiom literal meaning does not show even the slightest reference to its figurative interpretation (cf. Cieślicka 2004: 98; and Papagno and Romero Lauro 2010: 22).

Similarly, depending on the degrees of figurativeness, Mäntylä (2004: 28-29) mentions another, although parallel, way of categorising idioms. They are usually divided into three categories, somehow overlapping with one another, without strict border lines, and they mark how easily the roots of figurativeness are to be detected. These are: *transparent* idioms with their literal meaning clearly linked to the figurative meaning, e.g. *give the green light; semi-transparent* idioms, i.e. the expressions where the literal meaning gives some hint as to the figurative meaning but the link is not as noticeable as with *fully transparent* idioms, e.g. *quake in your shoes*, which means "to feel nervous or afraid." Finally, there are *opaque idioms*, where the motivation behind the figurative meaning is impossible to perceive without knowing the etymology, e.g. *be home and dry*, which is translated as "succeeding at something and not expecting any further problems" (cf. Colin 2005, and Peacock 2009: 2, who mention also the fourth group, *viz*. *semi-opaque idioms*).

D. Sag *et al.*'s (2002) taxonomy

Sag, Baldwin, Bond, Copestake, and Flickinger (2002) in their article "Multiword expressions: A pain in the neck for NLP" included a long passage on multiword expressions (MWEs), defining them as phrases which comprise at least two words, can be syntactically and/or semantically idiosyncratic in nature, and which act as a single unit at some level of linguistic analysis (Sag *et al.* 2002: 1). Besides, MWEs can be treated as lying at the interface of grammar and lexicon, usually being instances of well productive syntactic patterns, showing, on the other hand, a peculiar lexical behaviour (Calzolari *et al.* 2002: 1934).

Furthermore, Sag *et al.* (2002: 3-8) classify MWEs into *lexicalized phrases*, which have at least partially idiosyncratic syntax or pragmatics, and *institutionalized phrases*, which are syntactically and semantically compositional. The former group of phrases, i.e. lexicalized phrases, can be further divided into (1) *fixed expressions*, (2) *semi-fixed expressions*, and (3) *syntactically flexible expressions*. While *fixed expressions* are fully lexicalized, *viz*. totally fixed, and can neither vary morpho-syntactically nor be modified internally (e.g. *in short*, *by and large*, *every which way*); *semi-fixed expressions* have a strictly invariable word order and composition, but may be modified as regards inflection, variation in reflexive form and determiner selection.

Interestingly, Sag *et al.* (2002: 4) make further exemplification of *semi-fixed expressions* when they mention (a) "non-decomposable idioms" (i.e. idioms in which the meaning cannot be assigned to the components of the expressions), such as *kick the bucket* "to die," in which the verb can be inflected only in a specific context: *he kicked the bucket*, or varied in the reflexive form: *wet oneself*. However, non-decomposable idioms normally do not show syntactic variability, i.e. a passive form: **the bucket was kicked,* or internal modification: **kick the red bucket in the sky*, are not possible with the same idiomatic meaning (Sag *et al.* 2002: 5). Another type of *semi-fixed expressions* are (b) "compound nominals," syntactically unalterable but inflected for number, such as: *car park* → [*car park*]s. However, for left-headed compounds such as *attorney general*, *congressman at large* and *part of speech*, the inflection employed would result in anomalies, e.g. *[congressman at large]s (Sag *et al.* 2002: 5). Finally, *semi-fixed expressions* include also (c) "proper names," which are syntactically highly idiosyncratic. U.S. sports team names, for instance, are canonically made up of a place or organization name (probably a MWE in itself, such as *San Francisco*) and an appellation that assigns the team uniquely within the sport (such as 49ers). The name of the U.S.

sports team can undergo optional elision, e.g. *the San Francisco 49ers* can occur as *the 49ers*, or as a modifier in the compound noun *a 49ers player*, etc.

The last subclass of lexicalized phrases, within the taxonomy of Sag *et al.* (2002), apart from *fixed expressions*, and *semi-fixed expressions*, comprises *syntactically-flexible expressions*, which have a wider range of syntactic variability than semi-fixed expressions. *Syntactically-flexible expressions* occur in the form of (i) decomposable idioms; (ii) verb-particle constructions; and (iii) light verbs. "Decomposable idioms" can be syntactically flexible to some extent, but it is difficult to predict what kind of syntactic variation a given idiom can undergo. Moreover, "verb-particle constructions," such as *write up* and *look up* are made up of a verb and one or more particles. They may be either semantically idiosyncratic, as *brush up on* "to improve," or compositional as *break up* in *the meteorite broke up in the earth's atmosphere*. In some transitive verb-particle constructions, as *call someone up*, an NP argument can occur either between or following the verb and particle(s): *call Tom up* or *call up Tom*, respectively. Besides, adverbs can often be inserted between the verb and particle as in *fight bravely on*. Finally, in the case of "light verb constructions," as *make a mistake*, or *give a demo*, it is hardly predictable which light verb is connected with a given noun. Although they are highly idiosyncratic, they have to be distinguished from idioms: "the noun is used in a normal sense, and the verb meaning appears to be bleached, rather than idiomatic" (Sag *et al*. 2002: 7).

Finally, the taxonomy of Sag *et al*. (2002: 7), beside *lexicalized phrases*, also includes *institutionalized phrases* which cover conventionalized phrases / collocations, such as *salt and pepper*, *traffic light* and *to kindle excitement*. They are semantically and syntactically compositional. Regarding the phrase *traffic light*, *traffic* and *light* both retain simple senses but produce a compositional reading by being combined into constructions. As institutionalized phrases are fully compositional, they can show full syntactic variability.

E. Yoshikawa's (2008) taxonomy

Yoshikawa (2008) groups idioms into five different types: A, B, C1, C2 and D, with the last idiom type added by Saberian 2011b. In this taxonomy, the main criterion of classifying English idioms is the degree of L1-L2 structural and semantic similarity. If the major L2 constituent words could be literally translated into L1, and if the L2 idiom is semantically similar to an L1 idiom, since it shares the same central

concept used in the same contexts (pragmatically congruent), then an L2 idiom is structurally similar to an L1 idiom (Cedar 2004). *Type A* idioms include English idioms with both structural and semantic similarity to L1 idioms. *Type B* contains idioms with some structural similarity and semantic parallelism to L1 idioms; whereas *Type C1* covers idioms with structural "resemblance" but semantic "dissimilarity" from L1 idioms. *Type C2* includes idioms which both structurally and semantically differ from L1 idioms; while *Type D* contains idioms with structural "dissimilarity" but semantic similarity to L1 idioms. Nevertheless, *Type D* idioms cannot be translated literally into L1, because their literal translation is not logical in L1, yet their literal translation may give language users some clue to predict the idiomatic denotation (cf. Saberian 2011a: 1232).

In brief, this section has focused on some taxonomies of idioms, especially those widely used or referred to in the literature. The common denominator of all taxonomic subclasses is the degree of an idiom literal or / and figurative meanings, which in most cases overlap with one another. A literal meaning of the phrase metaphorically maps onto the idiomatic meaning with different intensity moving up and down the idiomatic scale, making ground for different types of idioms.

1.3.1.3 Idiom processing and metaphorical interpretation

In the discussion concerning metaphoricity of idioms, Abel (2003: 347) assumes that in the course of processing of some idioms *conceptual metaphors*, in the sense of Lakoff and Johnson (1980),[4] are activated, such as "anger is heated fluid in a container" or "anger is fire," which motivate the meaning of idioms like *smoke was coming out of his ears*, *she was spitting fire*, *he was fuming*, etc. Some idioms, e.g. *miss the boat* or *pass the hat*, where one component has a metaphorical interpretation, probably activate conceptual information with regard to this interpretation. Other idioms are not conceptually motivated at all, e.g. *kick the bucket*; thus, this fact proves that conceptual or metaphorical motivation cannot be automatically equated with predictability of idiomatic meaning (cf. Gibbs 1992, 1995; Gibbs and O'Brien 1990; Nayak and Gibbs 1990; Glucksberg *et al*. 1993; and Cieślicka 2004; among others).

[4] Lakoff and Johnson's (1980) research has evoked many studies referring to conceptual metaphors, such as, e.g. ARGUMENT, TIME and LOVE, which are said to be used by people continually, and thus stimulating more extensive linguistic studies.

Remarkably, Cieślicka (2004) mentions another example within the conceptual metaphor framework "LOVE IS JOURNEY,"[5] which entails comprehending one abstract domain of experience (love) in terms of another, more concrete domain of experience (that of journey) (Cieślicka 2004: 63). She adds (*ibid*.: 64) that there is thus a tight mapping between entities in both domains, since the entities in the domain of love (e.g. the lovers, their relationship, their common goals, and life difficulties) correspond to their parallel entities in the domain of journeys (e.g. the travellers, their vehicles, destinations). This ease and naturalness in comprehending conceptual metaphors without an effort, and even without conscious reflection is the result of "pre-existing conceptual metaphorical mappings between conceptual domains that structure our experience and perception" (Cieślicka 2004: 63).

On the other hand, as referred by Mäntylä (2004: 29), since figurativeness depends on the judgement of the individual language user, it may sometimes be very difficult to define the degree of metaphoricity of a single idiom, since knowing its meaning, or other similar expressions in either the foreign language or the native one, including their context, may influence the assessment. Even though it is easier to see the link to the literal meaning once the figurative meaning is known, Laufer (1997) warns about "deceptive transparency" that is, words that "look as if they provided clues to their meaning" (Laufer 1997: 25). In fact they do not, e.g. false friends, such as *put words into somebody's mouth*, which means "to suggest that someone has said something when in fact they have not." Polish learners, instead, would understand it as "to help someone say

[5] As noted by Anudo and Kodak (2017: 168), Lakoff and Johnson's (1980) metaphors allow us to comprehend a more clearly delineated concept, e.g. the concept of love can be comprehended in terms of a "journey." Moreover, metaphors should involve two different kinds of activities, as in the "love is journey" metaphor, *love* involves emotions, but a *journey* refers to travelling. Additionally, metaphors structure our everyday concepts, since "love" is partially structured in terms of a "journey." Furthermore, metaphors enable us to understand one domain of experience in terms of another, e.g. the target domain of love is referred to by the source domain of a journey. Besides, in the "Love is a journey" metaphor, different means of travel can be used to explain a love relationship, i.e. the journey could be undertaken using a train, a car, or a ship, etc. Since these means of transport are different kinds of vehicles; thus, "vehicles" have become a superordinate category evoking in human minds rich mental images and rich knowledge structures. A mapping at the superordinate level enlarges the chances for mapping rich conceptual structures in the source domain onto the target domain (cf. Anudo and Kodak 2017: 168; Kövecses 2000, 2005, 2010; and Gavelin 2015; among others).

something that is expected or needed"). Fortunately, despite one's individual or national creativity and historical uniqueness, there exist some similarities among languages with the same or similar pictures evoked by idioms. They derive from biblical, mythological and everyday life scenes, and constitute a common language store that builds close connections between language users, regardless of their origin, culture and nationality (cf. Kellerman 1999; and Sornig 1988: 281).

Other factors that make the recognition and comprehension of idioms more difficult relate to the fact that some expressions bring their literal reading faster than their figurative connotations, depending on the context (Cacciari 1993: 27; Marschark *et al.* 1983; Moore 1982; Popiel and McRae 1988; and Needham 1992; among others). Moreover, both distinguishing unfamiliar idioms and reading well-known idioms with their figurative meaning create problems. In other words, if a language user depends too much on metaphoricity, s/he may attach meanings or features to an idiom that are not present there (cf. Mäntylä 2004: 29-30). Pulman's (1993: 250) example of *cat among the pigeons* suggests a possibility when a language user might expect a connotation of cruelty, while constructing the image the expression denotes, but instead, the phrase has a different meaning (a disturbance caused by an undesirable person from the perspective of a group).

Consequently, as Cieślicka (2004) notices, it is essential for each language user to acquire the ability to "deal with figurative language," called *figurative competence* (cf. Levorato 1993: 104; Cieślicka 2004: 19). The ability implies not only such language skills as understanding figurative usages of a word, or the relationship existing between the literal and non-literal meanings, but also the ability to produce figurative language by creating new figures of speech.

However, the most recent psycholinguistic models seem to point out that some amount of literal activation is required in the course of idiom processing. While the activation of literal meanings of idiom components appears well-documented in the idiom comprehension literature, the lexical access of idiom components in idiom production has not been made familiar enough, yet. On the other hand, linguists focused on the processing of idioms and their storage in the mind (e.g. Fraser 1970; and Gibbs 1980; among others), and have not been inclined to deal with the problem of defining an idiom, but have taken its definition more or less for granted.

All in all, the very nature of idioms, as well as the literal and figurative character of idioms, evoked significantly in idiom processing, are closely

related to the next feature of idioms, *viz*. idiom ambiguity, resulting from idiom metaphoricity, which is to be analysed below.

1.3.1.4 Idiom ambiguity

Chafe (1968) notices that many idiomatic expressions are ambiguous, with one interpretation (the literal meaning), deriving from the meanings of the words involved, and the other–the idiomatic meaning.

To begin the discussion concerning idiom ambiguity, it is worth recalling transformational grammarians' classification of ambiguity first. They distinguish (i) lexical; (ii) surface structure; and (iii) underlying structure ambiguities (cf. Chomsky 1965; MacKay and Bever 1967; Bever *et al.* 1969: 225; and Bobrow and Bell 1973; among others). The *lexical ambiguity* implicates alternative dictionary meanings of a word with no differences at the other grammatical levels (e.g. in "The cold was bothering John," *cold* may refer either to John's illness or the weather condition which is worrying John). The *surface (or derived) structure ambiguity* depends on how words are grouped together into phrases, i.e. structured (e.g. "Visiting relatives can be nice" may be understood as follows: the activity of visiting (relatives) is nice, or the relatives who are visiting us are nice). The *underlying structure ambiguity* entails a change in the essential relations between words (e.g. in "The mayor told the police to stop drinking," drinking was stopped either by the mayor who announced it to the police, or the police was ordered to stop drinking) (cf. Bobrow and Bell 1973: 343).

In addition, the underlying structural level of sentences represents the essential *logical* relations which the words bear to each other. In other words, at a deeper level the *logical* relational concepts, *subject*, *predicate*, and *object*, express the internal relations among the words and phrases of a sentence (cf. Bever *et al*. 1969: 225). Some explanation and illustration of ambiguity between alternative syntactic structures underlying a sentence is provided by Wundt (1900: 268) and Bever *et al*. (1969: 225-226). The actual order of the words in a sentence does not always correspond to the underlying relations. For example, in (1.5) active and (1.6) passive sentences, presented below, the underlying relations are the same although the word orders differ:

(1.5) Caesar crossed the Rubicon.

(1.6) The Rubicon was crossed by Caesar.

In the two sentences, in (1.5) and (1.6), the acting person (subject) is *Caesar* in both cases. But this phrase is the topic of the statement only in the first, but not in the second sentence (cf. Wundt 1900: 268). These two examples are analysed as having the same underlying phrase structure represented in the tree diagrams in *Figure 1-1* and in *Figure 1-2*, respectively.

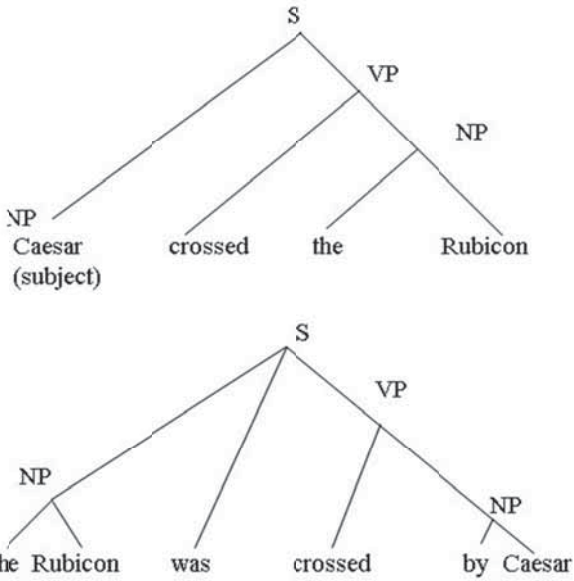

Figure 1-1. Sample sentences with superficial phrase-structure trees (Bever *et al.* 1969: 225)

In *Figure 1-1* each branching "node" of the phrase structure tree corresponds to a phrase structure "constituent," while each constituent corresponds to the relation between the words and phrases that it contains. For example, in the first sentence the structure represents the fact that the words "Caesar" and "Rubicon" are more closely related than the words "crossed" and "the." Hence, the level of "underlying phrase structure" represents the "logical" relations which the words perform to each other. The two sentences, in (1.5) and (1.6), illustrated in *Figure 1-1*, are further shown in the tree diagram in *Figure 1-2* below, which depicts the logical structure underlying the sentences in *Figure 1-1.*

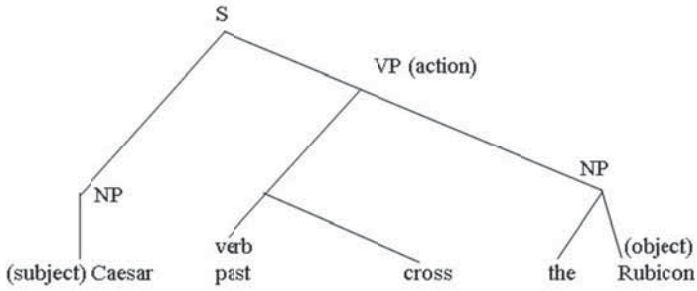

Figure 1-2. Logical structure underlying the sentences in *Figure 1-1* (Bever *et al.* 1969: 226)

Furthermore, Benjafield (1992: 255) in his interpretation of the classical problem of structural ambiguity raises the following questions, "Why does the same surface form have systematically different readings?" "What causes such differences?" Then he explains, "[m]eaning is not given on the surface of a sentence, but is given by the deep structures interpretation of sentence. When we understand a sentence, we transform a surface structure into a deep structure. When we produce a sentence we go the other way: from a deep structure to a surface structure" (Benjafield 1992: 255-256).

In addition, some insight has been also provided into the 'psychological reality' of the structures postulated in transformational grammars, like the ones presented above. The most notable success has been to show that the form in which sentences are understood and memorized corresponds closely to the logical structure underlying them (cf. Mehler and Bever 1967).

Nevertheless, idiomatic ambiguity is hardly explicable within the transformational grammar rules of underlying structures. Instead, the idiomatic meaning seems to be understood by combining several words into a complex "idiom word" and finding the meaning of the phrase by a search through mental "idiom word" dictionary. Discovery of the idiomatic meaning of an idiom seems to result from processing the idiom as a word. Such a processing strategy differs from the one that has been suggested for literal expressions, wherein each word is perceived, its meanings discovered, and then mapped onto a semantic whole such that the meanings of the individual words relate to produce a meaning for the sentence (cf. Bobrow 1973).

Furthermore, Moon (1998: 178) refers to idiom ambiguity with a close connection to metaphoricity, claiming that context can solve the problem

of ambiguity that is evoked usually by idiom polysemy. But, due to several potential metaphorical interpretations, even with the help of the context, a language user may encounter obstacles to distinguish between the literal and figurative level of idioms. Besides, Moon (1998: 185) notices that idioms might be potentially ambiguous both in isolation, and in context if they are unfamiliar to the language user. Then, the context itself may produce false interpretations. Yet, if an idiom is well-known, ambiguity occurs occasionally, even though some idioms have several figurative meanings, e.g. *look someone in the eye, sit on the fence, blow the whistle on someone*, to name a few.

Mäntylä (2004: 30), on the other hand, pays attention to different degrees of people's perception, even in the case when an idiom is familiar. Consequently, for some language users, an idiom sounds more arbitrary than for others; and there are totally arbitrary, and thus incomprehensible idioms in a language, as well (Lakoff 1987: 451). What is more, Moon (1998: 179) gives an example of some phrases that have a highly improbable literal meaning, e.g. it is possible to literally *bite the bullet*, or to *have a bee in one's bonnet*, but this is rather not likely to happen in today's world. So, the fact that some literal interpretation is possible, does not imply its real occurrence. Moon's (1998) research results prove that literal interpretations are hardly ever compared to figurative ones (Moon 1998: 180-181).

All in all, every creative language user may take advantage of the figurative-literal relations surrounding idioms. Naturally, it can be noted that meanings are never the same for different people. Taking into account the fact that metaphoricity may help in predicting the meaning of an unfamiliar idiom; nonetheless, a language user, mainly a non-native one, may feel equally left in the dark when trying to bring to light the very nature of an idiom, its figurativeness, literalness, or both characteristics. This point adds to the complexity of idioms, since they are expressions with, presumably no arbitrary meanings, but they behave like single, arbitrary words. Finally, once deep-rooted idiom characteristics are acknowledged and their figurativeness admitted, these expressions become far more comprehensible.

1.3.2 Analysability *vs.* non-compositionality

Non-compositionality of idioms, understood as the feature in which "the meaning of an idiom is not predictable just from the meanings of the individual words that make it up" (Lakoff 1987: 448), has been questioned first by linguists (Nunberg 1978; Wasow, Sag, and Nunherg 1983) and

then by psychologists (Cacciari and Glucksberg 1991; Gibbs *et al.* 1989b). The main reason for the inadequacy of Lakoff's (1987) definition of idiom non-compositionality is its variability and possibility to be modified in different ways, not only in terms of the entire idiom, but also in the case of local modifications. Both Wasow *et al'*.s (1983) and Nunberg's (1979) statements about partial analysability of idioms have demonstrated that the components of an idiom have distinguishable meanings that do contribute to the total interpretation of the idiomatic expression. Thus, it is possible to recognize a synchronic relation between the figurative and literal meanings of idioms. The extent to which idiom constituent parts contribute to the idiom overall interpretation has been termed *semantic decomposition* (cf. Nunberg 1978) or their *analysability* (cf. Cacciari and Tabossi 1988; Glucksberg 1991; and Gibbs 1994; among others).

Furthermore, Stock *et al*. (1993) notice that "there is a whole class of idioms for which Non-compositionality is false," and they observe that with less metaphorical idioms, often "the apparent dissociation between the literal and idiomatic meaning is simply due to the fact that the connection is buried in the history of the language and the culture" (Stock *et al*. 1993: 231). Gibbs *et al* (1989a: 578) comment that various studies have shown that certain idioms are more decomposable, or semantically analysable, than others. Thus, taking into account Nunberg's (1978) typology of idiom compositionality, Gibbs and Nayak (1989), and Gibbs *et al*. (1989a) offered three types of compositionality – *normally decomposable* idioms, *abnormally decomposable* idioms and *non-decomposable* idioms – depending on the intensity with which individual word meanings contribute to their idiomatic readings. Nunberg's taxonomy (1978), was proceded by Makkai's (1972) taxonomy and followed by Cacciari and Glucksberg's (1991, 1993) divisions, then Sag *et al*.'s classification (2002), and finally Yoshikawa's taxonomy (2008). All these typologies have been presented in section 1.3.1.2, as they seem to be more detailed than those offered by different researchers on the basis of idiom semantics, syntax, and functions (Jackendoff 1997; Horn 2003; and Grant and Bauer 2004; among others).

Pulman (1993) names idioms *analysable,* provided they can be split into such meaningful units that each of them corresponds to a part of the metaphorical meaning of the whole. Analysability or decompositionality is thus connected to figurativeness, and, as referred to by Gibbs (1993) and Pulman (1993), also to variation. As argued by Pulman (1993), fully opaque idioms hardly ever display variance, while figurative and analysable ones do show it (cf. Stock *et al*. 1993: 234). Nevertheless, there are idioms that are recognized as opaque now, but originally they used to

convey concrete meanings, analysable to people of that time. Consequently, present-day idioms and their at-the-first-glance opacity may prove to be completely apparent, and their intolerance of variance is, in fact, not confirmed (Keysar and Bly 1999: 1575-1576).

Besides, Stock *et al*. (1993) state that a number of idioms is analysable in such a way that each component can be understood, regardless of the fact whether it has a particular metaphorical connotation or not. They call this relationship between the words and the idiomatic meaning the components carry in that particular expression, *referent mapping* (Stock *et al*. 1993: 235). Moon (1992: 15) argues that referent mapping entails "revitalising and foregrounding compositional meaning," and she provides further evidence for this statement by means of the following example: "A television news reporter asking President Bush '*Did this summit bury the hatchet?'* Bush: *'There is no hatchet'"* (Moon 1992: 15-16).

In addition, as noticed by Gläser (1988), some types of fixed phrases can be reduced and referred to the whole expression through one constituent, e.g. it is possible to refer to *a rolling stone* without repeating the whole expression *a rolling stone gathers no moss* (which has two meanings: "people pay a price for being always on the move, in that they have no roots in a specific place" (the original meaning); or "people who keep moving avoid picking up responsibilities and cares") (Gläser 1988: 274). The possibility to shorten some idiomatic phraseological units, without missing their total figurative meaning, indicates that in some cases idiom frozenness can be broken. Moreover, Moon (1998) adds that lexical variation of idioms, applied to fine-tune them to the context and situation, is taken as the "evidence of their compositionality" (Moon 1998: 170). Compositionality is, in some way, related to the figurative usage of single elements in general (Moon 1998: 201), e.g. in *light a fire under someone*, "fire" is a component used both in a literal and a metaphorical sense. Moon (1998: 201) calls such expressions "incorporated metaphors."

What is more, Cieślicka (2004: 99) emphasizes the role of internal semantics in interpreting figurative meanings of idioms, which has been confirmed while dealing with poorly known or unknown idiomatic expressions. Flores d'Arcais's (1993) experiment and its results reveal that many people construct their paraphrases of unknown phrases, basing on the semantic properties of idiom constituents, or on the literal meanings of idiom words. In short, while processing less familiar idiomatic phrases, language users apply a crucial technique of analysing semantic properties of idiom components to obtain the overall figurative interpretation.

Therefore, Cieślicka (2004: 99) draws a conclusion that, even in non-compositional idiomatic phrases, both the semantics of idiom components

and the figurative notion they designate determine the comprehension and use of the idiom. Thus, paying attention to *semantic productivity* of idioms would be helpful to investigate the role that idiom constituents and their meanings play in the idiom overall figurative interpretation. Glucksberg (1993) describes *semantic productivity* as "the ability of people to create new idiomatic meanings by changing relevant aspects of an idiom's constituent elements" (Glucksberg 1993: 15). According to Glucksberg (1993), semantically productive processes are motivated by communicative intentions, and thus they enhance communicative functions, in contradistinction to unmotivated synonym substitutions. Hence, semantic productivity entails an interpretable relationship between original idiom components and their substitutes, so that the speaker's communicative intention may be deduced (cf. Cieślicka 2004: 100). To provide Glucksberg's (1991) example, replacing *shatter the ice* for *break the ice* generates a new idiomatic sense that is based on the meaning of the original idiom and the relation between the original constituents and their substitutes. The difference between the meaning of *break* and its substituted element *shatter* produces a new interpretation, defined by Glucksberg (1991) as "to break down an uncomfortable and stiff social situation flamboyantly in one fell swoop" (Glucksberg 1991: 149). Such examples of semantically productive idiom variants, as observed by Glucksberg (*ibid*.), can be encountered regularly in the media, literature and everyday conversation; henceforth, being comprehended by language users without difficulty.

Finally, Gibbs (1993) strongly argues that *analysability*, strictly related to metaphoricity, is crucial in comprehending and learning idioms. Besides, Gibbs (1994) sees semantic productivity as linked to the degree of idiom analysability; which is quite interesting, due to the assumption that the more analysable a given idiom is, the more probable it is for it to undertake various semantic modifications. Nevertheless, Glucksberg (1991) does not hold this belief, emphasising that analysability is "neither a necessary nor a sufficient condition for an idiom to be varied productively" (Glucksberg 1991: 151). Instead, what matters for Glucksberg, (1991) is whether the semantics of the idiomatic phrase has a direct functional relation to the idiom meaning. Idiom semantic productivity is closely connected with idiom lexical flexibility, which is discussed in the following section.

1.3.3 Fixedness of form and internal structure

Jackendoff (1997) recognizes idioms as linguistic units with an internal linguistic structure constrained by syntax, semantics, morphology, and phonology. This internal structure of idioms determines idiomatic behaviour, and sheds light on idiom variability. Ifill (2002: 6) notices that idioms as fixed phrasal expressions are not completely frozen forms. Having examined how fixed idioms are, and in what ways, he refutes the notion that idioms are atomic units which lack an internal structure. Moreover, idiom variability is related to the lexical flexibility of idioms. Even though in some idioms substituting their individual words with other lexical items is permissible, without disrupting their overall figurative meanings; other idioms appear to be so frozen lexically that changing any of their individual components brings about losing their overall figurative interpretation. Gibbs and Nayak (1989) exemplify this principle by means of the idiomatic expression *eat one's words* meaning "to swallow," in which replacing the word *eat* with *swallow* will result in a comprehendible idiomatic phrase *swallow one's words.* In contrast, altering the word *bucket* into *pail* in the idiom *kick the bucket* will reduce the phrase to its literal meaning, rather than the idiomatic one.

Furthermore, usually, idioms that do not undergo many alterations are considered non-flexible or frozen, while idioms that admit most operations are considered flexible. Fraser (1970: 22-42) proposes a six-point *Frozenness Hierarchy* for idioms stretching from totally frozen forms that permit no grammatical or lexical changes to idioms that tolerate unrestricted variation. Fraser (1970) names the points in the Hierarchy as depicted in (1.7), providing the representative examples to them (cf. Fraser 1970: 40-41; and Runosalo 2005: 15-16; among others):

(1.7) Fraser's (1970) Frozenness Hierarchy:

L6 – Unrestricted: all transformation possible, i.e. no idiom can belong to this level, due to the fact that a string of words that allows all the possible transformations can only be a literal word cluster, e.g. *open a window*

L5 – Reconstitution: nominalization of the verb phrase of an idiom (thus it can function as a subject of the sentence), e.g. *let the cat out of the bag* "to reveal a secret"→ Her *letting the cat out of the bag...*

L4 – Extraction: the particle movement rule (the particle is extracted from the idiom), e.g. *look up something* "to admire" → *look something up*

- pre-posing prepositional phrases (preposition of an idiom is extracted from the verb), e.g. *depend on* "to count on" → *on* whom we can *depend*
- passive transformation,[6] where the extraction concerns the direct object noun phrase. When passivized, it is placed outside the idiom, e.g. *hit the nail on the head* "to be exactly right in one's opinion" → The nail was hit on the head.

L3 – Permutation: particle movement / idiomatic indirect object movement within the idiom itself, e.g. *bring the house down* "loud claps and cheers of the audience to praise a good performance" → *bring down the house*

L2 – Insertion: indirect object movement, e.g. *lend a hand* "to help someone"→ *lend* "Mary" *a hand,* "to help someone" → *lend a* "helping" *hand*

L1 – Adjunction: gerundive nominalization (*-ing*–form and the *of*–genitive), e.g. *burn the candle at both ends* "to try to do too many things in too short period of time" → *burning the candle at both ends*

L0 – Completely Frozen: no transformation possible, idioms cannot be interpreted literally, e.g. *trip the light fantastic* "to dance"

Fraser (1970) has developed the Frozenness Hierarchy in accordance with the transformational behaviour of idioms. That is why, idioms with syntactic restrictions allow few transformations, whereas some idioms allow a larger number of transformations, and others may be fully restricted. L0 indicates that no operations whatsoever may affect an idiom. Literally uninterpretable idioms, such as *trip the light fantastic* "to dance or move to musical accompaniment," belong to level L0. However, there are no idioms which can be categorised under the uppermost level L6, because this level assumes some operations such as topicalization, which, according to Fraser (1970), cannot affect idioms. Yet, the most frozen idioms, belonging to L0, permit no distortion, while the least frozen, L5, allow a considerable variation.

Furthermore, Fraser (1970) makes a significant point about his Frozenness Hierarchy by asserting that "any idiom marked as belonging to one level is automatically marked as belonging to any lower level" (Fraser 1970: 39). Thus, if an idiom is marked, for example as level L3-Permutation, it can undergo naturally all the operations stated for that

[6] Fraser (1970) points out that in cases where the entire sentence is idiomatic (e.g. proverbs) and when they permit passivization, the appropriate level for them in this hierarchy would be L5-Reconstitution, not L4-Extraction.

level, but also the transformations included in the lower levels, levels L2-Insertion and L1-Adjunction. For example, *pass the buck to* "to attribute to another person or group one's own responsibility" is analysed as belonging to level L5. This means that any reconstitution operation is permissible, including the action nominalization, but also any other operations lower in the hierarchy are also tolerable for this idiom. But, the idiom *blow off some steam* "to give vent to one's repressed emotions" belongs to level L1, and the only modification it allows is an adjunction operation (the gerund nominalisation), with no other alterations possible. Finally, a phrase *keep watch over* "to observe with continuous attention" is marked as belonging to level L4, which predicts that extraction (the passive and prepositional phrase pre-posing), insertion (adverbial placement) and adjunction (gerundive nominalization) can be applied to it, but that reconstitution (the action nominalization) cannot (Fraser 1970: 39-40).

In short, Fraser's (1970) hierarchy ranges from completely frozen idioms to free collocations. Even though Fraser's (1970) hierarchy has never received empirical support, undoubtedly, it is a light in the tunnel to understand the lexical flexibility of idioms. It is still valid today, being often cited and referred to.

Then, a year before Fraser (1970), Weinreich (1969) attempted to set out mathematical formulae to express the structures of idioms. Indeed, Weinreich's (1969) and Fraser's (1970) work is respected and well-known in the area of idiom studies. There were also other noteworthy studies on idiom structure during the 1970's, such as for instance, those of Makkai (1972), and Newmeyer (1974). Makkai (1972) examines the question of frozenness and restricted grammatical transformations by his morphological bans. "The compulsory plural and compulsory singular ban" means, in practice, that in idiomatic expressions the plural and singular form cannot be changed freely (Makkai 1972: 122-123). Makkai (1972) exemplifies the rule as follows: *hammer and tongs* "to argue, fight" → **hammer and tong*; *the skin of my teeth* "miraculously" → **the skin of my tooth.* Here, Makkai (1972) states that the second form of the two idioms is not grammatical.

Interestingly, in *Longman Dictionary of English Idioms* (1979: xiv-xix), it is noted that even though many idioms are so frozen that any additional words cannot be put within the phrase, there are still some exceptions, i.e. adjectives and adverbs are often allowed to be inserted within many idioms, e.g. *to go (*all*) to pieces* "to break down." Secondly, but perhaps not preferably, impolite and swear words may be inserted in frozen idioms, playing the role of intensifiers, e.g. he *went the whole*

bloody / damn *hog* "to do something thoroughly, or too well." Moreover, some idioms can be widely varied. Some give rise to other word forms (e.g. *to split hairs* "to exaggerate, to see all the possible troubles around" → *hair-splitting*) and some permit wide variations, e.g. *day in*, *day out* → where *day* can be replaced by almost any word which denotes a period of time, e.g. *week*, *night*, *month*, *year*, etc.

Additionally, in the more recent studies, Cutler (1982: 317) examines whether syntactic frozenness could be correlated with the length of time that the idiom has occurred in a language. Having compared 131 idioms, used by Fraser with his different levels of frozenness, with the *Oxford English Dictionary*, in order to find out the earliest citation marked for each idiom, Cutler (1982: 319) confirmed that even though frozenness and age do not correlate completely, there exists an unfailing tendency that the older an idiom is, the more frozen it is. Cutler (*ibid*.) presents two reasons why this should be so. Firstly, syntactic freezing seems to be a gradual process which may last for (decades or) centuries. Secondly, an idiom becomes syntactically frozen when its meaning is no longer apparent, due to the fact that its original literal reference has become obscured. Thus, for example, *let off steam* "lose one's temper" belongs to Fraser's (1970) level 0, since steam engines have nowadays been replaced by electric machines (Cutler 1982: 319). The so called pseudo idioms in archaic forms are a result of frozenness, they cannot be altered at all. In modern English, the idiomatic meaning is the only meaning pseudo idioms have left. In earlier times, the words in pseudo idioms also had a literal meaning. This can be seen in the idiom *hither and yon* "here and there." Since the idiom has an archaic form, and neither "hither" nor "yon" are used alone in the modern language, it is called an pseudo idiom. (cf. Runosalo 2005: 19).

Besides, Fernando (1996) treats fixedness of form as a basic attribute of an idiom, more essential than any other distinctive feature, including figurativeness. Gläser (1988: 266), on the other hand, proposes that, instead of frozenness, semantic and syntactic *stability* should be used to characterise idioms. In addition, Stock *et al*. (1993) claim that idioms accept quite a lot of variation either in syntax (tense, third person singular, negation, position of particles, part of speech; *have an/no axe to grind* "to have a grievance, a resentment with a desire to get revenge or sort it out" → He *had* a political *axe to grind*) or vocabulary (*a dog's breakfast* → *dinner* "something that has been done very badly") (Stock *et al*. 1993: 234). Despite the fact that there are idioms which are completely frozen in their form, meaning and context (e.g. *kick the bucket),* many of them can employ alterations in their grammar, vocabulary, and context (Pulman 1993; and McGlone *et al.* 1994).

In addition, Gibbs and Nayak (1989) mention that in English, grammatically correct operations affecting idioms, are as follows: adverb insertion, adjective insertion, present participle, action nominalization, and the passive. Moreover, Fernando (1996: 42-65, 124-152) lists several instances of lexical transformations and states that transformable idioms "may be modified by various transformational operations: addition, permutation, substitution, and deletion. In each case, the conventional meaning is varied adding to the interpretative effort on the part of the addressee" (Fernando 1996: 151). All in all, the truth is that along with the language changes, both idiom variations change, and linguists' comprehension of idioms develop. Thus, even though *kick the bucket* is usually referred to as an idiom that tolerates only variation in tense, Moon (1998: 123) argues that also *kick the pail* and *kick the can* are possible.

Nonetheless, there exist some worries related both to the frequency and intensity of lexical modification, as well as to the challenge a language user has to face while choosing the words that can be replaced within the idiomatic string (Stock *et al.* 1993: 233-234). Besides, such alterations may change the meaning, or at least the tones the idiom denotes. The context itself may influence the idiom, making it sound more idiomatic or literal for the receiver: it is literally possible *to kick the bucket* or *shoot oneself in the foot* (Ortony *et al*. 1978; and Cronk *et al*. 1993). As mentioned by Mäntylä (2004: 33), this complexity, and the fact that idioms are generally used both in speech and in a written language, can be troublesome for a native speaker forming or interpreting such expressions. But such a difficulty is even harder and frequent for non-native learners who attempt to recognize and comprehend idioms. For example, two idioms might get mixed up, or the overall idiomatic meaning can be changed or made literal, by replacing an idiom component; consequently, the whole meaning produced by the expression may become humorous or unsuitable.

Regardless of these problems and doubts concerning any idiomatic alterations, lexical variation does exist and language users can produce new phrases creatively. What is more, Mäntylä (2004: 34) points out that creativity applied to idiom modifications can be illustrated thanks to the ambiguous meaning of some idioms and the relationship between their figurative and literal interpretation, or lexical and syntactical variability. Alteration of the idiom form and/or vocabulary, to suit the context and situation while still retaining the features of an idiom, can also bring some playful results. Thus, flexibility of idioms is strengthened even more due to one's creative production of these expressions.

Moreover, Gibbs *et al.* (1989b) suggest that lexical flexibility of idioms is constrained by their semantic analysability. Their hypothesis is that the lexical flexibility of idioms is governed by speakers' assumptions about the ways in which parts of idioms contribute to their figurative interpretations as a whole. The results of their three experiments indicate that idioms whose individual semantic constituents contribute to their overall figurative meanings (e.g. *go out on a limb* "to enter a risky situation because of having a different opinion, and try to defend it") were judged as less disturbed by changes in their lexical pieces (e.g. *go out on a branch*) than the non-decomposable idioms (e.g. *kick the bucket* "to die") when their individual words were altered (e.g. *punt the pail*). Yet, instead of stressing the significance of semantic analysability in constraining the lexical flexibility of an idiom, Glucksberg (2001) offers recognising a speaker's communicative intentions that considerably influence lexical flexibility.

Finally, Swinney and Cutler (1979: 531), who analyse a possible link between frozenness and the lexical status of idioms, argue that the more frozen an idiom is, the stronger its lexical status appears to be, *viz*. the more it is perceived as one word, not as a sentence-like expression containing separate words and meanings. This statement seems to be quite logical since the more often the expression appears in the same form, the easier it is to recognize and memorise it. On the contrary, the more variable a phrase can be, the more difficulties a language user encounters to identify it in its altered forms.

1.3.4 Literalness, familiarity and predictability of idioms

Comprehending idioms is inevitably related to processing and understanding them. There are several factors, such as idiom familiarity, transparency, and context of idiom usage, that are found to influence idiom comprehension. However, the literalness and predictability of idiomatic phrases also belong to crucial dimensions of idiomaticity, playing a significant part in idiom comprehension (Liu 2008).

To begin with, as noted by Cieślicka (2004: 106), *literalness* denotes the degree to which an idiomatic string can be interpreted in a literal mode (cf. Popiel and McRae 1988). Thus, while the idioms *break the ice* or *have cold feet* are literal, in that they can be taken to mean both literally and figuratively, the non-literal idiom *make a clean sweep* (which means "to eliminate an unwanted person or thing") has only an idiomatic reading. Likewise, Tabossi *et al.* (2011: 113) notice that both *go bananas* "to become wildly irrational" and *shoot the breeze* "to converse aimlessly; to

chat" have no literal interpretation, although for two different reasons. While the former is syntactically ill-formed as "go" is an intransitive verb that cannot usually take a direct object; the latter is syntactically acceptable, but semantically atypical as "the breeze" is not the kind of object that can normally be shot. Besides, traditionally, English idioms without literal corresponding items are less syntactically flexible than idioms that have a literal counterpart (Fraser 1970). Contrary to this viewpoint, Gibbs and Nayak (1989) argue that non-literal idioms are recognized as more decomposable, thus more flexible than literal idioms.

The aspect of literalness is also studied by Mueller and Gibbs (1987) (cited by Cieślicka 2004: 106). In their research they first hypothesize that not all idioms are equally represented in the mental lexicon, but depending on the number of their possible meanings, they will have multiple entries in the lexical storage, instead. These assumptions are confirmed by the data which prove shorter processing times for idioms with distinct literal and figurative meanings than for idioms with either isomorphic literal and figurative meanings, or with only one figurative interpretation. In short, Mueller and Gibbs (1987) demonstrate that every meaning of an idiom is a separate entry in the lexicon and that idioms themselves do not belong to a homogenous class in terms of their storage, access and processing (cf. Cieślicka 2004: 107). Mueller and Gibbs' (1987) suggestion about idiom variety as regards their storage and processing has been accepted by Cieślicka (2004: 107), while their idea of "multiple entry" sounds ambiguous, due to the lack of solid empirical verification. Consequently, "the obtained faster processing times for idioms with more meanings might have been caused by such factors, uncontrolled in Mueller and Gibbs' (1987) study, as idiom familiarity, predictability, transparency among others" (Cieślicka 2004: 107).

What is more, Mueller and Gibbs' (1987) results, confirming faster processing of idioms with both literal and figurative meanings when compared to those with only a figurative interpretation, may be contrasted with the effects obtained by Brannon (1975, cited in Swinney and Cutler 1979). Brannon (1975) claims that it takes longer to classify a sentence when it comprises a literal idiom than when the sentence includes an idiom with only a figurative meaning. Thus, for Brannon (1975) figurative idioms are processed faster than the literal ones.

Additionally, *literalness* of an idiom is sometimes called idiom *transparency*, defined as the degree to which the meaning of an idiom can be derived from the constituents of an idiom. Thus, as has been mentioned in the previous section, transparent idioms will be those whose figurative meaning can be deduced from the literal interpretation of their components

(e.g. *play with fire* "to do something dangerous or risky"). On the other hand, opaque idioms are those whose meaning cannot be derived from the analysis of their constituents (e.g. *kick the bucket* "to die"). Idioms also vary as regards their well-formedness, that is their syntactic structure can be well-formed, as in *paddle your own canoe* "to handle one's own affairs," or ill-formed, as in *go bananas* "to become wildly irrational." Lastly, idioms can be literal (ambiguous), when they offer both the literal and figurative interpretations, e.g. *break the ice*, which if literally taken, means "to cut the frozen surface," and if figuratively treated, it means "to do or say something to relieve tension or get conversation going." However, idioms can also be non-literal (unambiguous), when only the figurative interpretation is probable, e.g. *drink somebody under the table* "to be able to drink more alcohol than someone else" (cf. Cieślicka *et al.* 2008).

Yet, the impact of literalness on the comprehension of idiomatic phrases is also shown in the studies of Titone and Connine (1994a), supporting the compositional approach to idioms. They confirm the significant contribution of literalness to the activation of idioms literal and figurative interpretation in the course of idiom processing.

So far, the study of the influence of literalness on idiom processing has yielded inconsistent results. Brannon (1975), and Popiel and McRae (1988) find longer classification times for literal idioms, compared to idioms with only a figurative meaning. Reverse outcomes are obtained by other researchers in their multiple tasks (Swinney and Cutler 1979; Estill and Kemper 1982; Schweigert 1986; Mueller and Gibbs 1987; Schweigert and Moates 1988; and Cronk and Schweigert 1992; among others). Tabossi *et al.* (2011: 113) add that in the incidental-memory experiment conducted by Botelho da Silva and Cutler (1993), the participants remembered idioms much better than control strings, but with no difference in their ability to remember literal and non-literal idioms. Titone and Connine (1994a) investigate the impact of literalness on the processing of idiomatic expressions, and they confirm that literalness determines the activation of the literal and figurative meaning of idioms during their processing. In brief, literal idioms, unlike non-literal ones, reveal less activation of the figurative meaning and more activation of their literal interpretation of the constituent words of the idiom string.

In tum, *familiarity,* as the other key factor in idiom comprehension, is identified by Titone and Connine (1994b) as the "frequency with which a listener or reader encounters a word in its written or spoken form and the degree to which the meaning of a word is well known or easily understood" (Titone and Connine 1994b: 250). In addition, Cronk and

Schweigert (1992) study the effects of familiarity, literalness and usage on the comprehension process. They recognize familiarity as the subjective frequency of the figurative meaning of an idiom. Subjective ratings of idiom familiarity are usually provided by the language users themselves. A more familiar English idiom can be exemplified by the phrase *pain in the neck* "someone / something annoying," while a less familiar idiom would be, e.g. *paddle his own canoe* "to handle one's own affairs." Cronk and Schweigert (1992) examine the relationship between familiarity and the idiom figurative and literal meaning. In their study, they measured with computer the reading times as the participants were reading the sentences with idiomatic expressions. Their results confirm that the idiom comprehension is reliant both on literalness as well as on familiarity of idioms. Nevertheless, Cronk and Schweigert (1992: 138) express surprise that familiarity has only an effect on idiom figurative use, and the higher literalness an idiom has, the faster it is understood. Hence, idioms that are unfamiliar and have low ratings in literalness cause most problems in interpretation. Cronk and Schweigert's (1992: 139) results verify that figurative meanings of idioms are processed more quickly than literal ones. However, Cronk and Schweigert (1992: 140) realize that their results are not consistent with Gibbs' (1980) theory, since figurative meanings are not understood more rapidly in the case of less familiar idioms.

On the other hand, Popiel and McRae's (1988) study revealed different frequency and familiarity ratings for literal and figurative senses of idioms, which indicates, according to the authors, that these variables should be carefully controlled in the future analyses, and that not having controlled them properly might have resulted in inconsistency in the previous idiom studies (cf. Cieślicka 2004: 107). In addition, Cronk and Schweigert (1992), who examined the effects of literalness and familiarity on the processing of idioms inserted in sentences, refer to the dimension of idiom literality as *literalness*. Their results demonstrate, as mentioned by Cieślicka (2004: 108), that sentences with idioms having likely literal interpretations (high-literalness idioms), e.g. *he had his hands full,* have shorter reading times than sentences containing idioms unlikely to be interpreted literally (low-literalness idioms), e.g. *a thousand dollars is chicken feed* "extremely little, insufficient**."** Besides, it takes longer to read the sentences with less familiar and low-literalness idioms than the sentences with familiar figurative meanings and low literalness. In their further research, Cronk, Lima, and Schweigert (1993) prove that an idiom is processed fastest when it is both highly frequent and highly familiar. Reagan's (1987) study, on the other hand, reveals a statistically remarkable correlation between flexibility and familiarity. The more

familiar an idiom is assessed, the more probably it is regarded to be acceptable in various syntactic transformations. In brief, a much larger number of syntactic operations is allowed for familiar idioms than for unfamiliar ones.

Furthermore, the predominance of familiarity over unfamiliarity in processing idiomatic sentences is also confirmed by Flores d'Arcais (1993), whose analyses and obtained reading time data present unfamiliar idioms as those requiring significantly longer inspection time. Yet, another valuable result is obtained by Forrester (1995), who examines the extent to which comprehending idiomatic phrases in context is governed by the words which constitute such phrases. By applying reading time as a dependent measure, and by substituting idiomatic expressions with phrases which retain the equivalent semantic meaning in context, the significance of familiarity in comprehending idiomatic expressions is confirmed. As noticed by Cieślicka (2004: 111), this finding causes a serious problem for Bobrow and Bell's (1973) Idiom List Hypothesis, as well as for both Swinney and Cutler's (1979) and Gibbs' (1980) models (to be discussed in section 1.4 of the chapter), presuming faster access of idiom figurative interpretations.

In brief, familiarity as variable is well-known to have an impact on word recognition, and it is a strong predictor of speed and accuracy in several experimental tasks such as lexical decision and reading aloud (Gernsbacher 1984: 275). Familiarity has also been explored in idiom processing. Much research has demonstrated that familiar idioms are processed quicker and more accurately than unfamiliar ones. Processing unfamiliar idioms, on the other head, requires contextual information and common-sense knowledge (Schweigert 1986). Cronk and Schweigert (1992) examine the connection between familiarity and literalness, confirming that idiomatic expressions in their figurative interpretation are read quicker when they have high rather than low familiarity. Schraw *et al.* (1988) conclude that both lexicalization and familiarity contribute to the chance of idiomatic preferences, while only lexicalization contributes considerably to the comprehension of idiomatic meanings.

Furthermore, the context in which an idiom appears is the next crucial factor in idiom comprehension. As mentioned by Mäntylä (2004: 35), idioms are hardly ever neutral, as their constituents do usually carry a certain connotation or style. Consequently, when using idioms, their style and context ought to be taken into consideration, which has also been highlighted in the field of idiom research (e.g. Fernando 1996: 101). Subtle nuances in idiom meaning are sometimes abandoned; thus, Stock *et al.* (1993: 231-233) emphasise that although two idioms might be close to

each other in meaning, there is some degree of slightly distinguishing difference that may be recognized only if idioms are not oversimplified. For instance, *kick the bucket* is usually understood as "to die," while it actually means "to die by natural causes, and relatively suddenly too" (Stock *et al.* 1993: 233). Briefly speaking, idioms are often highly context and register determined, which makes them even more complex.

Moreover, Liontas (2003) conducted an experiment with twenty-eight adult third-year learners of Spanish in order to investigate the effect which context (or the lack thereof) has on idiom understanding, among others. His findings indicate that the use of context is of great importance in the construction of idiomatic meaning. Additionally, as assumed by Liontas (2003), the results show that the lack of context has a negative effect upon the accuracy of idiom interpretation by L2 learners. Thus, as proved by Liontas (2003), "context has a significant main effect on learners' success in accurately comprehending and interpreting VP idioms" (Liontas 2003: 299).

What is more, Cieślicka *et al.* (2009) establish that *context* does play a crucial role in language processing, although the opinions about the exact point during processing at which context affects language comprehension vary. In the broad spectrum of psycholinguistic literature, two radically different views concerning the issue of how context influences lexical access have been offered: the *modular* (*context-independent*) view and the *direct access* (*context-dependent*) view; while a hybrid model of Giora's (1997, 1999, 2002, 2003) *graded salience hypothesis,* has gained the greatest popularity. Giora's (1999) model emphasises the priority of the so-called *salient* meaning of words / expressions defined as their "lexicalized meaning, i.e. the meaning retrievable from the mental lexicon rather than from the context, e.g. the literal meaning of novel metaphors but not their intended, non-literal meaning made available by context" (Giora 1999: 919). Following Giora's (1999) approach to the role of salience and context in the processing of potentially ambiguous multi-word phrases in both native language (L1) and foreign language (L2), Cieślicka *et al.* (2009) conducted an experiment. Their results prove that in the neutral context, when no clue exists as to the interpretation of the approaching ambiguous multiword expression, it is the literal meaning that is activated automatically and more strongly in the bilingual mode. Longer reading times for the disambiguating regions following non-salient, figurative meanings of phrases are hence "compatible with the graded salience view, under which the clash between the automatically activated salient meaning and the disambiguating non-salient interpretation requires extra processing time" (Cieślicka *et al.* 2009: 302).

Further studies have also highlighted the significance of context in idiom processing. Context has been revealed to play an essential role in suppressing irrelevant meanings, but its effects were modulated by salience (prominence) of idioms (Cieślicka 2011). Besides, Cieślicka and Heredia (2011) indicate that context and salience effects are considerably modulated by the language (native *vs.* non-native) of the stimulus materials being presented to each hemisphere. But no significant differences between the right and left hemispheres are found in terms of their sensitivity to contextual constraints. Moreover, Cieślicka (2013) explores possible cerebral asymmetries in the processing of decomposable and non-decomposable idioms by fluent non-native speakers of English. In her experiment, native language (Polish) and foreign language (English) decomposable and non-decomposable idioms were embedded in ambiguous (neutral) and unambiguous (biasing figurative meaning) context and presented centrally, followed by laterally presented target words associated with the figurative meaning of the idiom or literal meaning of the last word of the idiom. Consequently, the obtained results suggest that a number of factors, such as language status (native *vs.* non-native), salience, or context, instead of compositionality per se, emerge as decisive in determining idiom processing. In short, Cieślicka (2013) concludes that no matter how persuasive idiom compositionality appears, "lack of rigorous procedures and inconsistent classifications of idioms into one or another category cast doubt on the idea that idioms varying in compositionality are stored and processed differently in the course of their immediate on-line comprehension" (Cieślicka 2013: 484).

What is more, Cieślicka *et al.*'s (2014) recent study reports an eye movement factor and the impact of salience, context, and language dominance on the processing of idiomatic expressions. Having recorded eye movements of Spanish-English bilinguals, while reading ambiguous (literally plausible, such as *kick the bucket*) English idioms, they investigate whether the degree of literal and figurative activation in bilingual idiom processing may be determined by language dominance (i.e. dominant *vs.* non-dominant). Each idiom is used either in its figurative or literal meaning, and put in a sentence with a neutral preceding context, when its figurative or literal meaning becomes clear, because of the subsequent disambiguating information, or the preceding supportive context, evidently biasing one of the meanings. The data obtained from this study provide convincing evidence that the effects of salience and context on eye movement patterns are controlled by language dominance.

Finally, numerous research with children has highlighted the important impact of context on idiom comprehension (e.g. Levorato *et al.* 2007). It has been found out that children understand idiomatic expressions more precisely when they are exposed in informative contexts than when they are offered in isolation. When encountered out of context, idioms tend to be interpreted literally. The ability to use contextual information in language processing has also been found to influence children's performance in idiom comprehension. Adults, however, are more affected by the familiarity of the idiom.

The next factor, which has a significant influence on idiom comprehension, is its *predictability*. As mentioned by Tabossi *et al*. (2011: 112), as far as idioms are concerned, predictability is defined as the likelihood of completing an incomplete string in an idiomatic style, e.g. "Mary is in seventh…" is usually completed by speakers with "heaven" to form an idiomatic expression, even though some other options are possible to make the phrase literal (e.g. row / place). Generally speaking, predictability is a characteristics of sentences or expressions that may influence the lexical processing of a forthcoming word, which may be facilitated in a predictable context compared with a less predictable one (Schwanenfluegel and Shoben 1985; and Rayner and Pollatsek 1989; among others). Moreover, the dimension of idiom predictability significantly affects the time course of activation of literal and idiomatic meanings of the idiom during its comprehension, as confirmed by Cacciari and Tabossi (1988), who prove that, when processing predictable idioms, only their figurative connotations are activated, by the time the last word of an idiomatic string is met. Instead, with unpredictable idioms, whose figurative meanings do not bring any associations until after the whole string has been processed, only the literal meaning is active at the end of the idiomatic phrase. Similarly, Titone and Connine (1994a) find predictability to influence the activation of figurative and literal senses of an idiom, during its comprehension. In addition, unquestionably, predictability is to be proved a helpful factor while discussing the Configuration Hypothesis of idiom recognition (Cacciari and Tabossi 1988) in the subsequent section, 1.4. In this view, idioms are not represented as individual items, but as configurations of words. The words that are stored in the lexicon are the same and processed during literal language comprehension. Nevertheless, as Tabossi *et al*. (2011: 112) explain, speakers know that some arrangements of words, e.g. *kick* brought together with *the bucket*, have a figurative meaning (e.g. "to die"), and while recognising a string of this type, the figurative meaning connected with it is retrieved from memory. Tabossi *et al*. (2011: 112)

note that an idiomatic sequence during speech comprehension is processed word by word, just like any other piece of language, until enough information is gathered to render the sequence of words distinguishable as a memorised idiom. The string idiomatic meaning can be activated without a context biasing the figurative interpretation, only when it becomes predictable, and is known as an idiom.

Furthermore, it is worth mentioning another characteristics of idioms, the *well-formedness* or *ill-formedness* of the literal meaning of idioms, emphasised by Cieślicka (2004: 113). If an idiom has a well-formed literal meaning, well-formed syntactic constituents are expected, in accordance with the rules of grammar (e.g. *hit the books*, or *kick the bucket*). While others, ill-formed expressions, consist of components which violate the general grammar rules (e.g. *pop the question*). Disrespecting selection restriction rules among idiom constituents makes an idiom semantically ill-formed, whereas syntactic ill-formedness, usually violates subcategorization restrictions (e.g. in the idiom *to be in the know*, the verb 'know' becomes a noun). Besides, Gibbs and Nayak's (1989) research reveals that syntactic flexibility of idioms is not firmly determined by their literal well-formedness, and that syntactically flexible idioms do not need to have well-formed literal meanings. Moreover, Mueller and Gibbs (1987) confirm that processing literally well-formed idioms takes less time than comprehending ill-formed idiomatic expressions (cf. Cieślicka 2004: 114-115).

Finally, Mäntylä (2004: 34) notices that, interestingly, idioms are predicted to be encountered more often in informal, spoken language rather than in written or more formal language. This assumption may appear to be partly true, as it is newspapers that mostly have drawn the attention of phraseologists (e.g. Fernando 1996; and Moon 1998: 69-71), due to numerous examples of idioms and their different variations identified in newspaper headlines. Whether in formal or informal, oral or written styles, undoubtedly, idioms effectively arise interest of the viewers or listeners; thus, they are frequently used by both writers, presenters, journalists, sports and TV reporters, among others. Moreover, Strassler (1982) emphasises that idioms are most often employed when talking about a third person or an object, hardly ever referring to the speaker or receiver him/herself. So, there may exist some restrictions with regard to their use in the presence of speech participants.

To recap, different researchers agree that the level of difficulty in idiom comprehension differs across the different dimensions along which idiomatic expressions vary. The dimensions analysed in this section included literalness, familiarity and predictability of idioms. Certainly, a

lot of attention has been paid to these characteristics, which concern the role of context, well-formedness of idioms, and the level of their formality. So far, in the study of idiom syntax, knowing the syntactic behaviour of individual idiomatic expressions has been a precious tool that can be applied to manipulate the syntactic variable experimentally (Tabossi *et al.* 2011: 113). Undoubtedly, both the syntactic productivity and the lexical creativity of idioms are matters of degree, depending on the idiom compositional properties. This conclusion indicates that idioms do not form a unique class of linguistic items, but share many of the properties with more literal language. Indeed, understanding the syntactic behaviour of idioms is a fundamental mission for any theory of idiom representation and processing, which is to be analysed in section 1.4, and several alternatives are still under debate (Gibbs and Nayak 1989; and Sprenger *et al.* 2006).

1.4 Hypotheses and models of idiom representation and processing

The figurative language literature can faithfully mirror the development of idiom representation and processing models, which parallels the evolution of theoretical approaches related to idiomatic expressions. In general, theoretical accounts of idiom representation and processing can be divided into two main classes: non-compositional theories and compositional ones. However, the strict bipolar division has proved to be insufficient in the course of time, on account of the results of the psycholinguistic research into phraseological units. Consequently, hybrid approaches and the model of dual representation of idioms have emerged, as a result of trying to combine the two previous models.

1.4.1 Non-compositional Models

In the past few decades, both psychological and neuropsychological approaches have begun to examine thoroughly the nature of idioms in various languages, giving rise to a series of competing models with respect to idiom lexical representation and processing. The non-compositional view of idioms (Weinreich 1969; Fraser 1970; Katz 1973; and Chomsky 1980; among others) treats idiomatic phrases as non-compositional strings whose figurative meanings are not directly related to the literal meanings of their individual parts. Referring to non-compositional models of idiom processing as direct look-up models, Glucksberg (1993: 4) means the fact that all of them are specified arbitrarily and comprehended by retrieving

the meaning of an idiom as a whole, rather than by linguistic processing of their constituent parts. *The Idiom List Hypothesis* (Bobrow and Bell 1973), the *Lexical Representation Hypothesis* (Swinney and Cutler 1979) and the *Direct Access Hypothesis* (Gibbs 1980, 1984; Schweigert 1986) constitute the three of the most recognized versions of the traditional non-compositional model of idiom analysis, which are to be scrutinised in sections 1.4.1.1, 1.4.1.2, and 1.4.1.3, respectively.

1.4.1.1 The *Literal First Hypothesis* (Bobrow and Bell 1973)

The literal processing model, developed by Bobrow and Bell (1973), is referred to in the literature as the *Idiom List Hypothesis* (cf. Glucksberg 1993), the *Literal First Hypothesis* (cf. Cronk and Schweigert 1992), or the *Serial Process Model* (cf. Gibbs and Nayak 1989). Bobrow and Bell (1973) propose that understanding idioms occurs in three stages. In the first stage, the language comprehension means figuring out a literal interpretation of the string. But if this linguistic analysis fails and the literal meaning is excluded, idiomatic meanings emerge from the lexicon. This model, then, assumes that literal meanings of ambiguous idiomatic expressions should be processed faster than their figurative interpretations. In other words, the literal first hypothesis proposes that, only after an appropriate literal meaning is not found, a mental idiom list is accessed to retrieve the idiomatic meaning. Besides, Bobrow and Bell (1973) state that idioms are stored in a special list of idiomatic expressions, or an idiom lexicon, separate from the word lexicon. *Figure 1-3* below is an illustration of Bobrow and Bell's (1973) *Literal First Hypothesis*.

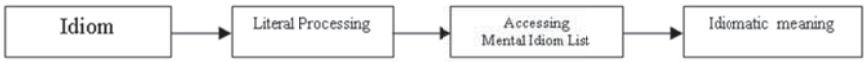

Figure 1-3. *Literal First Hypothesis* according to Bobrow and Bell (1973) (own source)

In brief, Bobrow and Bell (1973) propose two separate modes of processing, a literal and a figurative one. The literal meaning is accessed first, and only after its rejection is the idiomatic meaning retrieved.

1.4.1.2 The *Lexical Representation Hypothesis* (Swinney and Cutler 1979)

In contradistinction to the previous model, the Lexical Representation Hypothesis posits that idioms are stored along with other words in memory. Swinney and Cutler (1979) implicate parallel activation of both the literal and the figurative meaning. Then, the idiomatic meaning is processed first, as it is fixed and stored in a separate list. *Figure 1-4* illustrates Swinney and Cutler's (1979) *Lexical Representation Hypothesis*.

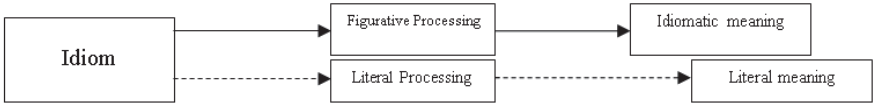

Figure 1-4. Swinney and Cutler's (1979) *Lexical Representation Hypothesis* (own source)

Research conducted to support Swinney and Cutler's (1979) hypothesis shows that people recognize grammatical idioms, presented out of context, as meaningful expressions more quickly than non-idiomatic phrases. Follow-up studies have produced either supporting findings (Estill and Kemper 1982; Glass 1983; and Botelho da Silva and Cutler 1993; among others) or contradictory evidence (Burt 1992).

1.4.1.3 The *Direct Access Hypothesis* (Gibbs 1980, 2002)

The third option, the *Direct Access Hypothesis* (Gibbs 1980, 2002), illustrated in *Figure 1-5* below, assumes that an idiom's figurative meaning can be activated without the literal meaning being processed first. Gibbs's studies show that, given a suitable context, the idiomatic meaning is processed sooner than the literal meaning (cf. Gibbs 1985; 1986; Schweigert 1986; Schweigert and Moates 1988; and Needham 1992; among others). It is possible that people completely bypass such mode when faced with a highly familiar idiom, or when they have a sufficient context to infer an idiomatic interpretation. In these cases, the idiomatic meaning is directly accessed.

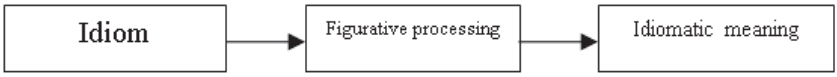

Figure 1-5. The *Direct Access Hypothesis* according to Gibbs (1980, 2002) (own source)

To conclude, the basis for all the three hypotheses fundamentally implies the very idea that the meaning of an idiom is stored in a separate mental idiom list (Weinreich 1969). On the other hand, there are several pieces of criticism against the non-compositional models, presented above. First, the studies of Swinney and Cutler (1979), or Titone and Connine (1999), among others, demonstrate that idiomatic expressions are not processed more slowly than literal expressions. In fact, the opposite is often the case, which goes against the prediction of the *Literal First Hypothesis*. Second, idioms have been found to be more than just frozen phrases or long words. For example, some idioms can be transformed to some extent, and still be recognized and understood, e.g. the idiom *spill the beans* can be used as "the beans were spilt by Mary." This is possible because *spill the beans* can be mapped on the meaning "to reveal the secret," i.e. *spill* (reveal) and *beans* (secret). Such an idiom shows that the internal structure of the word strings matters during comprehension. The meaning of some idioms, like *play with fire* "to do something dangerous or risky," can also be inferred from the literal interpretation of their components (to do something dangerous). These findings reveal that idioms are not a homogeneous, distinct group, and thus may not involve different processing strategies from those valid for literal expressions (Titone and Connine 1999).

1.4.2 Compositional Models

In contradistinction to the non-compositional models, compositional theories propose that idioms vary with respect to their compositionality, that is, the degree to which the literal meanings of their constituent words contribute to their overall figurative interpretation varies. Several lines of research have convincingly shown that idiom processing cannot be exclusively reduced to the holistic retrieval of a lexicalized meaning, and that it involves an obligatory semantic and syntactic analysis of its constituent words (cf. Cacciari and Tabossi 1988; Glucksberg 1993; Titone and Connine 1994a; and Tabossi and Zardon 1995; among others). Most of the research undertaken within the compositional framework has

thus attempted to investigate the varying degree to which literal meanings of idiom constituents contribute to their overall figurative interpretation. Major compositional models of idiom storage and their comprehension that developed in the literature include the *Configuration Model* (Cacciari and Tabossi 1988), the *Conceptual Metaphor Hypothesis*, and the *Idiom Decomposition Hypothesis* (Gibbs and Nayak 1989; Gibbs, Nayak, and Cutting 1989). Within a compositional account, individual meanings of idiom components play a significant role in constructing the overall figurative interpretation of an idiom.

1.4.2.1 The *Configuration Hypothesis* (Cacciari and Tabossi 1988)

In the *Configuration Model*, proposed by Cacciari and Tabossi (1988) and illustrated in *Figure 1-6* below, the idiomatic configuration is recognized *via* the activation of the idiom key.

Figure 1-6. Cacciari and Tabossi's (1988) *Configuration Hypothesis* (own source)

As seen in *Figure 1-6*, in the *Configuration Model*, the configuration takes its specific idiomatic meaning, while the literal meanings are still being activated. The processing time may vary, depending on the position of the idiomatic key within the configuration. This fact could not be explained by the 'first generation' hypotheses (discussed in section 1.4.1), and thus makes Cacciari and Tabossi's (1988) model superior to them.

1.4.2.2 The *Conceptual Metaphor Hypothesis* (Gibbs, Bogdanovich, Sykes, and Barr 1997)

In the *Conceptual Metaphor Hypothesis*, Gibbs *et al.* (1997) propose that metaphors are fundamental to human thought, and they influence the comprehension of many aspects of language, including idioms. An example of a conceptual metaphor is *love is a journey*.[7] This metaphor is embedded in the idiom-containing sentences *like their marriage is on the rocks* and *our relationship is at a cross-road*. This hypothesis, illustrated

[7] Cf. Footnote 5.

in *Figure 1-7* below, suggests that conceptual metaphors facilitate understanding idiomatic expressions.

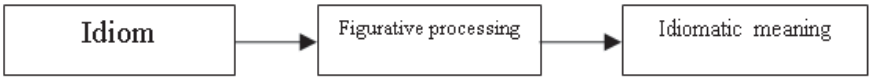

Figure 1-7. The *Conceptual Metaphor Hypothesis* (Gibbs, Bogdanovich, Sykes, and Barr 1997) (own source)

In fact, conceptual metaphors are activated during idiom comprehension. Individual words in the idiom can metaphorically contribute to its figurative meaning. The words associated with the metaphor (e.g. *journey*) were more quickly identified as meaningful, after the presentation of the idiom.

1.4.2.3 The *Idiom Decomposition Hypothesis* (Gibbs and Nayak 1989; Gibbs, Nayak, and Cutting 1989)

Gibbs and his colleagues (Gibbs and Nayak 1989; and Gibbs *et al.* 1989a) introduce the *Idiom Decomposition Hypothesis*, within the compositional framework. Although often cited as such, the *Idiom Decomposition Hypothesis* is not an assumption about the processing of idioms; decomposability is an influencing variable with regard to comprehension or representation of idioms (Gibbs *et al.* 1989a).

To begin with, the *Idiom Decomposition Hypothesis* is about the *analysability* of idioms, *viz*. the "speaker's assumptions about how the meaning of the parts contribute to the figurative meanings of the whole" (Gibbs and Nayak 1989: 104). A decomposable idiom is an idiom whose individual components contribute to its figurative meaning (e.g. *play with fire* "to do something dangerous or risky"), while idioms whose individual elements do not make such a contribution are non-decomposable (e.g. *kick the bucket* "to die"). But true decomposability is a feature of idioms that is relevant from a psycholinguistic point of view and it is based on speakers' judgements; whereas compositionality is a theoretical assumption about the combination of syntactic constituents and their phrasal or sentential meanings, which is important within linguistic theories such as generative grammar.[8] From the generative, syntactic point of view, only the literal

[8] The compositionality principle, as a basic assumption of generative grammar, goes back to Frege (1884 / 1980), and holds that the "meaning of an expression is a function of the meanings of its parts and of the way they are syntactically

meaning of an idiom is compositional, while the figurative meaning is always non-compositional. Therefore, decomposable idioms can be partly compositional, whereas non-decomposable idioms are usually truly non-compositional (cf. Hamblin and Gibbs 1999).

Furthermore, the results of Cieślicka's (2013) study, referring to possible cerebral asymmetries in the processing of decomposable and non-decomposable idioms by fluent non-native speakers of English (cf. section 1.3.4), prove to be inconsistent with the *Idiom Decomposition Hypothesis* (Gibbs *et al.* 1989a; 1989b), and only partially consistent with the idea of the differential cerebral involvement in processing (non-)decomposable idioms (cf. Beeman's 1998 *Fine-Coarse Coding Theory*). That is why, as noted by Cieślicka (2013), a number of factors, rather than compositionality by itself, emerge as essential in determining idiom processing, such as language status (native *vs.* non-native), salience, or context.

In a nutshell, compositional models assume that idiom comprehension uses ordinary language processing. When an idiomatic expression is encountered, it is processed gradually like a normal expression. The components of an idiomatic word string contribute to a figurative meaning in either a literal or metaphorical way.

1.4.3 Hybrid Approaches

Hybrid accounts of idiom comprehension, processing, and production are expected to offer the best solution to the problem that any theoretical approach to idioms necessarily encounters, namely the simultaneously compositional and non-compositional nature of idiomatic expressions. The three stances, to be outlined below, are likely to combine the traditional non-compositional and compositional models, or would constitute a certain solution to the problems that the previous models have to deal with. These are respectively: the *Model of Idiom Comprehension* by Titone and Connine (1999), the *Model of Dual Idiom Representation* (Titone and Connine 1999), and the *Hybrid Model of Idiom Production* (Cutting and Bock 1997).

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combined" (Partee 1984: 153; and cf. also Dowty 2007: 25). It is responsible for the great problems that idioms pose within this framework and is the reason why generative grammarians have proposed various, complex assumptions for the description of idiomatic expressions. These assumptions were intended to make idioms fit into the overall compositional pattern (e.g. Weinreich 1969; Fraser 1970; Katz 1973; and Everaert 1993; among others).

1.4.3.1 The *Hybrid Model of Idiom Comprehension* (Titone and Connine 1999)

In the *Hybrid Model of Idiom Comprehension*, proposed by Titone and Connine (1999), the insights gained from the *Idiom Decomposition Hypothesis* are used, although Titone and Connine do not strictly distinguish between decomposability and compositionality. The authors focus on "determining the degree to which idiomatic and literal meanings are initially computed during idiom processing" (Titone and Connine 1999: 1668). With a relatively tiny sample of 24 participants and 32 idioms, they conducted an eye-tracking study. The results support their hypothesis that automatically both meanings, i.e. the literal and the figurative ones, are activated. For non-decomposable (in their terminology non-compositional) idioms, it takes longer to integrate the correct meaning into the idiomatic context, because in this case the two meanings are semantically distinct. The *Hybrid Model* is superior to the other processing hypotheses because it controls for the decomposability of idioms. It allows, as the *Configuration Model* (Cacciari and Tabossi 1988) does (cf. section 1.4.2.1), for both the literal and the figurative meaning, to be activated during idiom processing.

Generally, the present study agrees with the fundamental assumptions and findings of both the Configuration Model and the Hybrid Model. However, the comprehension hypotheses discussed above suffer from certain shortcomings. The studies of the 'first generation' (cf. section 1.4.1) are too simple due to their either–or characterization of an idiom literal or figurative meaning. All these hypotheses restrict themselves to the native mental lexicon only. Furthermore, they are limited to the lexical, namely, linguistic level, whereas conceptual aspects during idiom comprehension are not measured. Studies that deal with conceptual aspects in idiom comprehension (e.g. Gibbs 1995; and Glucksberg *et al*. 1993; among others) chiefly concentrate on the conceptual or metaphorical motivation for the meaning of an idiom, but this aspect has not yet been integrated into comprehension models. Regardless of an idiom status as being decomposable or non-decomposable, its figurative meaning has to be learned and stored separately. However, some studies conducted with non-native speakers suggest (Abel 2003) that if lexical information, i.e. the literal meaning of the constituents, is not sufficient, conceptual knowledge can play a role in the idiomatic comprehension process. In the present study, the notion *conceptual* refers to a non-lexical, that is, non-linguistic aspect of cognition and should not be confused with semantic knowledge (Pavlenko 1999; and Roelofs 2000). In the context of the L1 and the L2 lexicon, Kroll and Sholl (1992), Kroll (1993), and de Groot (2002), among

others, assume that there are language specific, separate lexical representations but only one conceptual representation, which is independent of languages or modalities.

1.4.3.2 The *Model of Dual Idiom Representation* (Titone and Connine 1999)

Even though over the last five decades, linguists and psycholinguists have developed a number of hypotheses to describe the distinctive grammatical characteristics of idioms, and to provide some explanation for their processing and representation; there are three aspects that have been neglected. According to Abel (2003), these are: first, the studies deal exclusively with the native mental lexicon, and do not try to integrate the second language (L2) lexicon. Second, the studies concentrate either on lexical representations or on conceptual aspects, but do not try to combine the two into one theoretical model. Lastly, most of the studies do not allow for frequency effects to play a role in the representation or processing of idioms.

The *Model of Dual Idiom Representation* (from now on the *DIR Model*), offered by Titone and Connine (1999), is a psycholinguistic model which includes the above-mentioned aspects. Not only does it combine the lexical and the conceptual level but it also integrates the representation of idioms in the first language (L1) and the L2 lexicon. Abel (2003) presents some supporting evidence for the *DIR Model* based on empirical studies on the decomposability of idioms with native and non-native speakers of English. The insights and results of experimental morphological studies are also used to confirm the assumptions of this model. Thus, the *Model of Dual Idiom Representation* (*DIR Model*) assumes that non-decomposable idioms require an idiom entry (at the conceptual level), whereas decomposable idioms can be represented *via* constituent entries, and can additionally develop an idiom entry (both at the lexical level), as illustrated in *Figure 1-8* below.

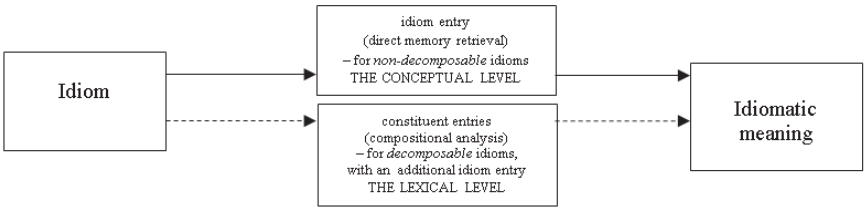


Figure 1-8. Titone and Connine's (1999) *Model of Dual Idiom Representation* (own source)

For decomposable idioms, the idiom entries are regarded as supplementary pieces of information about frequently occurring linguistic entities, and not as a compulsory prerequisite to idiom processing. Moreover, the more frequently an idiom occurs as an idiomatic configuration, the more probable the development of an idiom entry is, irrespective of whether the idiom is decomposable or non-decomposable. Frequency plays a key role in language processing and should consequently be a part of every model of idiom representation.

All in all, the *Model of Dual Idiom Representation* (*DIR Model*) is a model that attempts to compensate for the issues neglected by the models discussed earlier in the literature. It assumes that there is not only a lexical, but also a conceptual level of representation, and that constituent and idiom entries co-exist at the lexical level. If decomposable idioms have no idiom entry at the lexical level, conceptual representations are accessed during idiom comprehension. The supporting evidence for the dual representations is gathered from native and non-native judgements on the decomposability of idioms (cf. Abel 2003).

1.4.3.3 The *Hybrid Model of Idiom Production* (Cutting and Bock 1997)

Cutting and Bock (1997) represent the first attempt to address questions concerning the storage and retrieval of idiomatic phrases during language production. They ran a series of error-elicitation studies in which participants were briefly presented with two idioms and, after a short pause, were asked to produce one of them as quickly as possible. The dependent measures are production latencies and blending errors, that is, unconventional combinations of two idioms. In the first experiment, Cutting and Bock (1997) employed pairs of idioms with similar (*kick the bucket*, or *meet the Maker* "to die") or different (*shoot the breeze* "to converse aimlessly; to chat," or *raise the roof* "to show great enthusiasm") idiomatic meanings, and with the same syntactic form (*chew the fat* "to gossip or make a small talk," or *raise the roof* "to show great enthusiasm") or different (*chew the fat* "to gossip or make a small talk," or *nip and tuck* "inconclusive as to outcome; close or just even in a race or comparison") syntactic forms. What follows is an assumption that if idioms are stored as unitary forms, then their syntactic structure should have no effect on the resulting idiom blends. In contrast, if idiomatic expressions do submit to syntactic analysis in the course of their production, then idioms with a similar structure should produce more blends than those with differing structures. Cutting and Bock's (1997) experiment reveals that same-syntax idioms, with similar figurative meanings, are more likely to blend than different-syntax idioms, with different figurative meanings. This evidence

is taken by the authors as an argument against a lexicalized view of idiom storage.

Furthermore, Cutting and Bock (1997) investigate the differential lexicalization status of decomposable and non-decomposable idioms hypothesized by Gibbs and Nayak (1989). They thus offered the participants the pairs of idioms that are either decomposable (*hold your tongue* or *button your lip* "not to speak") or non-decomposable (*shoot the breeze* "to converse aimlessly; to chat," or *chew the fat* "to gossip or make a small talk"). The reasoning adopted was that if lexical representation of non-decomposable idioms is more unitary, such idioms should be less susceptible to the production of idiom blends (e.g. *shoot the fat*) in the error elicitation task than decomposable idioms, in line with the idiom decomposition model. On the other hand, decomposable idioms, with individual components mapping directly onto the idiomatic senses, should elicit a substantially bigger number of idiom blends (e.g. *hold your lip*). The analysis of participants' responses shows that both decomposable and non-decomposable idioms elicit a comparable proportion of idiom blends. Consequently, this result implies, according to the authors, that the lexical representations of both idiom types are identical, especially as far as the production process is concerned.

Accordingly, Cutting and Bock (1997) propose a *Hybrid Model of Idiom Production*, whose architecture is compatible with the models of language production, suggested in the psycholinguistic literature (Dell 1986; Levelt 1989; and MacWhinney 2008; among others). The hybrid model assumes that idioms are stored as whole units at the lexical-conceptual level of the lexicon. The lexical-conceptual nodes representing them are connected to the syntactic component of the system retrieving the phrasal frames and specifying grammatical slots in idiom phrases. Besides, the lexical-conceptual node representing an idiom is connected in the lexicon with *lemmas*[9] for individual words constituting the idiomatic phrase. The model easily explains the increase in a number of blending errors as a function of structural and meaning similarity, which is demonstrated in Experiment 1, described above. Idioms with the same syntactic form share the same syntactic frames, and idioms with similar meanings activate similar conceptual representations, which results in more competition than in the case of syntactically or semantically dissimilar idioms. Since one concept can activate multiple lexical concept nodes, including those representing idioms, similar meaning or similar

[9] The very term *lemma* refers to a representation of a lexical item grammatical class information plus a pointer to the word forms (Roelofs 1992; and Levelt and Meyer 2000; among others).

structure idioms, such as *meet your Maker* and *kick the bucket* "to die," are activated simultaneously and will compete in the course of language production, which might lead to blend errors such as 'meet the bucket'.

Moreover, with the purpose of testing the hybrid account of idiom production, Sprenger, Levelt and Kempen (2006) examined the production of idioms in a series of studies employing reaction time paradigms. In their first experiment, Sprenger *et al*. (2006) tested the claim that idiom constituents are the same lemmas which get activated in the course of producing literal phrases and that idiom phrases have their unitary representations in the mental lexicon. They, thus, employed a cued-recall task, in which native speakers of Dutch produced either idiomatic or literal phrases they had learned earlier, as an answer to a visually displayed prompt word. While looking at the prompt word, participants heard a prime, which was either a word identical to the noun of the phrase to be produced, or a word unrelated to any of the phrase's elements. The results showed that both idiomatic and literal phrases are produced faster when clued-up by one of their content words. This result, according to Sprenger *et al.* (2006), supports the view that idioms are compositional phrases, made up of the same simple units which are activated in the course of literal language production. In addition, the comparison of the priming effects found for idiomatic and literal phrases reveals that idioms are primed significantly stronger than literal utterances. Sprenger *et al.* (2006) explain this difference in the strength of priming by postulating a separate meaning representation for idioms in the mental lexicon. Lemmas which belong to an idiomatic phrase are, in this way, incorporated into a unitary lexical entry. Therefore, priming one of the lemmas, belonging to this common idiomatic representation, results in the spreading of activation to the remaining lemmas of the idiom entry, and makes them more available for retrieval.

These conclusions, confirmed in the remaining experiments (cf. Cieślicka 2010), explicitly support the *Hybrid Account of Idiom Representation*, in which idioms are both unitary and compositional phrases. Besides, in a *post hoc* analysis of the results obtained in all the three experiments, Sprenger *et al.* (2006) find that idiom decomposability does not influence the extent to which literal meanings of idiom elements become activated in the course of idiom production. Taking everything into account, the study conducted by Sprenger *et al.* (2006) confirms the validity of the *Hybrid Account of Idiom Representation*, proposed by Cutting and Bock (1997). In an effort to make the hybrid model applicable to production and comprehension, Sprenger *et al.* (2006) propose an extension and modification of the original hybrid model, which they call

the superlemma theory.[10] One of the advantages of Sprenger *et al.*'s (2006) model is that it postulates a simplified mechanism of idiom production, proposing that it is identical to the mechanism of processing single words. This is so because idioms are represented with their own superlemma. This superlemma (for example, *skate on thin ice* "to be in a risky situation") gets activated along with other words and phrase lemmas (such as *risk or gamble*) in the course of language production, and competes with them in the selection process. Another advantage of the superlemma theory over the hybrid model is, according to Sprenger *et al.* (2006), that it can easily account for the differing syntactic flexibility of various idiomatic expressions. Since syntactic information about idiomatic expressions is stored in the superlemma, all the constraints operating on a particular idiom, as well as the actual grammatical relations holding between its constituents, are coded at the superlemma level. Such a solution is much simpler than the phrasal frames with open slots proposed in the hybrid model, which cannot straightforwardly account for syntactic idiosyncrasies of idioms (cf. Cieślicka 2010).

To sum up, on account of idiom heterogeneity and a wide diversity of approaches offered for phraseological units, there is a constant necessity to provide some rules and theories that would both explain and categorise idiomatic phrases. In section 1.4, an attempt has been made to overview some hypotheses and models of idiom representation and processing. The traditional non-compositional models of idiom representation and processing differ in terms of how and when idiom meanings are thought to be retrieved, nevertheless, they share the supposition that idiomatic meaning is semantically distinct from the meanings of the constituents of an idiom. Although the compositional hypotheses differ in the ways that idiomatic meanings are activated, they imply that some relationships can exist between an overall idiomatic meaning and the individual component meanings of an idiom. Finally, the hybrid approaches towards idioms assume that all the previous traditional hypotheses restrict themselves to the native mental lexicon only. Regardless of the status of an idiom, as either being decomposable or non-decomposable, its figurative meaning has to be learned and stored separately. However, if lexical information, i.e., the literal meaning of the constituents, is not sufficient, conceptual knowledge can play a profound role in the idiomatic comprehension process.

[10] A superlemma is a separate all-inclusive representation of an idiom, introduced into the hybrid model at the lexical-syntactic processing level in order to account for the evidence that the syntactic properties of an idiom are in some way independently represented. This superlemma is linked with the individual lemmas which make up the idiomatic phrase.

1.5 The working definition of an idiom

The chapter has presented a wide spectrum of definitions of idioms, and a number of dimensions along which idioms can show their heterogeneous nature. Some of these idiom characteristics, e.g. analysability, the fixedness of form and internal structure, predictability and familiarity, among others, have been shown to affect significantly idiom comprehension. Others, like formality, and syntactic and semantic well-formedness, still need to be investigated in connection with their influence upon the access to and comprehension of idiomatic expressions. Making a contributory conclusion, Cieślicka (2004: 115) states that the various dimensions of idiom variability have also been discovered to correlate with one another, although the picture of an idiom they form is tremendously varied. Consequently, it is improbable for idioms to be stored, accessed and processed in an identical manner. Conversely, they might be represented in the mental lexicon in a different way, while the activation of their literal and figurative interpretations during their comprehension depends on a sum of factors.

Taking everything into account, a working definition should be introduced to be employed in this book. The literature presents a great number of attempts that have been made to define idiomatic expressions; nevertheless, providing a brief and detailed definition of an idiom in an indisputable way has been proved a mission hardly possible. Similarly, it has been equally unmanageable to classify any particular expression as an idiom, collocation, phrase, etc., since idioms constitute only a "subset of the fixed expressions in a language community" (Glucksberg 2001: 68), not to mention all the entities that should or should not be subsumed under this label. As a result, neither the unified scientific approach nor a linguistic clear view have been offered so far to create the all-encompassing term of an idiom. Instead, on the account of the widely heterogeneous nature of idioms, as noticed by Mäntylä (2004: 36), the emphasis should be put on the meaning of the whole expression, and on its figurativeness. Besides, since idiomatic expressions differ extremely in form and structure, the acceptance of idiomatic variability and heterogeneity seems to be the best way out.

Thus, for the purpose of this study, the basis for a definition of an idiom is the assumption, based on common linguistic definitions, that, firstly, in some cases an idiom is a combination of words that is associated with a meaning that cannot be understood on the basis of the literal definitions of the individual words it contains (Liu 2008). Hence, an idiom is recognized as a set phrase semantically opaque, whose meaning cannot

be deduced from the meanings of its constituents. Even if it shows "an expressive and particular value, and sometimes (a lexical or syntactic) matchless structure, it behaves as a single semantic unit" (Carine 2005: 495). On the other hand, in contradistinction to opaque idioms, transparent idioms show a close relationship between a metaphorical and literal sense. Yet, idioms vary as regards compositionality, which refers to the degree to which the phrasal meaning, once known, can contribute to the idiom parts, e.g. in *spill the beans* there is a clear correspondence between *spill* and *beans* and the relevant parts of its figurative meaning "to divulge information." Besides, idioms also vary in the extent to which they can be syntactically transformed, still retaining their idiomatic meaning (Gibbs and Gonzales 1985). Finally, some idioms do have both figurative and literal interpretation, and are called ambiguous (e.g. *break the ice* "to cut the frozen surface" *vs.* "to do or say something to relieve tension or get conversation going") (Papagno and Romero Lauro 2010: 21-22).

Secondly, an idiom, as a multi-word phrase, should be treated as a unit with a combination of characteristics, rather than with a high intensity of one specific characteristic. Neither literalness alone nor figurativeness, or fixedness of form, or the degree of analysability are sufficient when an idiom appears individually (cf. Pulman 1993: 250).

Thirdly, the book will focus on the idioms identified as multi-word phraseological units containing more than one word, with the exclusion of proverbs, sayings and conversational phrases, even though it is incredibly difficult to draw the border lines between the units themselves. Mäntylä (2004: 38), in her *Figure 1-9*, displays both the multitude of different multi-word expressions and their mutual correlation. As can be noticed, since they overlap with one another, it is hardly possible for these expressions to be separated.

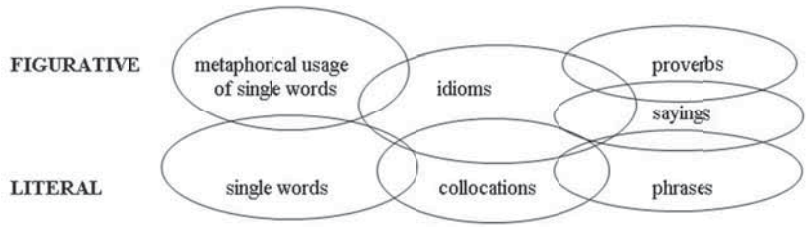


Figure 1-9. The rough field of multi-word expressions (cf. Mäntylä 2004: 38)

As shown in *Figure 1-9*, even though all the multi-word expressions often connote different interpretations from their constituents, they belong to

specific categories each. Proverbs with their purpose to draw a moral and teach a lesson are closely related to cultural aspects; sayings are generally not figurative; and conversational phrases, at last, with their special interactional function are more literal than figurative. In a nutshell, *Figure 1-9* illustrates the overlap between the boundaries of various multi-word expressions, making them nearly inseparable from one another.

Fourthly, the terms that are expected to occur in the book, i.e., "idioms," "phraseological units," "idiomatic expressions," "multi-word expressions" or "fixed expressions" seem to be more widely known in English. They have been chosen to make the subject matter more straightforwardly accessible to scholars not directly working in the field of phraseology. Gläser's (1998) definition of "phraseological units," reformulated in (1.8) below, appears to be the most suitable one, as it comprises virtually all the possible notions, characteristics and entities that should be encompassed by the term.

(1.8) A "phraseological unit" is a lexicalized, reproducible bilexemic or polylexemic word group in common use, which has relative syntactic and semantic stability, may be idiomatized, may carry connotations, and may have an emphatic or intensifying function in a text. (Gläser 1998: 125)

It is significant, as referred by Knappe (2004: 8), that in Gläser's (1998) definition above, the indicators "relative" and "may" suggest a gradation of the presence of these features, while "lexicalized," "bilexemic or polylexemic word group," "reproducible" and "in common use" are invariable. The features "reproducible" and "in common use" of phraseological units seem to directly resemble lexemes. Nevertheless, phraseological units are not produced as such, but like lexemes they are reproduced and are regularly used entities of the language. Hence, they are, to a large extent, prefabricated units (cf. also Cowie 1998a: 1). Besides, the other features in Gläser's (1998) definition, "syntactic and semantic stability" are relative, and "idiomaticity, connotations, and the emphatic or intensifying" force of phraseological units are non-compulsory. Connotations of phraseological units, which "enrich [the] cognitive content [of a word or phrase] by means of emotive and/or attitudinal semantic markers" (Gläser 1998: 128) are analogous to simple and complex lexemes. Importantly, Gläser's (1998) definition correlates with the recent one presented by O'Dell and McCarthy (2010). The latter identify idioms as "fixed combinations of words whose meaning is often difficult to guess from the meaning of each individual word" (O'Dell and McCarthy 2010: 6).

Finally, indeed there have been proposed different typologies of idiomatic expressions, i.e. the one of Makkai (1972); these of Nunberg (1978) and his followers (Gibbs and Nayak 1989: 104; Titone and Connine 1999); the one of Cacciari and Glucksberg (1991), the one of Sag *et al.* (2002), to list just a few. However, for the sake of this book, I adopt the clear-cut bipolar taxonomy of idioms, offered by Nunberg *et al*. (1994), and followed by Harwood *et al*. (2016); thus, there are two types of idioms, i.e. (i) *idiomatically combining expressions* (e.g. *pull strings* "to use connections"), and (ii) *idiomatic phrases* (e.g. *kick the bucket* "to die"). *Idiomatically combining expressions* (ICEs) have meanings, even conventional ones, distributed among their constituent elements. In *idiomatic phrases* (IdPs), instead, their components do not contribute to the overall idiomatic meaning, but form a whole unit which is mapped onto the figurative interpretation. In short, *idiomatically combining expressions* include idioms whose overall idiomatic interpretation is derivable (normally or abnormally, literally or figuratively), and they are generally known as decomposable/compositional or analysable. *Idiomatic phrases*, in turn, comprise idioms, whose overall idiomatic interpretation is not derived from the constituent parts, and they are referred to as non-decomposable / non-compositional, frozen, opaque, or unanalysable.

All in all, the heterogeneity of idiomatic expressions and a huge diversity of definitions offered for an idiom imply the necessity of some rules and theories that would both explain and categorise at least some notions and irregularities related to idioms. This task will be undertaken in the subsequent chapters.

1.6 Concluding remarks

This chapter has opened with a detailed presentation of several definitions of an idiom, taken first from dictionaries and encyclopaedias as a starting point. These sources of the definitions of an idiom have provided the first clues as to the perspectives from which language scholars might have looked at the notion of an idiom. The definitions put forward by linguists and scientists have also been analysed. Although the term *idiom* is frequently used in the literature, the substance of what it refers to varies. Just as with defining and classifying formulaic language in general, it appears impossible to reach agreement as regards the definition of an idiom. Despite all potential arrays of idiom diversity, some general introductory principles that most of the definitions share have been outlined: (i) an idiom is recognized as an expression that contains more than one word, and whose meaning is different from the sum of the literal

meanings of its components; (ii) some subset of idioms has a fixed word order, which implies they have a restricted set of variants and should be treated as entities since the link between their form and meaning has not been recognized; (iii) recently, with a great input of psycholinguistic studies (cf. Fernando 1996; and Moon 1998; among others), a great number of idioms far from being dead or frozen has been found, but instead, they may be marked with possible alterations, metaphoricity and perceptible origins of their meanings.

Besides, some crucial characteristics of idioms have been established. Firstly, it is idiomatic diversity, which results in various taxonomies of idioms, classified in multiple ways, based on idiom semantics, syntax, and function, e.g. the taxonomy of Makkei (1972), the one of Nunberg (1978) and of his followers (Gibbs and Nayak 1989: 104; Titone and Connine 1999), Cacciari and Glucksberg (1991), Nunberg *et al.* (1994), the taxonomy of Sag *et al.* (2002), and the classification of Yoshikawa (2008), to name just a few. Yet, the kind of typology chosen for the purpose of this book is the bipolar classification offered by Nunberg *et al.* (1994), who divide idioms into (i) *idiomatically combining expressions* (e.g. *pull strings* "to use connections"), and (ii) *idiomatic phrases* (e.g. *kick the bucket* "to die").

Additionally, the feature that most idiomatic phrases share, even though the boundaries are sometimes overextended, is the metaphorical or figurative nature (Mäntylä 2004: 28-29). What is more, the ambiguity of many idiomatic expressions has been pointed out, as some idioms have one interpretation (the literal meaning) derived from the meanings of the words involved and/or the other–the idiomatic meaning. Subsequently, some attention has also been paid to the further characteristics of idioms, i.e., idiom analysability, the issue of non-compositionality, and idiom semantic decomposition*;* all of which refer to the extent to which idiom constituent parts contribute to the idiom overall interpretation (cf. Nunberg 1978; Cacciari and Tabossi 1988; Glucksberg 1991; and Gibbs 1994; among others). As the third characteristics of idioms, the fixedness of form and internal structure of idioms have been examined. Jackendoff's (1997) approach to idioms as linguistic units with an internal linguistic structure constrained by syntax, semantics, morphology, and phonology, has shed light on idiom variability. Fraser's (1970) six-point *Frozenness Hierarchy* places idioms on the scale, grouping them from totally frozen forms that permit no grammatical or lexical changes to idioms that tolerate unrestricted variation. Undoubtedly, both the syntactic productivity and the lexical creativity of idioms are matters of degree, depending on the idiom compositional properties. Moreover, the literalness of idioms, their

familiarity and predictability, investigated with the focus put on the role of context, well-formedness of idioms, and the level of their formality, have been discussed. Furthermore, some space has been devoted to the models of idiom representation and processing most commonly cited in the literature; namely, the non-compositional models (e.g. Swinney and Cutler 1979; Gibbs 1980), the compositional hypotheses (e.g. Cacciari and Tabossi 1988; Gibbs, Nayak, and Cutting 1989), and the hybrid approaches with the *Model of Dual Idiom Representation* (e.g. Titone and Connine 1999).

In brief, in Chapter One some main properties and models of idioms representation and processing have been provided as an essential background to understand the syntactic and semantic variability of idioms, which is to be studied in Chapter Four of the book. Moreover, the working definition of an idiom as a multi-word phrase and phraseological unit has been established, to be adopted for the purposes of this book. Gläser's (1998) definition of "phraseological units" has been chosen as the one comprising all the possible notions and characteristics that should be encompassed by the term under consideration.

Since the book is to focus on idioms referring to psychological states in English, it is important to learn first the basic syntactic, semantic, and aspectual characteristics of psychological verbs. These characteristics and the structure of psychological verbs, as well as an overview of syntactic approaches to psych-verbs, are the main focus of the subsequent Chapter Two.

CHAPTER TWO

SYNTACTIC AND SEMANTIC CHARACTERISTICS OF PSYCHOLOGICAL VERBS

2.1 Introduction

The name *psych-verbs* (psychological verbs) is commonly assigned to verbs denoting mental or emotional states, such as *fear, love, worry, frighten,* or *surprise*. Such verbs select a participant / an individual who experiences an emotional or mental state, usually referred to as an *Experiencer*, and a non-Experiencer argument, sometimes called *stimulus*, *trigger of emotion*, *causer* or *target/subject matter*, or simply subsumed under the label of "*theme*" (Landau 2010: 5). What distinguishes psych-verbs from other predicates is the fact that (i) at least one of their arguments refers to a sentient, usually human, *Experiencer*, who is able to feel the emotion that the verb describes (Grafmiller 2013: 10), and that (ii) psych-verbs display unique syntactic properties, so-called "psych effects."[1] Indeed, for several decades psychological predicates have been a subject of debate in theoretical syntax. Members of this class have become a fertile ground for examining both the verb meaning, and the connection the meaning has with grammatical structure (Belletti and Rizzi 1988; Biały 2005; Evans 2009; Verhoeven 2010, among others). Even though there is little consensus regarding mapping between particular elements of verb meaning and the syntactic structure of verbs, some components of meaning, i.e. stativity, agentivity and causativity, have been extensively

[1] Arad (1998) makes a suggestion that psych-verbs are neither lexically nor syntactically distinctive, since they share the same structure as their main predicate (locative, dative etc.). However, their unique syntactic properties rely more on their stativity rather than on their being assigned a specific structure (cf. Grafmiller 2013).

discussed in the literature on the example of psych-verb behaviour (Grafmiller 2013: 11).

This chapter of the book is not to offer a comprehensive analysis of psychological predicates. Instead, the aims of Chapter Two are: (i) to present the crucial syntactic, semantic, and aspectual characteristics of psychological verbs, and (ii) to offer a brief overview of the syntactic approaches to psych-verbs, available in the literature. Due to space limitations, only the most influential proposals concerning psych-predicates are to be focused on.

Chapter Two comprises five sections, and it is organised as follows: section 2.2 opens up with a working definition of psych-verbs, adopted for the sake of the book, followed by the syntactic classification of psychological predicates offered in the literature. In section 2.3 the lexical-semantic representation of a verb is discussed. Section 2.4 presents the aspectual typology of class I-III psych-verbs at the Lexicon-Syntax Interface, and the syntactic tests to make the distinction between stative, eventive non-agentive, and eventive agentive readings of class II Oject Experiencer (OE) psych-verbs clear. Section 2.5 is an overview of the main syntactic analyses of psych-verbs, starting with Belletti and Rizzi's (1988) unaccusative approach to OE psych-verbs, through Landau's (2005, 2010) locative approach, and Fábregas and Marín's (2015) layer theory, up to Grafmiller's (2013) recent account of psych-verbs. While presenting the approaches to psychological predicates, a special focus is laid on OE psych-verbs, which, in contrast to Subject Experiencer (SE) psych-verbs, are syntactically more complex, exhibiting a number of seemingly conflicting properties (cf. Landau 2010: 5). Besides, an outline of the crucial syntactic properties of English OE psych-verbs is offered, which is relevant for an analysis undertaken in the subsequent chapters of the book. Finally, the chapter closes with a summary, provided in section 2.6.

2.2 Syntactic typology of psych-verbs

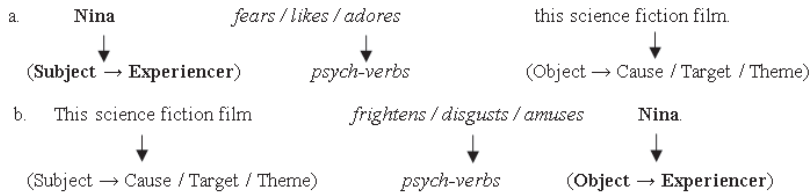
The working definition of psych-verbs adopted for the purpose of this analysis is the one provided by Landau (2010: 4n2), according to whom psychological verbs carry "psychological entailments involving an individual being in a certain mental state." Thus, *frighten* is a psych verb in (2.1a), since it means that Nina is in a certain mental state (i.e. fright) caused by the science fiction film; whereas *visit*, in (2.1b), is not a psych

verb, on account of the fact that the sentence involves no state of mind either of Charles or of Nina.[2]

(2.1) a. This science fiction film *frightens* Nina.
b. Charles *visits* Nina.

Psych verbs can be divided into two classes, depending on the syntactic position of the Experiencer (e.g. Croft 1993; Pesetsky 1995; and Iwata 1995; among others), such as Subject Experiencer (SE) verbs and Object Experiencer (OE) verbs, as illustrated in (2.2a-b):

(2.2)



As can be seen in (2.2a-b), psych-verbs show different syntactic realizations of the Experiencer argument, which can surface either as a subject or as an object.

Moreover, when taking into account the relationship between the lexical properties of psych-verbs and their syntactic structure, i.e. within the lexicon-syntax interface, Belletti and Rizzi's (1988: 291-292) classification of psych-verbs is frequently referred to in the literature. Belletti and Rizzi's (1988) tripartite taxonomy, originally created for Italian psych-verbs, is displayed in (2.3):

(2.3) Belletti and Rizzi's (1988) classification of psych-verbs:

a. Class I: The *temere* class
(**Nominative Experiencer**, accusative Theme)
Gianni teme questo.
Gianni fears this.

[2] According to Klein and Kutscher (2005: 2), from the semantic point of view, psych-verbs can be classified into verbs denoting emotions (*love*, *frighten*, etc.), perception verbs (*see*, *taste*, etc.), cognitive verbs (*think*, *assume*, *muse*, etc.), and evaluating verbs (*respect*, *appreciate*, etc.). However, some of the verbs listed here do not satisfy Landau's (2010) definition of psych-verbs.

b. Class II: The *preoccupare* class
(Nominative Theme, **accusative Experiencer**)
Questo preoccupa **Gianni**.
This worries **Gianni**.

c. Class III: The *piacere* class
(Nominative Theme, **dative Experiencer**)
(i) A **Gianni** piace questo.
To **Gianni** pleases this.
(ii) Questo piace a **Gianni**.
This pleases to **Gianni**.

(Belletti and Rizzi 1988: 291-292)

Class I comprises SE psych-verbs, illustrated in (2.2a), (2.3a) and (2.4), for such verbs as, e.g. *hate*, *love*, or *adore*.

(2.4) **Paul** *hates / detests / loves* classical music.
(Experiencer as the subject)

SE psych-verbs feature a nominative Experiencer and an accusative Theme. These verbs are generally regarded to be similar to other transitive stative verbs, e.g. *know*.

Class II and III comprise OE psych-verbs, which, on account of their specific psych-properties (cf. section 2.5.2 for more discussion), have received a lot of attention in the literature so far. Thus, in Class II, as in (2.2b) and (2.3b), with verbs like *frighten*, *worry* or *distress*, the subject is associated with the role of the Theme, and the Experiencer appears as an accusative object. Class III, in turn, illustrated for Italian in (2.3c), and represented in English by verbs like *appeal to* or *matter to*, includes psych-verbs with a nominative Theme in the subject position, and a dative Experiencer, occupying the object positions, and both permutations (2.3c)(i) and (2.3c)(ii) are acceptable. Accordingly, cross-linguistically psych-verbs are classified in accordance with the typology offered by Belletti and Rizzi (1988), and this taxonomy is adopted for the sake of this book.

Since the Experiencer argument can be realized in psychological predicates either as a subject or as an object, psych-verbs pose a problem for linking, *viz.* the mapping of thematic roles to arguments in the syntax[3]

[3] The concept of semantic roles relates to the notion of thematic relations, i.e. the relations which are semantic in nature. The thematic role is, thus, a semantic

(cf. Belletti and Rizzi 1988; Grimshaw 1990; Pesetsky 1995; Arad 1998; 2000; Anagnostopoulou 1999; Primus 1999; Pylkkänen 2000; Verhoeven 2010; and Landau 2010; among others). This challenge that psych-verbs pose is to be discussed in sections 2.3 and 2.5 in more detail.

In a nutshell, psych-verbs are expressed in different ways across languages. In languages like German, Italian, or English, psych-verbs permit word orders or binding relations that are impossible for non-psych-verbs. A comprehensive investigation of psych-verbs in and across a variety of world languages is provided by Landau (2010). In addition, Bennis (2000), and Drijkoningen (2000) offer some detailed analysis of psych-verbs in Dutch. Pesetsky (1987) analyses psych-predicates in English; Anagnostopoulou (1999, 2008) in Greek; while Ruwet (1972, 1993), Legendre (1989, 1993), and Bouchard (1992, 1995) in French. Moreover, Arad (1998), Reinhart (2002), and Anagnostopolou (2008) discuss psych-verbs in Hebrew; Klein and Kutscher (2005), and Temme (2014) in German; whereas Belletti and Rizzi (1988), Cresti (1990), and Arad (1998) in Italian. Besides, Biały (2005) and Rozwadowska (1992, 2012, 2014) work on Polish psych-verbs; Franco (1990), and Jiménez-Fernández (2014) analyse Spanish psych-verbs; while Kim and Larson (1989) study Korean psych-predicates. Indeed, psych-verbs have become a much debated issue in the literature.

2.3 The lexical-semantic representation of a verb

The main goal of this section of the chapter is to introduce linking rules in the light of the Lexicon-Syntax Interface. While analysing the lexical semantics of a verb and the syntactic structures a verb can occur in, at least three different levels of representation of a verb can be distinguished, as illustrated in *Figure 2-1* below:

function of an argument in a given sentence, such as the role of an Agent, Theme, or Instrument. For Chomsky (1981), theta roles are semantic roles that are assigned in syntax. In sentence *John likes hot coffee*, we have two obligatory arguments, i.e. *John* is an external argument, and *coffee* is an internal argument. These arguments have thematic roles of an Agent / Experiencer, and Theme / Object, respectively (cf. Kiparsky 1987; Baker 1989; and O'Grady 1998; among others).

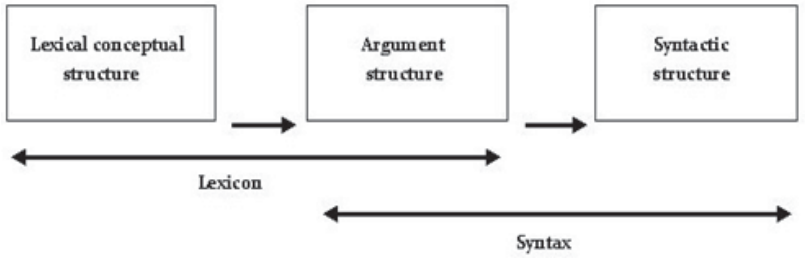


Figure 2-1. The lexical-semantic representation of a verb (Alexiadou *et al*. 2004: 11)

As shown in *Figure 2-1,* a verb can be represented at the following levels: (i) a lexical-semantic representation (also called a lexical conceptual structure (LCS)), (ii) a lexical-syntactic representation, commonly known as a predicate-argument structure or an argument structure (AS), and (iii) a syntactic structure representation.

The lexical-semantic representation of a predicate, is a "deep" semantic description unique for a single predicate, which divides a verb meaning into variable structures and meta-predicates (such as *cause*, *be*, etc.). This semantic configuration is mapped onto an argument structure (AS), which is responsible for the *unaccusative-unergative* distinction, and it determines the number and syntactic roles of arguments a verb entails, e.g. by assigning external and internal theta roles (Williams 1981; Stalmaszczyk 1996; and Belletti and Rizzi 1988). The argument-structure representation may be the same for different verbs. Although essentially different, the lexical conceptual structure and the argument structure are part of the lexical representation of a predicate and thus part of the lexicon, which is distinct from syntax. In other words, lexical semantic properties are directly reflected in the argument structure, which is linked with syntax. This assumption is adopted for the sake of this book, and the study of idioms, since idioms cannot be analysed only in terms of syntactic rules (cf. Chapter Four). Besides, as maintained by van Valin (1990) and Levin and Rappaport Hovav (1995), lexical semantic concepts are, theoretically, accessible and directly related to syntax.[4]

[4] Interestingly, Tenny (1987), Rappaport Hovav and Levin (1988), and Grimshaw (1990), on the other hand, hold the view that there seems to be no direct relation between *syntax* and the lexical semantics of predicates (LCS) but only between *syntax* and the AS.

Notably, the correspondence between semantic properties and syntactic behaviour of verbs, between the LCS and the AS, and between the AS and the syntax is addressed, first, in Perlmutter and Postal's (1984) Universal Alignment Hypothesis (henceforth, UAH), reproduced in (2.5a). Second, the assumption concerning the semantics-syntax connection underlies the *Uniformity of Theta-Assignment Hypothesis* (henceforth, UTAH), put forward by Baker (1988), as formulated in (2.5b).

(2.5) a. *Universal Alignment Hypothesis* (UAH):
There exist principles of universal grammar which predict the initial relation [= syntactic encoding], borne by each nominal in a given clause from the meaning of the clause
(Perlmutter and Postal 1984: 97)

b. *Uniformity of Theta Assignment Hypothesis* (UTAH)
Identical thematic relationships between items are represented by identical structural relationships between those items at the level of D-Structure
(Baker 1988: 46)

The UTAH, formulated in (2.5b), states that a lexical item bearing a certain thematic role (e.g. Theme), will always be mapped onto a particular, fixed, structural position (e.g. direct object).

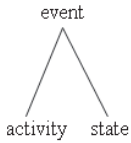
It can be observed that according to the UTAH, the correlation between the syntax and the lexicon seems to be determined, since once we have the set of roles the verb assigns, the syntactic structure is fixed by them. Besides, as noted by Pesetsky (1995: 12), the UAH, stated in (2.5a), is weaker than the UTAH, reproduced in (2.5b), in that it does not entail identical syntactic linking patterns in cases of semantic identity, but only involves predictable linking patterns.

By capturing a correlation between the lexicon and the syntax, the UTAH makes it possible to map two distinct roles onto the same position (e.g. Agent, Causer and Experiencer may all appear in the subject position), as noted by Arad (1996). However, the UTAH is violated if an explicit role appears in two different syntactic positions. This occurs in the case of (i) the dative alternation (the alternation exhibited by verbs such as *give*, whose Goal argument may either be case-marked by the verb or by the preposition *to*); (ii) the locative alternation, i.e. *load*-type verbs (e.g. *spray*, *hammer*, *load*), which allow either their Goal argument or their Theme argument to occupy the direct object position; (iii) experiencer

verbs, i.e. pairs such as *fear*/*frighten*, in which the argument bearing the Experiencer role is mapped, firstly, onto the subject position and secondly, onto the object position; (iv) variable behaviour verbs, i.e. intransitive verbs which may appear as both unaccusatives and unergatives, with the existence of a locative PP (in Dutch and Italian) or without it (in Hebrew). In short, psych-verbs are among these items which defy the UTAH. Accordingly, to save Baker's (1988) hypothesis, alternative views on psychological predicates have been proposed in the literature, as discussed in section 2.5.

Furthermore, for Grimshaw (1990), the lexical-syntactic representation, *viz*. the argument structure (AS) of a verb is related to the event structure of a verb. For instance, an accomplishment verb like *x constructs y* is analysed as an activity in which *x* engages in construction plus a resulting state in which existence is predicated of *y* (Grimshaw 1990: 26), as represented in (2.6):

(2.6)



(Grimshaw 1990: 26)

As assumed by Grimshaw (1990), the AS contains an aspectual dimension since argument relations are determined by the thematic properties of the predicate (i.e. the thematic hierarchy) and by the event structure of the predicate (i.e. its aspectual properties). In short, if a predicate lacks an event structure, it also lacks the AS and takes no grammatical arguments at all. With this in mind, the subsequent section (section 2.4) of the chapter is devoted to the event structure and aspectual classification of psych-verbs.

2.4 Aspectual classification of psych-verbs

Even though there have not been very many studies of the lexical aspect of psychological predicates, in comparison with the research done into the argument structure of psych-verbs, certain conclusions regarding the lexical aspect of the different classes of psych-verbs have been reached so far. Indeed, psych-verbs are frequently ambiguous between states and events (non-states), exhibiting subtle aspectual distinctions (e.g. Grimshaw 1990; van Voorst 1992; Tenny 1992; Marín and McNally 2011; and

Rozwadowska 2012). To make the discussion clear, first, some fundamental semantic and aspectual concepts have to be introduced. However, a more detailed analysis of the aspectual properties of verbs lies outside the scope of this book.

2.4.1 Basic event categories

On the basis of Ryle's (1949) and Kenny's (1963) assumptions, Vendler (1957, 1967) reconsidered aspectual properties of verbs, and first proposed a four-way classification of events, dividing them into states, activities, accomplishments, and achievements. Reviewing Vendler's typology of events, Dowty (1979) offered the following examples of the four event types, reproduced in (2.7).

(2.7)

States	*Activities*	*Accomplishments*	*Achievements*
know	run	paint a picture	recognize
believe	walk	make a chair	find
have	swim	deliver a sermon	lose
desire	push a cart	draw a circle	reach
love	drive a car	recover from illness	die

(Dowty 1979: 54)

To classify events, Vendler (1967) uses the aspectual properties of verbs referring to lexical aspect, called *Aktionsart*. Under Vendler's classification, activities and states both denote situations that are inherently temporally unbounded (atelic); states depict static conditions, whereas activities denote on-going dynamic aspects. Activities and accomplishments differ from achievements and states in that the former comply well with continuous and progressive aspects, while both accomplishments and achievements express a change of state, and are henceforth temporally bounded (telic). Activities and accomplishments extend over a period of time, but accomplishments are punctual. In other words, accomplishments approach an endpoint gradually (as in *paint a picture* or *recover from illness*), whereas achievements take place immediately (as in *lose*, *recognize* or *find*) (Vendler 1967; cf. Dowty 1979; and Pińón 1997).

Accordingly, in terms of telicity, activities resemble states, whereas accomplishments are similar to achievements. However, it has also been noticed that states can be grouped with achievements and activities with accomplishments, since the former pair lacks the progressive aspect, while the latter pair allows it (cf. Lakoff 1966, Shi 1988). To make this distinction between the different types of events clear, Smith (1991: 30),

and van Valin and LaPolla (1997: 91-102), among others, decompose Vendler's classes in terms of independent features, as reproduced in (2.8).

(2.8) a. States: [–telic, –durative, –dynamic]
b. Activities: [–telic, +durative, +dynamic]
c. Achievements: [+telic, –durative, +dynamic]
d. Accomplishments: [+telic, +durative, +dynamic]

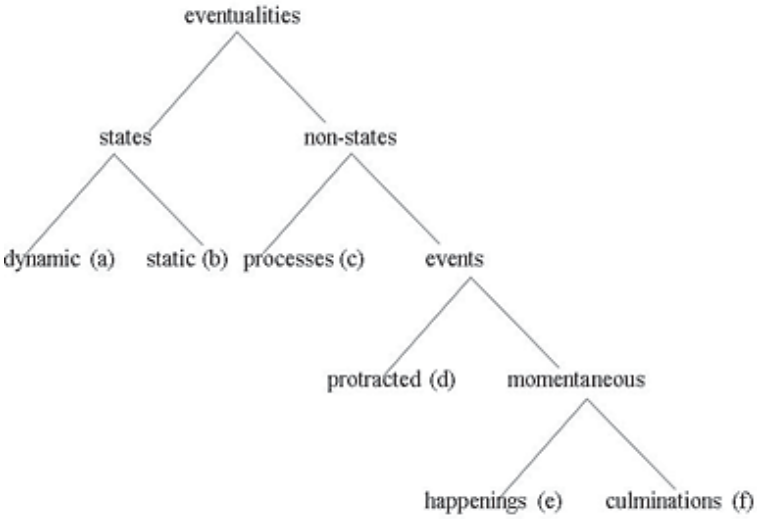
(cf. van Valin and LaPolla 1997: 91-102)

The properties of Vendler's (1967) event types can be captured by the abovementioned features. Nonetheless, the linguistic status of achievements has been questioned by many linguists so far. They are characterised as punctual and telic, but the question whether duration is a property inherent to the verb or not, remains unclear (Lin 2004: 19-20).[5] In short, achievements are associated with the general term "change of state" verbs, which is assumed to be directly encoded in the meaning of a verb.

Undoubtedly, the type of event makes a big difference for the lexicon-syntax interface. However, following the literature, Bach's (1981) term "eventuality" is frequently adopted to cover all four event types. Bach (1986) offers the following classification of predicates (cf. Carlson 1981), which is reproduced in (2.9) below.

[5] For example, for Pustejovsky (1991) accomplishments and achievements fall into the so-called "transitions," for Tenny (1987: 20) achievements and accomplishments are dissimilar in terms of the duration of an event, while Verkuyl (1993: 48) concludes that the distinction between achievements and accomplishments, *viz*. the duration of events, is a matter of real-world knowledge.

(2.9) Bach's (1986) classification of predicates:[6]



(Bach 1986: 6)

Besides, Bach (1986) postulates the so-called psych-eventualities, adopted by Rozwadowska (2012),[7] in which agentivity, closely related to dynamic events, is expected to disappear.[8]

Undoubtedly, it is Vendler's (1967) classification of event types that has served as a cornerstone for other lexical semantic representations and

[6] Typical examples are: (a) *sit*, *stand*, *lie* + LOC (b) *be drunk*, *be in New York*, own x, *love* x, *resemble* x (c) *walk*, *push a cart, be mean* (Agentive) (d) *build x, walk to Boston* (e) *recognize, notice*, *flash once* (f) *die*, *reach the top*.

[7] Rozwadowska (2012: 535) uses the term "psych-eventualities," to identify mental and emotional states and their beginnings. Developing further the ideas of Arad (1998) and Pylkkänen (1997), she argues that psych-eventualities are what Rappaport Hovav and Levin (1988) treat as temporally dependent co-existing sub-events with one event variable, which is identified through one structure participant only.

[8] Cf. Piñón (1997), who distinguishes between two fundamentally different types of eventualities: (i) those with some duration, which he calls *happenings*; and (ii) *boundary happenings*, which are the initial or final boundaries of some happening. Boundary happenings are absolutely instantaneous. Piñón (1997) argues that predicates such as *begin* or *arrive* denote boundary happenings, whereas a change of state predicate like *cool* does not.

theories of verbal argument structure. Among them there is Dowty's (1979) seminal work, in which he makes an attempt to decompose states, activities, accomplishments, and achievements in terms of the primitives DO, CAUSE, and BECOME. This is replicated in the form of patterns in (2.10), and illustrated by means of exemplary English sentences in (2.11).

(2.10) a. state: $\pi_n(\alpha_1,\ldots, \alpha_n)$
b. activity: DO(α_1,[$\pi_n(\alpha_1,\ldots, \alpha_n)$])
c. achievement: BECOME[$\pi_n(\alpha_1,\ldots, \alpha_n)$]
d. accomplishment:
[[DO (α_1,[$\pi_n(\alpha_1,\ldots, \alpha_n)$])] CAUSE [BECOME [$\pi_n(\alpha_1,\ldots, \alpha_n)$]]]

(2.11) a. He sweeps the floor clean.
[[DO (he, sweeps(the floor))] CAUSE [BECOME[clean(the floor)]]]
b. John walks.
[DO(John, walk)]

(Dowty 1979: 123-124)

Importantly, Dowty (1979) divides causative structures into two subevents: a causing subevent and a result subevent. Many linguists have adopted this division in their analyses. The representation of the resultative sentence (2.11a), consists of the causing subevent "he sweeps the floor" and the result subevent "the floor is clean." In turn, unergative verbs, as in (2.11b), are composed of a single subevent with the primitive DO.

Two decades later, Rappaport Hovav and Levin (1998) also defined a basic inventory of event building blocks in terms of Vendler's (1967) event types, as reproduced in (2.12).

(2.12) a. [*x* ACT$_{<MANNER>}$] (activity)
b. [*x* <*STATE*>] (state)
c. [BECOME [*x* <*STATE*>]] (achievement)
d. [*x* CAUSE [BECOME [*y* <*STATE*>]]] (accomplishment)
e. [[*x* ACT$_{<MANNER>}$] CAUSE [BECOME [*y*<*STATE*>]]] (accomplishment)

(Rappaport Hovav and Levin 1998: 108)

On the basis of (2.12), the meaning of a verb is expected to comprise an association between a constant and an event template from the inventory given above. Constants are defined as open-class items originating from a fixed ontology (e.g. manner, instrument, state, etc.),

represented within the angle brackets of the event template.[9] Rappaport Hovav and Levin (1998) claim that in this theory verbs directly project (encode, or lexicalize) complex event structures.

What is more, Dowty (1979) argues that stative predicates are the smallest and simplest building-blocks of event structure. Besides, Dowty (1979: 180) introduces a fundamental distinction within stative verbs: verbs of position (e.g. *sit* and *lie*) which take the progressive form (*X is sitting*) in English, while other statives (e.g. *know* and *love*) do not have such a form. Bach (1986) refers to this idea and distinguishes two types of statives, dynamic (e.g. *sit*, *stand*, and *lie* in combination with a location modifier) and static statives (e.g. *be drunk*, *be in New York*, *own*, *love*, and *resemble*).

The split within the class of statives is based, to a great extent, on the ideas of Davidson (1967)[10], and was developed further in Maienborn (2003, 2005, 2007)[11] and Rothmayr (2009). Examining statives, Rothmayr

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[9] Besides, for Rappaport Hovav and Levin (1998), each constant is associated with a name (i.e. a phonological string). A set of "canonical realization rules" governs the compatibility of different constant types with different event types (i-vi):

i. manner → [*x* ACT$_{<MANNER>}$]
(e.g., *jog*, *run*, *creak*, *whistle*, etc.)
ii. instrument → [*x* ACT$_{<INSTRUMENT>}$]
(e.g., *brush*, *hammer*, *saw*, *shovel*, etc.)
iii. placeable object → [*x* CAUSE [BECOME [*x* WITH <*THING*>]]]
(e.g., *butter*, *oil*, *paper*, *tile*, *wax*, etc.)
iv. place → [*x* CAUSE [BECOME [*x* <*PLACE*>]]]
(e.g., *bag*, *box*, *cage*, *crate*, *garage*, *pocket*, etc.)
v. internally caused state → [*x* <*STATE*>] (state)
(e.g., *bloom*, *blossom*, *decay*, °*ower*, *rot*, *rust*, *sprout*, etc.)
vi. externally caused state → [[*x* ACT] CAUSE [BECOME [*y* <*STATE*>]]]
(e.g., *break*, *dry*, *harden*, *melt*, *open*, etc.)

(Rappaport Hovav and Levin 1998: 109)

[10] The Davidsonian (1967) account of adverbial modification, initially used with action verbs, has been used to separate the ontological properties of situation types. Davidson argues that adverbials are attached to an event argument that must therefore be present in the structure of (eventive) verbs. Since statives do not allow for such adverbials, they are taken to lack this argument, referred to as the Davidsonian argument.

[11] Maienborn (2003, 2005, 2007) offers a theory of nondynamic expressions, which distinguishes between state verbs (*sleep*, *sit*, *stand*, *lie* and *wait*), consistent with the criteria for the so-called Davidsonian eventualities, and stative verbs (*know*, *weigh*, *own* and *resemble*), which refer to the Kimian (1969) state criteria.

(2009) observes that the nature of stative verbs has not yet been completely explained, but at least four suppositions about statives can be made. First, stative predicates are recognised as the smallest and simplest building blocks of event structure. Second, stative verbs have a less complex structure compared to eventive verbs. Third, stative verbs are very similar to copular constructions. Finally, stative verbs contain only a single (structural) argument, which is the holder of the state (Rothmayr 2009: 39). Taking the distinction between Kimian (1969) and Davidsonian (1967) statives (cf. Maienborn 2003) as a preliminary assumption, the results of Rothmayr's (2009) study of different types of stative verbs reveal that these predicates cannot be seen as the smallest building-blocks of event structure. Indeed, it is possible for a verb to express both a state and an event (either by referring to an intentional activity by an agent, or by expressing a change of state). Therefore, the event structure must be a property of the lexical-semantic structure of stative predicates in a verb. Finally, Rothmayr (2009) offers a two-group division of stative verbs into: i) verbs that allow stative reading only (SE verbs, such as *love*, and verbs of position); and ii) verbs that display systematic stative-eventive ambiguity (e.g. verbs with both a causative and stative reading, such as *obstruct*, dispositional verbs, such as *help*, verbs with a modal operator and a feature of action, such as *threaten*, and verbs of body posture). According to Rothmayr (2009), the stative/eventive ambiguity can be explained by a cause-operator in a verb's semantic structure that relates two sub-eventualities to one another; the stative interpretation arises when both sub-eventualities are stative (Rothmayr 2009: 80-82).

Unquestionably, Vendler's (1967) event classification may be used as a guide for lexical semantic representations, but it may not be the final determining factor of event-based theories of argument structure. Apart from the work of Dowty (1979), Rappaport Hovav and Levin (1998), and Rothmayr (2009), many theories of lexical semantic representations of a verb have been developed so far, e.g. Carter (1976), Jackendoff (1983), Pinker (1989), Parsons (1990), Pustejovsky (1991), Croft (1998), and Rothstein (2004, 2008), among many others. In general, these alternative frameworks concern lexical semantic representations of a verb that decompose events into more primitive predicates.

The latter group comprises copular constructions, regardless of whether they are stage-level predicates (denoting a temporary property) or individual-level predicates (carrying a more or less constant property). Kimian states, to be precise, reflect Kim's (1969) notion of temporally bound property exemplifications–they are not discernible, and they cannot be modified by event-related adverbials (Maienborn 2007), while Davidsonian states can.

2.4.2 Aspectual classes of psych-verbs

The Vendler-Dowty classes of Aktionsart, especially the Aktionsart of OE psych-verbs in English, have been a subject of debate in the literature. Indeed, across different languages psychological predicates are ambiguous between agentive, eventive and stative interpretations (e.g. Arad 1998, 1999; Marín and McNally 2005: 212; 2011: 468; Landau 2010: 129; and Alexiadou and Iordăchioaia 2014; among others). For instance, psych-verbs are assumed by van Voorst (1992) to be achievements (which are telic, but cf. Landau 2010: 150), while Filip (1996) states that causative psych-verbs are atelic.

2.4.2.1 The aspectual status of Subject-Experiencer psych-verbs

In the literature, SE psychological predicates are uniformly defined as stative. The fact that they occur felicitously in the simple present tense without a habitual reading, as in (2.13a), proves their stativity. SE psych-verbs make an implication of temporal persistence into the past and future, similarly to individual-level predicates (Carlson 1977; and Condoravdi 1992). Consequently, SE psych-verbs, treated as individual-level verbs, are assigned a stative reading since they do not appear felicitously, in the usual context, with temporal modifiers such as *yesterday* (Spanish *ayer*), as illustrated in (2.13b) (cf. Marín 2001 for Spanish data).

(2.13) a. {Odia / Aborrece / Teme} su libertad.
hates / loathes / fears his freedom
He {hates / loathes / fears} his freedom.

b. ??Ayer {odió / aborreció / temió} su repentina libertad.
yesterday hated3SG / loathed3SG / feared3SG his sudden freedom
*Yesterday he {hated / loathed / feared} his sudden freedom.
(Fábregas *et al*. 2012: 164)

Thus, SE psychological predicates are generally assumed to denote states (Grimshaw 1990; and Pustejovsky 1991; among others).[12]

[12] An interested reader is referred to Alexiadou and Iordăchioaia (2014), who note some ambiguity among SE psych-verbs in Romanian (between eventive and stative readings), and in Greek (either only eventive or only stative).

2.4.2.2 Aspectual classes of Object-Experiencer psych-verbs

All class III OE psych-verbs are believed cross-linguistically to be stative. These predicates are never used agentively; hence, they do not occur with agentive adverbs *on purpose* / *intentionally*, as exemplified in (2.14a-b) below (cf. (2.3c)).

(2.14) The *stative reading* of class III psych-verbs:
a. The issue of starving children *appeals* to Maria (*on purpose / *intentionally)
b. These children *matter* to Maria (*on purpose / *intentionally)

Maria is an Experiencer, placed in the Object position, while "the issue of starving children" / "these children" represent the *Stimulus* / *Theme*, located in the Subject position.

In comparison with SE and class III OE psych-verbs, there is much less agreement regarding the aspectual value to be assigned to OE psych-verbs of the *frighten* type (class II). To be precise, English *frighten* verbs are sometimes treated as (telic) achievement predicates (van Voorst 1992), in a way analogous to accomplishments (Tenny 1994). Contrary to those views, Filip (1996) argues that class II psych-verbs are not telic, and both Pylkkänen (2000) and Arad (1998) have claimed that, at least, in some interpretations certain members of the *frighten* class in Finnish (Pylkännen) and English and Romance (Arad) are stative.

For the sake of this book, Arad's (1998, 1999) aspectual typology of class II OE psych-verbs is adopted, with her claim that most of these verbs are ambiguous between the three readings, i.e. (i) eventive agentive (regular transitives); (ii) eventive non-agentive (stative / transitive); and (iii) stative. The variety of the readings, available even for one psych-verb, such as *frighten*, is exemplified in (2.15).

(2.15) The three readings of class II psych-verbs:
a. Nina *frightened* Laura deliberately (intentionally / on purpose) / to make her go away.
(*eventive agentive reading*)

b. Nina *frightened* Laura unintentionally / accidentally.
(*eventive non-agentive reading*)
The explosion / the thunderstorm *frightened* Laura.
(*eventive non-agentive reading*)
c. Dogs *frighten* Laura. (*stative* reading)

(Arad 1998: 3,6)

According to Arad's (1998) event-based approach, in the *eventive agentive reading* in (2.15a), we have an intentional Agent (Nina) that brings about a change of state in Laura, the Experiencer, who *gets frightened*. In Arad's (1998) analysis, the *eventive non-agentive reading*, exemplified in (2.15b), emerges when someone (Nina) or something (the explosion / the thunderstorm) causes some change of mental state in the Experiencer (Laura) unintentionally. Thus, on this reading there is a change of state in the Experiencer, but no intentional agent. Thus, on the non-stative readings (agentive or eventive ones) the Agent/Causer "have done their job" as soon as the change of state is achieved (Arad 1998: 5).
Researchers further disagree as regards the specific aspectual value of eventive OE verbs and its potential reference to agentivity (achievements, e.g. van Voorst 1992, *vs*. achievements or accomplishments, depending on agentivity, e.g. Landau 2010). More recently, Grafmiller (2013) has advocated for OE verbs, as well. According to him, any of OE verbs can be used to describe a dynamic event with an agent, and no systematic aspectual classification can be made for this type of psych-verbs.

The stative reading, as in (2.15c), is the generally assumed psych reading, with neither an Agent nor any change of mental state in the object. Instead, as argued by Pylkkänen (1997), it involves perception of some stimulus (the subject) by the Experiencer (the object). This perception activates some mental state in the Experiencer. There is, thus, "triggering of a state, but no change of state" (Arad 1998: 6), as shown in (2.16), where Nina is the Experiencer.

(2.16) *The stative reading* of class II OE psych-verbs:
a. John / John's haircut *annoys* Nina.
b. John / John's behaviour / nuclear war *frightened* Nina.
c. This problem *concerned* Nina.
d. Blood sausage *disgusts* Nina.

(Arad 1998: 4 (4))

What is more, Arad (1998: 4) distinguishes several characteristics which make the stative reading different from the other two. First, there is "no Agent" in the stative reading, *viz*. neither the activation of the mental state by the stimulus nor the perception of the stimulus by the Experiencer is under the control of the Agent. It is something inherent to the stimulus that generates a particular mental state in the Experiencer. Consequently, the Experiencer cannot control the mental state which the stimulus triggers in it. Second, on the stative reading there is "no change of state" in the Experiencer, as is the case, e.g. with the psych verbs *concern* or *worry*,

which are treated as fundamentally stative. They entail no single point of change of state, in which the Experiencer turns from "unconcerned" / "unworried" into "concerned" / "worried."[13] In brief, according to Arad (1998, 1999), the stative reading involves triggering of a mental state which holds as long as the Experiencer perceives the Stimulus; the non-stative interpretation, in turn, involves an agent which brings about a change of state.[14] Therefore, a key issue in recognising these aspectual values is the role of the subject: while states do not allow agents, many OE verbs can appear with both agent subjects (Nina *frightened* Laura deliberately / to make her go away) and non-agent subjects (Nina *frightened* Laura *deliberately / unintentionally / accidentally) (cf. Arad 1998: 3, 6; Cheung and Larson 2015: 166 (104)).

Furthermore, for Arad (1999), it is stativity that makes the class of psych-verbs differ from prototypical transitive verbs. Thus, she concludes that "the 'psych' category does not give us a cohesive syntactic-semantic class" (Arad 1999: 15, cf. Sonnenhauser 2010).[15] To conclude, Verhoeven (2010), similarly to Rozwadowska (2005), notes that the availability of the alternation between an agentive / stative and non-agentive / non-stative reading is subject to typological variation.

To conclude, SE predicates may be taken to be stative. For some researchers (cf. Arad 1999), SE verbs may refer to simple events (as intransitive activities do), for other linguists, SE verbs as statives comprise two subevents (cf. Biały 2005; and Rozwadowska 2012; among others). Moreover, all class III OE psych-verbs are believed cross-linguistically to be stative (unaccusative), as they are never used agentively (cf. (2.3c), and e.g. The issue of starving children *matters* to Maria). The controversy opens up for class II OE predicates, which are more complex and can have either a stative or eventive reading.

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[13] Arad (1998) notes that both the stative reading and the non-stative reading are causatives (as is evident by the causative morphology on OE verbs in Finnish, Hebrew and Japanese). The type of causation is different in each case: for non-stative readings it is an active causation, causing a change of state, the other is stative causation, or triggering a concomitant state (Arad 1998: 6).

[14] Cf. Pylkkänen (2000: 431-432) and the correlation between "affectedness" and "eventiveness" in Parodi and Luján (2000).

[15] Likewise, Pylkkänen (2000) identifies a class of causative psych-verbs in Finnish, which represent temporary 'stage-level' states rather than permanent "individual-level" states (e.g. inho-tta "disgust," saali-tta "cause to pity," sure-tta "cause to be sad;" see also Marín and McNally 2005). Pylkkänen (2000) recognizes as well another set of causative psych-verbs which are non-stative and involve the inchoative morpheme (e.g. raivo-stu-tta "cause to become furious," kauhi-stu-tta "cause to become terrified," viha-stu-tta "cause to become angry").

2.4.2.3 Syntactic tests for stativity / non-stativity of class II OE psych-verbs

Landau (2010), following Pesetsky (1995), claims that especially class II OE psych verbs, are not aspectually identical. Some verbs (e.g. *scare*, *startle*) seem to be restricted to a non-stative reading; others (e.g. *amuse*, *embarrass*) remain neutral, i.e. aspectually ambiguous between eventive and stative readings; whereas other psych-verbs, though they are "relatively few" (e.g. *concern*, *depress*) are "strictly stative" (Landau 2010: 129). Landau's (2010) assumption is followed by Cheung and Larson (2015: 136-137), and Guidi (2011: ex. 37), among many others. Guidi (2011) also observes that OE psych-verbs in Old English, where the Experiencer was accusative, were aspectually ambiguous, just as they are in Present-day English.[16]

Consequently, some tests to distinguish stative from non-stative class II verbs are of much significance. The stative reading is achieved most easily with bare plurals, as in (2.15c), and imperfective aspect, such as the present tense, as in (2.16c) and (2.16a,d). The verb refers to a long-lived state thanks to the simple present in which the predicate occurs. English appears to show preference for simple present tense verbs to be interpreted as generic statements (Carlson and Tanenhaus 1988). Stative Experiencer verbs cannot be naturally used in the progressive form; that is why, "*This problem *is concerning* Nina" is ungrammatical. Indeed, Landau (2010: 49) mentions that in English the progressive form is a standard test for non-statives. However, Arad (1998: 6) maintains that in some cases the stative reading cannot be limited only to this syntactic diagnostic. To be specific, on the basis of the sentences, reproduced in (2.17), Landau (2010) draws the conclusion that the verb *depress* cannot be treated as stative in the active (2.17a) version, since it can appear in the progressive. Nevertheless, its passive form, as in (2.17b) is stative, and cannot occur in the progressive; even though it is well-known that verbal passivization does not change verbs from stative to non-stative or the other way round.

(2.17) *Adjectival passive* with stative class II OE psych-verbs:
a. The situation *is depressing* Mary.
b. * Mary *is being depressed* by the situation.
(cf. Grimshaw 1990:114, ex. 13; Landau 2010: 49)

[16] Guidi (2011: 42) argues that this problem of ambiguous aspectual interpretation can occur for verbs with dative Experiencers too, but he does not discuss this issue further.

Landau (2010: 99) argues that the passive in the ungrammatical sentence (2.17b) is adjectival, what justifies the stativity of the verb *depress* (cf. Grimshaw 1990: 114; Pesetsky 1995; and Grafmiller 2013). Pesetsky (1995) claims that class II verbs vary in their stative behaviour, as illustrated in (2.18).

(2.18) *Passive* with stative psych-verbs:
a. Sue *was* continually *being scared* by odd noises.
b. Harry *is* clearly *fearing* an outbreak of the flu.
c. *An outbreak of the flu *is* clearly *being feared* by Harry.
d. An outbreak of the flu *is feared* by Harry.
(Pesetsky 1995 (73a, 75e, 76e, 77e))

In contradistinction to *depress* (which is strongly stative), the verbs *scare, terrify, shock* and *surprise* reveal an eventive reading both in the active and the passive, as in (2.18a). Pesetsky (1995) further claims that (2.17a) has a special ("judgmental") non-iterative meaning which (for some reason) is unavailable with passives. This restriction applies to other statives, such as class I SE psych verbs, exemplified in (2.18b-d).

Additionally, as noted by Landau (2010: 50-51), English is expected to have eventive verbal psych passives since their verbal status is proved by the fact that these passives in the progressive are incompatible with special idiosyncratic prepositions, as in (2.19).

(2.19) *Verbal passive* with eventive (non-stative) psych-verbs:
a. Bill was enraged *by/at* totally innocent remarks.
b. Bill was often being enraged *by / *at* totally innocent remarks.
(Landau 2010: 57-58; cf. Pesetsky 1995: ex. 81)

Landau (2010: 57) claims that such idiosyncratic prepositions are a proof of adjectival passives, which are lexically derived; thus (2.19a) sounds grammatical. On the other hand, these prepositions are disallowed in contexts that force the choice of a verbal passive, like the progressive aspect, given in (2.19b).

Nevertheless, Pesetsky (1995) argues that some class II psych-verbs do not passivize at all, as illustrated in (2.20a-b), which makes them similar to class III OE psych-verbs that never form passives, as in (2.20c-e) (cf.

Perlmutter and Postal 1984). These facts make Pesetsky (1995) suggest that all these verbs are unaccusative as they do not form passives. [17]

(2.20) Psych-verbs which do not form passive forms:
a. * We were escaped by Smith's name.
b. * Panini was eluded by the correct generalization.
c. * Mary wasn't appealed to by the play.
d. * John was mattered to by this.
e. * Mary was occurred to by the same idea.
(Pesetsky 1995, ex. 153b, 154b, 155b, 156b, 157b)

Since some OE psych-verbs do not form passives and fail the *progressive* test, as exemplified in (2.20), a *pseudocleft* test can be used to distinguish stative from eventive readings (cf Landau 2010: 101). Stative verbs fail the *pseudocleft* test, whereas eventive class II verbs pass it, as shown in (2.21a) and (2.21b), respectively.

(2.21) A *Pseudocleft* test to distinguish stative from eventive readings of OE verbs:
a. * What that solution did was *escape*/*elude*/*concern* Mary.
(*stative reading*)
b. What that noise did was *scare*/*surprise*/*startle* Mary.
(*eventive reading*)
(Landau 2010: 50)

In addition, Grafmiller (2013) confirms that the semantic distinction between the stative (adjectival) and eventive (verbal) forms of passive participles is subtle, and over the years various grammatical diagnostics have been proposed for distinguishing between them syntactically (cf. Grafmiller 2013: 76; and Wasow 1977: 338-341, who provide the criteria for identifying adjectival character of passive participles). Grafmiller (2013: 87-96) claims that at least some OE verbs can form verbal passives providing they satisfy the following criteria, listed in (2.22) below:

[17] Further evidence for the unaccusativity of *escape* and *elude* comes from the fact that they do not form middles or *–er* nominals (similarly to *concern* and *interest*), as in (i) (cf. Pesetsky 1995; Levin 1986).
(i) a. * Great ideas elude/escape/concern/interest easily.
b. * an eluder, *an escaper, *a concerner, *an interested.
(Landau 2010:50)

(2.22) The criteria for identifying *verbal passive* with eventive (non-stative) psych-verbs:

a. use in the iterative progressive, e.g.
   (i) Odd noises *were* continually *scaring* Sue. (eventive psych-verb)
   (ii) ??Odd noises *were* continually *depressing* Sue. (stative psych-verb)
   (iii) If you turn on the TV and *are* continually *being bored* by the programming, it's likely you have the wrong type of cable package. (stative psych-verb)

b. punctual past (by means of the adverb *suddenly*), e.g.
   (i) *Suddenly* he was scared by an unexpected groan from the next room. (eventive psych-verb)
   (ii) ??An unexpected groan from the next room *suddenly* depressed him. (stative psych-verb)
   (iii) ??*Suddenly* he was depressed by an unexpected groan from the next room. (stative psych-verb)

c. *needs V-ed* construction more frequent than with statives, e.g.
   (i) Nobody *needs angered* / *upset* by the truth. (eventive psych-verb)
   (ii) Young people shouldn't *need depressed / concerned* by life. (stative psych-verb)

(cf. Pesetsky 1995: 29-30, ex. 71, 73; Grafmiller 2013: 88-94)

All the instances in (2.22) require supposedly eventive interpretations of the predicate, and therefore they work as diagnostics of verbal passives. In fact, Grafmiller (2013) proves that any OE verb can be used in the progressive passive with an iterative interpretation – even those that are most frequently claimed to denote states, e.g. *bore*, *concern*, *depress* and *worry,* as in (2.22a)(iii).

Moreover, some verbs like *depress* are said to be unacceptable when modified by adverbs like *suddenly* in the past tense, while other verbs, e.g. *scare*, sound perfectly fine modified this way, as shown in (2.22b)(i)-(iii).

Grafmiller (2013: 91) explains that the sentences modified by the adverb *suddenly* describe a punctual change in the Experiencer, hence the predicate is required to be interpreted as an event, not as a state. Consequently, only those verbs which are acceptable with such interpretations allow verbal passives.

Finally, the *needs V-ed* construction, as in (2.22c)(i)-(ii), provides another piece of evidence for the existence of verbal passives with some OE verbs. The sentence in (22c)(ii) is fine to Grafmiller (2013), even though it involves two verbs that are normally listed as stative OE psych-verbs, *viz*. *concern* and *depress*. Indeed, Grafmiller's (2013) analysis of the corpus data shows that eventive and stative uses are available for all OE verbs in both the active and passive, which runs counter to many authors' claims (Arad 1998; Bouchard 1995; and Landau 2010; among others).

Additionally, the *needs V-ed* construction can be mainly found in dialects of western Pennsylvania, central Ohio, and other parts of the Great Lakes area of the U.S. Landau (2010: 51) points out that the Pittsburghese dialect of English provides further evidence for eventiveness, rather than agentivity of verbal psych passives (cf. Tenny 1998; Grafmiller 2013: 91-95).[18] Indeed, the more eventive the verb, the more felicitous verbal passives are. However, Tenny (1998) notes that "a complex of factors influences the degree of eventiveness, including not only agentivity but also volitionality, punctuality, and the affectedness of change of state in the experiencer. ... Individual speakers vary in how strict they are with this scale in making verbal passives" (Tenny 1998: 595). Therefore, relying on Tenny's (1998) analysis, Landau (2010: 51) draws the conclusion that English provides evidence from independent sources for the possibility of verbal passive to justify the non-stativity of class II verbs.

What is more, Verhoeven (2010: 18-19, 42-44) carries out some diagnostic tests for agentivity and stativity, in order to identify semantic properties of particular verbs of different psych-verb classes in five different languages. Especially in those languages which display a

[18] In her analysis of this dialect, Tenny (1998) explains that the verbal passive participle construction is well-matched to eventive adverbials, progressive aspect and idiom chunk passives, and mismatched with the adjectival *un*-passive, as in (i)a-(i)d, respectively.

(i) a. The dog needs scratched *hard.*
b. The car has been needing washed for a long time now.
c. Tabs need *kept on* the suspect.
d. * The house needs *unpainted.*

(Landau 2010: 51 (102))

grammaticalized expression of the progressive aspect, the verbs were tested within the corresponding constructions. Thus, three standard diagnostic tests that were implemented in this study comprise: (a) the VOLITIONALITY TEST examines the compatibility of the verb with an adverb denoting the volitional involvement of the actor, e.g. the adverb *intentionally*, (b) the IMPERATIVE TEST examines whether an order can be expressed by using the imperative form of the verb and provides further evidence for the possibility of an agent to have volitional control over the event, and (c) the STATIVITY TEST examines whether the verb can be used in a form or context that implies a dynamic internal temporal structure of the event.

All these aspectual properties of psych-verbs and the valid syntactic tests used to distinguish the different readings which have been mentioned earlier in this section, are summarised in (2.23). In all these exemplary sentences in (2.23), Mary is an Experiencer, while 'dogs' or 'children' are the Theme.

(2.23) Aspectual properties of psych-verbs:

a. **class I:** SE psych-verbs
Mary *loves* / *fears* dogs. (stative reading)
Test 1: not possible in the *progressive tenses*
*Mary *is loving* / *fearing* dogs.
Test 2: not used in imperatives
Love / **fear* dogs![19]

b. **class II:** OE psych-verbs
(i) **eventive agentive** (for regular transitive verbs)
These children *frightened* / *annoyed* Mary.

Test 1: with an adverb *on purpose / deliberately / intentionally*
These children *frightened* / *annoyed* Mary *on purpose / deliberately / intentionally*
Test 2: not with an adverb *unintentionally*
These children *frightened* / *annoyed* Mary **unintentionally*.
Test 3: used in imperatives
Frighten / *annoy* Mary!

[19] The SE psych-verb "to love" is stative, but shares some properties with eventive verbs, e.g. the imperative *Love children*! sounds good.

Test 4: with *for*-adverbial
These children *were annoying / amusing* Mary for an hour / *in an hour.

(ii) **eventive non-agentive** (for stative or transitive verbs)
These children *frightened* / *annoyed* Mary.

Test 1: possible with an adverb *unintentionally*
These children *frightened* / *annoyed* Mary *unintentionally.*
Test 2: not possible with an adverb *on purpose / deliberately / intentionally*
These children *frightened*/*annoyed* Mary **on purpose/ *deliberately/ *intentionally*
Test 3: used in imperatives
Frighten / *annoy* Mary!
Test 4: with *in*-adverbial
These children *frightened*/*annoyed* Mary in an hour / *for an hour.

(iii) **stative reading** (for unaccusative verbs[20])
Dogs *depress* / *concern* Mary.

Test 1: not possible with *progressive tenses*
* Dogs *are depressing* / *concerning* Mary.
Test 2: not used in imperatives
* *Depress / concern* Mary!
Test 3: with *for*-adverbial
These children *depressed / concerned* Mary for an hour / *in an hour.

c. **class III:** OE psych-verbs
stative reading (for unaccusative verbs)
Dogs *matter to* / *appeal to* Mary.

Test 1: not possible in the *progressive tenses*
* Dogs *are mattering* / *appealing to* Mary.
Test 2: not used in imperatives
* *Matter / appeal to* Mary!
Test 3: with *for*-adverbial
These dogs *mattered to / appealed to* Mary for two years / *in an hour.

[20] On the unaccusative status of stative OE verbs, cf. section 2.5.

Undoubtedly, one of the reasons for the existence of such a diversity of analyses for the Aktionsart of psychological verbs relates to the inherent syntactic complexity they manifest. As is well known and generally assumed, psych-verbs can participate in various alternations in different languages (see e.g. Belletti and Rizzi 1988). However, only a stative reading is associated with the so-called "psych" properties. Indeed, as first noted by Postal (1971) and Dowty (1991), among others, OE psych-verbs display peculiar characteristics when they are stative. Therefore, the most essential distinction is the one between stative and non-stative (eventive or agentive) readings of OE psych-verbs. As shown in (2.23b)(i)-(iii), stative OE can be distinguished from non-stative, i.e. eventive and agentive OE psych-verbs, by means of some syntactic diagnostics, *viz*. progressive aspect and forming imperatives. Whereas adverbs *unintentionally* / *on purpose* / *deliberately* may serve as diagnostics to separate eventive from agentive readings of OE psych-verbs, as illustrated in (2.23b)(ii)-(iii). Besides, the *in*-adverbial triggers a telic interpretation in the eventive reading, while the *for*-adverbial forces an atelic reading in the stative reading. With the *for*-adverbial there is usually an ambiguity between an activity and a state, but, given that the activity reading is only available with agents, it is excluded with the non-agentive subject of eventive OE verbs. (cf. Arad 2002; Grafmiller 2013; and Alexiadou and Iordăchioaia 2014; among others).

In a nutshell, it is commonly presumed that across different languages, all class III verbs are stative; class I predicates include verbs with stative readings; whereas most class II verbs have stative or eventive readings. Widely recognized is the fact that the peculiar psych properties of OE verbs occur only on their non-agentive readings. OE verbs are ambiguous between: stative, causative eventive (non-agentive) and agentive readings. Even the difference between eventive and agentive is not very clear. However, psych-verbs on their agentive reading behave in a way similar to all other transitive Agent-Patient predicates. In other words, when the arguments of agentive verbs are canonical event participants (with both an agent and a change of state), the verbs also have an external argument, a canonical object, and display no psych effects. Nonetheless, when a predicate has neither an agent nor expresses a change of state, it does not have a canonical subject and object either (Arad 1998: 9). Therefore, as regards psych-verbs, there is a correlation between semantic / aspectual properties of the predicate and its syntactic realisation.

2.5 Syntactic structures and characteristics of psych-verbs

In general, psych-verbs are recognised to have a special status within the grammatical system of a language. Landau (2010) emphasizes that Experiencers are "grammatically" special, since they show a great structural variety and properties which distinguish them from non-psychological structures. On account of their distinctive properties, i.e. their "misbehaving" in numerous respects, psychological predicates have given rise to various approaches to the lexicon-syntax interface.

This section of the chapter is to review briefly the main accounts which concern syntactic structures (sections 2.5.1-2.5.4), and characteristics of psych-verbs (sections 2.5.2.1-2.5.2.3). What all these approaches have in common is that they offer alternative solutions to the problem that psychological predicates pose to linking. Importantly, the licensing of arguments has been maintained to be correlated with templatic information, i.e. with a fixed number of slots for different elements, which are fixed in their position and order relative to each other (Mattissen 2003: 286). This information, in turn, determines the event structure of a predicate. In this respect, any proposal about the licensing of a predicate's arguments is likewise a proposal about the predicate's event structure. Nevertheless, due to the space limitation, only the most crucial accounts are to be presented, while an interested reader is asked to refer to the literature for more details.

Psych-verbs were first analysed by Postal (1971), and since then, two opposing approaches have emerged to explain the unexpected behaviour of psych predicates: (i) syntactically motivated that implies syntactic movement; and (ii) semantically based that appeals to thematic relations. These two stances have run parallel to each other up till now, trying to provide an answer to some problems posed by psych-verbs. The core problematic issue refers to linking, i.e. mapping of the arguments of psych-verbs from lexicon to syntactic position. Since psych-verbs show different syntactic realizations of the Experiencer argument, which surfaces either as a subject or as an object, they pose a problem for the U(T)AH, reproduced in (2.5a-b). The problem refers to the pairs like those in (2.24)-(2.35), replicated after Pesetsky (1995).

(2.24) a. Bill was very angry at the article in the Times.
b. The article in the Times angered/enraged Bill.
(2.25) a. The paleontologist liked/loved/adored the fossil.
b. The fossil pleased/delighted/overjoyed the paleontologist.

(2.26) a. Bill disliked/hated/detested John's house.
b. John's house displeased/irritated/infuriated Bill.
(2.27) a. Bill was satisfied/content with the Chinese dinner.
b. The Chinese dinner satisfied/contented Bill.
(2.28) a. Sue resented Bill's remarks.
b. Bill's remarks embittered Sue.
(2.29) a. Mary rejoiced at the French victory.
b. The French victory cheered/exhilarated Mary.
(2.30) a. John worried about the television set.
b. The television set worried John.
(2.31) a. Bill was furious about/fumed about the article in the *Times.*
b. The article in the *Times* infuriated Bill.
(2.32) a. Sue's remarks puzzled us.
b. We puzzled over Sue's remarks.
(2.33) a. Sue grieved over/at the court decision,
b. The court decision grieved Sue.
(2.34) a. John is bored with the problem of lexical entries.
b. The problem of lexical entries bores John.
(2.35) a. Bill fears/is afraid of ghosts.
b. Ghosts frighten Bill.

(Pesetsky 1995: 18)

In the above-mentioned pairs, in the (a) examples of (2.24)-(2.35), there are SE psych-verbs, i.e. the Experiencer is the subject and the Theme is the object; whereas the (b) examples of the Experiencer functions as the object. To be precise, e.g. the Experiencer Bill in (2.24a), (2.26a)-(2.27a), (2.31a), (2.35a) occupies the subject position. In (2.24b), (2.26b)-(2.27b), (2.31b), (2.35b), Bill fills the object position, then it should be associated with the thematic role of Theme. Bill still acts as an Experiencer, even though the syntactic position is switched from the subject to the object, which contradicts the UTAH.

In other words, psych-verbs pose a problem for Baker's (1988) *Uniformity of Theta Assignment Hypothesis* (UTAH). According to the UTAH, there is a systematic relation between thematic information and syntactic projections. Thus, an argument that bears a particular thematic role is consistently mapped onto the same syntactic position at D-structure, e.g. an Agent is always projected as a subject. However, psych-verbs exhibiting irregular mapping, contradict the UTAH. Following the examples given in (2.24a,b)-(2.35a,b), it can be observed that both (a) and (b) examples share the same thematic roles of *Experiencer* and *Theme*, that are realised in different syntactic positions (cf. Belletti and Rizzi 1988;

Grimshaw 1990; Pesetsky 1995; Arad 1998, 2002; Anagnostopoulou 1999; Pylkkänen 2000; Reinhart 1996, 2002; Verhoeven 2008; Isse 2008; Landau 2010; and Alexiadou and Iordăchioaia 2014; among others)

Thus, one of the puzzles concerning the analysis of psych-verbs regards the explanation of how apparently equivalent thematic relations can be realized in different positions. A considerable number of proposals has been made in the literature so far to solve the puzzle psychological predicates pose for linking. What follows is an overview of the latest and the most crucial theories regarding psych-verbs.

2.5.1 Belletti and Rizzi's (1988) unaccusative approach to OE psych-verbs

One of the most popular solutions to the problem posed for linking, formulated within the transformational framework, takes the unifying thematic factor as its starting point. It is Belletti and Rizzi (1988) who propose that the thematic correspondence between different kinds of psychological verbs can be explained by means of an equivalent or, at least, a similar deep structure for all of them. To save the U(T)AH, Belletti and Rizzi (1988) postulate treating (OE) psych-verbs as unaccusative verbs, which lack an external argument and are not expected to assign case to D-structure objects.

Belletti and Rizzi's (1988) classification of psych-verbs into three classes, as illustrated in (2.3), and repeated for convenience in (2.36), identifies psych-verbs as sharing identical theta grids. This assumption goes against Baker's (1988) UTAH.

(2.36) a. Class I: The *temere* class
(Nominative Experiencer, accusative Theme)
Gianni teme questo
Gianni fears this

b. Class II: The *preoccupare* class
(Nominative Theme, accusative Experiencer)
Questo preoccupa Gianni
This worries Gianni

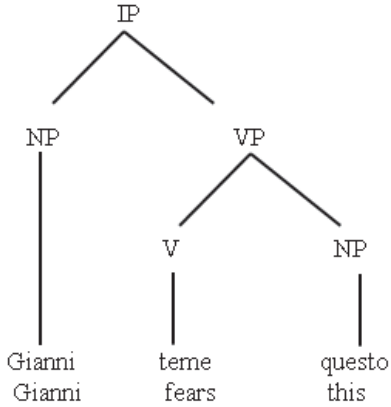
c. Class III: The *piacere* class
(Nominative Theme, dative Experiencer)
(i) A Gianni piace questo
To Gianni pleases this

(ii) Questo piace a Gianni
This pleases to Gianni.

(Belletti and Rizzi 1988: 291-292)

For Belletti and Rizzi (1988), the only aspect in which the three verb classes differ from one another is the specification of case-grid, which governs diverse derivations from deep to surface structure. They claim that the Experiencer is a deep structure subject with verbs belonging to class I (Nominative Experiencer, accusative Theme). Thus, the D-structure configuration of sentence (2.36a), which comprises an SE psych-verb (class I), is illustrated in (2.37):

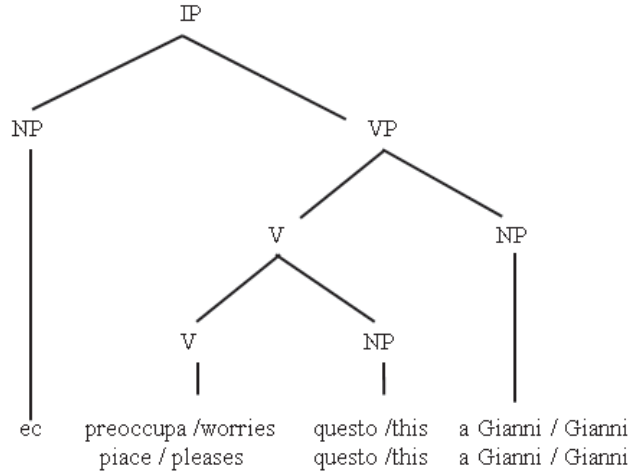
(2.37) D-structure configuration of SE (class I) psych-verbs:



(cf. Belletti and Rizzi 1988: 293)

Moreover, the D-structure of psych-verbs belonging to class II (Nominative Theme, accusative Experiencer) and class III (Nominative Theme, dative Experiencer), exemplified in (2.36b) and (2.36c) respectively, is represented in (2.38). The verbs from these classes form, according to Belletti and Rizzi (1988), a double object construction with a nonthematic subject position.

(2.38) D-structure configuration of OE (class II and class III) psych-verbs:



(Belletti and Rizzi 1988: 293)

Belletti and Rizzi (1988: 293-294) explain that sentences such as (2.36b) and (2.36c) may be derived from (2.38) *via* NP-movement to the subject position. In the tree diagram in (2.38), the Theme originates as an internal argument and moves to the subject position. The structure in (2.38) contains the Experiencer in a higher position than a Theme. The verbs of both class II and class III are treated by Belletti and Rizzi (1988) as double object unaccusatives. Significantly, they argue that the Theme argument in both classes of verbs is internal, i.e. is a sister of the V head. In class III the Experiencer is assigned the case of an indirect object (dative).

Furthermore, despite the obvious differences in linear order, in both (2.37) and (2.38), the verb directly θ-marks the Theme, and the constituent Verb + Theme compositionally θ-mark the Experiencer. Consequently, Belletti and Rizzi (1988: 344) form a hypothesis, as in (2.39):

(2.39) *Assumptions about the Mapping:*
Theta hierarchy: Agent > Experiencer >…….. > Theme

Hypothesis:
syntactic configurations projected from a given θ-grid should reflect the hierarchy, so that for every pair of θ-roles in the θ-

> grid, the higher role in the hierarchy is projected to a higher structural position.
>
> (Belletti and Rizzi 1988: 344, fn. 36)

In addition, on the basis of the hierarchy and the hypothesis in (2.39), the following assumption can be made:

(2.40) Given a θ-grid [Experiencer, Theme], the Experiencer is projected to a higher position than the Theme.
(Belletti and Rizzi 1988: 344)

Accordingly, Belletti and Rizzi (1988: 344) propose for the three psych-verb classes the Lexical Representations generating the required syntactic configurations, as in (2.41):

(2.41) a. **Class I** - temere [fears]: θ-grid [Experiencer, Theme]
Case grid [_ _]
b. **Class II** - preoccupare [worries]:
θ-grid [Experiencer, Theme]
Case grid [ACC _]
c. **Class III** - piacere [pleases]:
θ-grid [Experiencer, Theme]
Case grid [DAT _]

As shown in (2.41), within class I of psych-verbs, which represent the uncontroversial transitive structure, the Experiencer has the external θ-role, and no inherent Case is assigned. In class II and class III there is no external θ-role, while the Experiencer is associated with an inherent Case (accusative or dative). Since it has no external θ-role, the Experiencer must be generated in a VP-internal position where it can be governed. In accordance with (2.40), the Experiencer must be higher than the Theme.[21] In addition, psych-verbs of class II and III must have an unaccusative structure (with no external θ-role). The Theme, on the other hand, not being assigned case in its original position, has to move to the subject position to be assigned structural nominative case there. The Theme, thus, may also satisfy the *Extended Projection Principle* (EPP).[22] Likewise, Grafmiller (2013) notes that this is basically what happens with

[21] Cf. Pesetsky's (1987) comments on Belletti and Rizzi (1988)'s assumption about the identical θ-grids of all the three classes of psych-verbs.

[22] Cf. Chomsky (1982) for the *Extended Projection Principle* (EPP), which concerns the obligatoriness of subjects.

intransitive unaccusatives (e.g. *The vase broke*), whose single arguments are internal arguments, which must move to the subject position to satisfy the EPP (Grafmiller 2013: 14).

What is more, Belletti and Rizzi (1988) put forward a number of arguments in favour of the unaccusative analysis of class II psych-verbs. The first one is based on the subject, which is said not to be a deep subject. They justify this standpoint by referring to some syntactic phenomena, a few of which, summarised in (2.42) below, are valid cross-linguistically.

(2.42) Arguments for an unaccusative analysis of Class II - *preoccupare* verbs:

a. Passives:
Structures with non-thematic subjects cannot undergo passivization.[23] Even though some verbs of the *preoccupare* class allow passives, these are not true passives but rather adjectival ones, e.g.:
Gianni è disgustato dalla corruzione di questo paese
Gianni is disgusted by the corruption of this country.

b. Binding:
The Experiencer in the object position can bind an anaphor in the subject position, e.g.
Questi pettegolezzi su di sé preoccupano Gianni piú di ogni altra cosa
These gossips about himself worry Gianni more than anything else

However, Belletti and Rizzi (1988: 312-313) argue that these examples involve D-structure binding. Instead, they propose that Principle A is an 'anywhere principle', thus it can be satisfied at D-structure, or at S-Structure (or LF), e.g.

They *seem to* ***each other*** *[t to be intelligent]*

Principles B and C must apply at S-Structure (unlike Principle A, which is an anywhere principle) in order to account for the ungrammaticality of:

[23] Cf. Belletti and Rizzi (1988: 306-308) for a complication with *fare* + Infinitival PPs.

**Himself$_i$ worries John$_i$/him$_i$.*[24]

(Belletti and Rizzi 1988: 295-324)

The further arguments for the unaccusative status of class II psych-verbs, provided by Belletti and Rizzi (1988: 324-334), concern the properties of the object of *preoccupare* verbs. They claim that this object is not a canonical object, for the following syntactic reasons summarised in (2.43).

(2.43) Properties of the object of *preoccupare*-verbs:

a. Lack of island properties:

The object of *preoccupare*-verbs is not a canonical object, but it is the sister of V', immediately dominated by VP. Therefore, if this assumption is correct, the Experiencer must lack typical properties of canonical objects. One of these characteristics is transparency to extraction processes.
Objects of *temere*-verbs are transparent to *wh*-extraction (cf. (i) below), while objects of *preoccupare*-verbs are not (a similar violation appears with *ne*-cliticization, though the violation is weaker than with *wh*-phrases), cf. (ii) below.

(i) *La compagnia di cui tutti ammirano il president*
The company of which everyone admires the president
(ii) **La compagnia di cui questo spaventa il president*
The company of which this frightens the president.

b. The Accusative Case of the Experiencer of *preoccupare*-verbs:

The Accusative Case overtly manifested under cliticization is a canonical object property:
Questo lo preoccupa
This him worries.
However, this is not a structural Accusative, but inherent Accusative Case. Otherwise, Burzio's Generalization (Burzio

[24] An interested reader is referred to Belletti and Rizzi (1988: 295-324) for more details and other arguments in favour of the unaccusativity of class II psych-verbs, such as: anaphoric cliticization, focus and agentivity effects, arbitrary *pro*, and causatives.

1989: 178-186) (V is a structural Case assigner iff it has an external argument) would be violated, which Belletti and Rizzi (1988) take to be a generalization about Structural Case.

c. Selection of auxiliary *avere* "have":

Belletti and Rizzi (1988: 333) suggest that auxiliary selection is not an unaccusativity diagnostic, but instead, *avere* "have" not *essere* "be," is chosen when the verb is able to assign accusative case (structural or inherent).

(Belletti and Rizzi 1988: 324-334)

What is more, Belletti and Rizzi (1988: 334-342) provide a detailed analysis of the properties of the object of *piacere*-verbs, recapitulated in (2.44).

(2.44) Properties of the object of *piacere*-verbs:

a. The experiencer bears dative Case:

Being unaccusative, the verbs cannot assign structural Case. They assign inherent dative, unlike *preoccupare*-verbs that assign inherent accusative.

b. The auxiliary selected is *essere* "be":
Since they assign dative, they select *essere* "be," in contradistinction to *preoccupare*-verbs, which select *avere* "have" because they assign accusative. This property classifies the verbs as unaccusatives.

c. The orders EXP-V-THEME and THEME-V-EXP are both equally possible:
Belletti and Rizzi (1988: 336-342) note that this property refers to the fact that the Experiencer bears dative case, which is assigned by the preposition/case marker 'a'. Both dative and accusative realization at S-structure must be in the government domain of an appropriate case marker, which is either the verb or an inserted preposition. At S-structure the dative realization of the NP is assigned by the governing preposition, and the a+NP dative Experiencer is permitted to move around freely.[25]

(Belletti and Rizzi 1988: 334-342)

[25] For an explanation why in the order EXP-V-THEME the Experiencer takes a Subject rather than a Topic position, cf. Belletti and Rizzi (1988: 339 fn. 32).

Belletti and Rizzi's (1988) arguments in favour of unaccusativity of class II psych-verbs have been discussed in the literature by many linguists (cf. Grimshaw 1990; and Pesetsky 1995; among many others). Indeed, as recognised by Levin and Rappaport Hovav (2005: 142-144), Belletti and Rizzi's (1988) study of psych-verbs has its place in the class of prominent hypotheses. Larson (1990: 601) observes that Belletti and Rizzi's unaccusative approach to OE psych-verbs leads to a *Relativized Uniformity of Theta Assignment Hypothesis* (RUTAH, i.e. relativized UTAH), since an Experiencer is always higher than the Theme (cf. Baker 1997). As a consequence of A-movement of the Theme into the subject position with OE verbs, the arguments reveal the different surface realization.

To sum up, Belletti and Rizzi (1988) argue that OE verbs, in spite of being apparently identical to transitive verbs, differ from them substantially in their syntactic behaviour (e.g. reflexive *si*, causativiztion and object extraction, among others). That is why, OE verbs receive a special position in theories of the syntax-lexicon interface. Their lexical uniqueness is marked with the fact that one of the arguments of psych-verbs is specified as an Experiencer. Besides, having different syntactic structure from usual transitive verbs, makes OE psych-verbs syntactically distinct. According to Belletti and Rizzi (1988), OE verbs form a unique class both semantically and syntactically, and therefore they should be assigned a unique structure, the so-called "psych structure," based on the structure of unaccusative verbs.

2.5.2 Landau's (2005, 2010) locative approach

In his recent book on psych-verbs, called *The Locative Syntax of Experiencers* (*LSE*), Landau (2005, 2010) presents evidence, from a variety of languages and sources accumulated over the years, that Experiencers are conceptually encoded as "mental locations–containers or destinations of mental states/effects" (Landau 2005: 7). Consequently, Experiencers are essentially locatives, in the sense of receivers of experience (cf. Guidi 2011: 32)

Similarly to Belletti and Rizzi (1988), Landau (2010) treats Class I SE psych-verbs as regular transitive verbs. Landau (2010) follows, e.g. Arad (1998, 1999), in stating that all class III verbs are stative (unaccusative), which are never used agentively, while most class II verbs are ambiguous between the three readings, i.e. (i) stative (unaccusatives), (ii) eventive agentive (regular transitives), (iii) eventive non-agentive (stative / transitive).

2.5.2.1 Subject-Experiencer verbs

Landau (2010) adopts Arad's (1998) argument that even stative SE verbs can denote locative relations. Thus, the Experiencer (Monica, he) is either conceived of as the "substance" contained in the mental state or the container in which the mental state resides, as illustrated in (2.45).

(2.45) a. Monica is in love (with Paul).
b. There is in him a great appreciation for artists.
(cf. Arad 1998: 228 (83))

Landau (2010: 11) argues that his contention that the Experiencer denotes a mental location holds true, even when the Experiencer occurs as a bare nominal, as in the case of SE verbs in Hebrew, French and Navajo. He emphasises that in those languages and in many others, there occur frequently periphrastic constructions, comprising the verbs *be* / *have*, a psych noun and an Experiencer location, as illustrated in (2.45a)-(2.46a). Besides, in Irish and Scottish Gaelic, Experiencers are solely introduced by locative prepositions, as exemplified in (2.46b).

(2.46) a. Il ne pouvait plus contenir sa rage.
he not could more to-contain his rage
He could no longer contain his (own) rage
(Bouchard 1995: 266, ex. 13g)
b. Tá eagla roimh Y ar X.
is fear before Y on X
X is afraid of Y
(McCloskey and Sells 1988, ex. 77a)

In addition, Landau (2010) emphasises the fact that SEs, which are stative transitives, behave in a unique way when they co-occur with a locative preposition (cf. Doron 2003). Accordingly, Landau (2010: 12) proposes that SE psych-verbs can also be treated as having an oblique Experiencer, even in languages like English, where they always take the nominative (nonoblique) form. To justify this assumption, he evokes Speas' (1990) arguments concerning SE verbs, which are said to introduce a path, either as a goal or a source, unlike non-Experiencer Subjects, as illustrated in (2.47) and (2.48).

(2.47) a. I got angry but it went away.
b. ?? I laughed but it went away.

(2.48) a. I tried to remember his name, but it wouldn't come to me.
b. ?? I tried to write his name, but it wouldn't come to me.
(Speas 1990, ex. 3,7)

Another argument in favour of the locative character of SE emerges in Hebrew, where there exists a paradigm of adjectival passives in non-psych predicates, *beynoni pa'ul*, which expresses the original (verbal) external argument in a *by*-phrase, as reproduced in (2.49a).

(2.49) a. ha-sefer arux al-yedey orex mikco'i.
the-book edited by editor professional
The book is edited by a professional editor

b. ha-šir ha-ze a'huv/mu'adaf al/*al-yedey harbe ma'azinim.
the-song the-this loved/hated on/*by many listeners
This song is loved/hated(Adj) by many listeners
(Landau 2010: 13-14 (25a), (27a))

Landau (2010: 14) argues that only in the case of SE verbs the preposition *al-yedey* "by" is supplanted by a different preposition. In the *beynoni pa'ul* of these verbs, the original external argument (the Experiencer) surfaces with the locative preposition *al* "on," as illustrated in (2.49b). What is more, the same preposition *al* "on" also occurs with SE transitive verbs in lexical causativization. There the original object remains accusative, and the original subject (the Experiencer) becomes oblique, with the preposition *al* "on," as exemplified in (2.50).

(2.50) a. Gil sana/xibev et beyt-ha-sefer.
Gil hated/like ACC the-school
Gil hated/liked school

b. Rina hisni'a/xibeva al Gil et beyt-ha-sefer.
Rina made Gil hate/like school
(Landau 2010: 15 (29a,b))

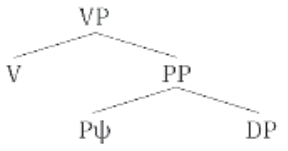
Consequently, as discussed above, Landau (2010) distinguishes SE psych-verbs from all other subjects, providing some evidence for a locative preposition present in the SE structures. Landau (2010) emphasises that it is the syntactic behaviour of Experiencer objects which

deviates from that of canonical objects in various languages.[26] For decades, these so-called psych effects have been studied in the theoretical as well as recent experimental research. The distinct properties of OE psych-verbs will be of main interest in the subsequent section.

2.5.2.2 Object-Experiencer verbs and their syntactic properties

Limiting his analysis to the VP-structure, and following an extensive discussion in Pesetsky (1995) and Iwata (1995), Landau (2010) claims that a psychological predicate is identified in the grammar by the presence of a specific structure. The structure proposed by Landau (2010: 8) for OE psych-verbs is the one presented in (2.51) below.

(2.51)



(Landau 2010: 8)

The verbal structure of OE psych-verbs in (2.51) shows an Experiencer licensed within a prepositional phrase. Besides, with this concrete structural representation for OE psych-verbs in mind, Landau (2010: 8) offers more detailed structures in (2.52) and (2.53) below, for both class II and class III verbs. He notes that psych-verbs are special due to the oblique nature of their Experiencers.

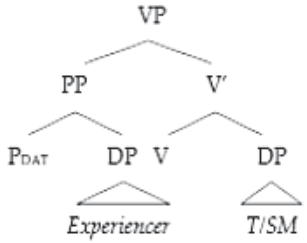
With class III verbs, regarded as unaccusative, for most languages the Experiencer is either encoded by means of an oblique case (often dative) or by means of a PP, following Belletti and Rizzi (1988), Pesetsky (1995), and Arad (1998), among others. This assumption is also made by Landau (2010: 19-20), who points out that object Experiencers universally bear an inherent case and that the inherent case is universally assigned by a P. In the case of class III verbs, the *Theme* argument of these verbs is not a *Causer* but rather a *Target/Subject* Matter, *T/SM* (Pesetsky 1995). Besides, in languages where the dative marker is not an independent preposition, class III Experiencers are governed either by a lexical preposition (English) or a null preposition Øψ (in languages with morphological case),

[26] As stated by Landau (2010), the specific syntactic behaviour of OE is best visible in peculiarities concerning binding, extraction/islandhood, reflexivization and argument linearization, etc. (cf. Mohanan and Mohanan 1990)

which assigns the dative case. The VP structure of class III psych-verbs is then as in (2.52).

(2.52) Class III verbs – unaccusatives

$[_{VP}\ [_{PP}\ P \quad DP] \quad [_{V'}\ V \quad DP]]$
Experiencer Theme



(Landau 2010: 8, ex. (12b))

In (2.52), the Experiencer may move overtly to the subject position (depending on the language), resulting in the so-called "quirky" subjects, or covertly, forming the "second" subject (Landau 2010: 88). The latter case is valid for languages like English, which prohibit inherent case-marked Determiner Phrases (DPs) in the specifier of Tense (Spec,TP)). In English, the Theme argument raises to [Spec,TP] overtly, and the Experiencer raises to a second [Spec,TP] at LF. This effect not only creates a multiple-specifier structure, but it also is referred to as LF-quirkiness by Landau (2010: 87). Besides, class III OE verbs are stative unaccusatives, which means that they can never be used agentively or eventively.

Undeniably, the oblique nature of Experiencers is much less obvious with class II verbs, which in many languages apparently occur with nominal (accusative) object Experiencers. Dividing class II verbs into three groups, Landau (2010) distinguishes: (i) stative verbs; (ii) eventive non-agentive verbs; and (iii) eventive agentive psych-verbs (cf. also Arad 1998, 1999).

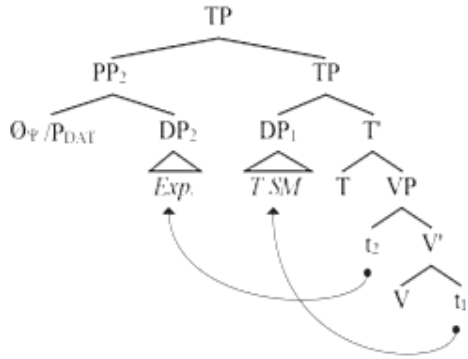
The first group of stative class II psych-verbs comprises verbs like *interest*, *concern*, *depress*, which have the same unaccusative structure as class III verbs in (2.52), with a difference that the Experiencer in class III verbs is governed by a lexical P for English, but in class II, it is governed by a null P. The syntactic structure of class II stative verbs is shown in (2.53a).

The second and the major group of class II psych-verbs consists of eventive non-agentive verbs like *frighten*, *startle*, *anger*, *surprise*, which may work as statives or transitives. Accordingly, even though some class II verbs are only either stative (*concern*) or eventive (*startle*), the border line is not clear-cut as some verbs in class II are ambiguous, since they allow for both stative and eventive readings (*frighten*). Landau (2010, 55-56) underlines that, in fact, most class II verbs are ambiguous, to varying degrees, between stative and eventive readings. The unaccusative status is exhibited empirically only by those verbs (like *concern*, *interest*) which are unambiguously stative. Thus, he assumes that only stative class II verbs lack, in their thematic grid, a causer argument, which, in turn, is the source of eventive interpretation for non-stative verbs.[27]

Generally speaking, these special psych properties, restricted to non-agentive OE verbs, as argued by Landau (2010: 127-128), are related to the presence of a (possibly null) locative preposition with a [loc] feature, governing the OE. Accordingly, the absence of these properties must be a sign of the absence of the preposition; thus, agentive contexts (with no psych properties) exclude the psych-preposition. Besides, due to locative inversion an Experiencer object in class II verbs is raised to the subject position, while all Experiencers become LF-subjects, landing in [Spec, TP], as shown in (2.53) for stative psych-verbs, and in (2.54) for eventive verbs.

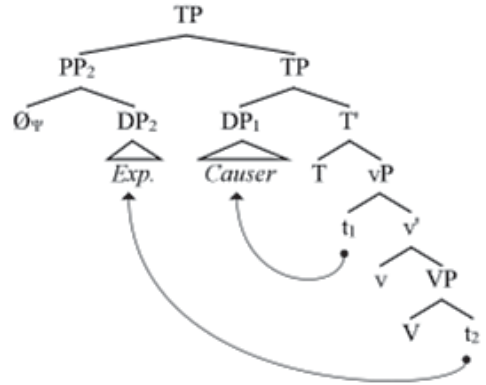
[27] To recall briefly, Belletti and Rizzi (1988) identify for Italian Class I of psychological verbs as the one with the uncontroversial transitive structure, since the Experiencer has the external θ-role, and no inherent Case is assigned. Class II and class III of psych-verbs, with no external θ-role, and the Experiencer associated with an inherent Case (accusative or dative) have, according to Belletti and Rizzi (1988), an unaccusative structure.

(2.53) Stative psych-verbs: LF



(Landau 2010: 87)

(2.54) Eventive non-agentive psych-verbs: LF

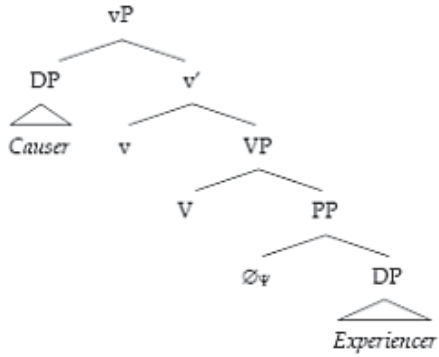


(Landau 2010: 88)

The third group of class II verbs comprises eventive agentive verbs, considered to be regular transitive verbs that take a direct object. This class differs from non-agentive predicates since it does not show the special syntax of psych-verbs. According to Landau (2010), some eventive psych-verbs in the transitive use have a *Causer* as an external argument, projecting a light *v* (cf. Arad 1988; Pesetsky 1995; and Iwata 1995, among others), and the Experiencer as an oblique object. The structure for agentive class II transitives is represented in (2.55).

(2.55) Agentive class II verbs – transitives

$[_{VP}$ DP $[_{V'}$ V $[_{VP}$ V $[_{PP}$ P DP]]]]
Causer Experiencer



(Landau 2010: 8, ex. (12b))

What is more, refuting Belletti and Rizzi's (1988) assumption about the unaccusative status of psych-verbs of eventive class II,[28] Landau (2010) claims (following Pesetsky 1995) that most class II verbs are *not* unaccusatives. Besides, he proposes that, commonly, non-nominative Experiencers bear inherent case, which is assigned by a P (cf. Emonds 1985). This implies that nominals marked for inherent case are always dominated by a PP node. This PP may be headed by a lexical P (as in English obliques) or a null P (as in Latin obliques), but both cases are structurally distinct from bare DPs (Landau 2010: 21-22).[29]

Additionally, providing a wide range of syntactic properties of OE verbs in different languages, from a cross-linguistic perspective, Landau (2010) makes an attempt to prove that Experiencers behave like datives/PPs, i.e. locatives. Such psych properties are divided, according to

[28] Landau (2010: 19-20) deals with Belletti and Rizzi's (1988) claim concerning the unaccusativity of II and III class psych-verbs. He says that it is unproblematic for class III verbs, which assign dative case to the Experiencer and select the auxiliary *essere*. Nonetheless, class II verbs with these two properties are never found: they select the auxiliary *avere*, and assign the accusative case, violating Burzio's (1986) generalization.

[29] The trees by Landau (2010) and Harwood *et al*. (2017) (e.g. (4.54) in Chapter Four) are syntactic trees containing reference to some semantic roles.

Landau (2010: 75), into core and peripheral ones, with the information which languages they are typical of, listed in (2.56):

(2.56) A classification of Psych Properties

(I) Core Properties

(a) *All Class II Verbs (Non-agentive)*
1. Overt obliqueness of Experiencer (Navajo, Irish, Scottish Gaelic).
2. Accusative / Dative alternations (Italian, Spanish).
3. Islandhood of Experiencer (Italian, English).
4. PP-behavior in *wh*-islands (English, Hebrew).
5. No synthetic compounds (English).
6. No Heavy NP Shift (English).
7. No Genitive of Negation (Russian).
8. Obligatory clitic-doubling (Greek).
9. Obligatory resumption in relative clauses (Greek, Hebrew).
10. No *si*/ *se*-reflexivization (Italian, French).
11. No periphrastic causatives (Italian, French).
12. No verbal passive in type B languages (Italian, French, Hebrew).

(b) *Class III and Stative Class II (Unaccusatives)*
1. No verbal passive (English, Dutch, Finnish).
2. No periphrastic causatives (French, Italian dialects).
3. No forward binding.

(II) Peripheral Properties
1. The T/SM restriction.
2. No causative nominalizations.
3. Backward binding.

(Landau 2010: 75)

As can be seen in (2.56), Landau (2010) distinguishes core psych properties from non-core ones, i.e. properties that psych verbs share with other verbs. To recall, all the core psych properties can be encountered only in non-agentive contexts, while if an agentive context appears, a class II verb behaves like any ordinary transitive verb (cf. Belletti and Rizzi 1988; Grimshaw 1990; Bouchard 1995; Arad 1998, 2000; and Landau 2010; among others). While Belletti and Rizzi (1988) associate all the special psych properties with the unaccusative nature of class II verbs, actually the single issue of unaccusativity cannot distinguish agentive from non-agentive class II verbs in the general case (cf. Pesetsky 1995). Instead,

Landau (2010) assumes that "the agentivity puzzle" should be resolved with the meaning shift from a non-agentive to an agentive reading of a class II verb, which is complemented with an aspectual shift, as stated in (2.57).

(2.57) a. Agentive class II verbs are change-of-state verbs (i.e. accomplishments).
b. Non-agentive class II verbs are states or achievements.
(Landau 2010: 129)

Accordingly, OE verbs on the agentive interpretation are change-of-state verbs, i.e. accomplishments. In the agentive context, the Experiencer which undergoes a change of state, becomes an affected argument, i.e. a direct object (Dowty 1991), a bare DP Experiencer. As a result, Experiencer objects of agentive class II verbs cannot raise to the subject position, since they are bare nominals receiving the structural accusative case. In turn, non-agentive class II verbs are states or achievements (Landau 2010: 129-131).[30] The special behaviour of psych-verbs, i.e. their genuine psych-effects, are restricted to non-agentive contexts (subject as a Theme), whereas when a psych predicate is used agentively, the subject is a volitional agent, while the Experiencer plays the role of a Patient.

Furthermore, Landau (2010: 18-19) claims that an oblique construction forces a non-agentive reading, but a transitive construction does not force an agentive reading. Thus, the oblique Experiencer correlates with a non-agentive subject. Indeed, non-agentive OE constructions are universally oblique. For most languages, the preposition governing the Experiencer is null (Øψ), i.e. it involves a PP headed by Øψ (as in English). The "psych" prepositions have different versions across languages; in Irish psych predicates are special in that the preposition introducing an Experiencer is overt (usually, *ar* "on").

In short, Landau (2010: 131) argues that it is the Experiencer that undergoes the change of state in the agentive context, contrary to the Experiencer in non-agentive (class II) contexts, which does not undergo a change of state in the aspectually relevant sense. Instead, the Experiencer is either a locus where a mental state resides (statives) or appears (achievements). In these so-called "locative" contexts, Øψ is a crucial interpretive ingredient.

[30] This approach is compatible with Marín and McNally's (2011) account and an earlier analysis of psych-verbs offered by van Voorst (1992). For a further discussion concerning the aspectual properties of psych-verbs cf. Grimshaw (1990), Pesetsky (1995) and Pylkkänen (2000), among others.

2.5.2.3 Syntactic characteristics of English psych-verbs

Based on the core and peripheral properties, reproduced in (2.56), which Landau (2010) lists as typical of psych-verbs, syntactic diagnostics can be set to distinguish psych-verbs from other verbs, and non-agentive from unaccusative psych-verbs (cf. section 2.4.2.3, in which syntactic tests for stativity / non-stativity of class II OE psych-verbs are analysed). Five of the core properties are applicable to English psych-verbs, as illustrated in (2.58).

(2.58) a. *All Class II Verbs (Non-agentive)*
i) Islandhood of Experiencer
ii) PP-behaviour in *wh*-islands
iii) No synthetic compounds
iv) No Heavy NP Shift
b. *Class III and Stative Class II (Unaccusatives)*
i) No verbal passive (English, Dutch, Finnish).
(Landau 2010: 75)

Even though prepositional objects in English are not strong islands, some acceptable instances of prepositional objects may be found, as in (2.59b).

(2.59) a. *Which film was Dirk amusing to the director of?
b. Which film did Sam entrust Marilyn to the director of?
(Roberts 1991 (43a,c))

Landau (2010: 29) points out, citing Roberts' (1991) examples in (2.59), that the Experiencer shows islandhood as an object of a non-agentive psych predicate, as in (2.59b), but not as an object of an agentive predicate, as in (2.59a) (cf. Johnson 1992 and Stowell 1986; and Pesetsky 1982).

More to the point, the PP-like behaviour of class II non-agentive psych-verbs in *wh*-islands is illustrated in (2.60). The data in (2.60) allow us to conclude that English treats accusative Experiencers as PPs in certain contexts. Landau (2010: 29-30) makes a claim that Experiencer objects behave like adjuncts since they are more resistant to extraction from *wh*-islands than other direct objects. Nevertheless, (2.60b) gives the impression that its ill-formedness, even though greater than that of 2.60a), is not as strong as that of standard adjunct extraction out of a *wh*-island (2.60c), but it still seems to have just the status of PP-extraction (2.60d).

(2.60) a. ?? Who did you wonder whether Sam knew?
b. ?* Who did you wonder whether the book bothered?
c. * Why_1 did you wonder whether the book appealed to Sam t_1?
(Johnson 1992 (25a, 26a))
d. ?* To whom did you wonder whether the book appealed t_1?
(Landau 2010 (60))

Landau (2010: 29-30) argues that the kind of violation exhibited in PP-extraction in (2.60d) is as unacceptable as extraction of genuine Experiencer direct objects, which he takes to support his analysis of Experiencers as arguments of null prepositions. Landau offers a syntactic analysis of English OE verbs in which they do not take complement NPs (or DPs) as do canonical transitive verbs, but instead select for PP complements headed by a null preposition (Øψ**).** Since objects of OE verbs are arguments of null prepositions, extraction from within these null-headed PPs should reveal the same degree of unacceptability as extraction from overt-headed PP complements found with other verbs.[31]

Furthermore, Landau (2010) faces the controversial question of whether class II verbs have a verbal passive. This is where the subdivision of class II into three groups becomes vital. Hence, stative class II verbs (and all class III verbs) generally fail to passivize since they are unaccusative. Agentive eventive class II verbs are usual transitive verbs, and therefore universally allow passivization. Non-agentive eventive class II verbs, which are not unaccusative, allow pseudopassives (i.e. prepositional passive, a form of English passive voice in which the object of a preposition becomes the subject of a clause). However, the verbs with the oblique nature of Experiencers are expected not to passivize unless the language can resort to the special strategies, presented in (2.61).

[31] Moreover, Landau (2010: 30-31), similarly to Grimshaw (1990: 15), analyses some other peculiarities of OE verbs, namely their inability to form synthetic compounds, involving a deverbal head and its object (a god-fearing man, a fun-loving teenager, *a man-frightening god, *a parent-appalling exploit). Another characteristic of OE verbs is their resistance to Heavy NP Shift (HNPS), analogous to the inner object in the double object construction, as in (i)-(ii). While overtly prepositional Experiencers, as in (iii) below, are perfectly moveable.

(i) * *These things bothered yesterday the man who visited Sally.*
(ii) * *We told these things (yesterday) the man who visited Sally.*
(iii) *These things appealed yesterday to the man who visited Sally.*

(2.61) *Strategies for Passivization of Quirky Objects*

a. *P-stranding*:
The preposition that governs the object is stranded and reanalysed with the verb – only available in languages where [V+P] reanalysis can feed A-movement, e.g. English and Dutch.

Pseudopassive:
$[_{TP}\ [_{DP}\ Exp]_1\ [_{T'}\ Aux\ [_{VP}\ [_{V}\ V_{PASS} + Øψ\ ][_{DP}\ t_1\ ]\ ]]]$

b. *Pied-Piping*: The preposition that governs the object is carried along to the subject position – only available in languages licensing quirky subjects, e.g. Finnish.

Quirky passive:
$[_{TP}\ [_{PP}\ Øψ\ [_{DP}\ Exp]]_1\ [_{T'}\ Aux\ [_{VP}\ V_{PASS}\ [_{PP}\ t_1\ ]\ ]]]$

(Landau 2010: 48)

Only eventive (non-stative) psych-verbs can form verbal passives. In English psych-verbs can occur felicitously with pseudopassive, as exemplified in (2.62)

(2.62) *Pseudopassives* in English, e.g.
a. This bed can be slept in.
b. Mary can be relied on.

(Landau 2010: 48 (92))

Stative class II verbs, instead, are unaccusative and do not passivize, due to the fact that they lack an external argument. However, they can form adjectival passives. Therefore, Landau (2010) reduces the generalization in (2.63a) to the one in (2.63b).[32]

(2.63) *Landau's (2010) generalization about passivization of psych-verbs*:
a. Universally, stative class II verbs do not passivize.
b. Universally, stative class II verbs are unaccusative.

(Landau 2010: 49)

[32] Cf. Landau's (2010) arguments for psych-verbs, which can passivize in Finnish. There the aspectual distinctions are morphologically marked, so "the relevant judgments need not appeal to subtle semantic intuitions" (Landau 2010: 54).

Consequently, making an attempt to distinguish stative from non-stative class II verbs, the syntactic tests need to be applied. In section 2.4.2.3, some space has been devoted to discussing the most crucial syntactic tests for stativity / non-stativity of OE psych-verbs, but an interested reader is referred to Landau (2010) for a more detailed analysis.

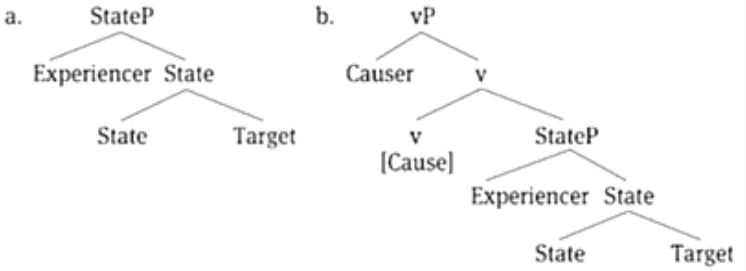
In a nutshell, Landau's generalization that the passive in class II is only found with eventive verbs, while stative verbs are unaccusative, has been shown to be true. Likewise, Landau's (2010: 51) book "the more eventive the verb, the more felicitous verbal passives are" is adequate. Indeed, the picture concerning the passivization of psych-verbs is thus fairly intricate, with unaccusativity and obliqueness of the Experiencer being the two major factors governing the cross-linguistic and within a single language variations. Finally, Landau (2005, 2010) provides an extensive overview of syntactic properties of OE verbs in different languages of the world and reconsiders their status from different angles. On this basis, he claims that Experiencers behave like locatives. Consequently, Experiencers should share many of the properties of true locatives, which is manifested through the following syntactic properties: first, all object Experiencers are oblique (or dative); second, Experiencers are LF–subjects (Landau 2005: 5). In Landau's theory, the special psych properties are linked to the presence of a (possibly null) locative preposition with a [loc] feature, which licences the OE. However, raising Experiencer objects in class II verbs to the subject position is a case of locative inversion. For Landau (2010), all Experiencers become LF-subjects, namely they end up in [Spec, TP].

2.5.3 Fábregas and Marín's (2015) layer theory

Fábregas and Marín (2015: 231), in their recent paper, argue that all formal psych-verbs comprise a *core*. The *core* refers to a mental state which relates the Experiencer with the entity towards which this state is targeted. While the *core* matches up the structure of SE psych-verbs, shown in (2.64a), OE psych-verbs are built over this core. The OE structure results from adding another layer codifying causation, but without any process (dynamic part) contained within the event structure, as illustrated in (2.64b).[33]

[33] In fact, it was Pesetsky's (1995) original claim that OE psych-verbs subsume SE psych-verbs.

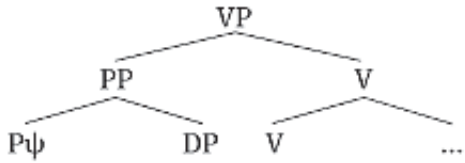
(2.64)



(Fábregas and Marín 2015: 231)[34]

Consequently, Fábregas and Marín (2015: 227) maintain that SE psych-verbs denote individual level (IL) states, i.e. states without boundaries, whereas OE psych-verbs should be classified as states of the stage level (SL) class, since they denote states with an onset.[35] Similarly, Fábregas and Marín (2015: 234, 265) propose that Experiencers in SE psych-verbs can also be viewed in terms of a PP, as in (2.65), following Landau's (2010) representation, or in their revised version, as in (2.66) below.

(2.65)



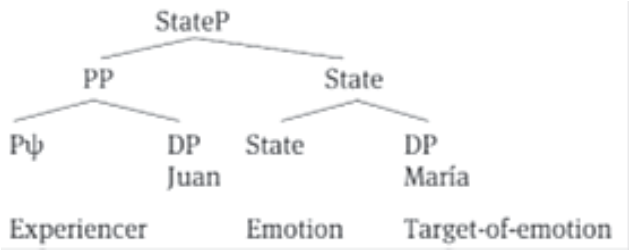
(Fábregas and Marín 2015: 234, 265)

[34] I would like to thank Prof. Henryk Kardela for suggesting the term "cognitive-semantic-syntactic trees" for the syntactic structures of SE and OE psych-verbs offered by **Fábregas and Marín (2015). In their** structure the notion of *state* belongs to event structure. This type of event structure is not mentioned either in Landau's (2010) or Harwood *et al*.'s (2017) syntactic structures. In addition, the trees by **Fábregas and Marín (2015)** refer both to Dowty (1979) and his semantic concepts of *State*, or *Causer*, and to Jackendoff (1990) and his cognitive-semantic decomposition analysis. In turn, the trees offered by Koopman (1991, 2010) for verb particle constructions (cf. (4.69)) are clear syntactic structures.

[35] Class I (SE) verbs comprise individual-level and stage-level predicates (*love* vs. *worry*), and the latter are often related to inchoative or reflexive morphology, which is likely to have an agentive interpretation (cf. Pesetsky 1995; Reinhart 2002; and Pylkkänen 2000).

(2.66) The structure of SE psych-verbs like *temer* "fear":

Juan	*teme*	*a*	*María.*
Juan	fears	ACC	María.
Juan	fears		María.



(Fábregas and Marín 2015: 259)

In a nutshell, in (2.66), the tree diagram depicting the structure of SE psych-verbs like *temer* "fear" is presented. The structure is a core of a formal psych structure, *viz*. a state denoting an emotion which relates an Experiencer with the target of that emotion (cf. Ramchand 2008: 55-56). Nonetheless, both Landau's (2010) and Fábregas and Marín's (2015) assumptions about the locative nature of SEs have not be confirmed by sufficient evidence so far.

2.5.4 Grafmiller's (2013) account of psych-verbs

In Grafmiller's (2013) approach, the explanation for the untypical behaviour of some OE psych-verbs is mainly semantic in nature, and is said to stem from the ways in which humans conceptualize psychological events and processes.[36] Assuming initially that the special behaviour of

[36] Grafmiller (2013) ascertains that providing further insight into the relationship between language and emotion concepts lies at the heart of his research. To understand this relationship, he explores how the conceptual properties of emotions are encoded in the words and constructions used to describe them. Assuming that human beings build mental concepts of various kinds which reflect their experience, Grafmiller (2013: 1-2) notes that many of these concepts are encoded in the meanings of individual words, often conceived of as "entries" in a mental lexicon (e.g. Jackendoff 1989; and Pustejovsky 1995). Lexical entries comprise varying degrees of semantic information, conceived of as sets of privative features, thematic role lists, and/or event structures, and that words are

psych-verbs is obtained only in their stative and/or more controversially non-agentive readings; Grafmiller (2013) proves, on the ground of the corpus data, that eventive and stative uses are available to all OE predicates in both the active and passive.

The purpose of his study was to investigate the acceptability of the two classes of OE verbs in agentive constructions, namely (i) Agentive-OE verbs, which allow agentive interpretations; and (ii) Non-agentive-OE verbs, which are stated to disallow agentive interpretations. Following Verhoeven (2010), Grafmiller (2013) added, beside the two classes of OE verbs, two more control groups to the study, i.e. physical transitive verbs and transitive SE psych-verbs, which are unambiguously dynamic and compatible with agentive interpretations. SE predicates, in turn, are typically identified as stative and inherently non-volitional (Grafmiller 2013: 243-244). The verbs used in the research are given in (2.67).

(2.67) Verbs used in Grafmiller's (2013) research:
a. Agentive-OE verbs:
amuse, anger, annoy, bother, disturb, frighten, irritate, scare, surprise, upset
b. Non-agentive-OE verbs:
amaze, astonish, bore, captivate, concern, depress, fascinate, horrify, offend, please
c. SE verbs:
admire, adore, despise, detest, enjoy, fear, hate, like, love, loathe
d. Transitive verbs:
help, hug, kick, pinch, shove

(Grafmiller 2013: 244)

In his research, Grafmiller (2013) attempts to address the issues of agentivity. Based on speaker judgments, he draws the conclusion that the twenty OE verbs he examined do not form clearly agentive and non-agentive sub-classes. Considering the results from the corpus data and the judgment studies, there seems to be, according to Grafmiller (2013), a serious doubt cast on proposals of making a lexicalized distinction

individuated conceptually in terms of the information that they denote. With regard to verbs, Grafmiller (2013: 2) argues that in a wide variety of theoretical approaches a verb's semantic representations determine the range of syntactic realizations of its arguments (e.g. Dowty 1991; Jackendoff 1990; Langacker 1987; Pinker 1989; Rappaport Hovav and Levin 1998; van Valin 1990; and van Valin and LaPolla 1997; among others).

between OE psych-verbs that are definitely non-agentive (e.g. *amaze, concern, depress*) and those that are more stretchable to be used with either agentive or non-agentive subjects (e.g. *amuse, frighten, surprise*) (Grafmiller 2013: 258). In the results of the acceptability judgment surveys, *depress* and *concern* are the two verbs revealing a strong unacceptability in agentive contexts; whereas, *amuse* clearly has a tendency to be regarded as a deliberately caused emotion. The other remaining predicates under scrutiny show no strong bias one way or the other, with some verbs (*fascinate, frighten* and *startle*) showing considerable variability in subjects' assessment. In fact, most verbs do readily appear in at least some agentive contexts (e.g. used as imperatives, or modified by *deliberately, intentionally,* etc.) (Grafmiller 2013: 258).

As suggested by Grafmiller (2013), the agentive OE psych-verbs cannot be easily separated from non-agentive ones. Instead, all OE psych-predicates fall along a continuum in accordance with the relative potential of being used with an agent. Regrettably, Grafmiller's (2013) study lacks a sufficient explanation for both how this continuous distribution compares to that of non-psych verbs and the indication of the verbs' potential for eventiveness. Nonetheless, the Corpus and judgment studies carried out by Grafmiller (2013) challenge the claims regarding sub-classes of OE verbs, made so far by linguists. The "rare" examples of the stative verb *depress* used in the progressive, and the agentive adverbial *purposely* used with the stative verb *bore*, which are included in Corpora, are exemplified in (2.68):

(2.68) a. The human race *is* constantly *depressing* me...
b. I'm going to purposely *bore* you with this tip, but it TOTALLY WORKS.

(Google, Grafmiller 2013: 114)

Moreover, in his analysis of psych characteristics of OE verbs, Grafmiller (2013) finds some evidence opposed to Landau (2010: 30-31) and Grimshaw (1990: 15), who point out the inability of OE verbs to form synthetic compounds, and their resistance to Heavy NP Shift (HNPS). In the web corpora Grafmiller (2013) finds some acceptable examples of shifted Experiencer objects no worse than shifted examples of other kinds of affected objects. However, he leaves the case open, concluding that whatever differences in the judgments of these sentences there may be, they are far too subtle to draw strong conclusions about (potentially covert) aspects of their syntactic structure (Grafmiller 2013: 69-71).

All in all, the above-mentioned facts argue against analysing differences in agentivity among psych-verbs at the level of lexical semantic structure. Instead, Grafmiller (2013) proposes treating agentivity as an inference arising from the total integration of semantic, syntactic, and contextual information in the clause (*ibid.*: v). Importantly, for Grafmiller (2013), stative OE verbs are not different from regular transitive (causative) verbs.

2.6 Concluding remarks

The aims of Chapter Two were: (i) to define psych-verbs; (ii) to provide their typology and characteristics; (iii) to introduce the Lexicon-Syntax Interface; and (iv) to outline the most prominent approaches to psych-verbs, and syntactic properties of psych-predicates. To recapitulate, it should be pointed out, after Klein and Kutscher (2005: 1-2), that psych predicates, representing a wide range of construction types, challenge the assumption that verbs with the same theta-grid and event structure would select the same case patterns. However, it is difficult to find general linking patterns of psych-verbs. On the other hand, it is characteristic of psych-verbs to have non-psych-readings as well, which, indeed, may be responsible for determining case selection.

Unquestionably, beside Belletti and Rizzi's (1988) theory, there have been far more approaches to the syntax of psychological predicates. In general, the thematic roles of psych-verbs are usually assigned to an Experiencer and stimulus / Theme. Arad (1998, 1999) has argued against Belletti and Rizzi's (1988) idea of unaccusativity of OE psych-verbs, highlighting the ambiguity these verbs give rise to between: stative, causative eventive (non-agentive), and agentive readings. Landau (2010) has offered a localist approach to Experiencers. In Fábregas and Marín's (2015) layer theory, individual level and stage level psych-verbs have been distinguished. Finally, Grafmiller (2013) has discussed the issue of agentivity of OE psych-verbs, and recognised stative OE predicates as similar to regular transitive (causative) verbs.

Nevertheless, what all of the views have in common is causality that appears as a relevant concept. The prominence of causation is unquestionable, although its status differs, since some linguists treat it as a thematic notion, and others as an aspectual one. The most problematic class, investigated so far in the literature, are OE verbs. The reason for that is their special structure and some grammatical rules that they appear to violate (the most notable of which is the UTAH).

From this perspective and in agreement with Arad (1998), Alexiadou and Iordachioaia's (2014) standpoint is adopted, for the purpose of this book. It is assumed that what makes psych verbs special is their aspectual ambiguity, rather than their Experiencer argument. Indeed, it is the diversity of aspectual readings in which SE and OE psych predicates can occur that makes these predicates distinctive.

CHAPTER THREE

IN SEARCH OF PSYCHOLOGICAL IDIOMS: A CORPUS-BASED ACCOUNT

3.1 Introduction

The aims of Chapter Three are twofold. On the one hand, we strive to select psych-verbs, which are a representative set of this type of predicates. On the other, we intend to determine idioms which are to be analysed in Chapter Four, and which correspond to the psych predicates listed earlier. Besides, the methodology adopted in data selection is also explained in Chapter Three. Two stages of the corpus study need to be conducted to meet the objectives just stipulated. The first stage involves eliciting the most frequent class I and III psych-verbs (cf. Belletti and Rizzi 1988), while class II top psych-verbs are adopted after Grafmiller (2013). The second stage is based on searching for idiomatic phrases corresponding to the psychological verbs selected.

The guidelines adopted in data selection in the first stage of the study are as follows: (i) the psych-verbs to be elicited correspond to the psychological predicates in Belletti and Rizzi's (1988) tripartite typology of psych-verbs, described in detail in Chapter Two of the book; (ii) only the most frequent psych-verbs, with the top occurrence in *The Corpus of Contemporary American English* (COCA), are taken into account; and (iii) the psych-verbs to be selected belong to various emotion domains.

Once the set of psych-verbs is determined, the second stage of the study is embarked upon. It aims at investigating any possible phraseological units, collected from English dictionaries and thesauri, which correspond to simple psych-verbs. Not only can these idiomatic phrases be used as substitutes for simple psych-verbs, enriching our language inventory, but also these idioms will be compared with their basic psych-verb counterparts in Chapter Four of the book, as regards their syntactic and aspectual characteristics. As a result, the research is expected to provide some insight into the complex nature of psychological predicates.

The chapter is organised into four sections. In section 3.2 the three above-mentioned criteria of selecting the basic psych-verbs are discussed in detail. Here, the focus is laid on determining the most frequent class I (SE) and class III (OE) psych-verbs, based on the corpus analysis. In section 3.3, the purpose of the research into psych-idioms, the data collection method, and the methodology adopted in the corpus study are outlined. Section 3.4 reviews the data analysed and offers some discussion related to the results of the research. The chapter ends with a brief summary and provides a scope of further investigation, carried out in Chapter Four of the book.

3.2 Towards the specification of the selection criteria

As has just been mentioned, the choice of psych-verbs in the first stage of the study is based on the following criteria: (i) the predicates belong to Belletti and Rizzi's (1988) classes of psych-verbs; (ii) they are the top frequent psych-verbs in the COCA Corpus; and (iii) these psych-verbs represent different emotion domains. In sections 3.2.1-3.2.3, each of these criteria is to be elaborated on separately.

3.2.1 Belletti and Rizzi's (1988) tripartite classification of psych-verbs

Even though psych-verbs have already been defined and discussed in the preceding chapter, some crucial points concerning those predicates are repeated here, for the sake of convenience. On the basis of the well-known studies represented by Belletti and Rizzi (1988), Pesetsky (1995), and Landau (2010), among others, it can be specified that psych-verbs express (a change in) mental or/and emotional state and a relation between the two arguments: an Experiencer and the Cause / Theme of such a psychological condition. An Experiencer can be realized as either a subject or as an object, following Belletti and Rizzi's (1988) tripartite classification, as introduced at the very beginning of this book, and illustrated in (2.3) in Chapter Two, but repeated in (3.1) below for the sake of convenience.

(3.1) Belletti and Rizzi's (1988) tripartite classification of psych-verbs:

Class I: *Mark* ***loves*** *bats*. (SE psych-verbs)
Class II: *The bats* ***frightened*** *Mark*. (OE psych-verbs)
Class III: *This film* ***appeals to*** *Joanne*. (OE psych-verbs)

Generally speaking, as can be seen in (3.1), class I involves regular transitive (agentive) constructions with an Experiencer subject and a Theme object. Class II is causative in nature with a Causer in the subject position and an Experiencer in the object position. Class III, in turn, comprises unaccusative constructions. The basic distinction between class II and III, provided by Belletti and Rizzi (1988) for Italian and some languages, refers to the accusative (class II) and dative (class III) case of an Experiencer object. For English, the difference between class II and III lies only in their aspectual properties. While class III verbs are stative, and, consequently, they can never be used agentively, most class II verbs are ambiguous between eventive (agentive *vs*. non-agentive) and stative. Notably, the peculiar behaviour of OE verbs obtains only in the stative uses (cf. section 2.4.2 in Chapter Two; and cf. Arad 1998, 1999; among others).

To recall briefly, as argued by Arad (1998), the difference between the eventive and the stative interpretations is that whereas eventive OE verbs involve a change of state in the Experiencer, there is no change of state on the stative reading. The stative reading corresponds to the condition experienced by the Experiencer that causes him to be in a particular mental state. Therefore, the verb *frighten* in the sentence "*The bats frightened Mark*" can be interpreted as an eventive predicate if *the bats* did something that caused *Mark* to suddenly be frightened. If *Mark*, instead, gets frightened with the idea or the presence of *bats* in general, then the sentence has a stative reading.

In short, this three-class typology is to serve as a basis for the selection of psych-verbs, for which idiomatic expressions are to be provided in the further part of this chapter.

3.2.2 Top frequent psych-verbs in the COCA Corpus

Due to the fact that certain psychological states are potentially more common than others, it is expected that the frequency of usage of these psych-verbs is far higher than the frequency of other emotion / mental verbs in given corpora. For instance, everyone can recognise the priority of the state of "love " over "charm " or "awe " with the help of some basic intuition. Moreover, corpus linguists suggest that "the frequency distribution of tokens and types of linguistic phenomena in corpora have (..) some kind of significance. Essentially, more frequently occurring structures are believed to hold a more prominent place, not only in actual discourse but also in the linguistic system, than those occurring less often" (Schmid 2010: 101). Finally, assuming that the essential requirement for

any quantitative analysis is to have the sufficient amount of data to be meaningful, only those verbs on the higher end of the frequency distribution of tokens are primarily chosen for any further analysis.[1]

Therefore, all things considered, it seems justified to treat frequency as a leading factor in the data search conducted here. Following Grafmiller (2013: 167), I assume that especially those psych-verbs which are most commonly encountered in everyday inventory are worth being investigated more thoroughly.

3.2.2.1 The most frequent class II OE psych-verbs in the COCA Corpus (Grafmiller 2013)

Recent work by Grafmiller (2013) attempts to address the issue of the most frequent psych-verbs, with a focus put on OE predicates, belonging to class II of Belletti and Rizzi's (1988) typology. There is no need to repeat the same kind of study; therefore, I adopt the methodology and results obtained in the first stage of his research (concerning corpus frequency), and take them as the starting point for my analysis.

Grafmiller (2013) sampled the data for his study from the written and spoken sections of the COCA, updated up to autumn 2012. The dataset included 400 tokens, randomly extracted from the COCA. The tokens covered the 16 OE verbs listed in (3.2).

(3.2) *amaze, amuse, anger, annoy, astonish, captivate, concern, depress, fascinate, frighten, horrify, please, scare, startle, surprise, upset*
(Grafmiller 2013: 167)

Grafmiller (2013: 167) justifies his decision concerning the selection of those specific predicates with: (i) their popularity in the literature; (ii) their easier and more common reference to these specific senses than to others; and (iii) their high frequency distribution in the COCA Corpus.

[1] Interestingly, some specialists in modern English lexicology (Ginzburg *et al*. 2004; among others) argue that "frequency value of the word is as a rule the most reliable and objective factor indicating the relative value of the word in the language in general and conditioning the grammatical and lexical valency of the word" (Ginzburg *et al*. 2004: 180). Besides, the frequency value of the word can be in many cases "sufficient to judge of its structural, stylistic, semantic and etymological peculiarities, i e. if the word has a high frequency of occurrence one may suppose that it is monomorphic, simple, polysemantic and stylistically neutral. Etymologically it is likely to be native or to belong to early borrowings" (*ibid*.: 180).

Thanks to his originally constructed project based on a Python script, Grafmiller (2013) was able to filter class II OE predicates, regardless of the extremely high number in which they occur in the Corpus. Having elicited the proper predicates automatically, Grafmiller (2013) managed, using a manual filter, to remove the tokens with either non-psychological readings (e.g. *Before he depressed the button*) or non-verbal uses. Among the psych-verbs left aside due to their polysemous meanings, there were *bore*, *bother*, and *worry*. He excluded also those instances in which both the Stimulus and the Experiencer arguments were not overtly realized in the sentence. This resulted in eliminating from the dataset agentless passive sentences (*my mother found the scrapbook, and she was just horrified*), active sentences with null objects (*More than 20 years and some restoration later, the necklace still astonishes with the bold assurance of its design*), middle constructions (*But the Padres are Alfred Hitchcock. They don't scare easily*), and psych-verbs with particles (e.g. *frighten away / off*) (Grafmiller 2013: 168). In this way, he elicited 16 most frequent class II OE psych-verbs, which are listed in (3.2) above.

For the purpose of my study, dedicated, first and foremost, to idiomatic phrases which have the meaning equivalent to a given psych predicate, only nine most frequent psych-verbs are taken from Grafmiller's (2013) ranking. They are presented in (3.3), along with the number of tokens which were found in the corpus after the filtering described above.

(3.3) Most frequent class II OE psych-verbs
(with the number of tokens after the filtering):
a. *surprise* 389
b. *annoy* 366
c. *fascinate* 285
d. *amuse* 283
e. *scare* 272
f. *depress* 210
g. *anger* 207
h. *horrify* 159
i. *concern* 137

(Grafmiller 2013: 168)

Grafmiller (2013) lists seven more top psych-verbs, i.e. *captivate* (313) and *amaze* (268), which I have left aside since they are synonymous with the verb *fascinate*, listed in (3.3). The verb *frighten* (202) is synonymous with *scare*; thus, it is omitted as well. Verbs, *astonish* (169), *startle* (133), *please* (130), and *upset* (121) are not analysed either, because of their

lower frequency in the Corpus, and because of space limitations of the book.

The verbs in (3.3) are adopted as the initial dataset for my research on idiomatic phrases, carried out in section 3.3 of this chapter. They represent various emotion domains, i.e. *happiness*, *sadness*, *anger*, *fear*, and *disgust*; however, these are only representatives of class II, which makes the list incomplete from the point of view of Belletti and Rizzi's (1988) tripartite classification. As a result, the list must be extended to cover class I, as well as, class III psych predicates.

3.2.2.2 The most frequent class I (SE) and class III (OE) psych-verbs in the COCA Corpus

In order to elicit the representatives from all Belletti and Rizzi's (1988) classes of psych-verbs, Grafmiller's (2013) results obtained for the most common class II OE psych-verbs must be extended to cover both class I (SE) and class III (OE) psych-verbs. Therefore, class I and III psych predicates have become the material of my study.

With the aim to select the most frequent members of class I and class III psych-verbs which appear in the COCA Corpus, I have searched this online corpus with respect to the occurrence of the predicates under scrutiny. For the purpose of this research, the list of psych-verbs offered by Levin (1993) has been adopted as the dataset. Class II psych-verbs, represented in Levin's typology by *Amuse* Verbs (220 members, e.g. *amuse*, *bother*, *concern, frighten, scare*), have been excluded in order not to repeat the study, carried out by Grafmiller (2013) (cf. section 3.2.2.1 above).

In comparison with the variety of verb taxonomies offered in the literature, it is Levin's (1993) classification which is considered to be far more sophisticated and thoroughly researched.[2] Indeed, in her seminal work, Levin (1993) categorised over 3,000 English verbs, along with their shared meaning and behaviour, which makes her classification one of the most extensive ones. All of the over 3,000 English verbs are put into 57 semantically coherent classes and around 200 subclasses.[3] In her

[2] There have been numerous attempts to classify English verbs with various differentiating factors, e.g. argument structure and semantic characteristics, event structure or thematic role structure (cf. Vendler 1967; Croft 1991; Fillmore and Baker 2001; and Kipper-Schuler 2005).

[3] Those include, e.g. Verbs of Putting; Verbs of Removing; Verbs of Sending and Carrying; Verbs of Exerting Force: *Push* / *Pull* Verbs; Verbs of Change of Possession; *Learn* Verbs; *Hold* and *Keep* Verbs; Verbs of Concealment; Verbs of Throwing; Verbs of Contact by Impact; Verbs of Contact: *Touch* Verbs; Verbs of

taxonomy, verbs which display the same or a similar set of diathesis alternations in the realization of their argument structure are expected to share certain meaning components. Levin (1993) identifies verb classes according to the alternations they can appear in,[4] i.e. the causative / inchoative alternation, the middle alternation; the instrument subject alternation; the *with* / *against* alternation; the conative alternation; the body-part possessor ascension alternation; the unintentional interpretation available; and the resultative phrase.[5] Accordingly, all the members of the Psych-Verb class, listed by Levin (1993: 188-195) within classes (31.1)-(31.4) and (32),[6] have become the material for my corpus study to elicit

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Cutting; Verbs of Combining and Attaching; Verbs of Separating and Disassembling; Image Creation Verbs; Verbs of Creation and Transformation; *Engender* Verbs; *Calve* Verbs; Verbs with Predicative Complements, Verbs of Perception; *Psych*-Verbs (Verbs of Psychological State); Verbs of Desire; and Judgment Verbs.

[4] For instance, Levin's (1993) class of *Break* Verbs (class 45.1), which covers verbs that refer to actions that bring about a change in the material integrity of some entity, is categorized by its participation (1-3) or non-participation (4-6) in the following alternations and other constructions (7-8):

1. Causative/inchoative alternation: *Tony broke the window. The window broke.*
2. Middle alternation: *Tony broke the window. The window broke easily.*
3. Instrument subject alternation: *Tony broke the window with the hammer. The hammer broke the window.*
4. *With/against alternation: *Tony broke the cup against the wall. *Tony broke the wall with the cup.*
5. *Conative alternation: *Tony broke the window. *Tony broke at the window.*
6. *Body-Part possessor ascension alternation: **Tony broke herself on the arm. Tony broke her arm.*
7. Unintentional interpretation available (some verbs): Reflexive object: **Tony broke himself.*
   Body-part object*: Tony broke his finger.*
8. Resultative phrase: *Tony broke the piggy bank open. Tony broke the glass to pieces.*

[5] Additional properties connected with subcategorization, morphology and extended meanings of verbs are also taken into consideration in the aforementioned taxonomy.

[6] Levin's (1993) classification of 374 English psych-verbs is as follows:

(i) *Amuse* Verbs, e.g. *amuse*, *bother*, *concern, frighten, scare* (220 members),
(ii) *Admire* Verbs, e.g. *admire*, *enjoy*, *love*, *envy*, *regret* (45 members),
(iii) *Marvel* Verbs, e.g. *mind about*, *worry about*, *marvel at*, *fear for* (79 members),
(iv) *Appeal* Verbs, e.g. *niggle*, *grate*, *jar*, *appeal*, *matter* (5 members),
(v) Verbs of Desire, e.g. *desire*, *fancy*, *need*, *lust*, *thirst* (25 members).

those most frequent psych-verbs which represent class I (SE) and class III (OE) psych-verbs in Belletti and Rizzi's (1988) syntactically-oriented typology.

When Levin's (1993) group of psych-verbs is organized in accordance with Belletti and Rizzi's (1988) typology, the classification of psych-verbs looks as in (3.4).

(3.4) Levin's (1993) set of 374 psych-verbs within Belletti and Rizzi's (1988) tripartite syntactically-oriented typology:

a. **class I** (SE) psych-verbs: **149 members**
Admire Verbs, e.g. *admire*, *enjoy*, *love*, *envy*, *regret* (45 members),
Marvel Verbs, e.g. *mind about*, *worry about*, *marvel at* (79 members),
Verbs of Desire, e.g. *desire*, *fancy*, *need*, *lust*, *thirst* (25 members).

b. **class II** (OE) psych-verbs: **220 members**
Amuse Verbs, e.g. *amuse*, *bother*, *concern, frighten, scare* (220 members),

c. **class III** (OE) psych-verbs: **5 members**
Appeal Verbs, e.g. *niggle*, *grate*, *jar*, *appeal*, *matter* (5 members).

As shown in (3.4), class I (SE) psych-verbs are represented by *Admire* Verbs (45 members), *Marvel* Verbs (79 members), and Verbs of Desire (25 members); class II (OE) consists of the most numerous group of *Amuse* Verbs (220 members); while class III comprises 5 members of *Appeal* verbs. Having excluded class II members, a sample of 154 psych-verbs (149 members from class I and 5 verbs from class III), out of the total number of 374 psych-verbs, has been examined in my study, in terms of their top frequency usage in the COCA Corpus.

The COCA Corpus[7] has been chosen as a search tool used for the analysis since it is generally considered one of the most recent corpora with its data evenly divided between the five genres of spoken, fiction, popular magazines, newspapers, and academic journals. Besides, the

[7] http://corpus.byu.edu/coca/ and http://www.wordandphrase.info/frequencyList.asp

COCA Corpus is composed of more than 520 million words in 220,225 texts, including 20 million words each year from 1990 to the version updated in May 2016.

To make my investigation of class I and class III psych-verbs comparable to Grafmiller's (2013) study of class II verbs, an analogous methodology has been used in my research. Thus, similarly to class II, the selection of class I and III predicates is conditioned by (i) their popularity in the literature; (ii) their easier and more common reference to these specific senses than to others; and (iii) their high frequency distribution in the COCA Corpus. The only difference, which must inevitably appear between Grafmiller's (2013) and my corpus research, concerns the technique to elicit the most frequent psych-verbs. Grafmiller used an original program, created by himself and written in a Python script, in order to select the specific sentences with psych predicates. His study aimed at eliciting the actual language data based on argument structures of the tokens. My research, on the other hand, only focuses on selecting top frequent psych-verbs as the starting point for my further research concerning the idiomatic equivalents of these psych-verbs. Therefore, for the purpose of my study, I have taken advantage of both the current interface of the COCA Corpus (updated in May 2016, while Grafmiller's data covered the period up to 2012), and the frequency list ready-made for the first 5,000 most popular lemmas / words in the COCA Corpus.

Accordingly, first, the COCA has been checked *via* the search tool to measure roughly how often the predicates analysed have occurred in oral and written sentences recently. Next, the set of verbs just examined in relation to their unfiltered frequency of occurrence has been compared against the Frequency List composed for the whole corpus, with some overlaps expected. Meantime, following Grafmiller's (2013) methodology, each of the 154 predicates under scrutiny (class I and III psych-verbs) has been filtered to choose their verbal uses only. Simultaneously, the psych-verbs under scrutiny have been manually sifted to remove those instances involving non-psychological readings. To be precise, if a verb lacks a psychological meaning (e.g. *The cards were impressed with a halfpenny stamp*), the instance has been disregarded. Moreover, on account of polysemous meanings of certain psych-verbs, some of them have been left aside. Among these verbs, there were, e.g. *miss, engage*, and *care,* which have connotations with some physical activity more common than (or equal to) their psychological readings. The verb *miss*, according to the *Online International Dictionary*,[8] means "to fail to hit, reach, or come into

[8] *Online International Dictionary* available at http://idict.org, retrieved 5/12/2016.

contact with (something aimed at): a laser-guided bomb had missed its target; he shot twice at the cashier, but missed both times." The verb *engage* is defined as "to arrange to employ or hire (someone): he was engaged as a trainee copywriter;" whereas the verb *care* means "look after and provide for the needs of someone." Undoubtedly, these verbs can refer to a psychological state, i.e. *miss* "fail to notice someone," *engage* "attract someone's interest," and *care* "feel concern or interest" but these are not their sole and main readings, in contradistinction to the other verbs from the top group under scrutiny. As a result, it would hardly be possible to discern manually a psychological reading from the non-psychological one, and present accurate frequency details afterwards. In short, any psych predicate with an ambiguous reading from the list of 154 items tested has been excluded from my further research.

Indeed, the search has yielded quite a big number of psych-verbs with a high frequency of occurrence in the COCA Corpus. It has been found out that in the dataset of 154 psych-verbs, there are 13 verbs with over 10,000-token-occurrence, excluding those with ambiguous meanings. Two of them represent class III psych predicates, i.e. *matter* and *appeal*; whereas eleven belong to class I verbs in Belletti and Rizzi's (1988) typology, as illustrated in (3.5) below.

(3.5) 13 psych-verbs of class I and III with the highest frequency in the COCA:

a.**class I** (SE) psych-verbs: *want, need, like*, *love*, *enjoy*, *worry (about)*, *hate*, *fear*, *appreciate*, *trust*, *respect*

b.**class III** (OE) psych-verbs: *appeal to*, *matter to*

The top 13 psych predicates, listed in (3.5), occur in the COCA Corpus with the frequency over 10,000. They are also, as expected, included in the COCA "5,000 frequency word list," *viz*. the first 5,000 most frequent words / lemmas in the whole COCA Corpus.[9] Interestingly, Nation (2006),

[9] Schmitt and Schmitt (2014) state that for English, "high-frequency vocabulary" has traditionally been understood as around the first 2,000 most frequent word families. On the other hand, low-frequency vocabulary has been characterized in various ways, ranging from anything beyond 2,000 word families all the way up to all of the word families beyond the 10,000 frequency level. Any frequency list is accurate provided the corpus (collection of texts) that it is based on is a reliable source as well. The 450 million word COCA Corpus, which has been chosen as the source corpus for this study, also contains its own frequency data of English

and Schmitt and Schmitt (2014), among others, take the number 2,000 as the borderline for high-frequency vocabulary. Thus, psych-verbs ranked from 1 up to 2,000 can be treated as representatives of "high-frequency vocabulary" in the language, while those below the 2,000th position are supposed to be representatives of mid-frequency or low-frequency vocabulary (Schmitt and Schmitt 2014: 501). *Table 3-1* below presents the ranking position and the exact frequency rates on the COCA frequency word list for the 13 psych-verbs from class I and III.

Table 3-1. The ranking position of the top 13 psych-verbs on the COCA 5,000 frequency word list[10] (above the number of 10,000, ordered from highest to lowest)

No	Rank	Verb	Frequency
1	83	want	514,972
2	132	need	276,744
3	208	like	182,341
4	391	love	103,681
5	884	enjoy	44,020
6	973	worry	40,210
7	1535	hate	24,921
8	1670	fear	21,333
9	1751	appreciate	20,806
10	1763	matter	20,534
11	1855	trust	19,482
12	2836	respect	11,083
13	2927	appeal	10,745

Unquestionably, the 13 psychological predicates, listed in (3.5) and presented in *Table 3-1*, belong to the first most frequent 3,000 words of all words and lemmas in the whole language. The highest ranking position is associated with the verb *want*, which is placed in the 83th position of the common words used in English and collected in the COCA Corpus. The next verb in the list is *need*, occupying the 132th position, and *like* is

(available at http://www.wordfrequency.info/intro.asp) in a number of different formats (e.g. 100,000 and 60,000 word lists, and a comparison of the two lists). The list used for the purpose of this study is the one commonly available online at http://www.wordfrequency.info/top5000. asp and called the "5,000 frequency word list."

[10] Available at http://www.wordfrequency.info/top5000.asp, last retrieved 5/01/2017.

ranked third in the set of 13 top psych-verbs. Then come the verbs *love*, *enjoy* and *worry*, which occupy the ranking positions up to the first top 1,000 words. Next, the verbs such as *hate*, *fear*, *appreciate*, *matter*, and *trust* belong to the period between 1,000 and 2,000 of the most frequent words. Finally, the bottom of the list is covered by the verbs *respect* and *appeal*, which are in the 2836th and 2927th position, respectively. The frequency of all of the 13 psych-verbs ranges from 514,972 highest to 10,745 lowest in the whole COCA Corpus. Indeed, being so frequently used in the language inventory, these are the predicates which deserve to be selected as the starting point for the further stage of the research, devoted to idiomatic phrases and carried out in section 3.3 of this chapter. Obviously, since the first top 13 psych verbs have been extracted from the initial set of 154 class I and III psych-verbs, the remaining 141 verbs have been classified as less frequent, thus they are outside of our interest and are left aside here.

In addition, 9 verbs from class II, adopted from Grafmiller's (2013) study, have been checked against the current COCA 5,000 frequency word list. The results obtained are presented in *Table 3-2*. However, it should be borne in mind that the number of occurrence of the tokens given by Grafmiller (2013) was obtained by means of his original Python programming and thicker filters he had applied to choose the best examples of psych-verbs and their argument structures.

On the basis of the results presented in *Table 3-2*, it can be observed that some of the psych-verbs examined by Grafmiller (2013) are not included in the list of the first 5,000 most frequent words, updated in 2016. Only the verbs *surprise*, *scare,* and *concern* can be found between 3,000 and 4,000 in the ranking position. Nonetheless, without shadow of a doubt, exactly these predicates are commonly referred to in the linguistic literature, therefore they are highly eligible for further analysis.

Table 3-2. Top class II OE psych-verbs from Grafmiller's (2013) study and their ranking position checked against the COCA 5,000 frequency word list[11] (with the number of tokens after Grafmiller's filtering)

No	Rank	Class II psych-verbs with the number of tokens (Grafmiller 2013)	Frequency
1.	3086	*surprise* 389	10023
2.	<5000	*annoy* 366	>10000
3.	<5000	*fascinate* 285	>10000
4.	<5000	*amuse* 283	>10000
5.	3844	*scare* 272	7367
6.	<5000	*depress* 210	>10000
7.	<5000	*anger* 207	>10000
8.	<5000	*horrify* 159	>10000
9.	3439	*concern* 137	8702

Finally, the list of verbs most popular in the literature and in the COCA Corpus relating to emotional and psychological conditions, is expected to comprise the complete section of all emotional states, both negative and positive ones. Thus, the set of 9 class II psych-verbs from Grafmiller's (2013) work, and 11 class I and 2 class III psych-verbs from my study (cf. *Table 3-1*), elicited so far, should be filtered for the final selection, to comply with the 5 basic emotion domains referred to in the literature cross-linguistically.

3.2.3 The top psych-verbs *vs.* basic emotion domains

Any attempt to show "precise equivalence of the emotion concepts in the different cultures" is a real challenge (Russell 1991: 435). However, there are, universally accepted, five basic emotion domains from which translation-equivalent psych-verbs can emerge (cf. Johnson-Laird and Oatley 1989; Ekman 1992, 1999; Turner 1999, 2007; Wierzbicka 1992, 1999, 2009; Verhoeven 2010; and Rott and Verhoeven 2016; among others). According to Johnson-Laird and Oatley (1989), the set of basic emotion modes they distinguish are encoded in English with the words *happiness*, *sadness*, *fear*, *anger*, and *disgust*, and indeed, they should be universally accepted as discriminable categories of direct experience.

[11] Available at http://www.wordfrequency.info/top5000.asp, last retrieved 5/01/2017.

"Basic emotion signals have no internal structure that is parsed and interpreted within the system" (Johnson-Laird and Oatley 1989: 90).[12]

Furthermore, for Johnson-Laird and Oatley (1989), there are some emotion verbs which exist in connection with the universally acknowledged five basic emotions. These verbs occur only as *emotional relations* and *causatives*, which is consistent with the fact that psych-verbs are recognised in the linguistic literature as dyadic relational and causative verbs. According to theories of argument structure, the former, i.e. the verbs in the emotional relation class, occur in the syntactic structures in which the Experiencer is the subject (SE verbs); the latter, i.e. causative verbs, occur in structures in which the Experiencer is the grammatical object (OE verbs, including class III OE psych-verbs) (Levin and Rappaport 2005; Croft 2012; Rozwadowska and Willim 2016).

Moreover, treating emotions as discrete, measurable, and physiologically distinct (cf. Handel 2011; Shaver *et al.* 1992), Ekman (1992, 1999) follows Johnson-Laird and Oatley's (1989) typology, and names six emotions as basic ones, i.e. *anger*, *disgust*, *fear*, *happiness*, *sadness*, and *surprise*. Thus, it is *surprise* which is added to the list of basic emotions offered by Johnson-Laird and Oatley (1989). Ekman's biologically driven perspective is supported by Plutchik (1980, 2001), who additionally develops the "wheel of emotions," reproduced in *Figure 3-1* below.

[12] Another vital model of viewing emotions is offered by Scherer (2005), who calls it the *Component Processing Model of Emotion*, comprising five crucial elements, i.e. the cognitive component, the peripheral efference component, the motivational component, the motor expression component, and the subjective feeling component. From Scherer's (2005) perspective, emotion experience makes all of these items coordinated and synchronized for a short period of time, driven by appraisal processes. Besides, emotions are described as discrete and consistent responses to internal or external events which have a particular importance for the organism (cf. Scherer 2005; Frijda 1986, 2007). Scherer (2005) classifies emotions under the group of short-lived affective phenomena, in contradistinction to moods, attitudes and personality traits, which are long-lasting. Rozwadowska and Willim (2016) draw a conclusion that if Johnson-Laird and Oatley's (1989) approach were combined with Scherer's (2005) model and Hartshorne *et al*.'s (2010) proposal of distinguishing brief psychological states (*fright*, *anger*, *delight*) from stable tendencies, *viz*. dispositions (*love*, *liking*, *hatred*), then "from the psychological perspective dispositions / attitudes / emotional relations tend to be long-lasting, whereas causatives and responses to external or internal stimuli are short-lived" (Rozwadowska and Willim 2016: 19; cf. Myers 2004).

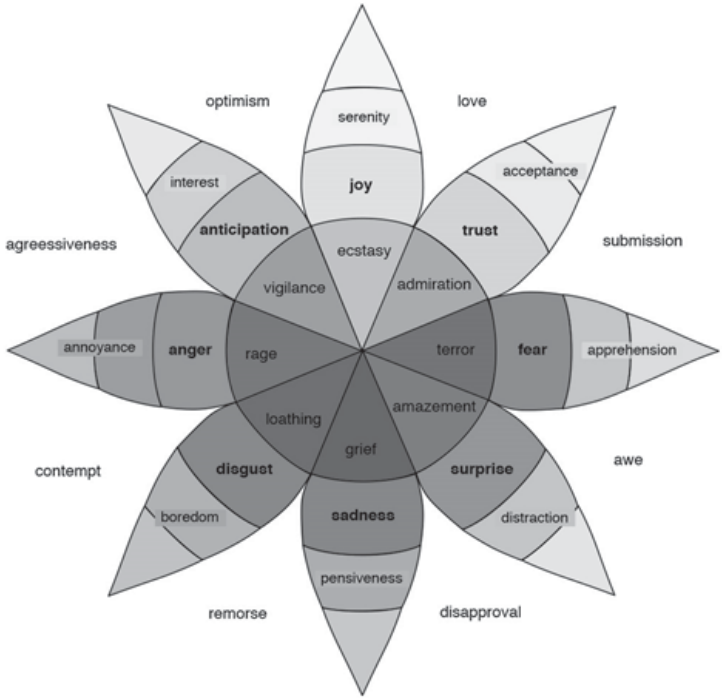

Figure 3-1. Plutchik's wheel of emotions: two-dimentional circumplex model (Plutchik [1980] 2001: 349)

The wheel comprises eight primary emotions grouped into positive and negative ones, i.e. *joy* versus *sadness*; *anger* versus *fear*; *trust* versus *disgust*; and *surprise* versus *anticipation*. In addition, some basic emotions can blend to form complex emotions. The latter could arise from blending cultural conditioning or connotation with the basic emotions, e.g. a mixture of interpersonal *anger* and *disgust* may lead to *contempt* (Plutchik 2001: 350). What is more, Plutchik (2001) argues that advanced emotions, such as *love*, are a combination of two or more generic emotions; thus, *love*, experienced as a strong feeling of *attachment* and *attraction*, is a combination of *joy* and *trust*. While *remorse*, also regarded as an advanced emotion, is characterised by feelings of *regret* and sometimes *shame*, whereas *regret* is a combination of *surprise* and *disgust*. In short, Plutchik (2001) suggests that besides the eight basic emotions, the two, i.e. *love* and

remorse, form a set of the top ten emotions which each human being mostly faces in his/her life.[13]

Additionally, certain emotion words characterised as culture-specific phenomena can be, nevertheless, comparable to their translational counterparts. As maintained by Johnson-Laird and Oatley (1989, 1992), Ekman (1999), Turner (2007), Rott and Verhoeven (2016), some basic emotional modes are assumed to be stable across cultures. These are *happiness*, *sadness*, *fear*, *anger*, and *disgust*. Plutchnik's (1980) much more complex wheel of emotions (see *Figure 3-1*) comprises these five basic modes, as well. And these precisely are the most common subject fields, called *emotion domains*,[14] which are mostly alluded to in the literature while discussing emotions.

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[13] What is more, having examined a wide range of emotion theories across different fields of research, Turner (2007, 2009) identifies four emotions that all researchers relate to human neurology, *viz*. *assertive-anger*, *aversion-fear*, *satisfaction-happiness*, and *disappointment-sadness*. These four categories are termed primary emotions, which, when combined, may produce more elaborate emotional experiences, called first-order elaborations, including sentiments such as *pride*, *triumph*, and *awe*. In Turner's theory (2007), emotions can be experienced at different levels of intensity; thus, feelings of *concern* are a low-intensity variation of the primary emotion *aversion-fear*, whereas *depression* is a higher intensity variant. Two of the main eliciting factors for the arousal of emotions within this theory are expectation states and sanctions.

[14] In linguistics the term "domain" denotes "a subject field which has a particular set of vocabulary associated with it" (*Macmillan Dictionary* retrieved 30/11/2016 from http://www.macmillan dictionary.com/dictionary /british/domain). This general definition of "domain" is meant in this context, without making reference to a far broader concept of "domain" brought by cognitive linguistics.

Cognitive linguistics, in turn, introduces the terms "conceptual domain," "conceptual metaphor," or "cognitive metaphor," referring to the understanding of one idea, or conceptual domain, in terms of another, "mapping the structure of one domain onto the structure of another" (Lakoff 1987). A conceptual domain deals with any coherent organization of human experience, and it can be exemplified by the understanding of quantity in terms of directionality (e.g. "the price of peace is rising") (Lakoff 1987). Besides, within the framework of Conceptual Metaphor Theory (Lakoff and Johnson 1980), metaphors link two conceptual domains, the "source" domain and the "target" domain. While the "source" domain comprises a set of literal entities, attributes, processes and relationships, linked semantically and apparently stored together in the mind, the "target" domain tends to be abstract, and takes its structure from the source domain, through the metaphorical link, or "conceptual metaphor." Target domains are supposed to have relationships between entities, attributes and processes which mirror those found in the source domain. At the level of language, "source" domains can be expressed through

Consequently, the basic emotion domains discussed above, proposed by Johnson-Laird and Oatley (1989, 1992) (cf. Levinson *et al*. 2007), do comply with most of the 22 top psych-verbs found both in Grafmiller's (2013) study and elicited in my research, listed in (3.6) below. If there are more pertinent lexicalizations, the verbs are selected on the basis of frequency (in an established corpus), and the intuition of being common in use.

(3.6) Correlation of the basic EMOTION DOMAINS with the selected psych- verbs:

a. HAPPINESS → *love*, *enjoy*, *fascinate*, *amuse*, *surprise*,* *appeal to*,* *matter to**
b. SADNESS → *worry*, *depress*
c. ANGER → *annoy*, *anger*
d. FEAR → *fear*, *scare*
e. DISGUST → *hate*, *horrify*

As can be seen in (3.6), 15 of the initial list of the 22 top psych-verbs seem to match the basic emotion domains intuitively well. The positive emotion of HAPPINESS comprises 7 psych-verbs which are generally associated with the state of being delighted or positively influenced. The remaining four domains, i.e. SADNESS, ANGER, FEAR, and DISGUST, are negative ones, covering altogether 8 psych-verbs. Thus, the balance is maintained between positive and negative emotions. However, using the common intuition, some verbs may be cross-domain specific, e.g. *worry*[15] refers both to SADNESS and FEAR; and *hate* is linked to DISGUST, ANGER and SADNESS. In these cases, the definitions of the verbs provided by Johnson-Laird and Oatley (1989) are decisive, i.e. *worry* denotes ANXIETY / SADNESS, while *hate* refers to DISGUST (Johnson-Laird and Oatley 1989: 114, 121). Likewise, the verbs *surprise*, *appeal to*, and *matter to* have been marked with an asterisk to indicate some difficulty to classify them. In fact, they can be defined as "causing a sudden unexpected onset of an emotion (generally positive ones)," and the

related words and expressions, which can be understood as organized in groups resembling "lexical sets" or "lexical fields." In the target domain entities, attributes and processes are lexicalized using words and expressions from the source domain. These words and expressions are occasionally named "linguistic metaphors" or "metaphorical expressions" to distinguish them from conceptual metaphors (Lakoff 1987).

[15] The verb has been reduced to its single form "to worry" without any preposition, e.g. "about."

key to group them under the "happiness" label lies in the positive feeling they refer to. Besides, the verbs *appeal to* and *matter to* are the only representatives of class III (OE) psych-verbs; that is why, their presence in the set of psych-verbs, selected for further research, is more than required.

Moreover, seven of the initial list of the 22 top psych-verbs (cf. *Table 3-1* and *Table 3-2*) have not been categorised into the basic emotion domains at all, and as a result have been left aside. They are systematically ambiguous due to their multiple meanings, even polar ones. For instance, the verb *concern* may refer to anxiety or sympathy for someone else, and thus, it may belong either to the HAPPINESS (positive) or to SADNESS (negative) domain. Similarly, *want* / *need* are defined as "to have a goal which if attained causes happiness (or makes good deficiency);" hence, they do not refer to one specific emotion. Another kind of ambiguity and difficulty to assign certain psych-verbs to the basic emotional domains, as Clore *et al*. (1987) point out, arises in the use of words that do not, strictly speaking, imply emotions but convey an emotional / mental state, e.g. "feeling inspired" or "feeling in need of something." This refers to the verbs *trust* "to believe and rely on," and *respect* "to judge that someone deserves to be admired" from *Table 3-1*. Therefore, these items are also excluded from further research. Finally, the verb *like* (cf. *Table 3-1*) has been crossed out from the final list of psych-verbs since it has a substitute, i.e. the verb *enjoy*. Finally, the verb *appreciate* from *Table 3-1* has not been chosen either, on account of the fact that, representing the positive emotional domain, it may range in scale of emotion, from extreme exhilaration to a neutral state of accepting something.

3.2.4 The final selection of the psych-verbs

All things considered, the final list of the psych-verbs elicited for the further research concerning psychological idioms is categorised in accordance with Belletti and Rizzi's (1988) typology. Besides, the choice of psych-verbs has been based on the criterion to take into account only the most frequent psych-verbs, with the top occurrence in the COCA Corpus. Finally, the verbs under scrutiny represent all the five basic emotion domains. The results of the final selection of the psych-verbs are presented in (3.7).

(3.7) The 15 representatives of psych-verb classes (final selection):
class I (SE): *love*, *enjoy*, *hate*, *fear*, *worry*–**5 verbs**
class II (OE): *annoy*, *fascinate*, *amuse*, *scare*, *depress*, *anger*, *horrify*, *surprise*–**8 verbs**
class III (OE): *appeal to*, *matter to*–**2 verbs**.

As can be seen in (3.7), the number of class members is unbalanced. Class II (OE) group comprises eight verbs, which are diversified in terms of emotions they refer to. It is the most numerous class, including both stative and eventive psych predicates. There are more verbs in this group purposely because the so-called psych effects arise just in the case of these predicates. The least numerous is class III, being represented by the only two top frequent members, which occur significantly in the corpus. Both of them (*appeal to* and *matter to*) denote positive emotions. Class I (SE), in turn, includes five psych-verbs of multi-emotional reference, from extremely positive (*love*) to highly negative ones (*hate*).

In section 3.3, an attempt is made to elicit psychological idioms which belong to the same basic emotion domains as the top single psych-verbs.

3.3 Psychological idiomatic phrases: A Corpus-based study

Since both the set of the most representative class I-III psych-verbs and the basic emotion domains they comply with have been specified in section 3.2 of this chapter; the ground for the next stage of the research has been prepared. The top single psych-verbs are expected to serve as the basis for selecting idiomatic units from the same emotional field. Those psychological phraseological units are to be the substitutes for the psych-verbs in terms of emotions and the psychological condition an Experiencer undergoes.

Section 3.3 is organised as follows: first, the aim of the study of psych-idioms is specified, followed by the definition of idiomatic units, repeated here from Chapter One for the sake of convenience. Then, the data collection method adopted in the corpus study carried out here is outlined.

3.3.1 The aim of the research

The aim of this stage of the study is to collect as many psychological phraseological units as possible. Idiomatic phrases qualify for our purposes given that they fulfil the following two criteria: (i) these are VP idiomatic expressions that can be used instead of common psychological predicates to express one's mental or/and emotional condition; and (ii) they derive from the same basic emotion domains the simple top psych-verbs are set in.

Under these primary aims to achieve, it is worth turning now to reestablishing the working definition of phraseological units and analysing the relevant data.

3.3.2 The working definition of idiomatic units reconsidered

For the sake of this research, the working definition of idiomatic expressions is the one adopted after Liu (2008), and O'Dell and McCarthy (2010). The latter identify idioms as "fixed combinations of words whose meaning is often difficult to guess from the meaning of each individual word" (O'Dell and McCarthy 2010: 6). Besides, Harwood *et al.* (2016) add that "an idiom is an expression with a non-compositional interpretation. That is, its meaning as a whole is not derivable from the literal meanings of its parts" (Harwood *et al.* 2016: 3). To be precise, in the idiom *show the white feather* "scare," none of the constituents that compose it conveys this meaning independently. Regardless of this fact, the figurative reading of the idiom is determined by these specific lexical elements. Therefore, by replacing any of the component items, the idiomatic meaning is lost, with only the literal meaning left available, as illustrated in (3.8).

(3.8) a. #He showed the white plumes.[16]
b. # He showed the bleached feather.
c. # He exhibited the white feather.
d. # He showed a white feather.

As can be seen in (3.8), the figurative interpretation of the idiom *show the white feather* is based upon the elements *show*, *the*, *white,* and *feather*.

In summary, the working definition provided here complies with the definition of idioms, called also phraseological units or phrases, introduced in Chapter One of the book. It should be remembered that in most cases idiom constituents do not contribute to the overall meaning of the idiomatic phrase, then the idiomatic unit should be recognised as a metaphor and a cohesive entity treated as a whole.

3.3.3 Data collection and methodology applied

The research reported here is based on English data collected from English dictionaries and thesauri listed in (3.9), in which the idiomatic synonyms of the psych-verbs under scrutiny have been searched for.

[16] In this book, # is used to indicate loss of the idiomatic meaning.

(3.9) a. *Collins Thesaurus of the English Language.* 2002 (Complete and Unabridged 2nd Ed.). HarperCollins Publishers. Retrieved from http://www.freethesaurus. com

b. *Google Dictionary*. Retrieved from https://docs.google.com /document

c. O'Dell, Felicity; and McCarthy, Michael. 2010. *English Idioms in Use Advanced.* Cambridge: Cambridge University Press.

d. *Power Thesaurus*. 1969. Retrieved from http://www. powerthesaurus.org

e. Seidl, Jennifer; and McMordie, W. 1978. English Idioms and How to Use Them (Fourth Ed.). Oxford: Oxford University Press.

f. *Wielki multimedialny słownik angielsko-polski i polsko-angielski* [*Great Multimedia English-Polish and Polish-English Dictionary*]. 2005. Oxford: PWN.

g. *WordNet 3.0, Farlex Clipart Collection*. 2012. Princeton: Princeton University, Farlex Inc. Retrieved from http://www.freethesaurus.com

Every single verb has been first checked and associated with a specific definition, for which an idiomatic equivalent has been searched.

The study focuses on psychological verbal idioms, i.e. instances in which a psych meaning occurs within idiomatic expressions that begin with a verb. A number of criteria defining a verbal idiom have been identified in the literature (Marantz 1984; Kiparsky 1987; Nunberg *et al.* 1994; Croft and Cruse 2004; Svenonius 2005; Evans and Green 2006; and Harwood *et al.* 2016; among others). These are summarised in (3.10) below.

(3.10) Criteria for defining a phraseological unit as a verbal idiom:
a. It must contain a lexical verb.
b. It must have a non-literal interpretation.
c. It must be able to interact with productive syntax.
d. It must be comprised of lexical items that are found outside of the context of the idiom.

e. It must be formed in a manner that obeys the regular syntactic rules of the language.

(Harwood *et al.* 2016: 4)

Accordingly, any expressions which form a literal meaning and lack any figurative / idiomatic meaning, have been omitted. The precise instances excluded from the study by the criteria mentioned in (3.10) are listed in (3.11).

(3.11) Phraseological verbal units which have been excluded from the study by the criteria listed in (3.10):

a. (i) nominal idioms, e.g. *butterflies in one's stomach* "fear"

(ii) causative structures, such as *make / get someone do something*, e.g. *make somebody roll in the aisles* "amuse" *vs.* "make" used figuratively not in causative structures, e.g. *make the grade* "amuse;"

b. units which have predictable, literal meanings, *viz*. phrases with *get* / *become* / *be* / have + *adjective / past participle NP* (a cognate of the psych-verb), e.g. *be crazy / mad about*, *get worried, have / get pleasure in* "enjoy."

But if a phrase obtains a figurative meaning, e.g. *have a bee in one's bonnet* "worry," it is included in the list of idioms to be examined;

c. idioms in the form of fixed clauses, working as sayings, similes, and proverbs, e.g. *Curiosity killed the cat*, since these are frozen expressions which do not interact with productive syntax. In other words, once these phrases are embedded in subordinate clauses (#I was wondering if curiosity killed the cat), or undergo question-type shifting (#Did curiosity kill the cat), their figurative meaning is lost;

d. idioms containing irregular lexical items, e.g. *give someone the heebie-jeebies*: "Walking across the park after dark *gives me the heebie-jeebies*." (Google), since the item *the heebie-jeebies* is never used in any other present-day English collocations, except for the idiom itself;

e. phrases with irregular syntax such as *be that as it may*, because verbal idioms are usually well-formed in terms of grammar, obeying the structure building mechanisms of the language.

Besides, throughout my research, I have only concentrated on the most canonical type of verbal idioms, i.e. comprising a lexical verb and the direct object of the idiom. Thus, all instances lacking a direct object are left aside. These are (i) all phrasal verbs comprising only a verb and a particle (*go in for* "enjoy"); (ii) idioms composed of intransitive verbs (*go off the deep end* "fall in love"); and (iii) copular verbs in combination with some predicate (*be down in the dumps* "worry," *be nuts/wild/potty about* "love").

In brief, following the definition of idioms, adopted from O'Dell and McCarthy (2010: 6) at the very beginning of the book, and repeated in this section, only those psychological idioms have been chosen whose constituents mostly do not contribute to the overall meaning of the idiom. Moreover, such phraseological units, similarly to psych predicates, comprise a participant which experiences some emotional or mental state, i.e. an *Experiencer*, and a *Stimulus / Causer / Cause / Target*, which has contributed to this specific state or become a target of it. Following the convenient terminology and typology suggested in Belletti and Rizzi (1988) (cf. Dowty 1991; Pesetsky 1995; and Landau 2010), the data are divided into three classes, in the same way as their psych-verbal counterparts in (3.7). The search results are commented upon after each set of idioms.

3.4 Data analysis and preliminary discussion of the results

The search has yielded a relatively big number of psychological idiomatic expressions, which are equivalents of the top selected psych-verbs. Both the psych-verbs and their idiomatic counterparts are set in the same emotion domains, i.e. HAPPINESS, SADNESS, ANGER, FEAR, and DISGUST. Nonetheless, the idiomatic counterparts express different shades of the same emotion, which has not been noted scrupulously for each idiom under scrutiny. For instance, while the idiom *have a soft spot for X* means "to feel a lot of affection for someone, without knowing why," another idiom from the same emotion domain (LOVE), *lose one's heart to X*, means "to fall in love," which makes the intensity of the emotion far greater in this case, in comparison with the one mentioned above.

In total, the database thus created contains 161 English idiomatic units, which are grouped according to the surface syntactic patterns they occur in for each of Belletti and Rizzi's (1988) classes.

Taking into consideration the pattern the core of an idiom forms and the position an argument is placed in, the canonical idioms I have scrutinised fall into 12 distinct types, schematized in (3.12).[17]

(3.12) Types of syntactic patterns of the psychological idioms examined:

Type (A): V + NP (no open position)
paint the town (red)

Type (A'): V + possessor + N
float Y's boats

Type (A''): V + possessor + N + particle
eat Y's heart out

Type (B): V + NP + preposition + NP (complement of a P)
carry a torch for X

Type (B'): V + NP + preposition + possessor +N (complement of a P)
have a yellow streak / belly down Y's back

Type (C): V + NP + preposition + NP (complement of a P)
hold X in abomination / contempt

Type (C'): V + possessor +N + preposition + NP (complement of a P)
put Y's nose out of joint

[17] Interestingly, Bruening (2010), cited in Kim (2014), argues that in English there are three existent classes of idioms with Double Object CConstructions (DOC) and prepositional dative constructions / prepositional datives (PD). He suggests the following overall distribution of idiomatic patterns with DOC and PD constructions (idiomatic parts are underlined, X in brackets is a variant):

a. Class I: Verb NP NP (*give X the creeps*)
b. Class II: Verb NP to NP (*give rise to X*)
c. Class III: Verb NP to NP (*send X to the showers*)
d. Class IV: V NP NP (nonexistent)

(Kim 2014: 216)

Type (D): V + possessor + N + preposition + NP (complement of a P)
lose Y's heart to X

Type (D'): V + NP + preposition + possessor + N (complement of a P)
sweep Y off Y's feet

Type (D''): V + possessor + N +preposition + possessor + N (complement of a P)
have Y's heart in X's mouth

Type (E): V + NP + NP (Double Object Construction)
give Y the blues

Type (E'): V + a complement small clause
drive Y batty / nuts/ bananas / bonkers

In the patterns listed above, the idiomatic part in each expression is underlined, and it is called "the core of the idiom." Besides a verb itself, an idiomatic core can be composed of a fixed NP without any open position, as in the rarely occurring Type A. In Type A', a verb occurs with a fixed noun modified by a possessor realising an open position, while in Type A'', both a verb with a noun with an open position of a possessor, and a fixed particle comprise the idiom.

Furthermore, in Type B, the idiom formed by a verb and its object is extended to a fixed preposition and an NP (a complement of a P) realising an open position. Type B' differs from Type B in that the PP consists of a fixed preposition and the complement NP, in which the noun is fixed, but it is modified by a possessor realising an open position.

Both Type C and Type C' have fixed PPs, but in the former the noun object of the idiom realises an open position, while the object of the latter (Type C') comprises a fixed N modified by a possessor.

Type D is similar to Type C' in that its fixed object is modified by a possessor. However, in Type D, the PP comprises a fixed P and an NP with an open position. In Type D', the open position occurs in an object NP and in a possessor modifying an NP, which is the complement of a fixed preposition. In Type D'', there are two possessors realising an open position, one modifying a fixed object, and the other modifying a complement of P.

In Type E, a Double Object Construction appears, but the first NP realises an open position. Finally, in the last of the twelve patterns of idioms, in Type E', a verb is followed by a small clause, which is formed by an NP realising an open position and a fixed complement of the small clause.

Moreover, in the above-mentioned patterns of idioms, X is an NP argument which functions as a *Target* or a *Subject Matter* or a *Causer*, while Y as an argument corresponding to an *Experiencer*, either in a subject or an object position. The arguments also represent open positions, i.e. certain positions in an idiomatic phrase which are not fixed, but occupied by X or Y (cf. Witkoś and Dziemianko 2006).

3.4.1 Idiomatic units with an Experiencer in the subject position

The data in (3.13)-(3.17) below illustrate all the types of idioms possible for five SE psych-verb which have been on the research list, i.e. *love*, *enjoy*, *hate*, *fear*, *worry*. All the elicited idiomatic phrases are arranged according to a syntactic pattern they exhibit, while the exemplary sentences for those idioms, taken from the COCA and/or obtained *via* the Google Search, are listed in APPENDIX 1.

(3.13) ***love*** - feel deep affection (13 idioms)

Type (B): V + NP + preposition + NP (complement of a P)
carry a torch for X
fall head over heels in love with X
set store by X
think the world of X
take (great) delight/ interest / joy/ satisfaction in X
take a fancy / a liking / a shine to X
have a soft spot for X
have a thing about X
have a weakness for X
have eyes for X
go a bundle on X

Type (D): V + possessor + N + preposition + NP (complement of a P)
lose Y's[18] heart to X
set Y's heart on X

[18] The genitive possessor in the case of this idiom has to agree with the subject, represented by an Experiencer (Y).

(3.14) ***enjoy*** - receive pleasure or satisfaction from something (11 idioms)

Type (A): V + NP
paint the town (red[19])
raise the roof
have a ball
blow / let off[20] (some) steam

Type (A'): V + possessor + N
kick (up) Y's heels

Type (B): V + NP + preposition + NP (complement of a P)
make the most of X
derive/gain/get pleasure from X
take/find pleasure in X
get a buzz out of X
get a kick / a charge / a bang out of X
reap the benefits of X

(3.15) ***hate*** - feel strong dislike for or hostility toward (10 idioms)

Type (B): V + NP + preposition + NP (complement of a P)
pour scorn on X
bear ill will toward X
bear / owe a grudge against X
bear / feel aversion / malice / hostility / repugnance toward (to) X
have no stomach / taste / use for X
show contempt for X

Type (C): V + NP + preposition + NP (complement of a P)
hold X in abomination / contempt[21]

[19] "Red" in this idiom is an optional element, though if used, it is a part of a resultative phrase.

[20] "The particle "off" is the constituent of the verb "let/blow" itself, not a preposition requiring a complement.

[21] The idioms *hold X in contempt* and *look down Y's nose at X* refer to one's CONTEMPT and mean "to spurn, to regard oneself as superior to others and thus act in a haughty or snobbish manner". Nonetheless, these idioms have been grouped into the basic emotion domain HATE, which consists of disgust, anger, and/or sadness (cf. Johnson-Laird and Oatley 1989: 121). Truly, as suggested by Prof Bożena Cetnarowska, the aforementioned idioms might have been grouped as

Type (D): V + possessor + N + preposition + NP (complement of a P)
turn Y's back on X
turn Y's nose up at X
look down (Y's) nose at X[22]

(3.16) ***fear*** - feel apprehensive, afraid or frightened of something / someone (9 idioms)

Type (A): V + NP
give / raise an alarm
show the white feather
get cold feet
have goose bumps
have / get pins and needles
turn tail (and run)

Type (B): V + NP + preposition + NP (complement of a P)
take dim view of X[23]

Type (B'): V + NP + preposition + possessor +N (complement of a P)
have a yellow streak / belly down Y's back

Type (D''): V + possessor + N +preposition + possessor +N (complement of a P)
have Y's heart in Y's mouth

(3.17) ***worry*** – to feel uneasy or concerned about something; to fret or be anxious about the welfare of someone or something (SE) (6 idioms)

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the representatives of the complex emotion CONTEMPT, instead of the basic emotion HATE. Even though both of these domains comprise the same primary emotions, i.e. disgust and anger; the complex domain CONTEMPT would be a more adequate choice for these two idioms.

[22] In the idiom *look down (Y"s) nose at X*, the particle "down" is a part of the phrasal verb "look down."

[23] I would like to thank Prof Bożena Cetnarowska for her suggestion to mention here that in the idiom *take (a) dim view of X*, the uncountable noun *view* can be altered into a countable one, still providing the same meaning "to worry; to view sceptically, pessimistically; to regard with disapproval," e.g.

They take (a) dim view of those they consider outsiders. The public, however, seems willing. (COCA)

Type (A): V + NP
have the blues

Type (A''): V + possessor + N + particle
eat Y's heart out

Type (B): V + NP + preposition + NP (complement of a P)
lose sleep over X

Type (B'): V + NP + preposition + possessor +N (complement of a P)
have a bee in Y's bonnet
have ants in Y's pants
have butterflies in Y's stomach[24]

On the basis of the idioms listed in (3.13)-(3.17), and exemplified by the sentences, reproduced from the COCA Corpus / *via* the Google Search (cf. APPENDIX 1), it can be said that the equivalents of the SE psych-verbs are quite numerous (49 units). The most frequent type of the eleven syntactic patterns (51%) for SE psychological idiomatic phrases is Type (B), comprising a verb, a fixed object, a fixed preposition, and an NP complement within the PP, realising an open position (V+NP+P +NP). Nearly one quarter of all the types is covered by idioms of Type (A) *viz*. without any open position, i.e. comprising a verb and a fixed object (V+NP).

Type B' (V + NP + preposition + possessor +N), including idioms which are constructed of a verb, a fixed object, a fixed preposition, and an NP complement of the P, in which the possessor realises an open position while the N is fixed (V+ NP + P + possessor+ N), covers 8%. A similar percentage (10%) corresponds to Type D (V + possessor + N + preposition + NP), in which there are two open positions, i.e. the one represented by a possessor of an NP object, and the other realised by an NP that is a complement of a P.

Extremely rare (2%) are the following four types: Type A' (V + possessor + N) with a possessor placed within an NP object; Type A'' (V + possessor + N + particle), covering, beside a verb and a N, a fixed

[24] Cf. (3.11) in Chapter Three, where the examples of phraseological verbal units, excluded from the study by the criteria listed in (3.10), are listed. The phrase *have butterflies in the stomach* comprises the verb *have* and a NP, and it obtains a figurative meaning "to worry." Therefore, it is not excluded from the list of idioms to be examined.

particle; Type C (V + NP + preposition + NP), in which the verb is followed by an object realised as an open position, and by the fixed Prepositional Phrase (V+NP+ PP); and Type (D'') with two possessors within the NPs, in the object position and within a PP (V + possessor + N +preposition + possessor +N).

Four types do not occur with SE psychological idioms at all. They are as follows: Type C' (V + possessor +N + preposition + NP); Type D' (V + NP + preposition + possessor + N), in which an open position within a PP is realised by a possessor while the N is fixed; Type E (V + NP + NP) with Double Object Constructions; and Type E' (V + a complement small clause), covering a small clause, i.e. an NP realising an open position, followed by a fixed complement of the small clause. *Table 3-3* and *Figure 3-2* summarise the results for the five SE psych-idioms.

Table 3-3. Types of syntactic patterns for **SE psychological idioms**

Verb/ Tokens	**Idiom types and their syntactic patterns**							
	A **V+ NP**	A' **V+ possessor + N**	A'' **V+ possessor + N+ particle**	B **V+ NP + P +NP**	B' **V+ NP + P + possessor + N**	C **V+NP +P +NP**	D **V + possessor + N +P+NP**	D'' **V + possessor + N +P+ possessor + N**
love 13	---	---	---	11	---	---	2	---
enjoy 11	4	1	---	6	---	---	---	---
hate 10	---	---	---	6	---	1	3	---
fear 9	6	---	---	1	1	---	---	1
worry 6	1	---	1	1	3	---	---	---
TOTAL / 49	**11**	**1**	**1**	**25**	**4**	**1**	**5**	**1**

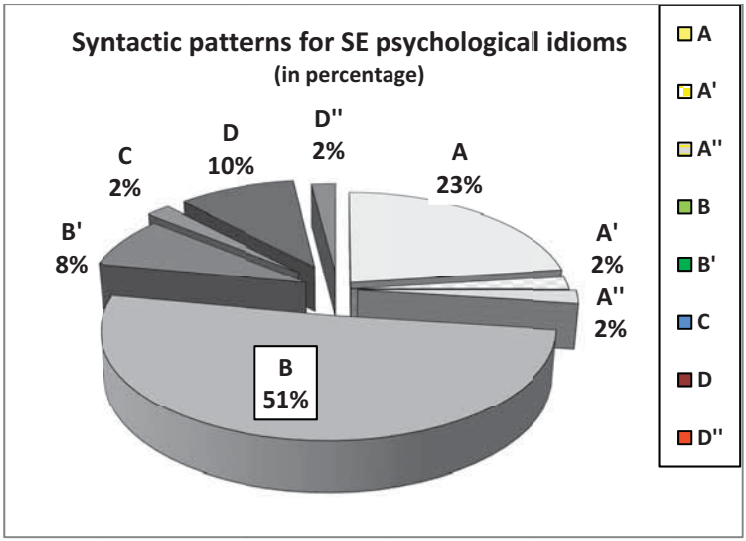

Figure 3-2. Syntactic patterns for SE psychological idioms (in percentage)

Furthermore, on the basis of the results obtained, we can state that the number of psychological idioms found for the sample of 5 top SE psych-verbs is quite equally distributed, and all of them constitute a fairly big number of 49 units of the idiomatic inventory. Regardless of the fact that SE psych-verbs are recognised as stative, their idiomatic counterparts comprise mostly agentive verbs, e.g. *fall*, *set*, *take*, *make*, *turn*, *paint*), carrying a specific semantic interpretation, which for some idioms contributes to the overall idiomatic meaning (*carry a torch for X* "love", or *hold X in abomination* "hate"). On the other hand, there are some frozen / opaque idioms which do not distribute their idiomatic meaning between their single constituents (*paint the town* "enjoy", or *show the white feather* "fear") (cf. the discussion of idiom compositionality in Chapter Four).

3.4.2 Idiomatic phrases for OE (class II) psych-verbs

The data with the psychological idiomatic equivalents of the eight psych-verbs which represent OE (class II) predicates, i.e. *annoy*, *fascinate*, *amuse*, *scare*, *depress*, *anger*, *horrify*, *surprise*, are presented in (3.18)-(3.25) below. These idioms are organised in 12 types (A)-(E"), as discussed in (3.12), and exemplified with sentences obtained from the COCA Corpus and *via* the Google Search in APPENDIX 2.

(3.18) ***annoy*** - make (someone) a little angry; irritate, upset, irritate, aggravate (26 idioms)

Type (A): V + NP[25]
play (a game of) cat and mouse
get the hump

Type (A'): V + possessor + N
get Y's goat
raise Y's hackles
rattle Y's cage / chain
try Y's patience / try the patience of Y
ruffle Y's feathers

Type (A''): V + possessor + N + particle
get Y's dander /hacklers/ Irish up
put/get Y's back up

Type (B): V + NP + preposition + NP (complement of a P)
get a rise out of Y
take it out of Y
stir up a hornet's nest (of something) amongst/ in Y
upset the apple cart against Y

Type (B'): V + NP + preposition + possessor +N (complement of a P)
bring a hornet's nest round Y's ears

[25] In Type A, all the idiom components are fixed, and an Experiencer (Y) is realised covertly, but it can be found in the context of a particular sentence, e.g. in (i) below, *American fighters* are Experiencers, while in (ii) *Tony* is an Experiencer (placed in the position of a subject), who got annoyed by *us* and the fact that *we hadn"t invited him to the party*.

(i) *play (a game of) cat and mouse* [against /towards / with Y] "to annoy Y"
Enemy warplanes have been playing a deadly game of cat and mouse [against American fighters], trying to bring American fighter planes into rang of their missiles. (Google)

(ii) *get the hump* "to get annoyed" *Tony got the hump because he thought we hadn"t invited him to the party.* (Google)

Type (C): V + NP + preposition + NP (complement of a P)
cut Y to the quick / bone
drive Y up the wall
put Y in a hole /a bind
put Y on the spot
put Y out of countenance
put Y through wringer
throw/send Y into a tizzy / tizz

Type (C'): V + possessor +N + prep. + NP (compl. of a P)
put Y's nose out of joint

Type (D): V + possessor + N + preposition + NP (complement of a P)
thumb X's nose at Y

Type (E): V + NP + NP (Double Object Construction)
give Y the pip
rub Y (up) the wrong way

Type (E'): V + a complement small clause
drive Y batty / nuts/ bananas / bonkers / crazy

(3.19) ***fascinate*** – attract the strong attention and interest of (someone)
(11 idioms)

Type (A'): V + possessor + N
catch Y's eye / catch the eye of Y
win Y's heart / win the heart of Y
turn Y's head
tickle Y's fancy
stir the /Y's blood

Type (B): V + NP + preposition + NP (complement of a P)
cast a spell on Y
make a hit with Y
pay court to Y

Type (C): V + NP + preposition + NP (complement of a P)
put Y in a trance
set Y on fire

Type (D'): V + NP + preposition + possessor + N (complement of a P)
sweep Y off Y's feet

(3.20) ***amuse*** – cause (someone) to find something funny; provide interesting and enjoyable occupation for (someone); entertain
(4 idioms)

Type (A'): V + possessor + N
gladden Y's hearts / the heart of Y

Type (B): V + NP + preposition + NP (complement of a P)
make the grade for Y
play the fool for Y

Type (C): V + NP + preposition + NP (complement of a P)
tickle Y to death / to pieces / pink[26]

(3.21) ***scare*** – cause great fear or nervousness in; frighten
(11 idioms)

Type (A'): V + possessor + N
curdle / chill Y's blood

Type (B): V + NP + preposition + NP (complement of a P)
frighten / scare the life / the hell out of Y
put the fear of God into Y
put/get the wind up Y
strike terror into Y

Type (C): V + NP + preposition + NP (complement of a P)
chill Y to the bone/marrow
send Y into a cold sweat
throw /send Y into a panic

Type (D): V + possessor + N + preposition + NP (complement of a P)
shake X's / a fist at Y

[26] If the component "to death /to pieces" in the idiom "tickle Y to death / to pieces / pink" is changed into "pink," the idioms forms Type (E"): V + a complement small clause.

Type (E): V + NP + NP (Double Object Construction)

give Y goose pimples/ bumps
give Y (quite) a (bit of) turn / a fright

(3.22) ***depress*** – make (someone) feel utterly dispirited or dejected (20 idioms)

Type (A): V + NP
upset the applecart[27]

Type (A'): V + possessor + N
break Y's heart / spirit
damp Y's hopes
dampen/damp Y's spirits
dash / wither Y's hopes

Type (B): V + NP + preposition + NP (complement of a P)
cast a gloom / a shadow over Y
do a number on Y
knock the stuffing out of Y
put a damper on Y

Type (B'): V + NP + preposition + possessor +N (complement of a P)
bring tears to Y's eyes
take the wind out of Y's sails

Type (C): V + NP + preposition + NP (complement of a P)
cut Y down to size
take/ knock Y down a peg / notch (or two)
put / send / throw Y into a (blue) funk
leave Y in the / a lurch
bring Y into disrepute
knock Y for six

[27] This idiom belongs to Type A, in which all the idiom components are fixed, whereas an Experiencer (Y) is realised covertly, but recognisable from the context of the sentence, e.g. in (i) below, *you* is the Experiencer, who experiences the state of being depressed.

(i) *upset the applecart* [in Y] "to depress Y"
I don"t want to upset the applecart now by asking you to change the date for the meeting. (Google)

Type (E): V + NP + NP (Double Object Construction)
give Y a bad / hard time/ the blues / the run around

Type (E'): V + a complement small clause
bring Y low
knock Y sideways

(3.23) ***anger*** – fill (someone) with anger; provoke anger in (10 idioms)

Type (A): V + NP
fan the fire / flame[28] (of something)

Type (A'): V + possessor + N
kindle Y's wrath

Type (A''): V + possessor + N + particle
get Y's back / dander up[29]
put / set Y's back (up)

Type (B): V + NP + preposition + NP (complement of a P)
blow a gasket on Y
breathe fire over Y

Type (C): V + NP + preposition + NP (complement of a P)
drive Y out of mind
drive Y to distraction
drive Y round the bend / twist

Type (D): V + possessor + N + preposition + NP (complement of a P)
vent X's spleen at Y

[28] This idiom represents Type A, with all components fixed. Therefore an Experiencer (Y) is realised covertly, but still it can be noticed from the context of the sentence, e.g. in (i) below, *she* is the Experiencer, who experiences the state of being angered.

(i) *fan the fire / flame (of something) [in Y]* "to anger Y"
She already found him attractive, but his letters really fanned the flames [in her]. (Google)

[29] The particle "up" is a constituent of the verb "get."

(3.24) ***surprise*** – cause (someone) to feel mild astonishment or shock.
(15 idioms)

Type (A''): V + possessor + N + particle
take Y's breath away[30]
knock Y's socks off

Type (C): V + NP + preposition + NP (complement of a P)
knock Y down / over[31] with a feather
blow Y out of the water
catch Y off balance / up short[32] / napping[33]
catch Y on the hop
throw Y off balance
strike Y with awe
strike Y with wonder

Type (D'): V + NP + preposition + possessor + N (complement of a P)
catch Y off (Y's) guards

Type (E): V + NP + NP (Double Object Construction)
throw Y a curve (ball)

Type (E'): V + a complement small clause
catch Y unawares[34]
leave Y open-mouthed
leave Y at a loss for words
strike Y dumb

[30] The particles "away," and "off" work as particles of the phrasal verbs.
[31] The particles "down / over" work as particles of the phrasal verb "knock down" or "knock over."
[32] In the idiom "catch Y up short," "short" is an adjective, which works as a complement of the preposition "up," and may be treated as a resultative phrase (Type E").
[33] If the component "off balance" in the idiom "catch Y off balance / up short / napping" is changed into "napping," the idiom forms Type (E"): V + a complement small clause.
[34] All these idioms include a resultative phrase, i.e. "open-mouthed / at a loss for words / dumb / with awe / with wonder," which are treated as complements of the small clauses.

(3.25) ***horrify*** – fill with horror; shock greatly (8 idioms)

Type (A'): V + possessor + N
freeze Y's (the) blood
Type (B): V + NP + preposition + NP (complement of a P)
put the screws on Y
scare the shit / the wits out of Y
frighten / scare the pants off Y
scare the bejesus out of Y
Type (C): V + NP + preposition + NP (complement of a P)
frighten / scare Y to death
frighten / scare Y out of their wits
Type (E): V + NP + NP (Double Object Construction)
give Y a turn

As can be seen in (3.18)-(3.25), the psychological equivalents of the OE psych-verbs (class II) yield a big number of 105 units. Some verbs, such as *amuse* or *horrify* have only a few psychological idioms; while others, i.e. *annoy*, *depress*, and *surprise*, provide a set of 15 up to 26 idiomatic units. *Table 3-4* and *Figure 3-3* summarise the results obtained for the eight OE (class II) psych-verbs.

Table 3-4. Types of syntactic patterns for ***OE (class II) psychological idioms***

Verb/ Tokens	**Idiom types and their syntactic patterns**										
	A V+ NP	A' V+ possessor+ N	A'' V+ possessor+ N+particle	B V+ NP + P +NP	B' V+ NP + P + possessor+ N	C V+NP +P +NP	C' V+ possessor+ N +P +NP	D V + possessor+ N +P+NP	D' V +NP +P+ possessor+ N	E V +NP+ NP	E' V + a compl. small clause
***annoy* / 26**	2	5	2	4	1	7	1	1	---	2	1
***fascinate*/ 11**	---	5	---	3	---	2	---	---	1	---	---
***amuse* / 4**	---	1	---	2	---	1	---	---	---	---	---
***scare* / 11**	---	1	---	4	---	3	---	1	---	2	---

***depress* / 20**	1	4	---	4	2	7	---	---	---	1	1
***anger* / 10**	1	1	2	2	---	3	---	1	---	---	---
***surprise* / 15**	---	---	2	---	---	7	---	1	---	1	4
***horrify* / 8**	---	1	---	4	---	2	---	---	---	1	---
TOTAL /105	**4**	**18**	**6**	**23**	**3**	**32**	**1**	**4**	**1**	**7**	**8**

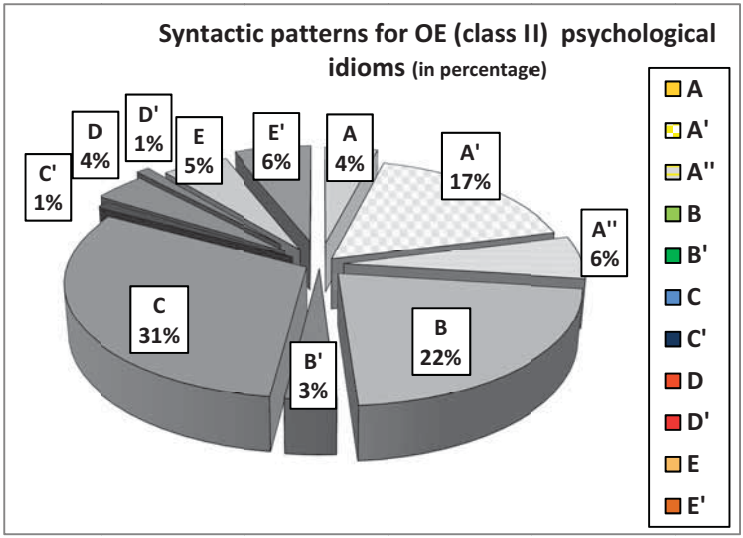

Figure 3-3. Syntactic patterns for OE (class II) psychological idioms (in percentage)

The most popular types of syntactic patterns for these psychological idioms are Types (C)-(C') comprising 32%, which is a distinctive result, in comparison with SE idioms. In these patterns an open position is realised either as an object NP or as a possessor within the NP object, while the PP following the object is fixed (V+NP+ PP / V+ possessor +N+ PP)). Then, Types (A), (A') and (A''), *viz*. patterns with or without an open position realised in an NP (V+NP, or V+ possessor + N, or V+ possessor + N + particle), are the second largest of all the types, comprising altogether 27%. Types (B)-(B') are number three as far as the popularity of the syntactic patterns is concerned, covering 25%. These types comprise a

verb and a fixed object, followed by a Prepositional Phrase realising an open position in a complement of the P, i.e. either an NP (V+NP+P +NP), or in a possessor modifying the fixed noun (V+NP+P +possessor +N).

Moreover, both Type (E) with a Double Object Construction (V + NP + NP) and Type (E') with a small clause complement, containing an NP subject realising an open position, cover only 11% of all the types, but they were absent for SE psych-idioms entirely. Types (D)-(D') with two open positions, i.e. in the object position and within a PP, hardly ever occur in this idiomatic dataset (5%). All these types are distributed in a different manner in comparison with the psychological idioms for SE psych-verbs.

In addition, although regular OE psych-verbs (class II) consist of agentive, stative and eventive verbs, their idiomatic equivalents comprise mostly agentive verbs, e.g. *warm, stir, cast, feed, pay, and turn*. An Experiencer Y is generally explicit, located within a PP or realised as a direct object (an NP or a possessor modifying a fixed N) of the idiomatic unit. In Type A (4%) psych-idioms, in which all idiom components are fixed, an Experiencer is covert, but noticeable from the context of the sentence.

3.4.3 Idiomatic phrases for OE (class III) psych-verbs

Class III psych-verbs is represented by two significant predicates, i.e. *appeal to*, and *matter to*, which have yielded a small group of idioms in the number of 7, arranged into syntactic patterns, as illustrated in (3.26) and (3.27). The complete list supplemented with sentences extracted from the COCA or obtained *via* the Google Search is available in APPENDIX 3.

(3.26). ***appeal*** – be attractive or interesting (4 idioms)

Type (A'): V + possessor + N
float Y's boat
tickle Y's fancy
whet Y's appetite

Type (D'): V + NP + preposition + possessor + N (complement of a P)
set / put Y on Y's ear

(3.27) ***matter to*** – be important or significant for someone

(3 idioms)

Type (B): V + NP + preposition + NP (complement of a P)
carry some / a lot of weight with Y
cut (no) ice with Y
make a difference to Y

On the basis of the aforementioned data, illustrated in *Figure 3-4*, it can be stated that this class of psych-verbs lacks idioms which occur in any of the 9 syntactic patterns listed in (3.12), *viz*. Type (C): V+NP+ PP; Type (C'): V+ possessor +N + PP; Type (E): with a Double Object Construction (V + NP + NP); Type (E'): V + a complement small clause; Type (D): V + possessor +N + preposition + NP; Type (D''): V + possessor +N + preposition + possessor +N; Type (A) with a fixed NP; Type (A''): V+ possessor +N +particle; or Type (B'): V + NP + preposition + possessor +N.

However, the idioms obtained in the search for Class III psych-verbs appear in three syntactic patterns. The least common (14%) is Type (D'): V + NP + preposition + possessor + N, while it is Type (A'): V + possessor + N, and Type (B): V + NP + preposition + NP, which are mostly represented by this class of psych idioms, each covering 43% of all the patterns. The agentive verbs, e.g. *tickle*, *whet*, or *set*, can be found in those idiomatic structures.

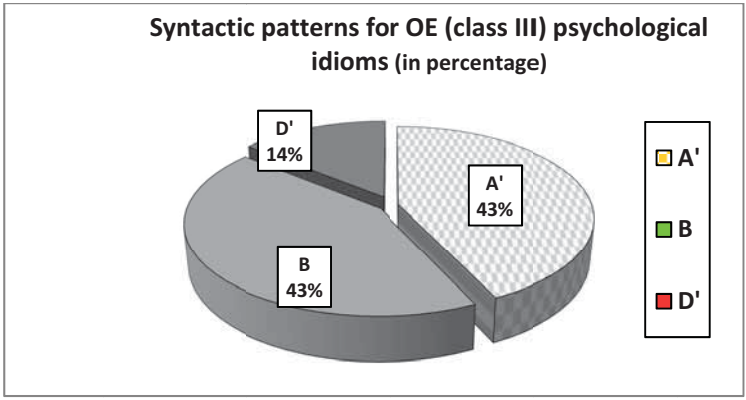

Figure 3-4. Syntactic patterns for OE (class III) psychological idioms (in percentage)

3.5 Concluding remarks

The aim of Chapter Three has been (i) to elicit the set of psych-verbs, which both conforms with Belletti and Rizzi's tripartite taxonomy, and belongs to various but cross-linguistically adopted emotion domains; and (ii) to find as many psychological idiomatic phrases as possible, equivalent to the elicited top psych-verbs. The results obtained in the study have yielded a great deal of relevant data as far as psychological predicates are concerned.

Accordingly, the results have proved that the language inventory to express one's mental, emotional, and/or psychological condition comprises quite a long list for each emotion domain, for any single psych-verb, regardless of either what class it belongs to, or whether an Experiencer is in the Subject or Object position. Significantly, all the idiomatic phrases have been grouped into 12 distinct syntactic verbal patterns. Thus, the idioms under scrutiny comprise nearly always agentive verbs, which occur necessarily, with an object, followed or not by a Prepositional Phrase. The open position is located either within the object complement or/and within a PP. The open position can be realised as either an NP or a possessive modifier. Some idiomatic phrases are opaque and have all their constituents (NP, PP, or a small clause) fixed, whereas others comprise elements which greatly contribute to the overall meaning of the idiom, and make its meaning more predictable.

To conclude, the heterogeneity of these idiomatic expressions indicates the necessity of learning at least some constraints and irregularities related to idioms. This task is to be taken in the subsequent chapter. Besides, the next part of the book is to address the question concerning the syntactic and aspectual characteristics of these psych-idiomatic expressions.

CHAPTER FOUR

PSYCHOLOGICAL IDIOMS: SYNTACTIC CONSTRAINTS AND ASPECTUAL PROPERTIES

4.1 Introduction

Idioms represent "a multidimensional lexical space, characterized by a number of distinct properties: semantic, syntactic, poetical, discursive, and rhetorical" (Nunberg *et al*. 1994: 492); therefore, any attempt to categorise idioms along single-criterion definitions or rules is futile. Taking into account various dimensions of idiomaticity, two main opposing approaches to idioms are usually distinguished in the literature, which have been outlined in Chapter One of the book, and are now briefly returned to, for the sake of convenience. These are: (i) the more standard non-compositional approach, in which idioms are recognised as arbitrary configurations of words with nonliteral meanings, syntactically and semantically behaving as lexical entries; and (ii) the non-traditional compositional approach, which refers to the non-arbitrary internal semantic and syntactic structure of idioms.

In the traditional approach, typically adopted in the generative grammar, it is believed that the meanings of idioms cannot be derived compositionally by the morpho-syntactic rules of a language (e.g. the meaning of the canonical idiom *kick the bucket* ("to die") cannot be derived from the meanings of its constituents, i.e. "kick," "the," and "bucket"); thus, idioms are thought to be arbitrarily stipulated in memory (cf. Chomsky 1980; Cruse 1986; Fraser 1970; and Katz 1973; among others). In the generative literature, idiom chunks are not associated with meanings, and it is said that "there is no relation between the meanings of the parts and the meaning of the whole from the viewpoint of "synchronic" structure" (Kiparsky 1976:79). Chomsky (1980: 149) names idioms "non-compositional" structures; Machonis (1985: 306) defines them as "frozen" expressions, "not predictable from the composition;" while van der Linden (1992) follows Katz and Postal (1963: 275) in

claiming that the meaning of an idiom "is not a function of the meanings of its parts and the way these are syntactically combined; that is, an idiom is a noncompositional expression" (van der Linden 1992: 223). Consequently, since there is no relation between the linguistic forms of such idioms and their meanings, and due to their lack of internal syntactic or semantic structure, hardly any modification is possible in the case of this type of "frozen" idioms (called *idiomatic phrases*, after Nunberg *et al*. 1994).

However, this standard view of idioms as non-compositional strings or long words has been objected to in the current research. It has been demonstrated that not all idioms are "frozen," and as opaque or unanalysable as *kick the bucket*. For most idioms (called *idiomatically combining expressions*, after Nunberg *et al*. 1994), some relations between their meaning and form can be established. In fact, the meanings of particular components of idioms do play a role in the way idioms are used and understood (cf. Cacciari 1993; Cacciari and Glucksberg 1991; Gibbs 1990; Keysar and Bly 1995, 1999). What is more, this type of idioms can be syntactically transformed in various ways and their parts can be modified, while some elements within an idiomatic expression can be semantically productive (cf. Makkai 1972; Nunberg *et al*. 1994; O'Grady 1998; and Ifill 2002; among others). Thus, a question arises of what sort of syntactic modifications can compositional idioms undergo.

Following this second research trend, attention is paid here to the linguistic side of the distinction between so-called "decomposable *vs.* non-decomposable idioms" (Nunberg 1978). Taking this division into consideration, the purpose of Chapter Four is to discuss and analyse idioms, with a special focus laid on the psychological idioms elicited in Chapter Three, with the aim of gaining better theoretical and empirical insights into syntactic rules they are governed by. More precisely, issues that are to be addressed here include the following: (i) semantic properties of idioms, with special reference made to psych-idioms, and a distinction between *idiomatically combining expressions* and *idiomatic phrases* (section 4.2); (ii) syntactic and semantic flexibility of *psychological idiomatically combining expressions* (section 4.3); (iii) syntactic constraints on *psychological idiomatic phrases* and the structure of idioms analysed in previous accounts (section 4.4) and within the Phase Theory (section 4.5); and (iv) the position of an Experiencer in psychological idioms (section 4.6). The chapter ends with an overview of the aspectual properties of psychological idioms (section 4.7), followed by the concluding remarks, outlined in section 4.8.

4.2 Classifying and characterising idioms

Idioms used to be commonly treated as fixed phrases both lexically and syntactically frozen, with no internal structure open to grammatical or lexical operations (cf. Chomsky 1980; Cruse 1986; Fraser 1970; and Katz 1973; among others), until extensive corpus studies of selected idioms have revealed that some idioms can undergo substantial lexical and morphosyntactic modifications (cf. Moon 1998; and Fellbaum 2011; among others). However, drawing a clear-cut line between non-compositional, frozen idioms, on the one hand, and partly compositional, modifiable idioms, on the other, does not reflect the way speakers actually use idioms (cf. Zhu and Fellbaum 2015). Diversity seems to be the fundamental characteristics of all idioms.

4.2.1 Semantic dimensions of idiomaticity

While making an attempt to classify idioms as either non-compositional or compositional ones, it should first be stated that idioms may differ along several orthogonal semantic dimensions, such as: conventionality, compositionality, analysability and transparency, figuration, proverbiality, informality, and the so-called "affect" (Nunberg *et al*. 1994: 492-493, 498). Since these dimensions have been discussed in detail in Chapter One of the book, they are now briefly mentioned in connection with psychological idioms.

4.2.1.1 Conventionality

The first semantic dimension is *conventionality*, defined as the relation between some string of words and a particular semantic representation. An element of arbitrariness is involved here in that a certain linguistic label is used to express a certain conceptual representation. Some arbitrariness may also be found in psychological idioms, listed in (4.1) below. To recall, for the sake of convenience, in the instances of psychological idioms in (4.1a-l), *Y* refers to an Experiencer, who experiences some emotion / psychological condition, whereas X is a *Stimulus* / *Causer* / *Cause* / *Target*, which has contributed to this specific state or become a target of it.

(4.1) *Conventionality* of psychological idioms:

a. *have a yellow streak / belly down Y's back* "to fear"[1]
b. *show the white feather* "to behave in a cowardly manner" → "to fear"
c. *get Y's Irish up* "to become angry or outraged" → "to annoy"
d. *drive Y bananas (batty / nuts/ bonkers / crazy)* "to cause someone to feel out of his/her mind" → "to annoy"
e. *upset the applecart* "to cause upset by ruining plans or arrangements; spoiling something" → "to depress"
f. *give Y the blues* → "to depress"
g. *knock Y for six* "to upset or overwhelm someone completely" → "to depress"
h. *carry a torch for X* "to be in love with, especially to suffer from unreciprocated love for" → "to love"
i. *go a bundle on X* " to be very keen on" → "to love"
j. *paint the town (red)* "to go out and celebrate" → "to enjoy"
k. *raise the roof* "to show great enthusiasm" → "to enjoy"
l. *float Y's boat* "to appeal to, make someone excited" → "to appeal."

Analysing the psychological idioms in (4.1a-l), the dimension of conventionality may be recognised in the specific contextual selection of the particular idiomatic components which bear some conventionally significant connotation. Thus, to express "fear" we say *have a yellow streak / belly down Y's back*, as in (4.1a), but never *have a buttery smudge / stomach down Y's backbone*, because "a yellow streak" is associated with a trait of cowardice in a person's character, which dates back to 1910-1915.[2] Likewise, we can say *to show the white feather* to mean "to behave in a cowardly manner," as in (4.1b), for the reason that "the white feather" refers to one's cowardice, which dates back to 1775-1785.

Moreover, to show that someone has become annoyed, one may use the idiom *get Y's Irish up*, as in (4.1c), but not *get Y's Canadian up*, since "Irish" works here to reveal prejudice towards Irish people, which originated in 1834. The idiom *drive Y bananas (batty / nuts/ bonkers /*

[1] The meanings provided for the idioms refer to psych-verbs corresponding to the idiomatic phrases. In fact, the exact meanings may differ in the degree from these basic psychological domains they belong to.
[2] The etymological background and the information about the cultural / conventional origins of idioms have been retrieved from http://www.phrases.org.uk/meanings/118400.html, in March, 2017.

crazy), as in (4.1d), may be interpreted as "to cause someone to feel out of his / her mind," and it dates back to the 1970s.

Besides, the idiom *upset the applecart*, as in (4.1e), means "to cause upset by ruining plans or arrangements," but if changed into *distress the fruit wagon*, its idiomatic meaning is lost. The OED traces this expression back to 1780-1790, and, indeed, this allusive phrase is first recorded by Jeremy Belknap in *The History of New Hampshire* (1788) "Adams had almost overset the apple-cart by intruding an amendment of his own fabrication on the morning of the day of ratification" [of the Constitution]. Then, the verb "overset" was changed into "upset."

The state of getting depressed may also be expressed either by saying *give Y the blues*, as in (4.1f), since "the blues" is meant as depressed spirits, despondency, or melancholy, which dates back to 1800-1810; or by the idiom *knock Y for six*, as in (4.1g). The latter expression means "to upset or overwhelm someone completely," and "six" in this idiom derives from the highest scoring action in the sport of cricket: where the ball exits the circle without touching the ground, *viz*. hitting the ball over the boundary scores of six runs, the maximum for one shot.

Furthermore, a few conventionally fixed idioms express the state of loving someone, i.e. *carry a torch for X*, as in (4.1h), which is traced back to 1927, and means "to be in love with, especially to suffer from unreciprocated love for." Next, the idiom *go a bundle on X* , as in (4.1i), with the meaning "to be very keen on," dates back to Middle English, when "a bundle" implied a close binding or grouping together. To express someone's excitement or enjoyment, the idioms *paint the town (red)* "to go out and celebrate," as in (4.1j), or *raise the roof* "to show great enthusiasm," as in (4.1k), may be used. Both of them originated in the 1880s-90s. Finally, to express that someone or something appeals to a human Experiencer, the idiom *float Y's boat*, as in (4.1l), originating from Middle English (1100), may be used.

In other words, conventionality is viewed as the difference between the idiomatic meaning and the meaning of a collocation analysed along the rules that apply to constituents when they are in isolation from one another. Conventions are recognised as conditions to use each of the component parts of the expression, not the phrase as a whole (Nunberg *et al.* 1994: 496, 498). What is more, referring to meaning, Nunberg *et al.* (1994: 492, 499) propose that conventionality, instead of non-compositionality, is the defining characteristics of idioms. Once the meaning is established conventionally, we can predict what each part of an idiom means. Thus, in contradistinction to many linguists who treat conventionality and non-compositionality interchangeably while talking

about idioms, Nunberg *et al*. (*ibid.*) propose to attach conventionality to the use of the idiom constituents, rather than to the collocation as a whole, which results in making the particular component parts, not the entire idiom, fixed and non-compositional.

4.2.1.2 Inflexibility

The second dimension which characterizes idiomaticity of an idiomatic expression is its inflexibility, which is recognized by Nunberg *et al*. (1994) as "a limited number of syntactic frames or constructions, unlike freely composed expressions" (Nunberg *et al*. (1994: 492). More specifically, concerning syntactic inflexibility, idioms are subject to syntactic (and possibly also morphological and phonological) constraints. Usually, idioms which represent grammatically well-formed patterns of phrasal or sentential structure, are assumed to show both semantic and syntactic coherence of their components. As a result, there are also fewer possibilities with respect to recursion, movement, transformations, modification, and other syntactic processes which normally could be applied to these constituent items. To be precise, the constituents of many idioms cannot take enclitics, be replaced by pronouns or be independently modified, nor can they be raised (i.e. they cannot change position, as required by another syntactic construction). Thus, some syntactic modifications make an idiom sound ungrammatical, as exemplified in (4.2a-b). Besides, the presence of particular morphemes or a particular grammatical category (tense, number, person etc.) may be required in some idioms, as shown in (4.2c-d).

(4.2) *Inflexibility* of certain psychological idioms:

a. *upset the applecart* "to depress"
**the applecart was upset*[3] (passivization)

b. *paint the town (red)* "to enjoy"
 # paint the old town (internal modification)

c. *scare the pants off Y* "to horrify"
**scare a pant off Y* (number of the DP)

[3] The sign * [asterisk], as explained earlier, will be used to mark the sentence / phrase as ungrammatical, while # [hash] indicates the loss of idiomatical interpretation.

d. *scare the bejesus out of Y* "to horrify"
**is scaring the bejesus out of Y* (aspect of the V)

Nevertheless, the instances listed in (4.2a-d) are only a few examples to prove the inflexibility of certain psychological idioms. More space is devoted to the discussion concerning the syntactic analysis of psychological idioms in section 4.3 of this chapter.

On the other hand, it is worth mentioning that some researchers (e.g. Nunberg *et al.* 1994) argue that a number of (lexical) idioms may be syntactically manipulated by speakers, making an idiom acceptable in a given form.

4.2.1.3 Analysability and transparency

Analysability and *transparency* also characterise idiomaticity. *Analysability* refers to the degree to which the component concepts encoded by an idiomatic phrase may be used to access suppositions in memory contributing to the derivation of the proposed reading. More specifically, semantic analysability defines the extent to which a speaker can comprehend the meaning of the idiom as a whole, on the ground of the information conveyed by the constituents of the idiom. The range to which idiom elements contribute to their overall reading has been termed *semantic decomposition* (cf. Nunberg 1978) or their *analysability* (cf. Cacciari and Tabossi 1988; Gibbs 1994; and Glucksberg 1991; among others).

Langacker (1987) argues that the concept of analysability is subtle. According to him, analysability does not refer to "the intrinsic complexity of a structure, but rather to a person's awareness of certain aspects of this complexity" (Langacker 1987: 457). By presuming that "word sequences are stored in memory and accessed as units" (Bybee 2006: 714), Bybee underlines the significance of frequent repetition of an idiomatic expression, and the consequence it has for improved analysability. This fact has been proven by some usage of idioms, where speakers were to provide just the first part of the expression, assuming that the hearer will complement it mentally and will access the whole meaning of the idiom (Bybee 2006; and Cieślicka 2004, 2006; among others).

In the same vein, Nunberg *et al*. (1994: 496) state that once the meaning of an idiom is acknowledged, e.g. by hearing it in a sufficiently informative context, the meaning is not devolved on the constituents of the expression. However, this does not entail simple non-predictability or non-analysability of the idiom on the basis of the knowledge of the meanings

of its parts. Instead, idioms are viewed to be listed as phrasal entries in the lexicon, associating each entry directly with a single semantic representation. Furthermore, once an idiom is recognised, we are able to establish correspondences between the parts of the structured denotation of the phrase, e.g. the relation of making someone dispirited and depressed in the idiom *give Y the blues* in (4.1f), and the components of this idiom (*give* and *the blues*), in such a way that each constituent is to be predictable in terms of metaphorical reference to an element of the interpretation. Thus, the idiom is given a compositional, i.e. idiosyncratic, analysis (cf. Nunberg *et al.* 1994: 496).

In addition, a lot of experimental research has been done concerning the variability in the degree of idiomatic compositionality (analysability). As a result, it has been shown that people appear to have strong intuitions enabling them to judge an idiom as being decomposable or non-decomposable (Gibbs and Nayak 1989). It can be easily identified how each part of the idiom combines in the derivation of the figurative interpretation for decomposable / compositional idioms (e.g. *pull strings*, *cast a spell on Y*, *get cold feet*), but not for non-decomposable / non-compositional idioms (e.g. *kick the bucket*, *raise the roof*, *paint the town (red)*).

While *analysability* defines the range to which idiom components contribute to the overall idiomatic interpretation; *transparency* refers to the relative ease with which any assumptions about the meaning of an idiom are accessed and implications derived. Idiom *transparency* is sometimes called "literalness" of an idiom, and is also identified by some scholars as the degree to which the meaning of the idiom can be derived from the phrase. Thus, *analysability* and *transparency* are so closely related that they are mostly used interchangeably.

According to Cieślicka (2004: 98), Mäntylä (2004: 28-29), and Peacock (2009: 2), among others, there are *directly / fully transparent* idioms, for which the literal meaning of their constituents is clearly linked to the figurative overall meaning, e.g. *give the green light* "to accept something." These idioms display a high degree of analysability and transparency. However, in the case of *semi-/ partially / relatively transparent* idioms, the literal meaning of their components gives only some hint of the figurative meaning (e.g. *quake in your shoes* "to fear") but the link is not as noticeable as with fully transparent idioms. Finally, there are (transparently) *opaque* (*semi-opaque*) *idioms*, in which the motivation behind the figurative meaning is hard to perceive unless the etymology is already known, e.g. *be home and dry* "to succeed."

In (4.3) below, there are examples of compositional psychological idioms, which display either a high or partial degree of semantic analysability and transparency.

(4.3) Examples of *directly / fully transparent* psychological idioms, with a high degree of *analysability* and *transparency*:

a. *have a ball* "to have a pleasant time"→ "to enjoy"
b. *set Y's heart on X* "to put someone's emotional involvement into something / someone" → "to love"
c. *turn Y's nose up at X* "to turn someone's attention and enthusiasm against something / someone; to reject" → "to hate"
d. *bear / owe a grudge against X* "to continue feeling an old resentment for someone / something" → "to hate"
e. *catch Y's eye / catch the eye* "to draw someone's attention" → "to fascinate."

Examples of *partially analysable and transparent* psychological idioms:

f. *give Y the pip* "to cause someone to feel depressed" → "to depress"
g. *bring Y low* "to cause someone to feel dispirited and depressed" → "to depress"
h. *whet Y's appetite* "to evoke excitement in someone" → "to appeal"
i. *make a difference to Y* "to be distinctive while compared to someone / something else" → "to matter."

Some psychological idioms. as in (4.3a-e), are fully transparent, which means that much of their meaning may be comprehended if they are taken literally; thus, their meaning is predictable on the basis of their constituent items. Others (4.3f-i) may not be entirely literally interpretable, but require a slight metaphorical broadening.

Importantly, as argued by Vega-Moreno (2005:395-396), transparency and opacity are not fixed properties of idioms, but, instead, should be treated as semantic dimensions, which differ between individual language users in a particular context. Indeed, whether an individual perceives an idiom as more or less transparent, would largely depend on the connotations available to him / her at the time, and their degree of accessibility. Thus, the more implications derivable from the literal

meaning of the phrase, the more transparent the idiom seems to be, and the easier the idiomatic interpretation will be obtained. For example, in the idiom *spill the beans* "to divulge a secret," *spill* directly implies "divulge," and the word *the beans* refers to the noun "a secret," as a result of the long-lasting convention concerning this expression. McGlone, Glucksberg and Cacciari (1994) propose that the idiom *spill the beans* is more transparent than an alternative expression *spill the mud*, which may stem from the fact that *the beans* make a great contribution to the idiom meaning in such a way that *beans*, like "secrets," are many and countable.

Finally, it is decomposable / compositional idioms which are more flexible (syntactically, semantically, and lexically) than non-decomposable ones. As argued by Gibbs and Nayak (1989), Gibbs *et al.* (1989a,b), Glucksberg (1993, 2001), among others, the more analysable and transparent an idiom is, the more syntactic flexibility it is expected to reveal, which is to be discussed in section 4.3 below.

4.2.1.4 Figuration, proverbiality, informality and "affect"

Besides *compositionality*, *conventionality*, *analysability* and *transparency*, Nunberg *et al.* (1994) discuss several other properties of idioms, namely *figuration*, *proverbiality*, *informality*, and *affect* (Nunberg *et al.* 1994: 492-493, 498).

Figuration refers to the fact that most idioms pertain to so-called "figures of speech," like metaphors, metonymies and hyperboles (Nunberg *et al.* 1994: 492). According to *The Merriam-Webster Collegiate Dictionary*,[4] in a *metaphor*, a word or phrase literally denoting an object or idea is used, instead of another, to express likeness or analogy between them. One of the most frequently cited examples of a metaphor in English literature is "All the world's a stage" from William Shakespeare's *As You Like It*. In (4.4) below, psychological idioms function as metaphors since the objects which are the constituent elements of the idioms draw an analogy with the emotional / psychological state, e.g. "steam" is analogous to "joy" *in blow / let off (some) steam* "to enjoy," or "one's temper and patience," which might be lost when someone (an Experiencer) is enraged or irritated, is compared to "fire /flame," which is fanned in the idiom *fan the fire / flame* to mean "to anger someone."

[4] The online version of *The Merriam-Webster Collegiate Dictionary*, available at https://www.mer riam-webster.com/ was retrieved on March 11, 2017.

(4.4) Psychological idioms as *metaphors:*
blow / let off (some) steam "to enjoy"
fall head over heels in love with X "to love"
have butterflies in Y's stomach "to worry"
knock Y's socks off "to surprise"
fan the fire / flame "to anger"
bring a hornet's nest round Y's ears "to annoy"
rattle Y's cage / chain "to annoy"
ruffle Y's feathers "to annoy"
take the wind out of Y's sails "to depress."

A *metonymy*, as defined by *The Merriam-Webster Collegiate Dictionary*, is a figure of speech consisting of a thing or concept which is referred to by the name of something closely associated with that thing or concept, e.g. "crown" in "lands belonging to *the crown*." The psychological idioms in (4.5) below work as metonymies because the idiomatic components evoke some connotation with some different concept, such as "the white feather" in *show the white feather* "to fear" or "yellow streak" in *have a yellow streak / belly down Y's back* "to fear" refer to cowardice; "Irish" in *get Y's Irish up* "to annoy" evokes human prejudice and annoyance towards the Irish; and "the blues" in *give Y the blues* "to depress" or "six" *in knock Y for six* "to depress" are associated with melancholy, failure and depression.

(4.5) Psychological idioms as *metonymies:*
have a yellow streak / belly down Y's back "to fear"
get Y's Irish up "to annoy"
show the white feather "to fear"
give Y the blues "to depress"
knock Y for six "to depress."

Accordingly, both metonymy and metaphor involve the substitution of one term for another; but in metaphor, the substitution is based on some specific analogy between two things, while in metonymy the substitution concerns some understood association.

Finally, a *hyperbole* as a figure of speech is defined, according to the *Online International Dictionary*,[5] as an exaggerated statement or claim, not meant to be taken literally. Hyperboles are often used in casual speech

[5] *Online International Dictionary* available at http://idict.org, retrieved on March 11, 2017.

as intensifiers. More specifically, in the example "the bag weighed a ton," the hyperbole stresses the fact that a speaker found the bag to be extremely heavy, although it could not be as heavy as a literal ton. Besides, hyperboles are said to relay emotions, and serve as, e.g. a form of humour, excitement, or distress. The examples of psychological idioms which realise the role of hyperboles are illustrated in (4.6) below.

(4.6) Psychological idioms as *hyperboles:*
eat Y's heart out "to worry"
cut Y to the quick / bone "to annoy"
curdle / chill Y's blood "to scare"
put the screws on Y "to horrify"

Indeed, as seen in (4.6), to *eat Y's heart out* is an exaggerated way to mean that someone is worried. In the same vein, trying to express somebody's annoyance the idiom *cut Y to the quick / bone* reveals someone's psychical and emotional condition clearly enough. To mean that someone or something scares or horrifies a person, the idioms *curdle / chill Y's blood* or *put the screws on Y* may be used, and the emotional state is almost visibly exposed.

Another feature defining idiomaticity is *proverbiality*. It concerns the typical use of idioms for the description of a recurring situation of particular social interest (becoming restless, talking informally, divulging a secret) on account of its resemblance to a familiar scenario (Nunberg *el al*. 1994: 493). Defined as short concise, frequent and widespread sayings which contain wisdom, truth, moral or practical guidelines, proverbs have a fixed and memorisable form, and are usually handed down from generation to generation.[6] Interestingly, Norrick (1985: 73) lists some distinctive features, according to which prototypical proverbs differ from idioms, clichés, etc., even though the latter may bear some characteristics of proverbiality.

There is a relatively big number of psychological idioms which may work as proverbs, making reference to some social issues, e.g. hatred, fear, scaring or horrifying others, depressing others, or filling others with anger. To be precise, in some idioms the psychological states may refer strictly to the personal condition experienced by an Experiencer himself or herself.

[6] Retrieved from *American Heritage Dictionary of the English Language*, available at https://www. ahdictionary.com/word/search.html?q=online on March 11, 2017.

However, emotions may also (if not *always*) occur in an Experiencer in relation with others (other humans or entities), regardless of the fact whether the psychological state or emotion is evoked in an Experiencer by some Stimulus / Cause / Causer (in OE psych-idioms), or if an Experiencer in the role of a subject directs his / her emotion towards Theme / Goal (in SE psych-idioms). In such a relationship, rarely does it happen that the emotion is held as a matter of privacy, locked within one's private inner sphere. More often, the emotion is distinguishable by others, may become noticeable by the surroundings, and even lead to a social problem, especially when the emotion is extremely negative, expressed in a problematic manner or directed towards a significant group of recipients / citizens. Accordingly, in (4.7) some instances of psychological idioms connected with *hatred*, *fear*, *scaring* or *horrifying others*, *depressing others*, or *filling others with anger* are provided.

(4.7) *Proverbiality* of psychological idioms:

a. the social problem of *hatred* expressed in the following idioms:

pour scorn on X
bear ill will toward X
bear / owe a grudge against X
bear / feel aversion / malice / hostility / repugnance toward (to) X
have no stomach / taste / use for X
show contempt for X
hold X in abomination / contempt
turn Y's back on X
turn Y's nose up at X
look down (Y's) nose at X

b. the social problem of *fear* expressed in the following idioms:

take dim view of X
have a yellow streak / belly down Y's back
have Y's heart in Y's mouth

c. the social problem of *worry* expressed in the following idioms:

eat Y's heart out
lose sleep over X
have a bee in Y's bonnet

d. the social problem of *scaring or horrifying others* expressed in the following idioms:

curdle / chill Y's blood
frighten / scare the life / the hell out of Y
put the fear of God into Y
strike terror into Y
chill Y to the bone/marrow
send Y into a cold sweat
throw /send Y into a panic
shake X's / a fist at Y
give Y goose pimples/ bumps
give Y (quite) a (bit of) turn / a fright
freeze Y's (the) blood
put the screws on Y
scare the shit / the wits out of Y
frighten / scare the pants off Y
scare the bejesus out of Y
frighten / scare Y to death
frighten / scare Y out of their wits
give Y a turn

e. the social problem of *depressing others* expressed in the following idioms:

break Y's heart / spirit
damp Y's hopes
dampen/damp Y's spirits
dash / wither Y's hopes
cast a gloom / a shadow over Y
do a number on Y
knock the stuffing out of Y
put a damper on Y
bring tears to Y's eyes
take the wind out of Y's sails
cut Y down to size
take/ knock Y down a peg / notch (or two)
put / send / throw Y into a (blue) funk
leave Y in the / a lurch
bring Y into disrepute
knock Y for six
give Y a bad / hard time/ the blues / the run around
bring Y low
knock Y sideways

f. the social problem of *anger*, *viz*. filling someone with anger; expressed in the following idioms, e.g.:

kindle Y's wrath
get Y's back / dander up
put / set Y's back (up)
blow a gasket on Y
breathe fire over Y
drive Y out of mind
drive Y to distraction
drive Y round the bend/ twist
vent X's spleen at Y

Another property of idioms, discussed by Nunberg *et al*. (1994: 493), is informality, which refers to the tendency of idioms to appear in colloquial registers, in popular speech and oral culture. As defined by *The Merriam-Webster Collegiate Dictionary*,[7] "colloquial" is related to registers characteristic of familiar and informal conversation. Thus, in colloquial English, "kind of" is often used for "somewhat" or "rather;" a greeting "what's up?" between friends sounds more natural and real and appropriate than the formal "How are you?" or "How do you do?;" while idioms sound better in popular and oral discourse than in informal speech or writing.[8]

In addition, a colloquial register is the variety of language that speakers usually use when they are relaxed and not particularly self-conscious; therefore, some colloquial speech may contain a great deal of slang, contractions or even profanity (cf. Trask 1999). Nonetheless, colloquial expressions, in a piece of literature, may provide deep insights into the writer's society, and the real language they use. For that reason, colloquial phrases bring a sense of realism to a piece of literature, which, in turn, draws readers' and listeners' attention since colloquialisms are identified

[7] The online version of *The Merriam-Webster Collegiate Dictionary*, available at https://www.merriam-webster.com/ retrieved on April 12, 2017.

[8] Importantly, as commented by Prof Bożena Cetnarowska, some idioms are currently used less frequently, e.g. in the Oxford English Dictionary (online version https://en.oxforddictionaries.com), the idiomatic phrase *give someone a pip* is marked as "dated," while *give someone a turn* and *pay court to someone* are noted by the Longman Dictionary (http://www.ldoceon line.com/dictionary) as "old fashioned."

with their real life. Besides, colloquial expressions add variety to characters, which makes them more remarkable and unforgettable.[9]

In order to check whether psychological idioms occur relatively more frequently in colloquial / spoken English than in formal language, the *Corpus of Contemporary American English* has been searched for a few psych-idioms listed in (4.8) below. Here, some psychological idioms have been compared in terms of their occurrence in different types of register, namely those offered by the COCA, *viz*. spoken discourse, fiction, popular magazines, newspapers, and academic texts. With its data containing more than 520 million words of text (20 million words each year 1990-2015), the COCA Corpus appears to work as a reliable source for researchers to compare data across registers, and across different periods of time.

(4.8) *Informality* of psychological idioms:

a. *blow off steam* "to enjoy"

SECTION Type of register	FREQ	SIZE (M)	PER MIL
spoken	17	109.4	0.16
fiction	24	104.9	0.23
magazine	38	110.1	0.35
newspaper	27	106.0	0.25
academic	7	103.4	0.07

b. *ruffle Y's feathers* "to annoy"

SECTION Type of register	FREQ	SIZE (M)	PER MIL
spoken	11	109.4	0.10
fiction	9	104.9	0.09
magazine	16	110.1	0.15
newspaper	31	106.0	0.29
academic	4	103.4	0.04

c. *carry a torch for X* "to love"

SECTION Type of register	FREQ	SIZE (M)	PER MIL
spoken	5	109.4	0.05
fiction	20	104.9	0.19
magazine	7	110.1	0.06
newspaper	6	106.0	0.06
academic	1	103.4	0.01

[9] *Literary Devices Editors.* 2013. Colloquialism. Retrieved April 12, 2017, from https://literarydevices. net/ colloquialism/

d. *paint the town* "to enjoy"

SECTION Type of register	FREQ	SIZE (M)	PER MIL
spoken	10	109.4	0.09
fiction	8	104.9	0.08
magazine	12	110.1	0.11
newspaper	10	106.0	0.09
academic	4	103.4	0.04

As can be seen in (4.8), the most common registers that idioms are likely to occur in are newspapers, magazines, fiction, and spoken discourse. Academic sources, in turn, record the lowest scores of the idioms under scrutiny. In fact, newspapers, magazines, and fiction are not taken into consideration, since there is no clear-cut distinction between the sources written in colloquial language and the ones which contain more scientific and formal language. In what follows, having compared the spoken discourse to the academic text the psychological idioms occur in, the superiority of the former over the latter type of register may be evidently noticed. That is why, the assumption that informality is one of the features of idiomaticity, including psychological idioms, has been confirmed.

The last dimension of idiomaticity, mentioned by Nunberg *et al*. (1994: 493), is called "affect." It stems from the fact that idioms, in the majority of cases, imply a certain evaluation or affective attitude toward the things they denote (*ibid*.). According to *The Merriam-Webster Collegiate Dictionary*, *affect* is "a set of observable manifestations of a subjectively experienced emotion."[10] The noun *affect* derives from late 14th-century Middle English *affect*, which means "mental state," and from Latin *affectus*, *adfectus*, denoting a disposition, mood, state of mind or body produced by some external influence, especially sympathy or love.[11]

While taking psychological idioms into account, there seems to be no doubt that they are expected to exhibit this idiomatic dimension, since affection and emotional and / or psychical attitude is the core of their nature. Indeed, in most cases the relation between an *Experiencer* (Y) and a *Stimulus* / *Cause* / *Causer* or a *Theme* / *Goal* (X) of the emotional state is clearly present, as illustrated in the instances in (4.9a) below.

[10] The online version of *The Merriam-Webster Collegiate Dictionary*, available at https://www.mer riam-webster.com/ retrieved on April 12, 2017.
[11] *Online Etymology Dictionary*, available at http://www.etymonline.com retrieved on April 12, 2017.

(4.9) *Affect"* of psychological idioms:

a. [Y] *have eyes for* X "to love"
[Y] *show contempt for* X "to hate"
[Y] *take dim view of* X "to fear"
[Y] *lose sleep over* X "to worry"
[X] *get a rise out of Y* "to annoy"

b. [Y] *paint the town (red)* "to enjoy"
[Y] *raise the roof* "to enjoy"
[Y] *have goose bumps* "to fear"
[Y] *turn tail (and run)* "to fear"
[Y] *have the blues* "to worry."

However, in some psychological idioms, as exemplified in (4.9b) above, the *Causer* / *Cause* / *Stimulus*/ *Theme* / *Goal* (X) is covert. In short, the "affect," i.e. any affective relationship in which an Experiencer interacts with the Causer / Theme, is clearly stated for the former group of psychological idioms, in (4.9a), but concealed for the latter one, in (4.9b), even though this kind of emotional affect presumably exists.

In a nutshell, as argued by Nunberg *et al.* (1994), apart from the dimension of conventionality, none of these properties have to apply compulsorily to all idioms. As far as psychological idioms are concerned, all of them are associated with certain conventional connotations. However, there are some psych idioms which do not involve figuration, but reveal a high degree of analysability and transparency (e.g. *set Y's heart on X* "to put someone's emotional involvement into something / someone" → "to love;" or *turn Y's nose up at X* "to turn someone's attention and enthusiasm against something / someone; to reject" → "to hate"). Others are highly metaphorical (e.g. *ruffle Y's feathers* "to annoy;" *take the wind out of Y's sails* "to depress;" or *have a yellow streak / belly down Y's back* "to fear"), have some proverbial allusion (e.g. *drive Y out of mind* "to anger;" or *leave Y in the / a lurch* "to depress"), or overtly refer to some affective scenario (e.g. *lose sleep over X* "to worry;" or *[X] get a rise out of Y* "to annoy"). Finally, most idioms represent an informal register and a colloquial type of discourse (e.g. *paint the town* "to enjoy;" or *carry a torch for X* "to love").

Importantly, it is the triple semantic distinction based on compositionality, conventionality, and transparency, which is most commonly referred to in the literature while searching for the indicators of idiomaticity. As briefly summarised by Titone and Connine (1999: 1663-1664), compositionality is inferred from the degree to which the phrasal meaning, once recognised,

can be analysed in terms of the contributions of the constituents of the idiom; conventionality refers to the degree to which idiomatic meanings are not predictable from the word components left in isolation, and knowledge of the conventions of a particular language environment; finally, transparency concerns the degree to which the original motivation of these phrases is immediately accessible.

4.2.2 *Idiomatically combining expressions vs. idiomatic phrases*

The Principle of Semantic Compositionality (sometimes called "Frege's Principle" (1884)), according to which the meaning of a (syntactically complex) whole is only a function of the meanings of its (syntactic) parts placed together and the rules used to combine them, is contradicted by idioms (cf. Fraser 1970; Katz 1973; Chomsky 1980; Machonis 1985; Schenk 1994; and Grégoire 2009; among others). Indeed, in every language, there are such idiomatic expressions, as illustrated in (4.10a-c), conveying the meaning that does not comprise (the combination of) the meanings of the individual lexical items of that expression.

(4.10) Examples of *idiomatic phrases* (IdPs):

a. *kick the bucket* "to die"
Didn't you hear? He kicked the bucket–had a heart attack, I think.
(Google)

b. *raise the roof* "to show great enthusiasm" → "to enjoy"
The whole college is ready to raise the roof at next weekend's homecoming celebrations.
(Google)

c. *paint the town (red)* "to go out and celebrate" → "to enjoy"
After the show, we went out to paint the town red. We'd been sitting at an outdoor cafe, drinking rum.
(COCA)

In (4.10a), there is a canonical idiomatic phrase, usually cited in the literature, the meaning of which is completely not derivable from its components, i.e. neither "kicking" nor "buckets" contribute to the overall meaning of the phrase, which is "to die." Likewise, the particular lexical items comprising the psychological idiomatic expressions in (4.10b-c), *viz*. "raise" and "roof," or "paint" and "town," do not account for the whole

meaning of these idioms, which corresponds to the psychological verb "to enjoy." Nunberg, Sag and Wasow (1994) call these expressions *idiomatic phrases* (IdPs), which do not distribute their meanings among their components. Instead, the whole VPs of *kick the bucket*, *raise the roof*, and *paint the town (red)* are related to the overall interpretation of "to die," "to show great enthusiasm," and "to go out and celebrate," respectively.

Furthermore, Nunberg *et al*. (1994) distinguish *idiomatic phrases* (IdPs) from the other class of idioms, i.e. *idiomatically combining expressions* (ICEs). This group, exemplified in (4.11a-c), is usually referred to as compositional idioms, and it is far more extensive. The meaning of these idioms is predictable on the basis of their constituent elements, but it is often not a sum of the meanings of all their lexical items.

(4.11) Examples of *idiomatically combining expressions* (ICEs):

a. *pull strings* "to use connections"
You yourself pulled strings so that they'd transfer me to your department. You spoke with the board.
(COCA)

b. *cast a spell on Y* "to intrigue and delight someone"
→ "to fascinate"
She is a real beauty. She cast a spell on every man she met.
(Google)

c. *give Y the pip* "to severely annoy or dispirit someone" → "to annoy"
That sort of talk gave Jimmy the pip.
(Google)

The typical example of *idiomatically combining expressions* is *pull strings* ("to use connections"), cited in (4.11a), the overall interpretation of which is distributed among its parts, even though these are associated with conventional meanings, *viz*. *pull* → use, and *strings* → connections. Similarly, the psychological idiomatically combining expressions, listed in (4.11b-c), comprise lexical items that contribute to the general meaning of these idioms. The meaning of *cast a spell on Y* "to intrigue and delight someone" (in 4.11b) is totally predictable from the meaning of its particular constituents; whereas the idiom *give Y the pip* "to severely annoy or dispirit someone" in (4.11c) refers to a conventional connotation, i.e. "pip" meaning a bad temper or depression.

Moreover, it is generally acknowledged that idioms do not form a homogeneous class but rather a highly heterogeneous one which lies on "a continuum of compositionality" (Vega-Moreno 2003). Idioms differ as regards the extent to which the meanings of their individual components contribute to the overall figurative interpretation. At one end of the scale, there are extremely flexible *idiomatically combining expressions* which are derived fully compositionally from the meanings of their constituents. At the other end, there are highly fixed *idiomatic phrases*, recognised as non-compositional idiom strings, whose individual elements are in an entirely arbitrary relation to the overall idiom meaning. However, the majority of idioms take the position of somewhere between these extremes, exhibiting a variety in the degree and ways in which the internal semantics of their components is derived.

Even though different typologies of idiomatic expressions have been proposed (Cacciari and Glucksberg 1991; and Nunberg *et al*. 1994; among others), for the sake of this book, I follow the proposal, offered by Nunberg *et al*. (1994), and Harwood *et al*. (2016), that there are two types of psychological idioms, i.e. (i) *idiomatically combining expressions*, and (ii) *idiomatic phrases*, as illustrated in (4.11b-c) and (4.10b-c), respectively. *Idiomatically combining expressions* (ICEs) have meanings, even conventional ones, which are distributed among their components, and the particular elements of these literal (compositional) expressions can be mapped onto the elements of the figurative meaning. Besides, DPs of the idioms have a referent, e.g. *strings* mean connections, and *pip* means sickness; and the nouns are used metaphorically, making a collocation with a particular verb. On the other hand, *idiomatic phrases* (IdPs) do not distribute their meanings onto their constituents, and they form a whole unit which is mapped onto the figurative meaning.[12]

[12] Interestingly, it should be repeated here, for the sake of convenience that, taking into account the relation between the form of an idiom and its meaning, Gibbs and Nayak (1989), and Nunberg (1978), among others, distinguish three types of idioms. First, when a one-to-one relation occurs, i.e. a relation in which each word contributes independently to the figurative interpretation (e.g. the semantic relation between "pop" and "utter" and "question" and "marriage proposal" in *pop the question*), the idioms are typically known as "normally decomposable" idioms. Second, they mention "abnormally decomposable" idioms, in which there is an all-to-one relation with the (literal) meaning of the whole phrase being semantically connected with the figurative interpretation (e.g. *bury the hatchet*, and *push the panic button*). Finally, in case of "non- decomposable" idioms, the relation may be none-to-one in that the component words neither individually nor as a whole are in a semantic relation to the idiomatic meaning (e.g. *chew the fat*, and *break a leg*). Moreover, the relation may differ in terms of transparency between the constituent

In brief, idioms whose overall idiomatic interpretation is derivable (normally or abnormally, literally or figuratively) from their component parts are generally known as decomposable / compositional or analysable. These are named here *idiomatically combining expressions*. While idioms with the overall idiomatic interpretation not derived from the constituent parts are non-decomposable / non-compositional, frozen, opaque, and unanalysable, and these are typically referred to as *idiomatic phrases*.

Furthermore, with the aforementioned triple semantic distinction of idiomaticity in mind, *viz*. the one based on compositionality, conventionality, and transparency, *idiomatic phrases* (IdPs) are assumed to differ from *idiomatically combining expressions* (ICEs) in having essentially a lower compositionality, a higher conventionality, and a lower transparency (cf. Espinal and Jaume 2010: 1399). Besides, *idiomatically combining expressions* (ICEs) are not obligatorily required to be transparent, i.e. providing a speaker the reasoning for the figural interpretation they involve (though ICEs are mostly transparent and analysable). What is only essential is a correspondence between the expression and the relevant element of the idiomatic denotation that can be established. In turn, the idiomatic interpretations of *idiomatic phrases* (IdPs), cannot be distributed over their parts; thus, they must be entered in the lexicon as complete phrases (cf. Nunberg *et al.* 1994). Nevertheless, the class of idioms defined by the criterion of predictability comprises a far bigger group than the class of idiomatic phrases.

Finally, it must be admitted that the border line between those two types of idioms, i.e. *idiomatic phrases* (IdPs) and *idiomatically combining expressions* (ICEs), is not clear cut. Zhu and Fellbaum (2015: 339) argue that Corpus data have revealed that fully non-compositional idioms are not frozen, and semantic compositionality and variation are in fact independent of each other. Dobrovol'skij and Piirainen (2005: 14), in turn, treat idioms as a radial category, which comprises fully non-compositional, frozen idioms as prototypes, and partly compositional idioms which "radiate out" i.e. deviate from the prototype, when they have lexically substituted and morphosyntactically operated components.

Because a clear division between *idiomatic phrases* (IdPs) and *idiomatically combining expressions* (ICEs), based on the aforementioned semantic characteristics of idiomaticity, is hardly possible to make, some valid syntactic diagnostics should be established to make the distinction

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words contributing to idiom meaning, *viz*. an idiom may be literally transparent (e.g. "miss" in *miss the boat*), metaphorical (e.g. "blow" in *blow one's stack*), hyperbolical (e.g. *eat one's heart* out), or not deriving the meaning of an idiom at all (e.g. *kick the bucket*, *chew the fat*, and *shoot the breeze*).

explicit. For Wasow *et al.* (1984), Fillmore *et al.* (1988), Nunberg *et al.* (1994), Everaert *et al.* (1995), Harwood *et al.* (2016), and Corver *et al.* (2017), the extent to which idioms can be syntactically and lexically modified accounts for the difference between IdPs and ICEs. Especially the possibility for an idiom to undergo passivization, topicalization, and adjectival modification, while leaving the idiomatic interpretation intact, are the most commonly cited diagnostics to distinguish IdPs from ICEs, as these tests produce the most categorical results. The tests on the level of conventionality, compositionality or opacity of an idiom are, in turn, far more ambiguous and a matter of one's individual interpretation (cf. Corver *et al.* 2017: 12). Consequently, IdPs are expected to remain completely resistant to any syntactic or lexical modifications, in contradistinction to ICEs, which are to show a considerable degree of syntactic and lexical flexibility (cf. Nunberg *et al.* 1994; and Gibbs *et al.* 1995; among others). The issue of syntactic and lexical variability of idioms is to be discussed more thoroughly in section 4.3 of the chapter.

4.3 Syntactic and semantic variability of *idiomatically combining expressions* (ICEs) with psychological meaning

As regards compositional idioms, *viz*. *idiomatically combining expressions* (ICEs), the question arises what sort of syntactic, semantic, and lexical modifications this type of idioms can undergo. It is worth noting that parts of *idiomatic phrases* (IdPs) can also be occasionally modified but are subject to certain restrictions. Having studied the case of Italian idioms, Vietri (2014: 89) makes a general observation that modification of idiom parts is relevant either for the (supposed) decomposable or non-decomposable idioms.

With this in mind, the purpose of section 4.3 is to make an attempt to find out what types of syntactic and semantic modifications psychological idiomatically combining expressions may undergo. The instances of the possible modifications have been taken either from the COCA Corpus, or obtained *via* the Google Search. In addition, some value judgements have been pronounced by native speakers,[13] which is always indicated in parentheses below the cited examples. If a sentence is judged by native

[13] There have been 20 native speakers who have been asked for their judgements. Two of them (10%) were aged 20-25, the other two (10%) were in their 30s-40s, whereas the remaining sixteen (80%) were aged 60-70. All of them either teach English presently or used to do so before they retired.

speakers as weird or rarely used, it is marked with a question mark / question marks [?].

4.3.1 Alternations affecting the idiomatic object NP in psychological idioms

The first type of variability attested in idiomatically combining expressions refers to the alternations affecting the idiomatic object NP, including pronominalization of the object, called anaphoric reference (4.12), quantification of the object (4.13), changing the number of the object (4.14), and modification of the object by means of an intensifier (4.15), or an adjective (4.16)-(4.18).

To begin with, the existence of co-reference relations between pronouns and parts of idiomatic expressions, commonly known as *anaphora*, *anaphoric reference*, or *pronominalization of the object*, has been noted by Chomsky (1981), Bresnan (1982), Langacker (1987), and Nunberg *et al.* (1994), among others. While Bresnan (1982: 49), cited in Nunberg *et al.* (1994: 502), argues that genuine idiom chunks may not serve as antecedents for pronouns; Nunberg *et al.* (1994), find at least some idiom chunks, which are possible antecedents for pronouns.[14]

Based on native speakers' judgement and the data found *via* the Google Search, a few psychological idioms with anaphoric reference have been found. In the case of these phrases, a pronoun occurring later in the sentence may refer back to a noun which belongs to the core of an idiomatic expression. Therefore, in (4.12a) below, we have the pronoun *them* referring back to the idiomatic NP *butterflies* in the idiom *have butterflies in Y's stomach* "to worry and fear." The context of the passage below gives no other reference possibilities except for the idiomatic object NP "butterflies." Likewise, in (4.12b), the NP object *curves* of the idiom *throw Y a curve* "to surprise" is referred to by the pronoun *they* in the subsequent clause. In (4.12c), the idiomatic NP object *goose bumps* in the idiom *have / get goose bumps* "to worry" is replaced with the pronoun *they*.

[14] For further discussion concerning anaphora see Nunberg *et al.* (1994: 501-503).

(4.12) Pronominalization of an idiomatic object NP in psychological idioms:

a. *have butterflies in Y's stomach* → "to worry and fear"
I did have butterflies in my stomach, for some reason, and ... I had <u>them</u> in both of my thighs and both of my calves.
(Google)

b. *throw Y a curve* "to surprise"
Life may throw us many curves, but sometimes <u>they</u>'re just a test of our faith.
(Google)

c. *have / get goose bumps* "to worry"[15]
Why do we get goose bumps? (...) Sometimes goosebumps come with a fright, sometimes simply when we're chilly. <u>They</u> don't seem to perform any purpose, so why are <u>they</u> there?
(Google)

Moreover, a comparatively common variation concerns quantification of the object NP. Thus, in (4.13a), the idiomatic NP is quantified by *many*, while in (4.13b-e), a more extended range of quantifiers is provided, such as *a bit of*, *a lot of*, *no*, and *quite so much*.

(4.13) Quantification of the object NP in psychological idioms:

a. *throw Y a curve* "to surprise"
Life may throw us <u>many</u> curves, but sometimes they're just a test of our faith.
(Google)

b. *give Y a turn / a fright* "to scare"
Recently I had a high blood pressure reading from my doctor. It gave me <u>a bit of</u> a fright. (Google)

c. *carry weight with Y* "to matter to"
Your argument does not carry <u>a lot of</u> weight with me.
(Google)

d. *cut ice with Y* "to matter to"
As before, his deference cuts <u>no</u> ice with Carol, who is even more merciless than before
(COCA)

[15] The expression may be also interpreted literally "to get cold," referring to a bodily sensation, but in our analysis of the phrase only its figurative interpretation, *viz*. "to worry," is taken into consideration.

e. *hold X in abomination / contempt* "to hate"
For some reason he didn't hold her in quite so much contempt as he used to.
(Google)

Furthermore, when the number of the object is changed, *viz*. mainly when the canonically singular object NP appears as plural, some quantifier must be altered at the same time to license this variation, e.g. genitive possessor / pronoun (*somebody's*) into *zero article* [ø], as illustrated in (4.14a-b), *a* into *many*, as in (4.14c).

(4.14) Changing the number of the object NP in psychological idioms:
a. *whet Y's appetite* "to appeal"
According to Communist, sportsmen were controlled by capitalists to whet imperialistic appetites. (COCA)

b. *break Y's heart / spirit* "to depress"
That conflict left deep scars. It broke spirits, destroyed cities, scattered families, and sent thousands of Lebanese into exile.
(COCA)

c. *throw Y a curve* "to surprise"
Life may throw us many curves, but sometimes they're just a test of our faith.
(Google)

Another type of modification is the one with an *intensifier* inserted next to an NP object. An intensifier is a modifier that makes no contribution to the propositional meaning of a clause but aims to enhance and give additional emotional emphasis to the word it modifies. This is illustrated in (4.15a-b) for psychological idioms, in which the intensifier *quite* is used. Other intensifiers, e.g. *fairly*, *pretty*, *very*, *absolutely*, or *really*, are mostly placed directly in front of adjectives or adverbs to strengthen their meaning. In (4.15c), the idiomatic adjective *soft* is enhanced by the intensifier *very* in the idiom *have a soft spot for X* "to love;" while in (4.15d), the adjective *batty*, which is a constituent of the idiom *drive Y batty* "to annoy," is modified by the intensifier *absolutely*.

(4.15) Intensifier modification in psychological idioms:
a. *give Y a turn / a fright* "to horrify, scare"
You gave her quite a turn, suddenly appearing like that!
(Google)

b. *get a rise out of Y* "to annoy"
The seat has gotten quite a rise out of some of the unsuspecting men.
(Google)

c. *have a soft spot for X* "to love"
She has a very soft spot for young Victoria.
(Google)

d. *drive Y batty* "to annoy"
You and I both know that James drives me absolutely batty.
(Google)

Moreover, adjectival modification of the object is the most complex of these variations (cf. Ernst 1981; and Stone 2008, 2016). The most frequent kinds of adjectival modification, which occur with psychological idioms, include: (i) external adjectival modification; (ii) internal adjectival modification; and (iii) conjunctive adjectival modification, as exemplified in (4.16), (4.17), and (4.18), respectively.

(4.16) External adjectival modification of the object NP in psychological idioms:

a. *raise Y's hackles* "to annoy"
Children's health insurance bill in the current Congress has also raised conservative hackles.
(COCA)

b. *scare the shit / the wits out of Y* "to horrify"
When all of a sudden my cell phone rings and scares the total shit out of me.
(COCA)

c. *take a fancy / a liking / a shine to X* "to love"
She took a sudden liking to him.
(Google)

d. *cast a gloom / a shadow over Y* "to depress"
The TB-ridden slums cast a horrifying shadow on the comfortable neighbour-hoods around them.
(COCA)

External modification, illustrated in (4.16a-d), is said to be more common in the case of idioms compared with literal expressions. In this type of adjectival modification, the adjective modifies the entire expression rather than just the NP object. In (4.16a), *conservative* does not modify *hackles*

but, instead, it denotes a figurative reading of the idiom, which means here "annoying the conservative part of the society." In (4.16b), the adjective *total* does not describe *the shit*, but, in turn, it builds the overall idiomatic interpretation of "being scared totally." Similarly in (4.16c-d), *a sudden liking* and *a horrifying shadow* refer to the context in which the expressions should be interpreted; *viz*. "Suddenly*, she took a liking*," and "Horrifyingly*, the TB-ridden slums cast a shadow*." In brief, external modification exists outside of the domain of idioms. Thus, examples like (4.16a-d), allow an interpretation where the NP-internal modifier does not work as restricting the reference of the nominal constituent, but, instead, as an operator taking the nominal within its scope (cf. Nunberg *et al*. 1994: 500).

In (4.17a-d), there are some instances of the internal adjectival modification of the object NP, attested for psychological idioms.

(4.17) Internal adjectival modification of the object NP in psychological idioms:

a. *play (a game of) cat and mouse* "to annoy"
Enemy warplanes have been playing a deadly game of cat and mouse, trying to bring American fighter planes into range of their missiles. (COCA)

b. *bring a hornet's nest round Y's ears* "to annoy"
However, the chief offenders for the time were flogged and kept in bounds; but the victorious party had brought a nice hornet's nest about their ears.
(Google)

c. *put / send / throw Y into a funk* "to depress"
Having to change her menu threw the whole day off schedule and put her into a blue funk.
(Google)

d. *whet Y's appetite* "to appeal"
According to Communist, sportsmen were controlled by capitalists to whet imperialistic appetites and divert attention away from social and political problems.
(COCA)

Internal modification shows a lot of similarities with regular adjectival modification, with the exception that these adjectives may be interpreted either literally or figuratively, as illustrated in (4.17a-d) for psychological idioms. To be more precise, "deadly" in *playing a deadly game of cat and*

mouse in (4.17a) may refer to a dull and exhausting way of causing annoyance, when taken figuratively, or if literally retrieved, it may describe extremely dangerous and death-bringing enemies, as the context of the whole sentence suggests. In (4.17b), "nice" in the idiom *had brought a nice hornet's nest about their ears* should not be treated literally as pleasant and enjoyable, since annoying someone is not nice at all. Instead, the adjective is used ironically to emphasise the state of being annoyed even more. In (4.17c), "blue" in *put her into a blue funk* evokes a figurative interpretation of being "affected by fear or anxiety," which is traced back to the 19th century.[16] In (4.17d), the adjective "imperialistic" in *whet imperialistic appetites* must undergo metaphorization in order to be interpreted properly. It alludes to the metaphorical reading of the irresistible and indomitable power of imperialism. In all these cases, the adjectives contribute to the figurative interpretation of the idiomatic expressions.

Another type of adjectival modification of the object NP is called conjunctive modification (cf. Ernst 1981; and Stone 2016). In contrast to the two types of adjectival variation just discussed, the conjunctive modification concerns the reading of an expression which is deduced both on the literal and figurative basis, while the adjective itself is taken to modify the literal meaning of the object NP, as illustrated in (4.18a-c) below.

(4.18) Conjunctive adjectival modification of the object NP in psychological idioms:

a. *get a kick / a charge / a bang out of X* "to enjoy"
This book is just the kind you like and you'll get a real kick out of it.
(Google)

b. *cast a gloom / a shadow over Y* "to depress"
The Palestinian Authority and its violent takeover of Gaza in June have cast
a heavy shadow over politics in Jordan.
(COCA)

c. *scare the shit / the wits out of Y* "to horrify"
Granny used to scare the holy shit out of us kids with her campfire tales.
(Google)

[16]As given by *American Heritage Idioms Dictionary* (2002). Retrieved from http://www.dictionary. com/browse/blue-funk--in-a

In (4.18a), *real* modifies *kick*, which is understood as a true strike or thrill; while simultaneously, the idiom is retrieved figuratively and the overall meaning of the phrase *get a real kick* means "to enjoy," with an emphasis put on the fact that the enjoyment is real. In the same vein, in (4.18b),*heavy* describes *shadow* to underline the extensive range of it. On the other hand, if the expression *cast a heavy shadow over politics in Jordan* is treated figuratively, the adjective *heavy* adds far more stress to the idiomatic meaning of the phrase, i.e. "to depress." This makes the subject, *viz*. *the Palestinian Authority and its violent takeover of Gaza in June*, even more responsible for the disheartening and hopeless situation *in Jordan*. Interestingly, *holy*, in (4.18c), if treated literally, appears in conjunction with the contradictory noun *shit*. This rhetorical figure, by which apparently opposing terms are conjoined, so as to give emphasis to the statement or expression, is called an oxymoron. When the idiom *scare the holy shit out of Y* is interpreted as a whole, it should imply the reading "to extremely horrify Y."

In a nutshell, it has been demonstrated here that all the aforementioned types of modification, in which the idiomatic object NP may occur, are valid for psychological idiomatically combining expressions, as exemplified by the instances taken either from the COCA Corpus or retrieved *via* the Google Search. The kinds of alternation, the idiomatic object NP may undergo, comprise anaphoric reference, quantification of the object, changing the number of the object, and modification of the object by means of an intensifier or an adjective. All of these variations retain the idiomatic interpretation of an idiom, while conjunctive modification refers both to the literal and figurative meaning of the idiom at the same time.

4.3.2 Alternations of the syntactic configuration of elements in psychological *idiomatically combining expressions*

Further variations refer to changes in the syntactic configuration of idiomatic elements. Among these, the modifications relevant to psychological idioms include: passivization (4.19), subject-to-subject raising (4.20), control (4.21), *tough*-movement (4.22), relativization (4.23), proxy clause formation (4.24), clefting (4.25), topicalization (4.26), object incorporation (4.27), *VP*-ellipsis (4.28), figurative modification (4.29), and extendibility (4.30).

To start with, *passivization* is one of the most universally discussed variations, analysed by, e.g. Katz and Postal (1964), Fraser (1970), Chomsky (1970), Katz (1973), Fiengo (1974), Newmeyer (1974), Nunberg

(1978), Nunberg *et al.* (1994), Folli and Harley (2007), and Stone (2013), among many others. For decades, many theoretical proposals have been offered to account for the distinction between idioms which can be passivized, while still retaining their idiomatic meaning in the passive (e.g. *The beans were spilled* "The secret was divulged"), and idioms which are non-passivizable since their idiomatic interpretation is then lost (e.g. #*The bucket was kicked* receives only a literal interpretation).

One of the most widely-recognised accounts for (lack of) passivization of certain idioms is the one discussed in Nunberg *et al.* (1994). They argue that compositionality of idioms is the key factor for an idiom to be passivized. Due to semantic non-compositionality of *kick the bucket* "to die," which has its idiomatic meaning distributed over the entire phrase, the idiom cannot passivize and still retain its idiomatic meaning. Whereas a semantically compositional idiom *spill the beans* "to divulge a secret" is passivizable, because the meaning of the idiom is shared among the constituent elements of the idiom; as *spill* denotes "to divulge" and *the beans* refer to "a secret."[17] In addition, Folli and Harley (2007), and Stone (2008, 2013) offer a syntax-based account for distinguishing passivizable and non-passivizable idioms.[18]

There is a fair number of psychological idiomatically combining expressions which retain their idiomatic interpretation in the passive, as in (4.19a-d) below, while some of them, when passivized, sound grammatically unacceptable, as in (4.19e).

(4.19) *Passivization* of psychological idioms:

a. *drive Y bananas* "to annoy"
Adults also can be driven bananas by loud music, loud parties, and loud cars.
(Google)

b. *raise Y's hackles* "to annoy"
After 1976, Western European hackles were raised by the tendency of President Jimmy Carter to make the application of detente contingent.
(Google)

c. *bear / owe a grudge against X* "to hate"
Evil will and a grudge are born against me.
(Google)

[17] Cf. McGinnis's (2002) counterarguments against Nunberg *et al.*'s (1994) account of passivization. For McGinnis (2002), *aspect* plays a significant role since it is compositional even in non-passivizable idioms.
[18] Cf. Stone (2013: 4-5) for a more detailed analysis.

d. *take/find / gain pleasure in / from X* "to enjoy"
There is much pleasure to be gained from useless knowledge. (Google)
e. *catch Y's eye* "to fascinate"
**His eyes were caught by her look.*
(native speakers' judgement)

Subject-to-subject raising is another common modification, discussed by Perlmutter (1970), Postal (1974), Abeillé (1995), Lasnik and Saito (1999), and Osborne *et al*. (2012), among others. Abeillé (1995) argues that both an idiomatic subject and an idiomatic passivized object can undergo raising from a subordinate clause, to become the subject of a higher sentence, usually the main clause. This type of variation is illustrated for psychological idioms in (4.20a-c) below. In (4.20a) *a night fright* is a passivized object of the idiom *give Y a fright*, and here the object *a fright* belongs to the core of the idiomatic phrase. In (4.20b), an object *the good old monarch's heart* of the idiom *gladden Y's hearts* "to amuse," realises an open position in the possessive structure. The object originates in the complement position of *gladdened* and is first passivized, and hence lands in the subject position of a non-finite clause, from which it raises to the matrix clause subject position. In (4.20c), an object *politicians* realises an open position of the idiom *hold X in contempt*. In this case, there is passivization in the lower clause of an object *politicians*, raised into the lower subject position, and then raising from the lower clause subject position to the matrix clause.[19]

(4.20) *Subject-to-subject raising* with psychological idioms:

a. *give Y (quite) a (bit of) turn / a fright* "to scare"
A night fright seems to have been given to Brownie.
(Google)

[19] Cf. Petersen's (2016) comment on raising out of some idioms, which, if modified this way, lose their idiomatic meaning, as in (i).
(i) O kombos fenete oti exi ftasi sto xteni (Greek)
the knot seem-3SG that have-3SG reached to-the comb
"The knot seems to have reached the comb."
Idiomatic reading: #"Things seem to have come to an end."
(Petersen 2016: 248)
Petersen (2016: 247-248) claims that (parts of) an idiom may not carry discourse effects, and their raising, as an instance of A-movement, renders an idiomatic interpretation infelicitous.

b. *gladden Y's hearts Y* "to amuse"
The good old monarch's heart appears to have been gladdened.
(native speakers' judgement)

c. *hold X in contempt* "to hate"
Politicians seem to be generally held in contempt by ordinary people.
(Google)

On the other hand, when idioms are broken up by means of some control verbs, e.g. *want*, or *fail*, the sentences can only get a literal interpretation, as illustrated in (4.21a-b) for psychological idioms.

(4.21) *Control* with psychological idioms:

a. *play the fool for Y* "to amuse"
 # The fool wants to be played for Elisa.
(literal interpretation → "A silly person has a desire to be used, to please / gain Elisa's favour")
(native speakers' judgement)

b. *carry a torch for X* "to love"
 # A torch fails to be carried for Monica.
(literal interpretation → "A flashlight isn't delivered to Monica")
(native speakers' judgement)

Van der Linden (1991: 27) claims that the control-construction is hard to test for idioms.[20]

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[20] Interestingly, *control* has been thoroughly studied in the Government and Binding framework in the 1980s, while in the days of Transformational Grammar, it has been referred to in terms of *Equi-NP deletion.* Since *c*ontrol is said to be only applicable to meaningful expressions; thus, an expression (the controller) is related to an abstract pronominal (the controllee), and both the controller and the controllee have to be meaningful expressions (cf. Schenk 1995: 260-261). Idiom chunks cannot become controllers, as illustrated in the following examples:

(i) *spill the beans* → "to reveal a secret"
a. Pete instructs John to *spill the beans*.
b. John tries to *spill the beans*.
c. *John instructs the *beans to be spilled.*
d. *The *beans* try to be *spilled.*
(van der Linden 1991: 27)

(ii) *paint the town* → "to enjoy"
a. Mary instructs James to *paint the town.*
b. James tries to *paint the town.*

Another type of variation, *viz*. *tough*-movement, refers to sentences in which the syntactic subject of the main verb works logically as the object of an embedded non-finite verb. In contradistinction to a freely applicable subject-to-subject raising, *tough*-movement cannot occur freely in the case of idiomatic expressions. Some idioms retain their idiomatic interpretation in the *tough*-movement construction (cf. *A can of worms is often easier to open than one expects → open a can of worms* "to examine or attempt to solve some problem, only to inadvertently complicate it and create even more trouble," in Ruwet 1991: 186). However, others cannot be used in *tough*-movement structures since then the expressions are interpreted literally (e.g. *#The ice was easy to break* → "The frozen surface was easy to be broken").

In our analysis of psychological idioms, the idiomatic phrases which can be affected by *tough*-movement, are presented in (4.22a-b) below, while those which lose their figurative reading, if modified this way, are provided in (4.22c-d).

(4.22) *Tough*-movement construction with psychological idioms:

a. *cast a spell on Y* "to fascinate"
Love Spells are easy to cast and can bring new love or bring back an old love or lost love fast and simple.
(Google)

b. *whet Y's appetite* "to appeal"
Appetites of consumers are more and more difficult to whet when it comes to new products,' said the advertising and marketing workers at the conference.
(native speakers' judgement)

c. *freeze Y's (the) blood* "to horrify"
 # The blood isn't tough to freeze, and based on ion concentration, the freezing is probably -2°C. But the protein (albumin) may further lower the freezing point.
(native speakers' judgement)

---

c. *Mary instructs the *town to be painted.*
d. *The *town* tries to be *painted.*

In (i-a, b), *John*, as a free argument of *spill the beans*, can be part of a control structure. In (i-c, d), the idiom chunks sound bad when they occur in a control structure. Likewise, the example of the psychological idiom *paint the town* → "to enjoy" in the control structure, in (ii), James is a free argument of the idiom *paint the* town in (ii-a, b), which makes these examples acceptable. In turn, in (ii-c, d), the idiomatic NP object *the town* occurs in the control structure, which results in the ungrammaticality of these sentences.

d. *fan the fire / flame (of something)* "to anger"
 # The fire is easy to fan, especially when the wind is heavy.
(native speakers' judgement)

As can be seen in (4.22a-b), some idioms, including psychological idioms, can retain their idiomatic interpretation when they undergo *tough*-movement. Indeed, in (4.22a), *love spells are easy to cast* can be understood as "it is easy to fascinate someone," and in (4.22b), *Appetites of consumers are more and more difficult to whet* has the idiomatic meaning of "appealing" not referring to someone's culinary preferences. However, the idiomatic interpretation in (4.22c) for the idiom *freeze Y's (the) blood* "to horrify" is lost, and the literal interpretation is triggered, referring to the blood and the process of freezing. Likewise, in (4.22d), the idiom *fan the fire / flame (of something)* does not mean "to anger someone," but the literal action of kindling a flame is possible. It seems right to conclude then that *context* in which a specific idiom appears makes a big difference for an idiomatic or literal meaning (cf. Cacciari 1993: 27; Marschark *et al.* 1983; Moore 1982; Popiel and McRae 1988; and Needham 1992; among others). In fact, these meanings ("subsenses"), contextually dependent, may be combined to form either a literal or idiomatic meaning (cf. Everaert 2010: 83).

A more detailed discussion of *tough*-movement taking place in idioms can be found in Rosenbaum (1967), Berman (1973), Lasnik and Fiengo (1974), Ruwet (1991), and Hicks (2009), among others.

Likewise, *relativization*, *viz*. the process of forming a relative clause, can apply only to certain idioms. Schachter (1973) and McCawley (1981) identify two possibilities for relativization, relevant for idioms, i.e. when the idiomatic verb is in the relative clause (4.23a-d), or in the main clause (4.23e). Besides, Siemund (2013) mentions three strategies to form relative clauses, i.e. with the use of (i) relative pronouns, e.g. *which*, *who*, as in (4.23e); (ii) the subordinator (or *relativizer*) *that*, as in (4.23d); and (iii) by means of a null relative marker [ø], which seems to be the most common one, as can be seen in (4.23a-c), for psychological idioms.

(4.23) *Relativization* of psychological idioms:

a. *have / get goose bumps* "to fear"
Yes, [I mean] goose bumps [ø] *one can get when you hear childbirth.*
(Google)

b. *carry a torch for X* "to love"
It'll help extinguish that torch [ø] *he carries for you when he sees once and for all you*
(Google)

c. *bear / owe a grudge against X* "to hate"
She can finally let go of the grudge [ø] *she has borne against them all the time.*
(Google)

d. *bear / owe a grudge against X* "to hate"
I tell first of the grudge that I bore against him.
(Google)

e. *lose Y's heart(to X)* "to love"
My heart, which is bleeding, I've lost to him.
(native speakers' judgement)

f. *have ants in Y's pants* "to worry"
 # These are the ants which I have in my pants.
(native speakers' judgement)

g. *get cold feet* "to fear"
 # Mary got cold feet which she had taken earlier out of her high-heeled shoes.
(native speakers' judgement)

In (4.23a) the idiomatic object *goose bumps* is modified by means of the relative clause, introduced by a null relative marker [ø]. Likewise, in (4.23b-d), the object idiom chunks, i.e. *that torch* and *the grudge* are modified by relative clauses, which are introduced either by a null relative marker [ø], or by means of the relativizer *that*. The sentence in (4.23e) is grammatical, and the idiomatic object *my heart* is relativized and appears in the subject position, while the idiomatic verb *lost* occurs in the main clause. The instances in (4.23f-g) confirm the fact that some idioms lose their idiomatic meaning in the process of forming a relative clause. Thus, the sentence in (4.23f), *These are the ants which I have in my pants*, should be interpreted literally as "having some small insects in my shorts" but not as "to worry," which the psychological idiom *have ants in Y's pants* denotes. Similarly, the sentence in (4.23g), *Mary got cold feet which she had taken earlier out of her high-heeled shoes*, refers to literally understood "cold feet which one may get when they are taken out of one's shoes." Obviously, the phrase *get cold feet* loses here its idiomatic interpretation "to fear," and the literal meaning is enforced by the content of the *which*-clause. In brief, *relativization* works only for certain idioms.

Another type of variation, relatively underrepresented in the literature, refers to *proxy clauses*, which represent a subclass of relative clauses. Such a clause works as a proxy mostly for some noun within the clause itself. In (4.24a), an example of proxy clause, given by Higgins (1974; 1981), is presented, where the clause *what I would regard as headway* is serving as a proxy for the noun *headway*. The fact that this modification is only valid for a small set of idioms, has been proven by the fact that no relevant data has been found for psychological idioms in the COCA Corpus and by means of The Google Search. It can only be assumed that some version of a proxy clause is theoretically possible for psychological idioms, as in (4.24b). However, according to native speakers' judgements, the sentence in (4.24b) is grammatical but sounds artificial and weird, which is indicated with a question mark "?," since it is really dubious whether a speaker can use it in a real language.

(4.24) *Proxy clause* formation:

a. *make headway* "to develop, make progress"
John certainly isn't making what I would regard as headway.
(Higgins 1974: 3; 1981, *unpublished manuscript*)

b. *have a yellow streak / belly down X's back* "to fear"
? Tex has what I would regard as a yellow streak down his back.
(native speakers' judgement)

The next type of variation which is little discussed in the literature, is called *clefting*. The purpose of cleft sentences, mostly realised as *It*-clefts, *Wh*-clefts, *inverted*-clefts, or *Pseudo*-clefts, is to put a particular (new) constituent in focus. In clefts, a single message is divided (cleft) into two clauses, which allows us to focus on the new information (cf. Collins 1991; and Lambrecht 2001). Fraser (1970), Carlson (1977), Gramley and Pátzold (1992), Reeve (2010), and Anastasiou (2010), among others, find *clefting* generally disallowed for English idioms, e.g. **It was the bucket that Mark kicked* (*kick the bucket* "to die"), or **It were the beans that Agnes spilled* (*spill the beans* "to divulge a secret"). French idioms, in turn, can be modified by means of cleft structures easily, as discussed thoroughly by Ruwet (1991) and Abeillé (1995). This variation is exemplified in (4.25a) for the French idiom *promettremonts et merveilles* "to promise the moon," and in (4.25b-h) for English psychological idioms.

(4.25) *Cleft*-structures with psychological idioms:

a. *promettremonts et merveilles* "to promise the moon' [French]
C'est des monts et (des) merveilles que nous a promis le président.
It is–mountains–and–marvels–that–us–promised–President
It is mountains and marvels that the President has promised us.
(Ruwet 1991: 192)

b. *cast a gloom / a shadow over Y* "to depress"
? *It's a shadow that is cast over the President.*
(native speakers' judgement)

But cf.

b'. *It's a shadow that hangs over the President's capability of conducting foreign affairs.*
(COCA)

c. *dampen*/*damp Y's spirits* "to depress"
?? *It's her spirits that were dampened by that difficult case.*
(native speakers' judgement)

But cf.

c'. *It was her spirit that ravished him.*
(COCA)

d. *give Y the blues* "to depress"
All you ever give me is the blues.
(native speakers' judgement)

e. *show contempt for X* "to hate"
What he often shows is contempt for the local authorities.
(native speakers' judgement)

f. *have / get goose bumps* "to fear"
What I got were goose bumps, when I saw him so pale.
(native speakers' judgement)

g. *get cold feet* "to fear"
What she got in this terrifying situation was cold feet.
(native speakers' judgement)

h. *cast a gloom / a shadow over Y* "to depress"
What has been cast over the President is the shadow.
(native speakers' judgement)

The French idiom in (4.25a) is completely grammatical in the cleft structure; while the English psychological idioms in (4.25b-c), seem to be syntactically acceptable, but they sound pretty strange, when judged by native speakers. Interestingly, when the idiomatic verbs in (4.25b'-c') are

changed into different ones, *viz*. *cast → hang over*, and *dampen → ravish*, the sentences get improved, but the psychological idiomatic meaning is lost, even though some figurativeness of the sentences is still retained.

Moreover, the instance illustrated in (4.25d) is an example of *Inverted*-clefts, which is completely licit as regards grammar, but its meaning is ambiguous between the idiomatic one, *viz*. *give Y the blues* "to depress someone," and the literal interpretation "to provide somebody with this specific kind of music, i.e. blues." Likewise, the idiomatic meaning is lost for most of the *Pseudo*-cleft structures, illustrated in (4.25e-h). Only the cleft examples with the idioms *show contempt for X* "to hate" (4.25e), and *have / get goose bumps* "to fear" (4.25f), seem to be acceptable and retain their idiomatic interpretation, but native speakers assess these structures as rarely used in a real life language.

To sum up, the cleft structures, provided in (4.25b-h), seem to capture the fact that the more transparent and compositional an idiom is, the easier it forms the cleft structure. Furthermore, Gramley and Pátzold (1992) propose that some of the reasons why certain idioms do or do not allow transformations seem to be idiosyncratic; while for others the semantic reasons can be given. Therefore, most idioms usually resist the isolation of one formative for emphasis, as in the case of cleft structures (**It was her throat that he jumped down*, *jump down someone's throat* "to respond to what someone has said in a sudden and angrily critical way"), because in this operation word forms are treated as semantic constituents, which they are not. *Throat* in *he jumped down her throat* has no isolable meaning in the idiom, and that is why it cannot be modified (cf. Gramley and Pátzold 1992: 57).[21]

Furthermore, a certain set of English idioms, including psychological idioms, under some restrictions, can take part in *topicalization*, to emphasize a certain part of an idiomatic phrase. Nunberg *et al.* (1994), in

[21] Reeve (2010) provides some remarkable account for possible or disallowed cleft structures. He argues that VO idioms, such as *keep track* and *make headway*, must "be base-generated as a constituent." This contributes to the fact that the idiomatic object is dependent on the verb. However, in some cases, it is possible for the object to undergo movement and still retain its idiomatic meaning, e.g. *What kind of track was she keeping $_t$ of her expenses?*, or *The careful track that she's keeping $_t$ of her expenses pleases me* (cf. Carlson 1977, cited in Reeve 2010: 65). Whereas, other cleft variations are found unacceptable, e.g. **What she is keeping of her expenses is CAREFUL TRACK* (den Dikken *et al*. 2000, cited in Reeve 2010: 65), or * *CAREFUL TRACK is what she is keeping of her expenses* (cf. Reeve 2010: 65-66).

their discussion of topicalization, argue that emphasizing parts of idioms in this way would be pointless unless these parts have distinguishable meanings in their idiomatic uses (*ibid.*: 501). An important account for topicalization is also given by Schenk (1995), who confirms that this type of syntactic variation is applicable only to meaningful expressions. To be precise, idiom parts cannot be the focus of topicalization, *viz*. idiom components cannot be discontinued, as illustrated in (4.26a-a') and (4.26b-b'), because they constitute one complete idiomatic whole, which, if broken, results in losing the idiomatic interpretation and leads to ungrammaticality of the sentence.

(4.26) *Topicalization* with psychological idioms:

a. *spill the beans* "to divulge a secret"
**The beans, John spilt.*
(Schenk 1995: 259)

a'. *kick the bucket* "to die"
**The bucket, John kicked.*
(Schenk 1995: 259)

a''. *read the riot act* "to give someone a severe scolding"
To the class, Pete read the riot act.
(Schenk 1995: 259)

b. *upset the apple cart against Y* "to annoy"
**The apple cart, they upset.*
(native speakers' judgement)

b'. *get a kick / a charge / a bang out of X* "to enjoy"
** A kick, I got out of this incredible event.*
(native speakers' judgement)

c. *bear / owe a grudge against X* "to hate"
Against them, she has borne a grudge all the time.
(native speakers' judgement)

d. *lose Y's heart to X* "to love"
To this lady, he's lost his heart recently.
(native speakers' judgement)

e. *make a difference to Y* "to matter"
Only to Jason, she makes a difference.
(native speakers' judgement)

On the other hand, topicalization is allowed for the instance illustrated in (4.26a'') above, since *the class* is a free slot of the idiom, and thus it can be topicalized (cf. Schenk 1995: 259). Similarly, as can be seen in (4.26c-e) on the example of psychological idioms, *against them*, *to this lady*, and

only to Jason are the free slots of the idioms, which, when shifted into the topic position at the beginning of the sentence, do not result in breaking the core meaningful structure of these idioms. Therefore, such constructions are acceptable, although judged by native speakers as quite rare. A more detailed analysis of topicalization is provided in Wasow *et al*. (1984), Gazdar *et al.* (1985), and Osborne *et al*. (2012), among others.

Another type of variation, hardly ever analysed in the literature, is called *object incorporation*, *viz*. synthetic compound formation. It seems to be applicable to English idioms, when an idiomatic verb forms a compound with its direct object, still retaining its original syntactic function. Nonetheless, at least two changes must occur in this variation, i.e. (i) the bare NP object must take a pre-verbal position without its determiner; and (ii) it is an adjectival rather than verbal compound, with participial *-ing* morphology for the verb (cf. Baker 1988; Rosen 1984, 1989; and Mattissen 2006). The application of *object incorporation* to idioms is illustrated on the example of psychological idioms in (4.27) below.

(4.27) *Object incorporation* in psychological idioms:

a. *give Y a turn* "to horrify"
The purpose is to make explicit the simultaneously occurring markers and cues of the turn-giving intention of the current speaker based on information coming from different modalities.
(Google)

b. *curdle / chill Y's blood* "to scare"
Then she let out a blood chilling scream and ran to the other side of the table.
(COCA)

The example in (4.27a) shows object incorporation with *give Y a turn* "to horrify," which appears as the adjectival expression *turn-giving*. Whereas, in (4.27b) the adjectival compound *blood chilling* derives from the idiom *chill Y's blood* "to scare," and it comprises the idiomatic NP object *blood* placed pre-verbally, before the idiomatic verb *chill*. The determiner of the NP, represented in (4.27b) by a genitive possessor, which reveals the identity of the Experiencer Y, must be omitted in this type of modification.

Furthermore, certain parts of idioms can sometimes be affected by *VP*-ellipsis. The antecedents of the missing elements in elliptical constructions must correspond to semantic units, i.e. to pieces of interpretation (cf. Nunberg *et al*. 1994: 501). Due to the fact that the antecedents are parts of idioms, they must bear some kind of interpretation of their own (*ibid*.: 501). The application of VP-ellipsis to idioms has been discussed by Wasow *et al*. (1984), Gazdar *et al.* (1985), Johnson (2001), Goldberg (2005), and Bos and Spenader (2011), among others. This elliptical construction is illustrated in (4.28a-b) below for psychological idioms, in which certain parts of the idioms *have a ball*, or *carry a torch*, are omitted.

(4.28) *VP-ellipsis* with psychological idioms:

a. *have a ball* "to enjoy"
At school he worked a lot harder when he had the ball than when he didn't.
(Google)

b. *carry a torch for X* "to love"
"People carry torches when they're young." "They do," he grinned.
(Google)

What is more, Egan (2008: 19-20) introduces two further types of idiomatic variations, *viz*. *figurative modification* (4.29), and *extendibility* (4.30). The figurative modification bears some resemblance to internal modification as in (4.17) above, except for the fact that the figurative modification is more flexible, and the modifier is not required to be in a prenominal position. Besides, as noted by Vietri (2014: 91), the figurative modification may involve "wordplay." In addition, Egan (2008) argues, in his *PRETENSE hypothesis*, that manipulations may concern the literal meaning of some parts of an idiom, rather than the figurative interpretation. Indeed, Egan's (2008) prediction that figurative modification is relevant to both idiomatic combinations and phrasal idioms seems to be confirmed. Our study of psychological idioms provides support for Egan's (2008) hypothesis as well, as illustrated in (4.29a-b).

(4.29) *Figurative modification* for psychological idioms:

a. *knock Y's socks off* "to surprise"
Yeah, you said you could give me a kiss that would ***knock my socks off****. I'm still not wearing* ***any.*** (Google)

b. *ruffle Y's feathers* "to annoy"
The Bishop of Edinburgh doesn't just ***ruffle feathers****–he tears* ***them*** *out in handfuls.*

(Google)

While *any* in (4.29a) literally refers to *socks* in the preceding sentence in the idiom *knock Y's socks off*, it is interpreted figuratively when the idiomatic meaning is activated. If *knock Y's socks off* means roughly "to surprise," then "*I'm still not wearing any"* indicates here that so far there has been no surprise, or no surprise is expected to happen. In the same way, in (4.29b), the modifying clause "*he tears them out in handfuls"* implies that *them* is a substitute for *feathers*, which not only are *ruffled*, as the idiom suggests, which means "to annoy;" but literally retrieved the *feathers* are also said to be *torn out in handfuls*. This "wordplay," related to the literal reading of particular parts of the idioms, may occur owing to the activated figurative interpretation of the idioms.

Extendibility is another process discussed by Egan (2008), and it refers to the idiomatic interpretation which is extended to other parts of the discourse, be they idiomatic or not, while sticking to the same semantic concept.[22] In (4.30) below, extendibility is illustrated on some examples of psychological idioms.[23]

(4.30) *Extendibility* relevant to psychological idioms:
a. "to annoy:"
drive Y bananas (batty / nuts/ bonkers / crazy) → ruffle Y's feathers

Things that drive me crazy might not bother you, while something that has you climbing the walls might hardly ruffle my feathers.

(Google)

[22] While discussing *extendibility*, Egan (2008) provides the following example:
(i) *Speaker A*: I hear Mr. Jones *kicked the bucket*.
Speaker B: Yeah. He almost connected yesterday; today he really *put the boot on* it.

(*kick the bucket*; Egan 2008: 393).
In Egan's (2008) example above, extendibility means that once Speaker A, in (i). has invoked the idiom *kick the bucket* to mean that Mr. Jones has died, Speaker B relates to the same semantic space of death, using terms *connected*, and *boot*.
[23] Egan (2008) argues that the line between extendibility (and perhaps even figurative modification) and wordplay is tenuous, and no dividing line of this kind should be drawn.

b. "to worry and fear"
have butterflies in Y's stomach → have a yellow streak / belly down Y's back

The psychosomatic component to our suffering has been recognized as "a pain in the neck," or, "I've got butterflies in my stomach," or (...) We say, "He's got a yellow streak up his spine,"

(Google)

c. "to worry and fear"
have butterflies in Y's stomach → shaking

GIBSON: Well, we win the 200-meter butterfly, both the men's and women's. We talked to Tom Malchow yesterday, and I asked him the question I've always wanted to ask swimmers in the butterfly races. And I ask you the same question, did you have butterflies in the butterfly?

Ms-HYMAN: Well, I definitely had butterflies all day long yesterday. There were some points where I was actually shaking.

(COCA)

In the example in (4.30a), an Experiencer describes the stimuli which make him / her annoyed, referring to them as "things that *drive me crazy,"* while others "*ruffle my feathers*." In (4.30b), an Experiencer has invoked two idioms to denote the state of being worried and afraid, i.e. *have butterflies in Y's stomach* and *have a yellow streak down Y's back*. The speaker meant to define "the psychosomatic components to our suffering." Whereas in the conversation in (4.30c), *Ms-HYMAN* refers to the state of being worried and anxious, using the idiom *have butterflies in Y's stomach*, and the non-idiomatic predicate *shake*. In all these instances, the Experiencers have extended their idiomatic interpretations, using related terms, even related idiomatic expressions, to invoke the same semantic space of either "annoyance" (4.30a), or "worry" (4.30b-c).

4.3.3 Co-occurrence dependencies in psychological ICEs

One of the distinguishing features of idiomatically combining expressions, which is underlined by Nunberg *et al*. (1994: 504-505), is the dependency between the idiomatic verbs and their objects. The authors claim that this dependency is semantic in nature, which stems from the fact that an idiom

consists of a (literal) meaning which receives a particular conventional and homomorphic association. This conventional mapping from literal to idiomatic reading is homomorphic taking into account certain properties of the interpretations of the idiom's constituents. Therefore, some idiomatically combining expressions are expected to have *families of idioms*. More specifically, either the same verb can occur with different NPs / PPs to form distinct, but semantically related, idioms; or the same idiomatic NP / PP takes different verbs; or the same or semantically related idiomatic meaning is retained, but all the idiom components are syntactically or/and lexically different. All of these possibilities are illustrated on the examples of psychological ICEs, in (4.31a-j), (4.32a-i), and (4.33a-o), respectively.[24]

(4.31) Homomorphic families of psychological idioms, with the same verb, e.g.:

a. *love* → set store by X; set Y's heart on X
b. *enjoy* → get a buzz / get a kick / get a charge / get a bang / out of X
c. *hate* → bear ill will toward X; bear a grudge against X; bear aversion / malice / hostility / repugnance toward (to) X
d. *annoy* → rattle Y's cage /chain; get Y's dander /hacklers/ Irish up
e. *amuse* → tickle Y to death / to pieces / pink
f. *scare* → frighten the life / the hell out of Y; give Y a turn / a fright
g. *depress* → break Y's heart / spirit; cast a gloom / a shadow over Y; knock Y down a peg / notch (or two); give Y a bad / hard time/ the blues / the run around; bring Y into disrepute/ bring Y low; knock the stuffing out of Y/ knock Y for six / knock Y sideways
h. *anger* → fan the fire / flame (of something); get Y's back / dander up; drive Y out of mind /drive Y to distraction /drive Y round the bend / twist

[24] It is worth recalling here, for the sake of convenience, what has been introduced in Chapter Three of the book. Specifically, all psychological idioms are not provided with detailed meanings they have, but classified into the general psychological domains, directly related to psych-verbs. In fact, the interpretation of every single idiom differs, e.g. both the idiom *carry a torch for X* "to secretly love someone who does not love you," and *set store by X* "to regard as valuable or worthwhile, worthy to be loved" are classified into the same semantic domain of LOVE, and the psych-verb related to these idioms is "to love."

i. *surprise* → knock Y's socks off / knock Y down/over with a feather; catch Y off balance / up short / napping / catch Y on the hop / catch Y off (Y's) guards / catch Y unawares; leave Y open-mouthed / leave Y at a loss for words; strike Y dumb / strike Y with awe / strike Y with wonder; throw Y off balance/ throw Y a curve (ball)
j. *horrify* → scare the shit / the wits out of Y / scare the bejesus out of Y

(4.32) Homomorphic families of psychological idioms, with the same NP / PP, e.g.:

a. *enjoy* → derive/gain/get pleasure from X
b. *hate* → bear / owe a grudge against X; bear / feel aversion / malice / hostility / repugnance toward (to) X
c. *fear* → have a yellow streak / belly down Y's back
d. *annoy* → throw/send Y into a tizzy / tizz
e. *scare* → curdle / chill Y's blood; throw /send Y into a panic
f. *depress* → damp/ dash / wither Y's hopes; put / send / throw Y into a funk
g. *anger* → put / set Y's back (up)
h. *horrify* → frighten/scare the pants off Y; frighten / scare Y to death; frighten/ scare Y out of their wits
i. *appeal* → set / put Y on Y's ear

(4.33) Homomorphic families of psychological idioms, with syntactically or / and lexically different components but with the same or semantically related meaning:

a. ***love*** → 13 idioms, [25] e.g.
carry a torch for X; fall head over heels in love with X;
b. ***enjoy*** → 11 idioms, e.g.
have a ball; blow / let off (some) steam; kick (up) Y's heels
c. ***hate*** → 10 idioms, e.g.
show contempt for X; hold X in abomination / contempt; turn Y's back on X
d. ***fear*** → 9 idioms, e.g.
turn tail (and run); take dim view of X; have a yellow streak down Y's back

[25] These numbers are based on the corpus study, presented in Chapter Three.

e. ***worry*** → 6 idioms, e.g.
have the blues; eat Y's heart out;lose sleep over X
f. ***annoy*** → 26 idioms, e.g.
raise the hump; get Y's goat; raise Y's hackles
g. ***fascinate*** → 11 idioms, e.g.
catch Y's eye; tickle Y's fancy; stir the /Y's blood
h. ***amuse*** → 4 idioms, e.g.
gladden Y's hearts; make the grade for Y; play the fool for Y
i. ***scare*** → 11 idioms, e.g.
curdle / chill Y's blood; put the fear of God into Y; strike terror into Y
j. ***depress*** → 20 idioms, e.g.
put a damper on Y; bring tears to Y's eyes; take the wind out of Y's sails
k. ***anger*** → 10 idioms, e.g.
fan the fire / flame (of something); kindle Y's wrath; get Y's back up
l. ***surprise*** → 15 idioms, e.g.
knock Y's socks off; knock Y down / over with a feather; blow Y out of the water
m. ***horrify*** → 8 idioms, e.g.
freeze Y's (the) blood; put the screws on Y; scare the shit / the wits out of Y
n. ***appeal*** → 4 idioms, e.g.
float Y's boat; tickle Y's fancy; whet Y's appetite
o. ***matter*** → 3 idioms, e.g.
carry some weight with Y; cut (no) ice with Y; make a difference to Y

As can be seen in (4.31a-j), (4.32a-i), and (4.33a-o), there are numerous instances of psychological ICEs, which form homomorphic families of idioms, preserving the co-occurrence dependency. It is necessarily required for all these idiom components (idiomatic verb, NP, or PP) to stay in the same semantically coherent domain. However, as admitted by Nunberg *et al*. (1994: 505), this semantic dependency in idiomatically combining expressions may miss some factors, such as the definiteness of idiomatic NPs. As a result, this fact may provide some justifiable account for the marginality of certain psychological idioms with definite articles, e.g. *raise the hump*, *get the blues*, or *make the grade for*, in comparison with those which comprise an open slot realised in a possessor, e.g. *damp /*

dash / wither Y's hopes; *rattle Y's cage / chain*; or *get Y's dander / hacklers / Irish up*.

To sum up, in section 4.3, the issue of syntactic and lexical variability of ICEs (on the example of psychological idioms) has been discussed. Quantification, topicalization, ellipsis, and anaphora, among others, are the numerous examples of variation forms idiomatically combining expressions can occur in. As exemplified by psychological idioms, ICEs tend to exhibit also a degree of lexical substitution, due to their more compositional nature. IdPs, instead, are usually entirely resistant to any such alterations, as has been discussed in section 4.2.1.2, and exemplified by inflexibility of psychological IdPs in (4.10). *Table 4-1* summarises the differences between IdPs and ICEs.

Idiom	***Conventionality***	***Opacity***	***Compositionality***	***Lexical Variation***	***Open Slots***	***Syntactic Flexibility***
IdP	High	Opaque	Non-compositional	No	No	No
ICE	Low	Trans-parent	More compositional	Yes	Yes	Yes

Table 4-1. Properties IdPs and ICEs
(Corver *et al.* 2017: 10; cf. also Harwood *et al*. 2016)

Besides, taking into account this plentiful variation idiomatically combining expressions can undergo, illustrated on the aforementioned examples of psychological idioms, it seems to be hardly possible to sustain a notion of idioms as purely frozen expressions. However, due to the scarcity of systematic investigations concerning idiom flexibility, the difficulty to distinguish idiomatic from literal interpretations, and semantic from syntactic ill-formedness; it has been problematic to draw any explicit conclusions concerning permissible idiomatic variability. Nonetheless, some introspective grammaticality conclusions, made by experienced linguists who recognise these nuances well, have helped to form the primary source of data about the nature of idioms.

4.4 Constraints on the syntactic structure of psychological idioms. Previous accounts

In the previous sections, some crucial issues concerning the characteristics of idioms have been reviewed, together with the examples of flexibility which psychological idiomatically combining expressions (ICEs) may display. However, idioms have puzzled linguists for decades. The puzzle refers both to the syntactic rules that idiomatic phrases seem to disobey, and the way in which their overall idiomatic reading is to be deduced. Various proposals in this field have been made by linguists, on the ground of both theoretical and empirical observations, but unfortunately, little agreement concerning the behaviour of idioms has been reached so far.

The aim of this part of the chapter is to deal with syntactic constraints imposed on idiomaticity by the grammar. Section 4.4, specifically, presents an outline of the most crucial approaches towards the behaviour of idioms, reviewing Nunberg *et al*.'s (1994) semantic alternative to the *Hierarchy Constraint* (section 4.4.1), and O'Grady's (1998) *Continuity Constraint* (section 4.4.2). These accounts have been found useful to analyse the syntactic structure of psychological idioms before the onset of the recent *Idioms As Phases* Hypothesis (Svenonius 2005; Kim 2014; Harwood 2013, 2015, 2016). In the discussion concerning constraints on idioms, reference is to be made to particular syntactic patterns of psychological idioms, elicited in Chapter Three.

4.4.1 Nunberg *et al*.'s (1994) semantic alternative to the *Hierarchy Constraint*

To begin with, it has been Nunberg, Sag and Wasow (1994) who, in their seminal work, distinguish idiomatic phrases (IdPs), e.g. *kick the bucket* "to die," or *raise the roof* "to enjoy," from idiomatically combining expressions (ICEs), e.g. *spill the beans* "to reveal a secret," or *give Y a fright* "to scare." This distinction, adopted for the sake of the book, and analysed thoroughly in section 4.2.2, seems to be useful to understand the behaviour of the so-called non-compositional and fixed idioms, on the one hand, and compositional and flexible ones, on the other.

What is more, while analysing idioms, generative linguists have never dealt satisfactorily with idiomatic compositionality, productivity and syntactic variance, which has led them to treating idioms as "extra-grammatical," placed at the periphery of grammar. Nunberg *et al.* (1994), instead, argue that certain components of an idiom can be assigned an interpretation, and that "modification, quantification, topicalization,

ellipsis, and anaphora provide powerful evidence that the pieces of many idioms have identifiable meanings which interact semantically with other" (Nunberg *et al*. 1994: 503). Contradicting this way a well-established assumptions made in generative grammar, Nunberg *et al.* (1994: 503) conclude that the meanings of idiom chunks are not their literal meanings, but, instead, idiomatic meanings are largely derived from literal meanings in the conventionalized, but not entirely arbitrary, manner. As a result, conventionality should not be identified with non-compositionality, and differences in syntactic flexibility among idioms can be explained by means of the compatibility of semantics with the semantics and pragmatics of various constructions (cf. Nunberg *et al.*'s (1994: 504-505) postulation of the existence of homomorphic families of idioms, discussed in section 4.3.3).

Furthermore, Nunberg *et al.* (1994) comment on Marantz's (1984) and Kiparsky's (1987) generalization concerning the rarity of idiomatic Agents and Goals in idioms, providing some additional argumentation about why idioms contain far fewer animate NPs than inanimate ones in general. Nunberg *et al.* (1994) argue that, in normal discourse, verbs mostly take animate objects, while hardly any animate objects are used in idiomatic expressions (e.g. *hit the ceiling* "to get very angry," *hit rock bottom* "to reach the lowest point," *kiss the dust* "to fall down due to being shot / hit," or *kiss the cup* "to drink"). Indeed, this assumption seems to be true when considering the case of psychological idioms under scrutiny. Truly, out of 161 English idioms related to a psychological condition, which have been elicited in Chapter Three, there is only one instance including a literally animate NP, i.e. *get Y's Irish up* "to annoy," providing the nationality adjective *Irish*, used in this idiom, is an NP. Moreover, Nunberg *et al.* (1994) assume that the predisposition of metaphorical mappings to shift from concrete to abstract in idioms does not offer a full explanation of the extreme rarity of concrete / animate idiomatic meanings in idioms. Such metaphorical reference to concrete things, actions, or situations does not commonly occur.

Likewise, according to Nunberg *et al.* (1994), it is relatively rare for an idiom to feature a fixed Goal or Possessor argument. This also follows from their generalization concerning the scarcity of fixed Agent arguments, since Goals and Possessors tend to be animate. Nunberg *et al.*'s (1994) assumption is confirmed by psychological idioms. In the set of 161 psychological idioms, both idioms with a possessor (*get Y's goat*; *raise Y's hackles* "to annoy") and a fixed Goal (*tickle Y to death* "to amuse") comprise fewer than one fourth of all the dataset.

In short, in their proposal accounting for asymmetries in the grammatical or thematic roles of idiom chunks, Nunberg *et al.* (1994) offer an alternative approach to both Marantz's (1984) and Kiparsky's (1987) hierarchies of thematic roles. Nunberg *et al.* (1994) recognise these asymmetries as a consequence of broader and multifactorial tendencies in figurative uses of language, and the way the world is conceived by human beings (Nunberg *et al.* 1994: 531).[26]

4.4.2 O'Grady's (1998) *Continuity Constraint*

In this section, the twelve patterns of psychological idiomatic constructions, established in Chapter Three, are to be tested against O'Grady's (1998) Continuity Constraint. Later on, some space is devoted to the Hierarchy Constraint, which is to be investigated in terms of possible *vs*. impossible argument structures of psychological idiomatic verbs.

To start with, in his influential work, O'Grady (1998) puts forward the claim that idioms are subject to the *Continuity Constraint*. This grammatical principle, stated in (4.34), delimits the general architecture of idioms, in terms of a continuous chain of head-to-head relationships.

(4.34) *The Continuity Constraint*:
An idiom's component parts must form a chain.[27]
(O'Grady 1998: 284)

O'Grady (1998) argues that idiomatic constructions display a relationship between heads and their dependents. In addition, lexical selection between lexical heads is always more prominent than the dependency relationship between a lexical head and a functional head. To be precise, if an idiom is

[26] It is significant to add that 3 years later after Nunberg *et al.*'s (1994) seminal works, Jackendoff (1997) in his framework of Representational Modularity (RM), postulates that both syntactic and lexical conceptual structures (LCS, Jackendoff 1997: 49) are involved in the production of meaning. Jackendoff (1997, 2002) argues that idioms have phonological structure, syntactic structure, and conceptual structure, but due to the fact that not all of the syntactic constituents of an idiom correspond to conceptual constituents, the idiom, in fact, may give rise to idiomatic interpretation. Most idiomatic expressions do not have compositional meaning; thus, they comprise complex lexical items whose meaning is not syntactically analysed but rather determined by the syntactic-conceptual structure interface component. In short, in his representational modularity approach, Jackendoff (1997) postulates the lexical licensing of units larger than X°.

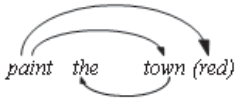
[27] A chain is identified by O'Grady (1998: 284) in the sense that "iff *x* [in the string *x*…*y*…*z*…] licenses *y* and *z*, or if *x* licenses *y* and *y* licenses *z*."

to be illustrated *via* a tree structure, the continuity chain will go down the tree, from heads down to their dependents.

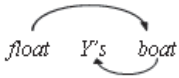
Let us take all the syntactically different patterns of the psychological idioms, elicited in Chapter Three, to examine how they behave with respect to the *Continuity Constraint.*The twelve types, which 161 psychological idioms under scrutiny represent, show the patterns of chains specified in (4.35) below.

(4.35) The patterns of chains for the psychological idioms (cf. O'Grady 1998):

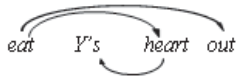
Type (A): V + NP (no open position)



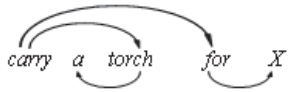
Type (A'): V + possessor + N



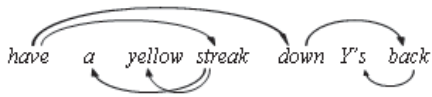
Type (A''): V + possessor + N + particle



Type (B): V + NP + preposition + NP (complement of a P)



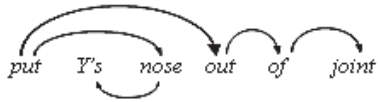
Type (B'): V + NP + preposition + possessor +N (complement of a P)



Type (C)*: V + NP + preposition + NP (complement of a P)

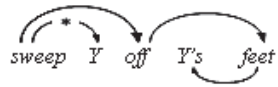
* illicit idiom – the chain is broken here since X is not the part of an idiom

Type (C'): V + possessor + N + preposition + NP (complement of a P)



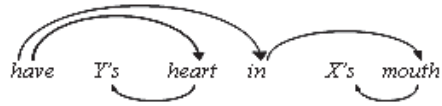
Type (D): V + possessor + N + preposition + NP (complement of a P)

Type (D')*: V + NP + preposition + possessor + N (complement of a P)

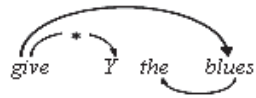


* illicit idiom – the chain is broken here since Y is not the part of an idiom

Type (D''): V + possessor + N + preposition + possessor + N (complement of a P)

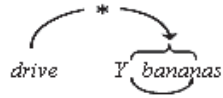


Type (E)*: V + NP + NP (double object construction)



* illicit idiom – the chain is broken here since Y is not the part of an idiom

Type (E')*: V + a complement small clause



* illicit idiom – the chain is broken here since Y is not the part of an idiom

Thus, as can be seen in (4.35), eight out of the twelve patterns of psychological idioms show a chain of heads, remaining in a relation with their dependents *viz*. verbs select nouns (objects), prepositions, particles, and a given type of a small clause as a whole; nouns select their specifiers, i.e. genitive possessors and articles, and possibly adjectives or quantifiers if the idiom is modified; prepositions within a PP select NPs which play

the role of a complement of the P. In four types of the idioms analysed, the chain is broken due to the fact that *Y* (the Experiencer) or *X* (the Theme) occurs in between the verb and other dependents and interrupt the chain relation between them. For the four types of idioms, listed in (4.36) below, the *Continuity Constraint* does not hold. Thus, they cannot be captured in O'Grady's (1998) model.

(4.36) Illicit idioms with respect to the *Continuity Constraint*:

a. Type (C)*: V + NP + preposition + NP (complement of a P)
hold X in abomination

b. Type (D')*: V + NP +preposition +possessor +N (complement of a P)
sweep Y off Y's feet

c. Type (E)*: V + NP + NP (double object construction)
give Y the blues

d. Type (E')*: V + a complement small clause
drive Y bananas

Table 3-4 in Chapter Three shows that the number of OE (class II) psychological idioms, occurring in the aforementioned illicit idioms is extremely big for Type (C), quite big as for Types (E) and (E'), while Type (D') is marginal. Therefore, based on the chain-like patterns of psychological idioms, analysed in (4.35), it can be concluded that the chain cannot replace all syntactic structures ever possible, but, instead, it works as a bare minimum constraint on the very structure of an idiom. Nonetheless, the *Continuity Constraint* seems to be applicable to most cases.

All in all, in O'Grady's (1998) *Continuity Constraint,* the lexical choices sound explicitly fixed within idiomatic constructions, i.e. the selection restrictions are based on specific Head-to-Head relationships. The *Continuity Constraint* accurately specifies the organization of existing idioms, including non-constituent idioms, simultaneously predicting that certain types of patterns are impossible. Additionally, it sheds new light on the relevance of argument structure for idiom formation, pointing to some asymmetries in the composition of idioms, making space, this way, for thematic hierarchy effects. Finally, non-idiomatic open slots are placed by

O'Grady (1998) at the very end of chains, just to preserve the chain from breaking. Instead, there should be more possibilities for idiomatic patterns with open positions. Therefore, the existence of psychological idioms with open slots realised as NP objects, makes the *Continuity Constraint* flawed and, thus, worth revising.

What is more, developing Kiparsky's (1987) and Baker's (1989) *Thematic Hierarchies*, reproduced in (4.37a) and in (4.37b) respectively, O'Grady (1998) formulates the *Hierarchy Constraint*, as in (4.38).

(4.37) a. Kiparsky's (1987) *Thematic Hierarchy Constraint*:
Agent > Theme > Goal/Location
(Kiparsky 1987: 35-36)

b. Baker's (1989) *Extended Thematic Hierarchy Constraint*:
Agent > Instrument > |Experiencer > |Patient / Theme > Goal/Location
(Baker 1989: 544)

(4.38) O'Grady's (1998) *Hierarchy Constraint*:
Any arguments that are part of a verbal idiom must be lower on the hierarchy than arguments that are not part of the idiom.
(O'Grady 1998: 293)

Following O'Grady's (1998) *Hierarchy Constraint*, it can be predicted which arguments may or may not be part of a verbal idiom. Thus, any fixed element in a VP idiom is expected to be placed lower in the *Thematic Hierarchy* than an argument realizing an open slot. The validity of O'Grady's (1998) *Hierarchy Constraint* is confirmed by eight types of psychological idioms, *viz*. idioms with *Theme* NP-objects: Types (A), (A'), (A''), e.g. *float Y's boat*; idioms with fixed *Goal* / *Location* PPs and open *Theme* slots: Types (C), e.g. *hold X in abomination*; idioms with fixed *Goal* / *Location* PPs and open *Experiencer* slots: Types (C), (C'), (D'), e.g. *drive Y up the wall*; and idioms with fixed *Theme* NPs and open *Experiencer* slots: Types (E), (E'), e.g. *give Y the blues*. In all these idioms their fixed components are situated lower in the *Thematic Hierarchy* than the non-idiomatic parts.

However, two Types of idioms, i.e. (B) and (D), e.g. *carry a torch for X*, *lose Y's heart to X*, contradict the *Hierarchy Constraint*, postulated by O'Grady (1998), since the fixed idiomatic *Theme* argument *(a torch* , *Y's heart*) is placed higher than the *Goal* / *Location* PP with an open slot (*for X*, *to X*). Moreover, the issue of two more types of idioms in which the open position is realized within the possessor of the NP-complement of a PP (i.e. Types (D'') and (B'): *have Y's heart to X's mouth*, *have a yellow*

streak down Y's back), is unresolved. In fact, the types of idioms problematic for the *Hierarchy Constraint* do not coincide with the types of idioms which contradict O'Grady's (1998) *Continuity Constraint*, as illustrated in (4.36). Furthermore, O'Grady's (1998) *Hierarchy Constraint* does not specify what lexical categories it refers to. Indeed, within idiomatic constructions, the distinction between what is an argument and what is an adjunct is not maintained, since for O'Grady (1998) the most crucial defining property of idioms is the requirement of chain formation among lexical heads, without specifying further different levels of projection.

Interestingly, Bruening (2010) formulates a restriction similar to the *Continuity Constraint*, specifying the lexical categories. He reformulates the *Hierarchy Constraint*, offered by O'Grady (1998), as follows:

(4.39) *Constraint on Idiomatic Interpretation*:

> If X selects a lexical category Y, and X and Y are interpreted idiomatically, all of the selected arguments of Y must be interpreted as part of the idiom that includes X and Y.
>
> *Lexical categories* are V, N, A, Adv.
>
> (Bruening 2010: 532 (25-26))

Bruening's (2010) constraint accounts successfully for V-NP idioms with possessors realising an open position (e.g. *eat Y's heart out*; *float Y's boat*), and PPs realising an open slot (e.g. *carry a torch for X*), assuming that the selected arguments of the NP-idiomatic objects must be interpreted as part of the idiom as well. Nonetheless, Bruening's (2010) constraint cannot account for V-NP-PP idioms (e.g. *drive Y up the wall),* in which an open slot is represented by an NP-object, and the fixed PP belongs to an idiom, even though it is not a lexical category listed in Bruening's (2010) constraint.

In section 4.4 of the chapter, some analyses related to syntactic constraints on idioms have been briefly outlined. A special focus has been laid on those approaches which have sounded instrumental to our analysis of psychological idioms. Thus, some space has been devoted to Nunberg *et al.*'s (1994) semantic analysis, and to the so-called *Continuity Constraint* formulated by O'Grady (1998). It has been shown that O'Grady's (1998) analysis can account for most, but not all, of the syntactic patterns that psychological idioms under scrutiny occur in.

4.5 The structure of psychological idioms in the Phase Theory

Among many recent approaches referring to the relations between idiomaticity and syntax, the notion of a phase-bound structure, termed as the *Idioms as Phases Hypothesis*, has been found worth analysing. The Phase Theory, which is still under debate in the literature, has been developed in various forms, represented by Chomsky (1998, 2000, 2001, 2008), Radford (2004), Matushansky (2005), Bošković and Lasnik (2006), Gallego (2010), and Citko (2014), among others.

The aim of this part of Chapter Four is to make an attempt at looking at the structure of idioms, with reference made to psychological idioms under scrutiny, in the light of the Phase Theory. This part is structured as follows: section 4.5.1 introduces the basic terms relevant for the Phase Theory. The subsequent sections are devoted to the structure of different types of idioms in the Phase Theory, i.e. fixed IdP-idioms confined to *v*P-phases (section 4.5.2), ICE (V-O) idioms with DP-phases (section 4.5.3), Double Object ICE-idioms (section 4.5.4), ICE (V-O-PP) idioms with PP-phases (section 4.5.5), idioms with particles (section 4.5.6), and ICE-idioms with small clauses comprising Predication-phases (section 4.5.7). The purpose of the discussion undertaken in this section is to test whether the predictions of the Phase Theory work well for the idiomatic expressions analysed here.

4.5.1 Defining phases

In the *Minimalist Program*, Chomsky (1995, 1998, 2000, 2001, 2008) presents a noteworthy contribution to the generative tradition in linguistics, making an attempt to situate linguistic theory within the broader range of cognitive sciences. The minimalist framework is built on the theory of Principles and Parameters and, particularly, on principles of economy of derivation and representation.

Within Chomsky's theoretical framework, Universal Grammar works as a unique computational system, derivations are driven by morphological properties, and linguistic expressions are generated by optimally efficient derivations which are required to satisfy the conditions that hold on interface levels, the only levels of linguistic representation. The interface levels, *viz*. Phonetic Form (PF) and Logical Form (LF) interfaces, provide instructions to two types of performance systems, namely the articulatory-perceptual system and the conceptual-intentional one. The Logical Form (LF) of a linguistic expression is defined as the mental representation of it,

derived from surface structure. According to Chomsky (1993), LF captures those aspects of semantic representation that are strictly determined by grammar, but abstracted from other cognitive systems (cf. Collinge 1990). LF functions as the interface between grammar and conceptual-intentional properties of language. The Phonetic Form (PF), in turn, is the interface between grammar and the audio-perceptual properties of utterances.

In the Minimalist Program, the syntactic computation occurs repeatedly, and it is realised in strict chunks, or phases, while the structure is built up (Chomsky 1998, 2000, 2001, 2008). The term "a phase" was first introduced in Chomsky's (1998, 2000) "Minimalist Inquiries." Building the concept of a phase on many previous principles related to locality domains (e.g. cycles, barriers, islands, among others), Chomsky (2000) characterises phases in terms of lexical subarrays (LAi), as reproduced in (4.40a) below. On the level of a sentence, an array of lexical items is chosen from the lexicon; and a subarray of lexical items is selected from the array to construct a phase. When this is done, another subarray is chosen up to the point when the whole array is used up.

(4.40) a. "A phase of a derivation is a syntactic object derived . . . by choice of LAi."

b. A phase is "the closest syntactic counterpart to a proposition: either a verb phrase in which all theta roles are assigned or a full clause including tense and force."

(Chomsky 2000: 106)

In his definition of phases, reproduced in (4.40b), Chomsky (2000) assumes what constituents may count as phases, and what their defining properties are. Thus, CPs are phases, as are transitive and unergative *v*Ps; whereas TPs, as well as unaccusative and passive *v*Ps are not.[28] Providing

[28] As summarised by Landau (2003: 2-3), T, *v* [little *v*], and C are core functional categories. While *v* expresses transitivity, selects V, has φ-features (object agreement), selects external argument, has optional EPP feature (second Merge) for object shift; T expresses tense/event structure, has φ-features (subject agreement), obligatory EPP feature. If T is selected by C, it has a full set of φ-features, whether expressed (finite) or not (control). If selected by V (raising/ECM), it has only a subset of φ- features. C, in turn, expresses force/mood, has φ-features, and an optional EPP feature (for *wh*-phrases).

a number of diagnostics which distinguish phases from TPs and VPs, Chomsky (2000, 2001) states that phases form natural semantic units, since they comprise a clause including tense and force or a verb phrase with all theta roles assigned. Thus, beside their propositional nature, also syntactic (or semantic) completeness is a defining property of phases[29] (cf. Matushansky 2005). Moreover, following Citko (2014), it can be presumed that the lack of external arguments (or / and the presence of an internal argument) is the key factor which distinguishes verb phrases which are not phases (unaccusative and passive *v*Ps) from these which are (transitive and unergative *v*Ps).[30]

Interestingly, Chomsky (2000) does not characterize phases in terms of "convergence," justifying this by stating that phases are meant to reduce computational complexity. On the other hand, phases can be defined in terms of the interfaces, recognised as objects which determine points of Transfer to the two interfaces, *viz*. PF and LF interfaces.

However, the defining characteristic of phases, which is most commonly cited in the literature, refers to some specific property of phase heads, i.e. that they are the loci of uninterpretable features (cf. Chomsky 2000, 2001; Gallego 2010; Legate 2012; and Citko 2014; among others). Gallego (2010) states that "uninterpretable features signal phase boundaries"

Besides, "*v** is the functional head associated with full argument structure, transitive and experiencer constructions, and is one of several choices for v, which may furthermore be the element determining that the selected root is verbal" (Chomsky 2008: 142).

What is more, a sentence is usually said to comprise two phases, namely the complementizer C (CP) and the light verb *v* (*v*P). Chomsky (2000) suggests that if the light verb v represents a transitive verb, then it is φ [phi]-complete. Likewise, finite and control C are recognised as φ-complete. Then, transitive vPs (φ-complete v), and finite CPs and control CPs (with PRO subjects), represent *strong phases*.

[29] Chomsky (2000, 2001) argues that phases display some degree of phonological and syntactic or LF independence. While semantic or LF independence is marked by the fact that the edges of phases are reconstruction sites for quantifier and operator movement; phonological independence is recognised by the phonological isolation of phases.

[30] However, Citko (2014) admits that it is difficult to explain the reason why the argument structure of unaccusative or passive verbs is less complete than the argument structure of transitive verbs. Likewise, unergative verbs may be treated as incomplete in terms of their argument structure, when they lack an internal argument (John ran *vs*. John ran a race), or many transitive verbs may also be found incomplete in terms of their argument structure, because they form double object constructions (John baked a cake *vs*. John baked Mary a cake) (cf. Citko 2014: 29-30; and Epstein 2007).

(Gallego 2010: 151); whereas Legate (2012) specifies that "a C/v possessing an unvalued φ-feature in the numeration is a phase head" (Legate 2012: 239).

According to Chomsky (2000, 2001), φ-features are attribute-value pairs that enter the derivation hosting a particular value (e.g., [Number: +Pl]) or lacking a value (e.g., [Number: __]). The property of having or lacking a value coexists with the property of (un)interpretability, and this relation is biconditional (Chomsky 2001: 5), as formulated in (4.41a).

(4.41) a. *A feature F is uninterpretable iff F is unvalued.*
(Chomsky 2001: 5)

b. Types of features (Chomsky 2000, 2001):
(i) *valued interpretable features* iF [val],
(ii) *unvalued uninterpretable features* uF [ ][31]

As can be seen in (4.41b), there are only two types of features visible to the computational system (*valued interpretable features* iF[val], and *unvalued uninterpretable features* uF[ ]). *Val* stands for any feature value complex, while empty brackets signify the lack of value, and filled brackets signify valued features. A feature is interpretable if it can be interpreted at the interface level LF, making direct contributions to meaning, while a feature is uninterpretable if it cannot be interpreted at the interface level LF. In short, feature interpretability is determined in the lexicon, being maintained throughout the derivation, including the LF-branch of the derivation (Chomsky 2001: 6). The examples of interpretable features include the φ-features of nouns (DPs) and the tense feature of T; whereas uninterpretable features comprise, e.g. the φ-features of T and v, the tense feature of V and the Case feature of DPs (cf. Willim 2012: 764). Importantly, uninterpretable features have to be valued in the course of the derivation. Valuing unvalued features occurs *via* the mechanism called *Agree*. Unvalued features need to be deleted by the time of Transfer to the interfaces, because uninterpretable features cannot be interpreted by the interfaces.

Furthermore, within the Minimalist Program, it is uninterpretable φ-features which are supposed to trigger computational operations (agreement and movement). Moreover, only phase heads are said to have

[31] Cf. Pesetsky and Torrego (2007), and Bošković (2011), who suggest distinguishing other combinations, i.e. uF [val] an uninterpretable and valued feature, and iF [ ] an interpretable and unvalued feature.

uninterpretable features, while non-phase heads may inherit them in the derivation process by means of the process of *Feature Inheritance* (FI) (cf. Chomsky 2007, 2008; Richards 2008, and Citko 2014; among others). Consequently, phase heads (e.g. C or *v*), as the hosts of uninterpretable features, trigger syntactic operations.

Once an expression no longer contains any uninterpretable features, it inevitably spells out (Chomsky 2000, 2001, 2008; Svenonius 2001: 275, 2004). Since phase heads trigger Spell-Out, they can act as Probes, i.e. value uninterpretable features. In other words, they trigger the transfer of the Spell-out domain to the two interfaces (PF and LF), and are subject to strong cyclicity, as formulated in (4.42) and (4.43).

(4.42) The head of a phase is inert after the phase is completed, triggering no further operations.

(Chomsky 2000: 107)

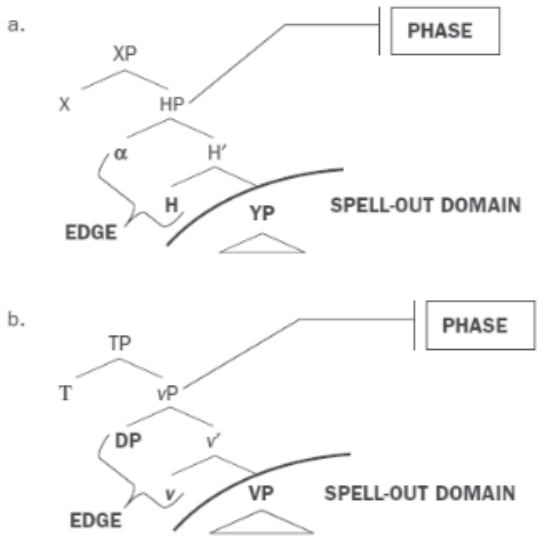
(4.43) *The Phase Impenetrability Condition:*

In a Phase α with head H, the domain of H is not accessible to operations outside α, only H and its edge are accessible to such operations.

(Chomsky 1998, 2000: 108)

According to the so-called *Phase Impenetrability Condition* (PIC), reproduced in (4.43), as soon as HP is complete, i.e. when H no longer projects, the complement of H is spelled out. The fact that HP is inaccessible means that any features which are unvalued (or unchecked) are to remain so. The general configuration to which PIC refers is reproduced in (4.44a), while in (4.44b), a more concrete clausal configuration is presented. HP / *v*P is the phase and H / *v* is a phase head, whereas YP/VP is the Spell-Out domain, and H/*v* with its specifier form the phase edge.

(4.44)



(Citko 2014: 32)

Movement out of the phase proceeds through the phase edge, and a constituent is only permitted to move out of a phase (the Spell-Out domain), providing the constituent has first moved to the phase "edge" (cf. Citko 2014: 32). Hence, Chomsky (2000: 109) claims that phase heads have the requisite features to trigger movement.

Furthermore, even though the generally cited form of the PIC is the one reproduced in (4.43), various versions of the PIC have been proposed in the literature. Indeed, all of them refer to the same general configuration, presented in (4.45a) below, in which Z and H are phase heads, while X is a non-phase head placed between them. A clausal structure of this configuration is shown in (4.45b), in which C and *v* are phase heads, while T is not.

(4.45) a. [ZP Z . . . [XP X [HP α [H YP]]]]
(cf. Chomsky 2001: 13)

b. [CP C . . .[TP T [*v*P DP [v VP]]]]
(cf. Citko 2014: 32)

As can be seen in (4.45a), where HP is a strong phase, and ZP is the next higher strong phase, it is postulated that elements of HP are available to

operations within the smallest strong ZP phase, but not beyond. In other words, elements inside the strong phase ZP can target the edge α of HP. Once the derivation reaches ZP, the complement of Z is sent to Spell-Out, and it remains impenetrable (inaccessible) for further computation. The domain of H (here, YP) is not accessible to operations at ZP, but only H and its edge.

Besides, the successive-cyclic movement invariably targets the edge of cyclic domains. The fact which stems from the cyclic determination of strong phases and the *Phase Impenetrability Condition* is that accessibility of the edge of a strong phase is only up to the next strong phase. Making a supposition that the Spell-Out operation sends a syntactic object to both PF and LF, the appropriate generalization can be formulated as in (4.46) below, following Chomsky (2001).

(4.46) *Interpretation / evaluation for Phase 1 is at the next relevant (that is strong) Phase 2.*

(Chomsky 2001: 13)

In (4.46), Phase 1 is strong and Phase 2 is the next higher strong phase, where a strong phase is a CP or a *v*P.

In a nutshell, as noted by Radford (2000), Chomsky's (2000) *Phase Impenetrability Condition*[32] is a natural consequence of the locality constraint, referring to the phase boundary of syntactic and phonological operations. Hence, the domain of a subordinate (strong) phase (i.e. *v*P, CP or possibly DP) is not penetrable to the head of an immediately superordinate phase. Syntactic movement operations, according to the assumptions made within the Phase Theory, involve two sub-operations of copying and deletion. Thus, the constituent which is moved is first copied into the position to which it moves, and then the original one may be

[32] As argued by Citko (2014: 33), Müller (2004), Richards (2011), among others, there are at least two versions of the *Phase Impenetrability Condition*, i.e. (i) one from Chomsky's (2000) "Minimalist Inquiries," generally referred to as "a Strong PIC / PIC1;" and (ii) the other from Chomsky's (2001) "Derivation by Phase" (referred to as "a weak PIC / PIC 2"). They are reproduced below:

(i) PIC1: The domain of H is not accessible to operations outside HP; only H and its edge are accessible to such operations.

(ii) PIC2:The domain of H is not accessible to operations at ZP; only H and its edge are accessible to such operations.

(Chomsky 2001: 13-14)

deleted, *viz*. given a null phonetic Spell-out. It is also typical of the Phase Theory that "Spell-Out is cyclic, at the phase level" (Chomsky 2001: 9).[33]

4.5.2 The *v*P-phase boundary and psychological *idiomatic phrases* (IdPs)

Recently, verbal idioms have become subject to locality constraints (cf. Chomsky 1980, 1981, 2008). Marantz (1984, 1997) argues that the special idiomatic interpretation evoked in idioms can be associated with a functional head like *v*, which introduces the external argument of a verb. In the Phase Theory, Chomsky (2000) introduces two important phase boundaries within a clause, i.e. CPs and *v*Ps. Svenonius (2005), and Stone (2009), among others, predict that for some idioms idiomatic interpretation can be dependent on constituents contained within a single phase. According to Harwood *et al.* (2013, 2015, 2016), only *idiomatic phrases* (IdPs) are restricted to a single phase (*v*P), while *idiomatically combining expressions* (ICEs) can freely straddle multiple phase boundaries. In the analysis below, we are to check if this claim can be confirmed by psychological idioms.

To begin with, Harwood *et al.* (2016: 6) state that the material from the TP-domain, thus beyond the *v*P-domain (e.g. *tense*, *modality*, and *aspect*), in most cases does not contribute to the accessibility of the idiomatic interpretation. That is, tense, modality or aspect may surface within the idiom, and still the idiomatic reading may remain preserved (cf. Kitagawa 1986; Ifill 2002; and Svenonius 2005; among others), as exemplified in (4.47a-c).

(4.47) Possible modifications of psychological *idiomatic phrases* (IdPs):

a. *upset the applecart* "to depress"
By wanting his own way the baby <u>is upsetting</u> the apple-cart. (Google)
(tense of the V / progressive aspect)

[33] In the Minimalist Program the thematic roles are assigned as a result of the operation *Merge*. These roles are mapped according to the hierarchy of thematic roles (cf. Kiparsky 1987; Baker 1989; and O'Grady 1998; among others) and according to the UTAH (Baker 1988). Psych verbs do not satisfy the latter requirement.

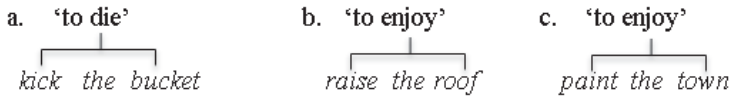
b. *paint the town (red)* "to enjoy"
Now that you have a black-tie outfit, we <u>can</u> paint the town. (Google)
(modality)

c. *upset the applecart* "to depress"
Old Jameson <u>has upset</u> my apple-cart. (Google)
(perfect aspect)

The idiomatic interpretation in fixed verbal idioms, instead, is expected to be exclusively restricted to a single *v*P-phase (cf. Svenonius 2005; Harwood 2013, 2015, 2016, 2017; and Corver *et al.* 2017).

To understand properly the line of our discussion in favour of a single *v*P-phase, it is worth recalling the issue of idiom non-compositionality. Each non-compositional idiomatic phrase (IdPs) is said to form one single semantic unit, and as such, it is mapped to a single meaning, as illustrated in (4.48).

(4.48)



What is more, following Fellbaum (1993), Nunberg *et al.* (1994), McGinnis (2002), Everaert (2010), and Stone (2013), among others, who treat idioms as constructed by means of regular structure building mechanisms of syntax, it is assumed that the non-compositional/figurative interpretation arises only at the syntax-semantics interface (SEM).[34] Providing each phase is "shipped off" in an independent way to the interfaces for pronunciation and interpretation (Chomsky 2000, 2001, 2008), an idiomatic phrase is expected to reach SEM as a wholesale unit (one single phase) in one go if the idiomatic interpretation is to arise. But, if an idiom has straddled the *v*P-phase boundary, then only some part of the idiom will be sent off to SEM. Accordingly, this way of reasoning seems to justify why fixed verbal idioms are confined to the material included within one *v*P-phase.

In addition, idiomatic phrases (IdPs), recognised as idiomatic units restricted to a single *v*P-phase, are comprised of the material (the verb and

[34] Cf. Jackendoff (1997), Marantz (2001), Svenonius (2005), and Harwood *et al.* (2016), among others, who provide various proposals concerning how idiomatic meanings are primed at the syntax-semantics interface.

its arguments) which forms a semantically coherent whole, entirely contained within the *v*P-domain (Chomsky1980, 1981; Marantz 1984, 1997; Svenonius 2005; Citko 2014; and Harwood *et al*. 2016, 2017; Corver *et al*. 2017; among others). Providing the first phase is an isolated domain of meaning (Chomsky 2000, 2001), it is logical to treat this type of verbal idioms and the clause-internal phase as aligned. In fact, fixed verbal idioms can be smaller than or equal to the *v*P-phase, but they cannot straddle the *v*P-phase boundary. Hence, the *v*P-phase boundary works as a limit on the maximal size of the syntactic constituents which form a verbal idiomatic phrase (cf. Harwood *et al*. 2016: 6). In brief, following the assumption that IdP-idioms are indeed confined to a single *v*P-phase, the size of verbal idioms can be determined.

Moreover, the most canonical idiomatic phrases (IdPs) comprise a verbal predicate and a DP-object, as in those illustrated in (4.49a-i), which correspond to psych-verbs. All these idiomatic phrases represent Type (A) idioms and have a fixed syntactic pattern V + NP (cf. section 3.4 in Chapter Three), in which both the idiomatic verb and the idiomatic NP object are fixed. A noun object is mostly preceded by the definite article "the," as in (4.49a-f); however, the indefinite article "a/an" may also occur in front of an NP, as in (4.49g); a null article [ø], as in (4.49h); or a fixed adjective, e.g. *white*, as in (4.49f). The idiomatic noun object can also be realised in a plural form, e.g. *pins*, as in (4.49i), or as a sequence of NPs combined with a conjunction "and," e.g. *pins and needles*, as in (4.49i).

(4.49) Examples of the fixed *psychological idiomatic phrases* (IdPs) with no open position Type (A): <u>V + NP</u>

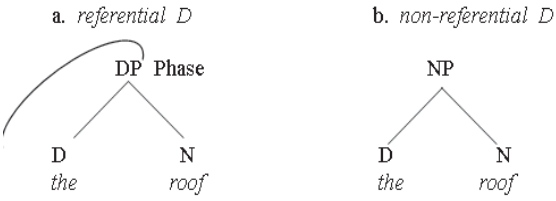
a. *upset the applecart* "to depress"
b. *paint the town (red)* "to enjoy"
c. *raise the roof* "to enjoy"
d. *fan the fire* "to anger"
e. *have the blues* "to worry"
f. *show the white feather* "to fear"
g. *have a ball* "to enjoy"
h. *turn tail (and run)* "to fear"
i. *have / get pins and needles* "to fear"

The psychological idiomatic phrases provided in (4.49) face the problem: how can verbal idioms straddle the DP-phase boundary when they are supposed to be restricted to a single *v*P-phase?

To address this question, the analysis provided by Harwood *et al.* (2016) might be of some help. Articulating their phase-bound perspective, Harwood *et al.* (2016) provide a clearly formulated explanation which is to solve the puzzle with the apparent DP-phase straddling. They argue that the solution to this problem lies in the very nature of the definite determiner in IdPs, and, accordingly, in the structure of the object DP in idiomatic phrases. More specifically, providing the constituents of an idiom (e.g. *kick the bucket* "to die," or *raise the roof* "to enjoy") are literally interpreted, the particular component elements contribute, then, to the semantics and the overall meaning of the phrase. In terms of syntactic functions, the verbal predicate (e.g. *kick* or *raise*) would occur with its argument (e.g. *the bucket,* or *the roof*), carrying a theta role (Theme). Whereas, as far as idiomatic phrases are concerned, the nominal expressions (e.g. *the bucket,* or *the roof*) are not the true arguments (Themes) of the verbs, and the verbs (e.g. *kick* or *raise*) do not act as typical transitive predicates. Instead, the idioms under scrutiny should be treated as a whole, entirely restricted to the *v*P-domain.

In addition, if *the roof* were a true argument (Theme) of the verb *raise*, the definite determiner would be referential, with special reference made to the unique object mentioned in the discourse (cf. Harwood *et al.* 2016: 12-13). As a result of the referential determiner (i.e. after binary Merge has applied to D (*the*) and N (*roof*), yielding the Syntactic Object [α D N]), either D or N can project and label the whole Syntactic Object (cf. Chomsky 2013, 2015). When D projects, the DP-phase is formed, as illustrated in (4.50a).

(4.50)



(cf. Harwood *et al.* 2016: 13)

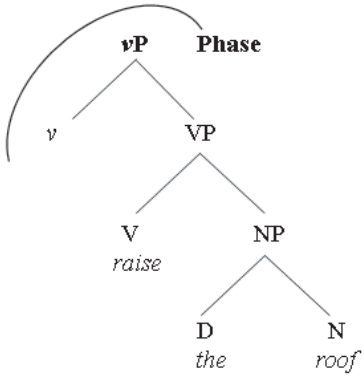
Whereas in an IdP, it is the N (here *roof*) which projects, becoming the head of the projection, which results in an NP, as in (4.50b). On the other hand, Harwood *et al*. (2016) add that, if the idiomatic direct object in an IdP were to act as the DP phase, then, when an idiom lacks a DP, there will be no phase and no DP projection.

Moreover, the nouns in IdPs (e.g. *the bucket,* or *the roof*) do not denote generic and unique referents, but, instead, are "non-denoting nouns" for Fellbaum (1993), or "no identifiable idiomatic referents" for Grégoire (2009). Hence, the nominal expression (NP) in an idiomatic phrase (IdP) is non-referential, and it cannot be spelled out self-sufficiently, but always as a part of the *v*P-phase, to evoke the idiomatic non-literal interpretation.

Following the account provided by Harwood *et al.* (2016), a syntactic representation for Type (A): V+ NP psychological idiomatic phrases, listed in (4.49) can be as in (4.51) below.

(4.51)

A tree representation for Type (A): V+ NP psychological idiomatic phrases:

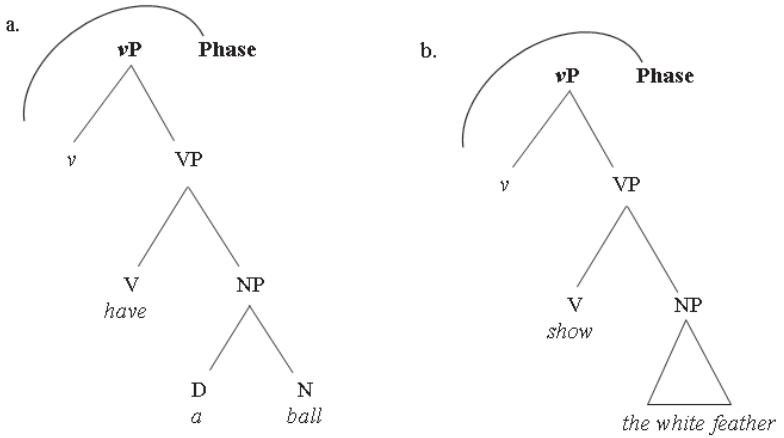


As can be seen in the tree structure in (4.51), the nominal expression *the roof* cannot become an argument, i.e. receive the theta-role, as in the case of all IdPs, because only a referential category, i.e. only DPs, can occur in argument positions (Stowell 1991; Longobardi 1994; and Harwood *et al.* 2016; among others). Likewise, the determiner of the direct object in IdPs lacks a direct referent in the discourse, and thus it does not project. Since there is no DP-phase in idiomatic phrases (IdPs), there is no DP-phase boundary to be straddled by IdPs. Instead, the direct object of an idiomatic phrase directly forms part of the *v*P-phase, rather than projecting its own phasal domain (cf. Harwood *et al.* 2016: 2, 5).

Nonetheless, among the instances of psychological idiomatic phrases (IdPs) listed in (4.49) above, there are some idioms which lack the definite determiner, in contradistinction to the canonical example *kick the bucket* "to die," or *raise the roof* "to enjoy." Instead, an NP is preceded by an indefinite article (e.g. *have a ball* "to enjoy"), a null article [ø] (e.g. *turn*

tail "to fear"), a fixed adjective (e.g. *show the white feather* "to fear"), takes a plural form (e.g. *get pins and needles* "to fear"), or is coordinated with another NP (e.g. *have / get pins and needles* "to fear"). This fact does not bring any consequences for the syntactic structure of this type of psychological idioms, since all the idiom constituents are, anyway, expected to be confined to a single transitive *v*P-phase, which can be represented by means of the structure, as in (4.52a-b) below.

(4.52) A tree representation for Type (A): V+ NP psychological idiomatic phrases with some variation in the structure of the fixed NP:



What is more, the analysis of nominal phrases outlined in Chomsky (2007) and elaborated in Harwood *et al.* (2016), provides some more justification, in favour of treating all these different variants of Type (A) psychological idioms (discussed above) as a single *v*P-phase. Chomsky (2007) assumes that indefinite nominals lack the*n** head;[35] thus, they lack referentiality. Even though referentiality is present in lexical definite nominals, it is absent in idiomatic objects in IdPs, which share non-

[35] The existence of the so-called "little-n" (by analogy with "little-v") is justifiable in the structure of complex head-initial nominal phrases. Even though an NP does not need a theta-assigner for its external argument since there is no external argument; the shell structure of complex head-initial NPs is the same type of shell structure as that of complex head-initial VPs (cf. Haider 2012: 55). Introducing *n*, Chomsky (2007) draws a parallel between VPs and NPs; thus, *n** is like *v** and D is like N.

referential properties with indefinites (cf. the discussion above), and thus lack *n** in their structure the same way indefinites do. Therefore, Chomsky (2007) makes a proposal that only definite nominal phrases (which are in fact *n**Ps in this view) constitute a phase, while indefinite nominals are not phases. Similarly, Adger (2003), Radford (2004), Hinzen (2012), Corver *et al.* (2017), and Harwood *et al.* (2017) state that indefinite DPs are not phases, but only complete referential expressions are phasal, and the instances of idioms in (4.49) and (4.52) can be treated as "complete referential expressions," with an assigned idiomatic interpretation only if their constituent elements (V+NP) form a single unit. In other words, the object of these psychological IdPs will not be spelled out independently, but only as part of the *v*P-phase.[36]

All in all, with the overall idiomatic interpretation not derived from their constituent parts, IdPs do form single semantic units, necessarily interpreted as a whole. Therefore, it is highly justifiable to treat fixed IdPs as restricted to a single *v*P-phase boundary.[37] This fact sheds light on further consequences stemming from it, *viz*. *v*P-phase boundary accounts for an upper limit of the size of verbal IdPs. To be more precise, the syntactic material found within the *v*P-phase specifies the extent of a verbal idiom (Svenonius 2005; Harwood 2013, 2015, 2016, 2017; Kim 2014; Harwood and Temmerman 2015; and Corver *et al.* 2017; among others). What is more, having based our line of reasoning on psychological verbal IdPs (e.g. *paint the town* / *raise the roof* "to enjoy"), the nominal (NP) objects in these IdPs have been proved to be non-referential, and always spell-out not as a separate DP-phase but as an NP of the *v*P-phase, to evoke the idiomatic interpretation. Hence, with no DP-phase present in IdPs, no problem of straddling the DP-phase boundary arises.

[36] Following Harwood *et al.* (2016), it can be concluded that the determiner in a NP of IdP idioms (e.g. *raise the roof*) is non-referential; whereas, the determiner (definite article) in ICE-type idioms (e.g. *spill the beans* / *fan the fire*) is referential, forming a DP.

[37] Cf. Harwood and Temmerman's (2015) findings concerning several idioms which depend on material external to the *v*P-phase, i.e. modality and aspect. They prove that if an idiom is deprived of the relevant aspectual form or modal verb, its figurative interpretation is altogether lost. However, Harwood and Temmerman's (2015) claim is contradicted by Kitagawa (1986), Ifill (2002), and Svenonius (2005), among others.

4.5.3 DP-phases and psychological ICE-idioms with a possessor in NP objects

Beside *idiomatic phrases* (IdPs), confined to a single *v*P-phase, Nunberg *et al.* (1994), and Harwood *et al.* (2016), among others, distinguish another type of idioms, i.e. *idiomatically combining expressions* (ICEs) (cf. section 4.2 of this chapter). On the basis of well-recognised characteristics of ICEs, i.e. that they are compositional in nature, and that their idiomatic components are decomposed into smaller idiomatic chunks, ICEs are assumed not to be confined to a single phase, the way IdPs are. Indeed, ICEs do not form a single semantic unit; thus, they are not interpreted as a whole, at one go at the syntax-semantics interface (SEM), but instead, their idiomatic interpretation can be built up gradually in the course of the entire derivation. In fact, ICEs are expected to, but do not have to, span multiple phase boundaries (cf. Harwood *et al.* 2016; and Corver *et al.* 2017), which is to be discussed in the sections to follow, 4.5.3-4.5.7.

Originally only two "core" categories, i.e. CPs, and *v*Ps, used to be assumed to be phases (cf. Chomsky 2000, 2001). However, in the recent literature devoted to phases, DPs have been proposed to be phases, as well. Legate's (2002), and Citko's (2014) diagnostics for phasehood[38] support the treatment of DPs as phases.[39] Likewise for Chomsky (2005: 9, 16), and Svenonius (2004, 2005), Bošković (2005), Corver *et al.* (2017) among others, DPs are claimed to act as phases (cf. Radford (2004), and Harwood *et al*. (2016), who argue that indefinite / non-referential DPs are not phases, but NPs).

The core of a DP-phase is largely dependent on the internal syntax of DP (cf. Citko 2014: 108). Cross-linguistically, the relative ordering of the internal DP elements follows the hierarchy as in (4.53), developed by Svenonius' (2007) study of the order of articles (Art), demonstratives

[38] Since phasehood is often characterized in terms of interface considerations, the diagnostics are usually classified into two major groups: LF diagnostics and PF diagnostics, with reference given to the two interfaces. However, some researchers, e.g. Matushansky (2005), Citko (2014), among others, divide phasehood diagnostics into more types, adding a separate class of syntactic (or morphosyntactic) diagnostics to the two based on the interfaces.

[39] According to Citko's (2014) syntactic diagnostic evidence, DPs are phases since, e.g. DP is a domain for feature valuation; D is the locus of uninterpretable features; movement out of DP proceeds through the edge; and D determines Spell-Out (cf. Citko 2014: 123).

(Dem), plural markers (Pl), classifiers, numerals (Num), and adjectives (Adj) (cf. Alexiadou, Haegeman and Stavrou 2007).[40]

(4.53) *The hierarchy of DP elements*:

Dem > Art >Num >unit >Pl / sort[41] >Adj > n[42] > N
(Svenonius 2007: 26)

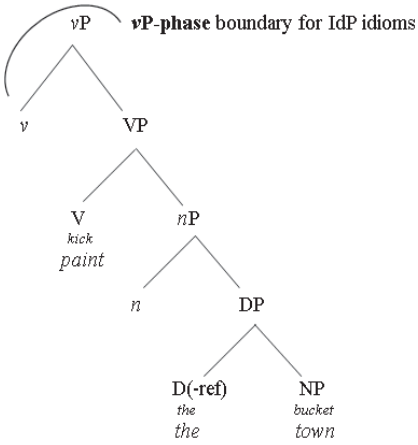
In the recent literature, as argued by Adger (2003), Radford (2004), Chomsky (2007), Hinzen (2012), and Corver *et al.* (2017), the phasehood of DPs is associated with referentiality and definiteness. As discussed earlier for IdPs (cf. section 4.5.2), both indefinite DPs and non-referential expressions lack the functional head n*, which marks referentiality (cf. footnote 30; Chomsky 2007; Harwood *et al.* 2017: 50). Therefore NPs in IdPs do not form DP-phases, but indefinite DPs (cf. (4.54) for the IdPs, e.g. *kick the bucket* "to die," or *paint the town* "to enjoy").

[40] Cf. Citko (2014: 109), who proposes a DP structure with more common nominal functional projections, suggesting to accommodate the DP-elements. Nonetheless, according to Citko (2014), *n*P is placed below DP, which is in contradistinction to Chomsky (2007), Corver *et al.* (2017), and Harwood *et al*. (2016, 2017), for whom *n*P marks referentiality and is placed higher than DP (cf. (4.54)-(4.55)).

[41] In Svenonius' (2007) hierarchy, the categories "Pl/sort" and "unit" apply to such cases in which plurals cooccur with classifiers, involving either "unit" classifiers or noun classifiers, not "sort" classifiers. Classifiers individuate masses for quantification and counting (cf. Svenonius 2007: 23).

[42] The "n" here is a gender or noun class marker (cf. Svenonius 2007: 26).

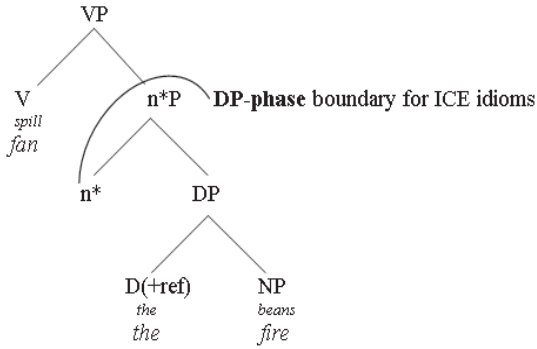
(4.54) Indefinite/non-referential DP in IdP idioms



(cf. Harwood *et al*. 2017: 51)

Complete referential expressions with the functional head n*, instead, form a DP-phase, as illustrated on the example of ICEs (*spill the beans* "to divulge a secret," or *fan the fire* "to anger"), in (4.55).

(4.55) Referential DP and a DP-phase in ICE idioms



(cf. Harwood *et al*. 2017: 51)

As can be seen in (4.55), idioms which are ICEs, and which follow the pattern V + the + NP, as in Type (A) of psychological idioms, comprise a

DP-phase provided the phrase is referential. If not, the expression is not phasal.[43]

Having analysed the very nature of a DP-phase, and the difference between referential and non-referential determiner in V+NP idioms; further discussion concerning an open position realised by a possessor in an idiomatic DP-object, can be embarked on. In their phase-bound account, Corver *et al.* (2017) and Harwood *et al.* (2017: 54) contribute to the analysis of possessors in idiomatic NPs.[44] They argue that ICE possessive idioms, which express the possessive relation in their DP-object, all involve cases of alienable possession (e.g. *style* in the idiom *cramp x's style* "to make x look uncool," or *sorrows* in *drown x's sorrows* "to drink to relieve depression"), in contradistinction to inalienable possession, typical of IdPs (e.g. *ear* in the idiom *bend x's ear* "to talk excessively to x," or *balls* in *break x's balls* "to give x a hard time").[45]

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[43] Canonical V-Object IdPs do not form a DP-phase, but give rise to the idiomatic V+NP structure, which is confined to a single *v*P-phase, and spelled out at one go, to evoke an idiomatic interpretation, as illustrated in (4.51), and repeated in (4.54).

[44] It is worth mentioning here the structural constraint on idiomatic interpretations, introduced by Koopman and Sportiche (1991: 224), who deal, among other issues, with idiomatic constituents with open positions realised in possessors, such as the ones found in our dataset of psychological idioms, e.g. *get Y's goat* "to annoy," *try Y's patience* "to annoy," *ruffle Y's feathers* "to annoy," *catch Y's eye* "to fascinate," *win Y's heart* "to fascinate," or *turn Y's head* "to fascinate." Koopman and Sportiche (1991) argue that an open position never bears a direct correspondence to the structural head of the idiomatic constituent, since no idiomatic interpretation should be based on, for example, a pair of co-occurring words *viz*. a modifier of the subject or a modifier of the VP. Therefore, they propose the following structural constraint on idiomatic interpretations, formulated in (i) below.

(i) *The constituency-based constraint on idiomaticity*:
If X is the minimal constituent containing all the idiomatic material, the head of X is part of the idiom.
(Koopman and Sportiche 1991: 224)

The constituency-based constraint on idiomaticity specifies that the head of the smallest constituent that contains all of the idiomatic material must also be idiomatic. Regardless of the fact that Koopman and Sportiche (1991) fail to contribute to set limits on the size of the constituent which can retrieve idiomatic meaning, their constraint does underline the importance of local relations between idiomatic constituents (cf. Harwood 2013, 2015).

[45] Cf. Harwood *et al.* (2017) for further discussion concerning alienable possession in ICEs and inalienable possession in IdPs.

Psychological idioms of Type (A'), e.g. *raise Y's hackles*, *kindle Y's wrath*, and *ruffle Y's feathers*, also include the instances of alienable possession, such as *hackles*, *wrath*, or *feathers*.[46] They have been checked against syntactic diagnostics, applied by Harwood *et al.* (2017), i.e. passivization, topicalization and modification, to check if these idioms are ICEs or IdPs. As a result, the psychological idioms which have passed the diagnostics are ICEs and are presented in (4.56a-c); whereas an example of a psychological idiom (with inalienable possession *eye*), which has not met the requirements of the syntactic diagnostics, is shown in (4.56d). Nonetheless, the idiom in (4.56d) is not an IdP.[47]

(4.56) Type (A'): V + possessor + N

a. *raise Y's hackles* "to annoy"

After 1976, Western European hackles were raised by the tendency of President Jimmy Carter to make the application of detente contingent. (Google) (passivization)

[46] I would like to thank Prof Bożena Cetnarowska for her suggestion that if *hackles* and *feathers* in the psychological idioms *raise Y's hackles*, and *ruffle Y's feathers* "to annoy" are personified, then these nouns may be treated as the parts of one's human body, which results in making them the instances of inalienable possession not the alienable one.

[47] Cf. a counterexample of what Corver *et al*. (2017) postulate about no ICEs with inalienable possession, *viz*. a psychological idiom in (i), which includes inalienably possessed *heart*, and still passes the diagnostics to be an ICE; and a psychological idiom in (ii), which comprises alienable possession *boats*, and fails the diagnostics to be an ICE:

(i) *gladden Y's hearts* "to amuse"
His heart has been gladdened because of the presence of God's Holy Spirit. (Google) (passivization)
Her heart, the painting gladdened. (native speakers' judgement) (topicalization)
A lovelier June morning never gladdened innocent hearts. (Google) (modification)

(ii) *float Y's boats* "to appeal to"
 # His boats were floated onto cradles.(native speakers' judgement) (passivization)
**Definitely, her boats, comedies float most.*(native speakers' judgement) (topicalization)
 # A calm sea can float some of her boat. (native speakers' judgement) (modification)

The teacher's hackles, this naughty boy's behaviour raised.
(native speakers' judgement) (topicalization)

Children's health insurance bill in the current Congress has also raised conservative hackles. (COCA) (modification)

b. *kindle Y's wrath* "to anger"

God's wrath has been kindled. (Google) (passivization)
My wrath, not yours, his expectations kindled.
(native speakers' judgement)
(topicalization)
You have kindled the Fire of God's *Wrath*. (Google)
(modification)

c. *ruffle Y's feathers* "to annoy"

My feathers were ruffled and the more I thought about it the more ruffled they got. (Google) (passivization)
Her feathers, the misbehaving child ruffled. (topicalization)
(native speakers' judgement)
This love story ruffles my emotional feathers every time I see it. (Google) (modification)

d. *catch Y's eye* "to fascinate"[48]

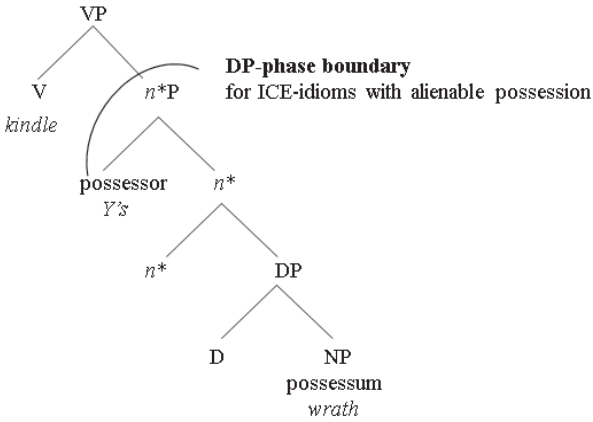
**His eyes were caught by her look.* (native speakers' judgement)
(passivization)
* *My eyes, this dress has caught.* (native speakers' judgement)
(topicalization)
**His calm soothing look has caught her big eyes.*
(native speakers' judgement) (modification)

In addition to Corver *et al.*'s (2017) and Harwood *et al.*'s (2017) proposals concerning alienable and inalienable possession, Alexiadou (2003), and Lin (2007) argue that the relation between a possessor and an alienable noun (as in ICEs in (4.56)-(4.57)) requires more functional

[48] The fact that the idioms *catch Y's eye* "to fascinate" fails the canonical syntactic diagnostics does not make simultaneously the idiom an IdP, because of the open slot realised in the position of the possessor, which is not expected in IdP-fixed idioms. Instead, the idiom is expected to be a "mismatch" of ICE-idioms. An example of an IdP-idiom with a possessor in its object can be *open Pandora's box* "to start something that causes many new and unexpected problems," which does not belong to our dataset of psychological idioms.

structure than inalienable possession (in IdPs). Hence, the relation in alienable nouns is constructed by means of a higher functional head *n** introducing the possessor, as illustrated in (4.57) for the psychological ICE idiom Type (A'): *kindle Y's wrath* "to anger."

(4.57) Alienable possession in ICE idioms, e.g. *kindle Y's wrath* "to anger:"

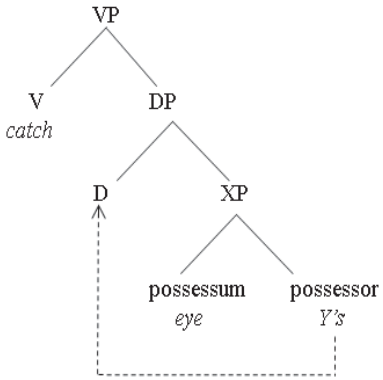


(cf. Harwood *et al.* 2017: 60)

The relation between a possessor and an inalienable noun ("possessum"), instead, is more direct. The inalienable noun (presumably in IdPs but also in some ICEs) subcategorises for a possessor argument, with which the noun composes to form an XP that behaves like a small clause (cf. footnote 44; Harwood *et al.*'s 2017: 59), as shown in (4.58) for the psychological idiom Type (A'): *catch Y's eye* "to fascinate."[49]

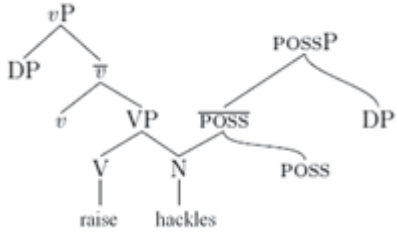
[45] An interested reader may also find some phase-bound account, proposed by Svenonius (2005), which is left here aside for the lack of space. Svenonius (2005), referring to multidominant trees, suggests structures called Banyan trees, which include more than one undominated node. Banyan trees are created when first Merge as well as internal Merge can target subconstituents of structures already built by Merge. Thus, a psychological idiom with an open possessor position, e.g. *raise Y's hackles* "to annoy," would be illustrated by means of a Banyan tree, as in (i).

(4.58) Inalienable possession in some ICE-idioms, e.g. *catch Y's eye* "to fascinate"



(cf. Harwood *et al.* 2017: 60)

(i)



(cf. Svenonius 2005: 250)

According to Svenonius (2005), as presented in (i), the possessor can be merged with possP, and the external argument with VP. The licensing material outside *v*P is responsible for case-licensing the larger object DP, together with the possessor. While DP-internal functional heads must be responsible for case-licensing the possessor. Therefore, it is probable that the possessor DP spells out before the DP is complete, and the lower (idiomatic) N may as well. Besides, some higher structure must unify the Banyan
tree structure so that both *v*P and possP are contained under the same node (cf. Svenonius 2005: 250). This way, Svenonius (2005) extends Chomsky's (1993) Extension Condition for discontinuous idioms (in Chomsky's (1993: 22-23) terms, the Extension Condition is a basic assumption about the Merge operation, namely that it always "extends its target").

As for possessors, which typically are not recognised as part of an idiom, Svenonius (2005) argues that if the genitive case on the possessor is assigned by the possessive head, then the possessor DP is to spell out as soon it is merged, and is not to belong to idiom components (cf. Svenonius 2005: 252).

All in all, as shown in (4.57) and (4.58), the higher functional head is absent in inalienable possession structures (cf. Alexiadou 2003; and Lin 2007; among others). Interestingly, Alexiadou (2003) notes that a subject/agent relation between the possessor and the possessed noun is reflected in the case of inalienable possession in ICE idioms, which accounts for the presence of *n** in alienable possession structures. Only this type of idioms contains a DP-phase. Inalienably possessed nominals, in turn, do not project *n**P, and thus do not exhibit a DP-phase. This kind of phase-bound analysis correlates well with the explanation provided in section 4.5.2 above for nominal phrases in IdP fixed idioms, which lack *n**, and thus do not constitute a DP-phase, but belong to the *v*P-phase the whole IdP idiom is confined to. However, idiomatic nouns in ICE-idioms which are alienably possessed build independent *n**Ps and form phases.

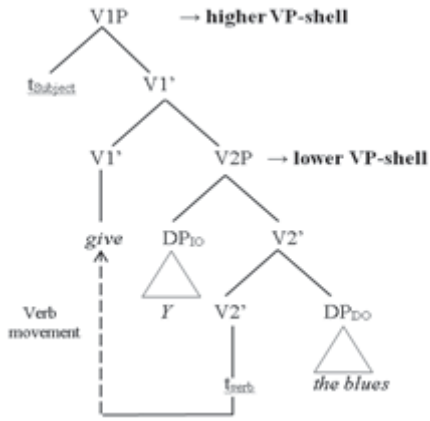
4.5.4 Psychological *idiomatically combining expressions* (ICEs) with Double Object Constructions in the Phase Theory

In this section, the psychological idioms with Double Object Constructions (DOC) are to be analysed in terms of possible phases that these idioms may contain.[50] The idiomatic expressions under scrutiny

[50] I refer an interested reader to some previous approaches to DOC constructions, e.g. to Larson's (1988) DOC framework, who posits a hierarchical structure for the VP, involving two VP-shells, i.e. higher VP (V1P) and lower VP (V2P). The structure is known as a "VP-shell" structure since the highest VP contains the lower VP as a complement. In his proposal, Larson (1988) claims that the subject is generated in SpecV1P; the *Theme*, i.e. the indirect object (IO) is generated as the specifier of the lower VP (V2P); while the direct object (DO) as the complement of V2. The verb starts out in the lower head position V2' and moves to the higher position V1'. The psychological idiom with a DOC, e.g. *give Y the blues* "to depress," is supposed to be illustrated in Larsonian shell structure, as in (i) below:

(i) Larsonian shell structure for the psychological idiom with a DOC
e.g. *give Y the blues* "to depress"

represent Type (E), in which an Experiencer *Y*, realises an open position,



(cf. Larson 1988: 342-343)

For Larson (1988), the "PP-frame" structure (*give a book to John*) is basic, in which the DO (*a book*) precedes, and c-commands the IO (*to John*). Whereas the "double object frame" (*give John a book*) is derived by a syntactic operation, in which the IO (*John*) precedes and c-commands the DO (*a book*) (cf. Pesetsky 1995; Harley 2002; and Lechner 2006).

Moreover, in his analysis of idiom chunks, Larson (1988: 340) argues that the existence of idioms, like those listed in (ii), is an argument for a D-structure constituent comprising a verb and a PP, with the direct object NP generated external to that constituent. The fact that a verb may form a "discontinuous idiom" with its outer arguments became Larson's (1988) initial evidence for an articulated VP-shell structure. The idiomatically interpreted constituents in (ii) are marked in italics.

(ii) a. Larson's examples of *VP* + NP+ *PP* idioms:
send NP *to the showers (*Lasorda *sent* his starting pitcher *to the showers*)
take NP *to task*
throw NP *to the wolves* (Larson 1988: 340)

b. Psychological *VP* + NP+ *PP* idioms:
frighten / *scare* NP *to death* "to horrify"
drive NP *to distraction* "to anger"
put / *send* / *throw* NP *into a (blue) funk* "to depress"

Finally, double complement idioms should be expected to freely shift. Nonetheless, this does not turn out to be true, e.g. * *frighten death* NP. Therefore, Larson's (1988) approach to the double object alternation has been found unsustainable.

refers to some direct referent in the discourse, and takes the role of an indirect object. The role of a direct object is associated with a fixed idiom component, as shown in (4.59a-f).

(4.59) Psychological idioms of Type (E): V + NP + NP, e.g.

a. *give Y the blues* "to depress"
b. *throw Y a curve (ball)* "to surprise"
c. *give Y a turn* "to horrify"
d. *give Y (quite) a (bit of) fright* "to scare"
e. *give Y goose pimples* "to scare"
f. *rub Y (up) the wrong way* "to annoy"

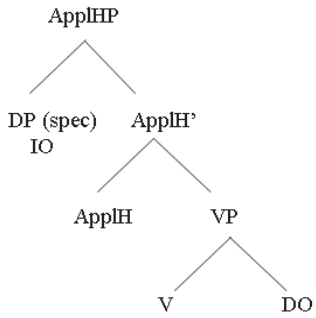
As shown in (4.59a-f), the fixed idiom element, in the role of the direct object, can be represented either by a definite noun (e.g. *the blues*, *the wrong way*), by an indefinite nominal unit, both singular (e.g. *a curve*, *a ball*, *a turn*, *a fright*) and plural (e.g. *pimples*), by a compound noun (e.g. *goose pimples*), or by a noun modified with an adjective (e.g. *the wrong way*), or a quantifier (e.g. *quite*, *a bit of*). The verbal predicate of this type of psychological idioms is exemplified by an agentive transitive verb *give*, *throw*, or *rub* (*up*), the last of which can be accompanied by a particle *up*.

Nunberg *et al.* (1994), and Espinal and Mateu (2010) assume that open object positions are one of the characteristics ICEs do allow for, which makes them more compositional, while fixed slots are typical of canonical IdPs. Following this claim, the psychological idioms in (4.59a-f), can be treated as ICEs, composed of a lexical verb and a theme, with an open position for the thematic goal.

The starting point in our phase-based analysis of psychological ICEs with DOCs is McGinnis' (2001) claim that certain types of double object constructions may be phases, while the relationship between the direct and the indirect object in a DOC is mediated by a functional head, called *an applicative head*[51] (cf. Pylkkänen 2008). Pylkkänen (2002, 2008), developing a suggestion made by Marantz (1993), distinguishes *high* and *low applicative* structures, as presented in (4.60) and (4.61), respectively.

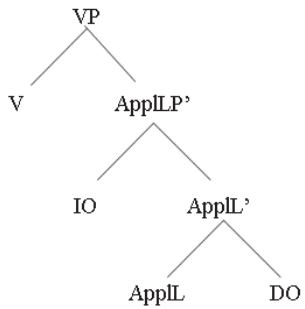
[51] The applicative head conveys a large number of meanings: benefactive, malefactive, instrumental, locative and comitative meanings, among others (cf. Citko 2014: 152).

(4.60) *high applicative* (ApplH)



(cf. Pylkkänen 2002: 19; Citko 2014: 154)

(4.61) *low applicative* (ApplL)



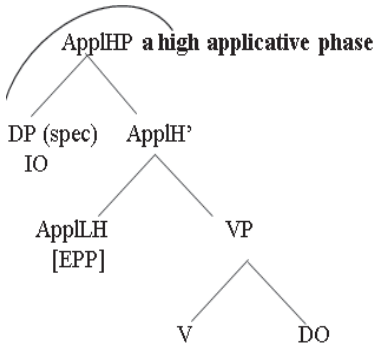
(cf. Pylkkänen 2002: 19; Citko 2014: 154)

As demonstrated in (4.60), in a high applicative structure (ApplH), the direct object is the complement of the verb, while the indirect object is the specifier of a high applicative head, which takes a VP as a complement. The relationship between the indirect object and the event which is described by the VP including the direct object, is established by a high applicative head. In a low applicative structure (ApplL), presented in (4.61), the indirect object c-commands the direct one, so the relationship is the same as in a high applicative, with a difference that this relationship is more direct. The applicative phrase, having the indirect object as its specifier and the direct object as its complement, is a complement of the verb.

Furthermore, the differences between these two applicatives involve compatibility of an applicative structure with intransitive and stative verbs, and the ability of a depictive modifier to modify the indirect object. In other words, high applicatives are possible within transitive and stative verbs, and it is possible for depictive modifiers to modify an indirect object; whereas low applicatives are immune to both of these tests (cf. Citko 2014: 152). Moreover, English fails these diagnostics, because, first, applicative objects are disallowed with intransitive verbs (*Maria ran Jan, or *Maria died Jan); second, applicative objects (indirect objects) are disallowed in English with stative verbs (*I held Maria the door); and third, the indirect object cannot be modified by depictives (*I gave Maria$_i$ the book curious$_i$). Therefore, it is difficult to assume which applicative structures the psychological idioms with DOC, listed in (4.59a-f) represent.

Significantly, McGinnis (2001), Kim (2014, 2015), and Citko (2014), among others, argue that a high applicative is a phase head but a low applicative is not. Therefore, high applicatives can have the EPP[52] feature, which makes movement of the direct object over the indirect object possible, as shown in (4.62) below.

(4.62)



(cf. Citko 2014: 154-155)

[52] The *Extended Projection Principle* (EPP), proposed by Chomsky (1982), is a linguistic hypothesis about subjects. The EPP refers to clauses which are required to contain a NP or DP in the subject position *viz*. in the specifier of TP or IP (cf. Chomsky 1982: 10). Importantly, the EPP-feature forces an item equipped with it to project a specifier.

Accordingly, the phase head, ApplH, becomes a structural boundary to define idiomatic interpretations (4.62), but a non-phase head, ApplL, instead, is not able to delimit the idiomatic interpretation. However, Kim's (2014: 220; 2015: 633) assumptions concerning the structural boundaries for idiomatic interpretations in English ditransitive idioms differ from the aforementioned ones (cf. the discussion below and the syntactic representations for idioms in (4.64), (4.65), and (4.66)).

Indeed, in his accounts of the distribution of idioms in English ditransitives, Kim (2014, 2015) offers a different view than Bruening (2010) does in his *idiom-as-selection* hypothesis.[53] While Bruening's (2010) proposal lacks an explanation of how the specifiers of functional heads are treated as regards idiomatic interpretation, Kim (2014, 2015) offers an account for the distribution of idioms in English DOC and Postpositional Dative (PD) in terms of phases. Following Bruening's (2010) patterns of idioms, Kim (2014, 2015) predicts both possible idioms and patterns which are non-existent, as illustrated in (4.63), with exemplary English psychological idioms fitting these patterns (idiomatic

[53] In his *idiom-as-selection* proposal, built on O'Grady's (1998) work, Bruening (2010) argues that in order for two syntactic constituents, X and Y, to form an idiom, one must select the other; and it is *via* selection that two elements are combined together and interpreted contextually (cf. Bruening's (2010) *Constraint on Idiomatic Interpretation*, formulated in (4.39), and repeated in (i) for convenience.

(i) If X selects a lexical category Y, and X and Y are interpreted idiomatically, all of the selected arguments of Y must be interpreted as part of the idiom that includes X and Y.
Lexical categories are V, N, A, and Adv.

(Bruening 2010: 532 (25-26))

To be more specific, in V-NP idioms (e.g. *pull strings*, or *paint the town*), the verbs select direct objects, and then, taken together, they can be interpreted idiomatically. In the case of verb-theme English ditransitive idioms (e.g. *give NP the boot*, *give NP a turn*), they are proposed by Bruening (2010) to have ApplHP and the following structure [ApplHP NP [ApplH' [ApplH [VP [V give] theme]]]]. ApplH selects V, which selects the theme. ApplH and V are interpreted idiomatically, and thus all selected arguments of V have idiomatic interpretation. Nonetheless, Bruening's (2010) analysis lacks an explanation why the specifiers of ApplH, i.e. the NPs in e.g. *give NP the boot*, *give NP a turn*, are excluded from the idiomatic interpretations. Kim (2014: 216; 2015: 648) argues that it is not clear why the specifier of ApplH is excluded from the idioms, provided they are also selected by ApplH. Therefore, Bruening's (2010) *idiom-as-selection* approach seems not to rule out the specifiers of functional heads in a sufficiently explanatory way.

parts are underlined; while *X* is a Causer, and *Y* is an Experiencer, and both of them realise an open slot in an idiom).

(4.63) Distribution of possible ditransitive idioms, with relevant data of *psychological idioms* with DOCs and a PD:

a. Class I: Verb NP NP
(*give Y the blues* "to depress," *give Y a turn* "to horrify")

b. Class II: Verb NP to NP
(*take a liking to X "*to love;" *pay court to Y* "to fascinate")

c. Class III: Verb NP to NP
(*send Y into a funk* "to depress"[54])

d. Class IV: V NP NP (non-existent)
(cf. Bruening 2010: 532; Kim 2014: 216; Kim 2015: 646)

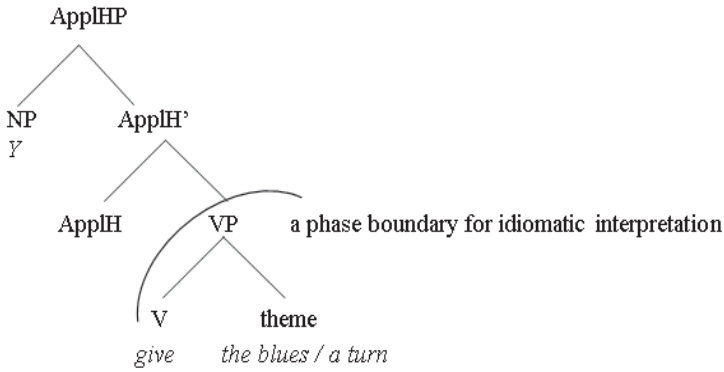
The possible patterns for psychological ditransitive idioms, in the light of Kim's (2014, 2015) phase-based proposal, would be visually presented as in (4.64)-(4.65). According to Kim's (*ibid.*) idea, Class I (and a non-existent class IV) idioms are DOCs which do have ApplHP, but the boundary for idiomatic interpretation is placed below the ApplHP, to exclude the open slot of the specifier, as shown in (4.64).

[54] The psychological idiom *send Y into a funk* "to depress" seems to be of the same PD (postpositional Dative) pattern as Bruening's (2010) original example for class III ditransitive idioms (Class III: Verb NP to NP (*send X to the showers* "to remove from a job"). However, the status of other idioms with the preposition "to" is ambiguous. For instance, some psychological idioms of this type appear to be regular VP-NP+PP idioms (e.g. *drive Y up the wall* "to annoy"), while others seem to be resultative structures (e.g. *frighten / scare Y to death* "to horrify").

(4.64)

Class I idioms

(*give Y the blues* 'to depress', *give Y a turn* 'to horrify')



(Kim 2015: 648)

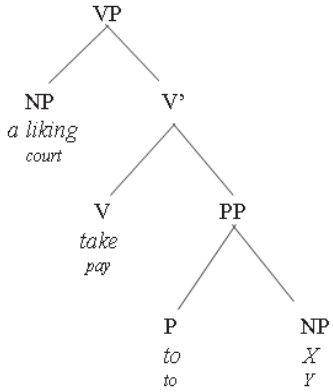
Moreover, according to Kim (2014, 2015), Class II and III ditransitive idioms, demonstrated in (4.65) and (4.66), are PDs which have a VP complement that embeds a PP.[55]

[55] Svenonius (2005), in his idioms-listed in the lexicon approach, also predicts a set of permissible idioms. Illustrating his patterns of permissible idioms with psychological examples, they would be as follows: (i) idioms with free Goal objects in a double object structure (*give Y a turn* "to scare"); (ii) idioms with open possessor positions (*raise Y's hackles* "to annoy"); (iii) but no idioms with free Theme objects in a double object structure (**give a fright Y*), which is also confirmed by the data of our study on psychological idioms.

(4.65)

Class II idioms

(*take a liking to X* 'to love'; *pay court to Y* 'to fascinate')

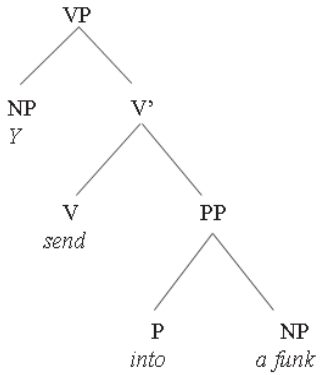


(Kim 2015: 648)

(4.66)

Class III idioms

(*send Y into a funk* 'to depress')



(Kim 2015: 648)

As suggested by Kim (2014, 2015), ApplH in English ditransitives can become a phase boundary for idiomatic interpretations; excluding the specifier of ApplH, which realises an open slot (Class I). Class II and III ditransitives do not include ApplH, and thus cannot become phases, but

their idiomatic parts comprise verbs and objects that appear in the domain of the VPs. Indeed, Kim's (2015) proposal accounts for DOC-idioms, including psychological idioms, but the puzzle why the phase boundary in phase-bound Class I idioms is restricted to VP (which is commonly not treated as a phase), and not to ApplHP (which is assumed to be a phase) remains unsolved.

4.5.5 PP-phases in psychological *idiomatically combined expressions* (ICEs)

The starting point in the discussion concerning the possible phasehood of PPs refers to the common assumption that only functional categories are capable of being phases (cf. Marantz 1984, 1997; Chomsky 2000; and Citko 2014; among others). Thus, the phase-like status of PPs depends on whether prepositions are functional or lexical.

Prepositions are modifiers that indicate location, origin or direction. For some researchers, prepositions are principally lexical, but possibly dominated by a functional layer (e.g. Jackendoff 1977; den Dikken 2010). Other linguists consider prepositions as functional (e.g. Grimshaw 1991; Kayne 2004), while some others treat some prepositions as lexical and others as functional (e.g. Yadroff 1999; Abraham 2010). In his systematic discussion related to the differences between the two types of prepositions, Yadroff (1999) argues that *functional* prepositions are mainly unstressed, monosyllabic and polysemous, since their meaning is more abstract (e.g. *for*, *down*, *in*, *up*, *off*, *out of*); whereas *lexical* prepositions tend to be more complex, i.e. stressed, polysyllabic (often polymorphemic), and have a more fixed meaning (e.g. *during*, *while*, *instead of*, *except*, *above*) (cf. Citko 2014: 140). In short, functional elements, when compared to lexical categories, lack "descriptive content," they perform certain functions, they are phonologically and morphologically dependent, and they do not undergo derivational processes (cf. Abney 1987; and Citko 2014: 138-139).

However, for Citko (2014: 141), the existence of two types of prepositions does not contradict the assumption that all PPs can be phases, on condition that lexical prepositions (as not-phase heads) may be dominated by functional heads, which are phases. Indeed, according to the phasehood diagnostics, prepositions are the source of uninterpretable features; a PP is a domain for feature valuation; movement out of PP has to proceed through the edge of PP; Quantifier Raising cannot target PP; the complement of P cannot be deleted; and a PP can be a binding domain (cf. Citko (2014: 141-151) for a more detailed discussion). Regarding the

phasehood status of PPs, Citko (2014) states that, nonetheless, the behaviour of PPs with respect to phasehood diagnostics is mixed.

In the same vein, Koopman (2010), Aelbrecht and den Dikken (2013), and Corver *et al.* (2017), suppose that PPs represent the type of structure that may potentially project a phase. As far as idioms containing a PP are concerned, all of these expressions are expected to display ICE properties since they allow syntactic modification, such as passivization, topicalization and quantification, among others (cf. section 4.3). A PP-phase in ICE idioms does not contradict a phase-bound analysis since ICE-type idioms, being not confined to a single phase, are able to span multiple phase boundaries and freely straddle phase boundaries (cf. Corver *et al.* 2017: 17-18).

Consequently, the seven patterns of psychological idioms with a PP-goal/oblique found in our dataset have the following syntactic phase-based representations, as in (4.67b) for Type (B), Type (B'), Type (C), and Type (D'), and in (4.68) for Type (C'), Type (D), and Type (D'').

(4.67) a. Patterns of ICE-idioms which have the representation as in (4.67b):

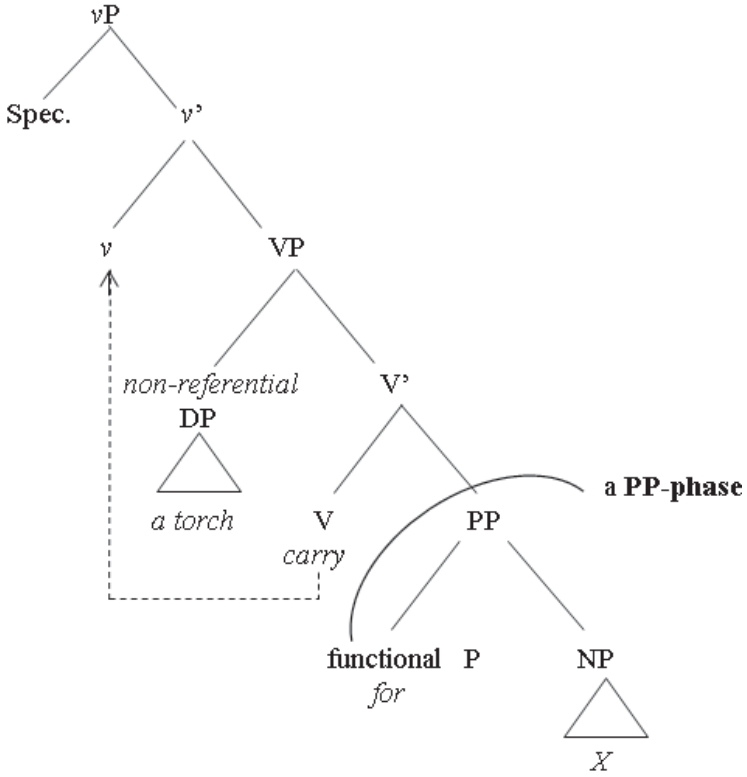
Type (B): V + NP + preposition + NP (complement of a P)
carry a torch for X "to love"

Type (B'): V + NP + preposition+possessor +N (complement of a P)
have a yellow streak / belly down Y's back "to fear"

Type (C): V + NP + preposition + NP (complement of a P)
hold X in abomination / contempt "to hate"
drive Y up the wall "to annoy"

Type (D'): V + NP + preposition+possessor +N (complement of a P)
sweep Y off Y's feet "to fascinate"

(4.67) b. A syntactic representation for Types (B), (B'), (C), and (C')



As shown in (4.67b), in Type (B), Type (B'), Type (C), and Type (D') ICE idioms, a phase boundary for idiomatic interpretation is marked by a PP, which is the complement of a VP. Since the prepositions (*for*, *down*, *in*, *up*, *off*, etc.) in all the idiom types are functional, the PPs are capable of being phases (cf. Marantz 1984, 1997; Chomsky 2000; and Citko 2014; among others). The complements of the Ps are either fixed nominals (e.g. *in contempt*, or *up the wall*) or nominals that comprise possessors (*down Y's back*, *off Y's feet*). The object DPs in the aforementioned types are represented either by fixed nominals with indefinite articles "a" (*a torch*, *a belly*) or realising an open position (*X* or *Y*), and they belong to the VP. Regardless of whether or not the DPs in these ICE-type idioms are referential or not; and hence whether there are DP-phases formed or not,

these idioms do not pose a problem, since ICEs can straddle a number of different phases.

Furthermore, the idiomatic phase-based structure in (4.68b) represents Type (C'), Type (D), and Type (D'') psychological ICE idioms, with the patterns as in (4.68a).

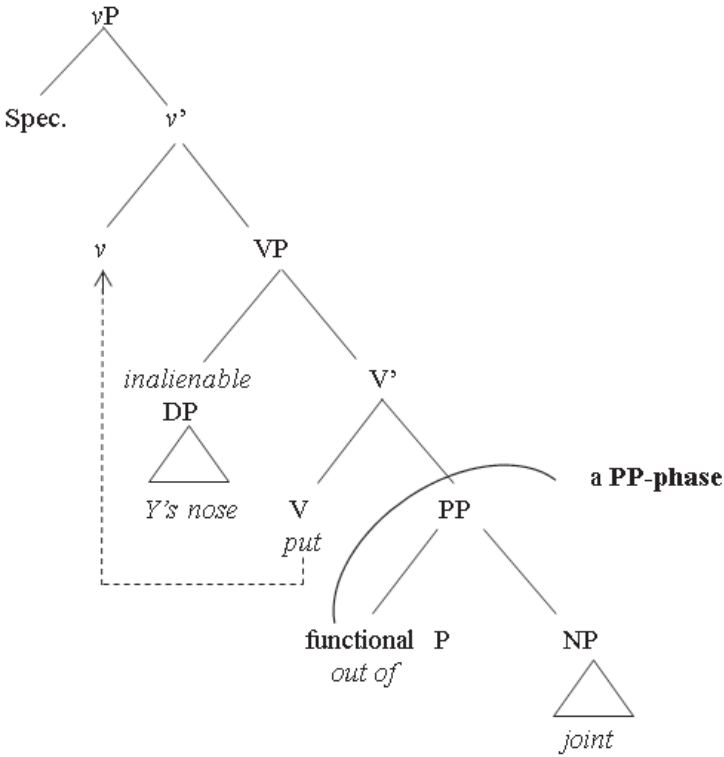
(4.68) a. Patterns of ICE-idioms which have the representation as in (4.68b):

Type (C'): V+ possessor+N + preposition + NP (complement of a P)
put Y's nose out of joint "to annoy"

Type (D): V +possessor +N +preposition +NP (complement of a P)
lose Y's heart to X "to love"

Type (D''): V+possessor +N + preposition +possessor +N (complement of a P)
have Y's heart in X's mouth "to fear"

(4.68) b. A syntactic representation for Types (C), (D), and (D'')



As shown in (4.68b), the syntactic representation for Types (C), (D), and (D'') Type (B), differs from the one in (4.67b) only in the type of a DP-object, which is a specifier of the VP. In (4.68b), the DP would be given a chance to become a DP-phase if only the nominals were alienably possessed as in (4.57). Instead, the DPs in these idioms refer to parts of one's body, which makes them inalienable; hence, no DP-phase is attested in a VP in (4.68b). Nonetheless, these ICE-idioms build PP-phases, formed by functional Ps (e.g. *out of*, *to*, *in*) and the complements of the Ps, i.e. fixed NPs (*joint*), or NPs which realise an open position (e.g. *X*), or NPs which comprise a possessor realising an open position (e.g. *X's mouth*).

In short, assuming that PPs can work as phases as long as they, among other requirements, include functional Ps (cf. Kim 2014, 2015; and Harwood *et al.* 2016), the psychological ICE-idioms which represent the

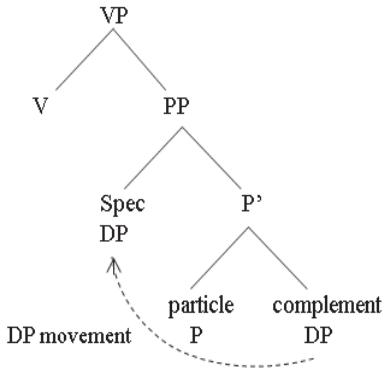
seven patterns presented in this section do comprise PP-phases. Besides, these idioms may also contain DP-phases, provided the nominals in the idiomatic DPs are alienably possessed. The coexistence of the two phases does not give rise to any problems since ICEs can straddle more than one phase (cf. Harwood *et al.* 2016).

4.5.6 Psychological idioms with particles

Particles have a variety of uses, such as idiomatic, directional and aspectual. Svenonius (2005), in his account of verb-particle expressions, claims that particles can be idiomatic (*eat Y"s heart out* "to worry," *put/get Y's back up* "to annoy"), in contra-distinction to verb preposition constructions which usually are not (*worry about X*). Since Chomsky (1957), it has been proposed that a verb and a particle form a constituent, excluding the direct object at some underlying level of representation, which may be disrupted later on as a result of movement (cf. Chomsky 1957; Johnson 1991; and Svenonius 2005: 237; among others).

In general, in the literature, verb particle constructions are considered to be base generated, as part of a complex V, without projecting a P-type syntactic projection (cf. Koster 1975; and Johnson 1991). The projection which contains the particle is assumed to be either a projection of an intransitive P with no complement (cf. Emonds 1976, 1985), or a projection of some type of small clause. In the latter option, the argument of the verb particle combination may originate, either in the subject position of the particle (cf. Kayne 1985), or in the complement position of the particle (cf. Guéron 1986; den Dikken 1992; and Koopman 1991, 2010; among others). For the purpose of our analysis of idiomatic verb particle constructions, it is assumed that the complement originates within the PP. Moreover, idiomatic particles, as thematically complex structures with V, are said to lack autonomous theta-properties, and similarly to unaccusative verbs, do not assign accusative Case (cf. Kayne 1985). Providing that idiomatic particles have no independent lexical properties, they are believed to project a PP without any functional layers, as suggested by Koopman (2010: 62), and displayed in (4.69) below.

(4.69) Verb particle constructions: V takes a bare PP complement



(cf. Koopman 2010: 62)

As shown in (4.69), particles P are complements of VPs, while the DP complements of Ps can escape the PP *via* Spec, PP (cf. Koopman 1991, 2010).

In our analysis of psychological V-particle idioms of Type (A''), e.g. *eat Y's heart out* "to worry," or *knock Y's socks off* "to surprise," the idioms have been first tested as regards their ICE or IdP status, by means of the three syntactic diagnostics applied by Harwood *et al.* (2017), i.e. the possibility of idioms for passivization, topicalization and modification. These are summarised in (4.70a-b) below.

(4.70) a. *eat Y's heart out* "to worry"

Is it strange that her judgment was perverted, and her heart was eaten out. (Google) (passivization)
Her heart, the disappointed love for him was eating out. (native speakers' judgement) (topicalization)
Napoleon at St. Helena is eating his proud heart out with rage. (Google) (modification)

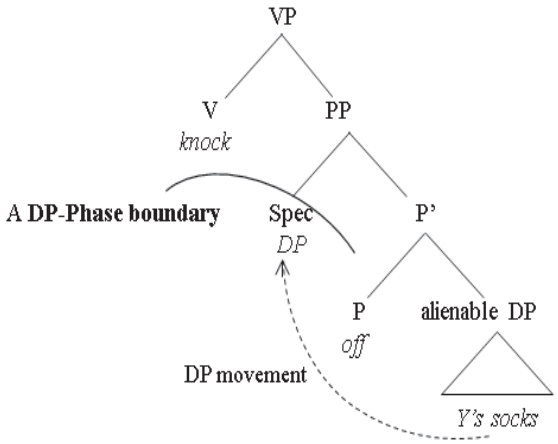
b. *knock Y's socks off* "to surprise"

If his socks had been knocked off, she couldn't tell a word. (Google) (passivization)
My socks, the news knocked off. (native speakers' judgement) (topicalization)

What I read in the files knocked off my proverbial socks
(Google) (modification)

Once the idioms have been confirmed to be of ICE-type, their DP arguments have been checked if they are alienably possessed or not. In fact, it has turned out that some of the particle-idioms have alienably possessed DPs (*Y's socks*)[56] and are confined to a phase boundary, as presented in (4.71a). Other particle-idioms, in turn, have inalienably possessed DPs (*Y's heart*),[57] which makes them unable to form phases, as represented syntactically in (4.71b) below.

(4.71) a. The syntactic representation of ICE-idioms with particles and alienably possessed DPs:
Type (A''): V+ possessor + N + particle
(e.g. *knock Y's socks off* "to surprise")

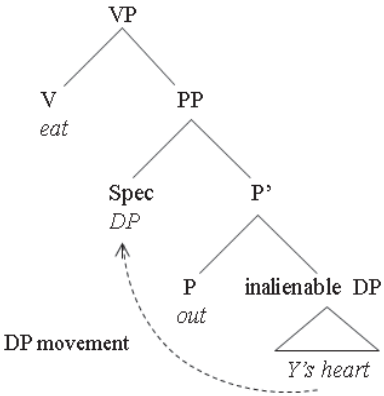


(cf. Harwood *et al.* 2017: 60)

[56] Cf. the structure in (4.57) for alienably possessed DPs in ICE-type idioms.
[57] Cf. the structure in (4.58) for inalienably possessed DPs in ICE-type idioms.

(4.71) b. The syntactic representation of ICE-idioms with particles and inalienably possessed DPs:

Type (A''): V + possessor + N + particle
(e.g. *eat Y's heart out* "to worry")



(cf. Harwood *et al*. 2017: 60)

All in all, as shown in (4.71a) and (4.71b), both the inalienable or alienable DPs in the aforementioned psychological idioms originate as complements of the Ps, and then they are moved into the Spec, PP position. However, only psychological particle-ICE idioms with alienably possessed DPs (e.g. *knock Y's socks off* "to surprise") contain DP-phases, in contradistinction to ICEs with inalienably possessed DPs that do not act as phases.

4.5.7 Small Clauses as Predication Phases in psychological idioms

In this section, the last type of psychological idioms is to be analysed, *viz*. Type (E'), in which the idiomatic verb is followed by a [NP XP] sequence. While NP realises an open position, representing the Experiencer (*Y*), XP is a fixed idiomatic element, which can be filled in either by an AP, AdvP, PP, or NP, as illustrated in (4.72).

(4.72) Psychological idioms of **Type (E'):** V + [NP XP]:

a. V + [NP AP]:
drive Y batty "to annoy"
leave Y open-mouthed "to surprise"
strike Y dumb "to surprise"

b. V + [NP AdvP]:
knock Y sideways "to scare"
bring Y low "to depress"
catch Y unawares "to surprise"

c. V + [NP PP]:
strike Y with wonder "to surprise"
strike Y with awe "to surprise"
leave Y at a loss for words "to surprise"

d. V + [NP NP]:
drive Y nuts/ bananas / bonkers "to annoy"

The [NP XP] sequence occurring after a verb, as exemplified on the instances of psychological idioms in (4.72) above, has been given various, often competing, interpretations in the literature. Within the framework of Government and Binding Theory (Chomsky 1981), two major proposals have received some linguistic significance, *viz*. the Small Clause Theory and the Predication Theory. The former recognises the mentioned string as a clause and a single constituent, and the NP and the XP in a subject-predicate relationship but lacking tense inflection (Stowell 1981, 1983; Chomsky 1981; and Safir 1983; among others). The latter treats the NP and the XP as two distinct complements of the main verb, which do not form a single constituent (Williams 1980, 1983). These two approaches to the postverbial [NP XP] sequence, are summarised in (4.73a) and (4.73b), for the Small Clause Theory and the Predication Theory, respectively.

(4.73) a. I [VP consider [SC John silly]]
b. I [VP consider [NP John] [AP silly]]
(Safir 1983: 731)
c. I [VP consider [John to be silly]]
d. I [VP consider [that John is silly]

Interestingly, the subject in the two aforementioned theories is defined in different ways. In the Small Clause Theory, it is structurally characterised, i.e. as an NP is dominated by S. In the Predication Theory, in turn, the non-structural NP subject is an external argument, which combines with any predicative phrase (cf. Williams 1983).[58] Yet, the [NP XP] sequence, commonly associated with a term "small clause" (henceforth SC), refers to "not fully fledged" clause constructions. Moreover, SCs are usually distinguished from their full clause counterparts, e.g. the one given in (4.73c), which includes tense specification, albeit a non-finite one, in addition to the subject and the predicate, and the one in (4.73d), which is a full tense-inflected clause, and a clausal complement of the VP *consider* (for a more detailed discussion concerning the internal structure, category and typology of small clauses cf. Chomsky 1981: 106; Radford 1988a,b; Aarts 1992; Kim, J.-B. 2013: 76; and Tomacsek 2014; among others).

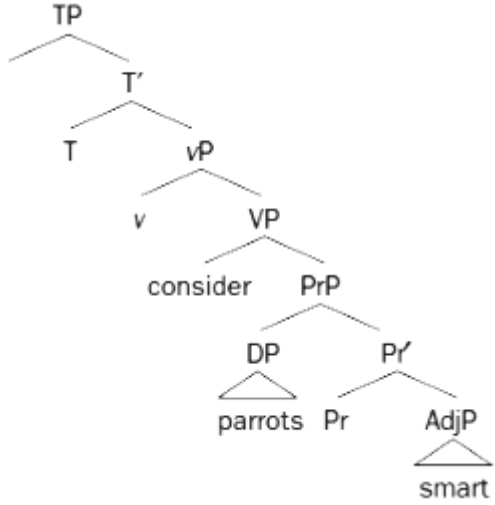
Undoubtedly, with so many competing analyses of SCs offered in the literature so far (Stowell 1981, 1983; Kitagawa 1985; Aarts 1992; Bowers 1993, 2001; Haegeman 1994; den Dikken 2006; and Citko 2008, 2011; among many others), the very nature of small clauses is far from being uncontroversial, as is their categorial status and internal structure. Nonetheless, for the purpose of our discussion undertaken in the book, the focus is put on the idea that there is a relationship between predication and phasehood. Staying in line with Chomsky's (2007, 2008) view that phasal properties should be extended to other phrases, in addition to CPs, *v*Ps and DPs, Citko (2014) argues that SCs may receive a phase-based analysis, as well. Yet, it is the approach proposed by Bowers (1993), towards predication and phasehood, which is the one adopted here for the case of psychological idioms with small clauses. Bowers (1993) suggests expanding the inventory of functional projections to include a Predication Phrase (PrP), which corresponds to a SC.[59] The head of PrP is recognised

[58] Cf. Bruening's (2016) discussion concerning resultative constructions analysed as small clauses, and other Small Clause approaches to the argument structure.

[59] Jiménez-Fernández and Spyropoulos (2013), similarly to Cinque (1990) and Haegeman (2010), assume that SC structure includes a functional projection F above the projection of the category that functions as the predicate. Jiménez-Fernández (2000) recognises some more possibilities of including other functional categories in the structure of SCs, e.g. Aspectual Phrase. Bowers (1993, 2001) posits a Predication Phrase above the SC; while Starke (1995) holds that SCs are full clauses, and hence project a CP. For reasons of space, it is not possible to discuss these different proposals related to the functional spine of SCs in detail. Thus SCs are analysed here, after Bower (1993) and Citko (2014), as Predication Phrase. Importantly, SCs are treated as reduced clauses, which lack a CP and a TP.

by Citko (2014) as a phase head, which heads a small clause (SC), as illustrated in (4.74) below.

(4.74) A structural representation for a SC
I [VP *consider* [SC *parrots smart*]]:



(Citko 2014: 132)

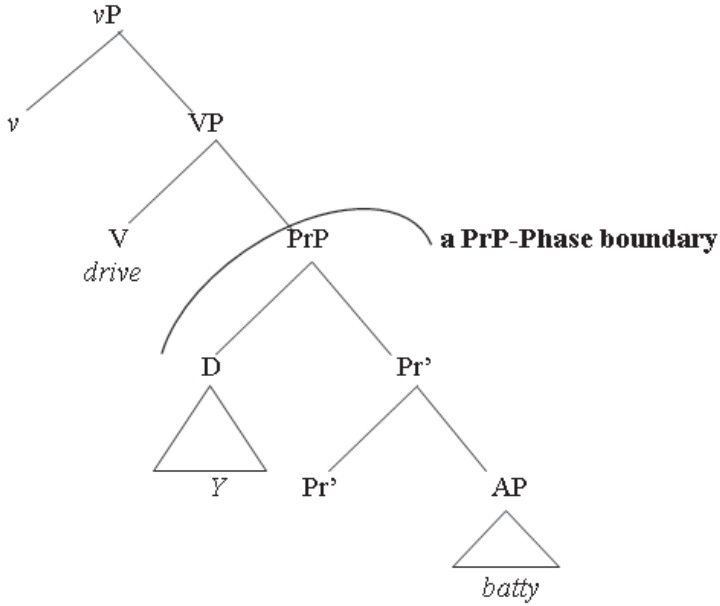
In her structural representation for SCs, presented in (4.74), Citko (2014) recognises PrPs as phases. Citko (2014) provides some convincing evidence for the phasehood of PrPs, at least in some languages with respect to most phasehood diagnostics. Consequently, she argues that (i) a Pr can be the source of uninterpretable features; (ii) movement out of a PrP has to proceed through the edge of the PrP; (iii) Quantifier Raising can target a PrP; (iv) the complement of a Pr cannot be deleted; and (v) a PrP is semantically complete (propositional) since it consists of a subject and a predicate (cf. Citko 2014: 137, for more details relevant to phasehood diagnostics). What is more, Bowers (2002), Harves (2002), Matushansky (2000), and Tanaka and Yokogoshi (2010), among others, also argue explicitly for the phasehood of Predication Phrases.

Once the phasehood of PrPs is established, and the inventory of functional projections is to include a Predication Phrase (PrP), as suggested by Bowers (1993, 2002) and Citko (2014), the PrP structure can become a possible structure for small clauses, also those embedded in the

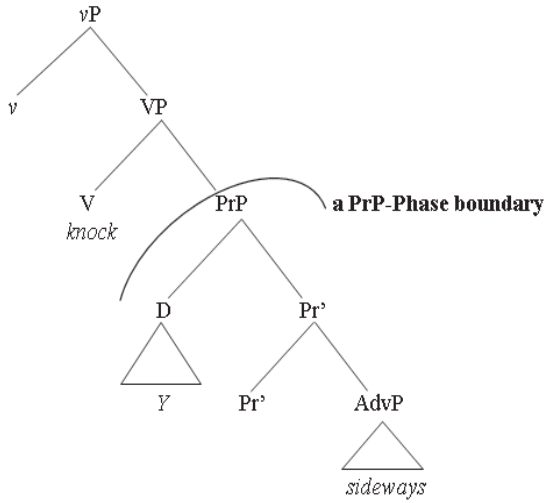
psychological idioms from our dataset with SCs listed in (4.72). By analogy with the small clause *I* [VP *consider* [SC *parrots smart*]], offered by Citko (2014: 132), and represented structurally in (4.74), psychological idioms under scrutiny are believed to have the following structure, as in (4.75a-d).

(4.75) Psychological idioms of **Type (E'):** V + [NP XP]:

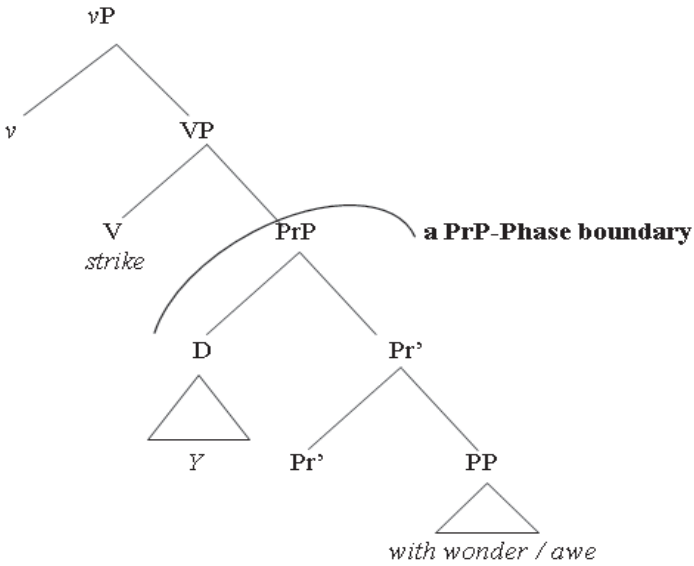
a. **V + [NP AP]:** *drive Y batty* **'to annoy'**
leave Y open-mouthed; *strike Y dumb* **'to surprise'**



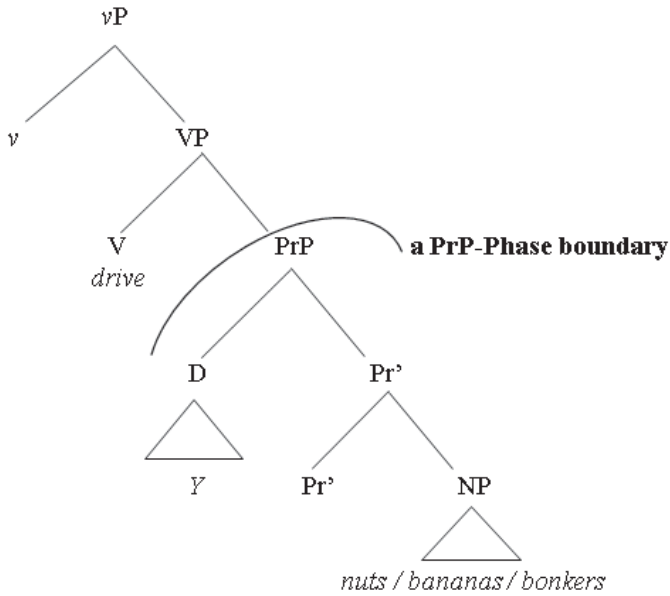
b. V + [NP AdvP]: *knock Y sideways* 'to scare'
bring Y low 'to depress'; *catch Y unawares* 'to surprise'



c. V + [NP PP]: *strike Y with wonder / awe* 'to surprise'
leave Y at a loss for words 'to surprise'

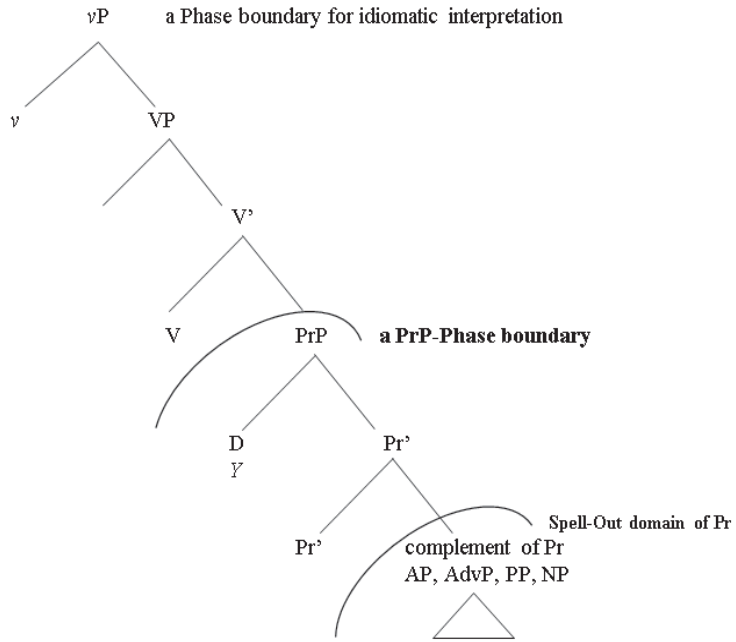


d. V + [NP NP]: *drive Y nuts/ bananas / bonkers* **'to annoy'**



As shown in (4.75a-d) for Type (E') psychological idioms, the subject of the embedded SC is always represented by an Experiencer (Y), whereas the predicate comprises either an AP, AdvP, PP, or NP. Importantly, all predication relations are mediated by a Pr head, as proposed by Bowers (1993, 2002); and the Predication Phrases in all the cases are certainly semantically complete, since they contain a predicate with all its arguments, which is the behaviour expected of phases (cf. Citko 2014). Furthermore, as noted by Citko (2014: 132), the Spell-Out of the complement of Pr occurs as soon as the next head up (*v*) is merged, as shown in (4.76).

(4.76) The *Spell-Out* of the complement of Pr



(cf. Citko 2014: 132)

In brief, a PrP structure is not the only possible structure for small clauses (cf. Citko (2011) for an overview of possibilities), but it seems to work efficiently for the instances of psychological idioms of Type (E').

To conclude, section 4.5 has offered an analysis of psychological idioms in the light of the Phase Theory, which has been widely adopted by many researchers working in the field (e.g. Svenonius 2005; Stone 2009; Harwood 2013, 2017; Harwood *et al.* 2016; Harley and Stone 2013; Kim 2014, 2015; and Corver *et al.* 2017; among others). It has been noted that, in addition to CPs and *v*Ps, also DPs, ApplHP, or PrPs may act as phases, which has contributed significantly to our analysis of psychological idioms.

This section of the chapter has started with a claim that the *v*P-phase imposes an upper bound on verbal IdP idioms. Indeed, IdPs are confined to a single phase, namely the clause-internal phase; whereas ICEs are able to span multiple phase boundaries and can depend on the material beyond

them. Moreover, nearly all idioms from our dataset can be characterized as having an open position located, e.g. in the direct object, small clause subject, or possessor.

4.6 An Experiencer in psychological idioms

It is commonly accepted in the literature that the defining characteristic of psych-verbs is to express (a change in) mental or/and emotional state and a relation between the two arguments: an *Experiencer* and the *Cause* / *Theme* of such a psychological condition (cf. Belletti and Rizzi 1988; Dowty 1991; Pesetsky 1995; and Landau 2010; among others). There is also quite a great number of phraseological units which may refer to one's psychological condition, as has been confirmed by the results of our corpus research in Chapter Three. In other words, 161 idiomatic expressions elicited in the corpus study have become the counterparts of the chosen top psych-verbs. The psychological VP-idioms, similarly to the psych predicates, comprise a participant who experiences some emotional or mental state, i.e. an *Experiencer*, and a *Stimulus* / *Causer* / *Cause* / *Target*, which has contributed to this specific state or become a target of it.

With this in mind, the three questions to be addressed in this section concern: (i) the position of an Experiencer in psychological idioms; (ii) an Experiencer in psych-idioms analysed as a mental location, following Landau's (2010) proposal; and (iii) the place of an Experiencer in Baker's (1989) Thematic Hierarchy.

4.6.1 The position of an Experiencer in psychological idioms

To start with, one of the basic criteria specified at the beginning of the corpus search for psychological idioms was to elicit only those phraseological entities which can be used, instead of common psychological predicates. Therefore, it has been assumed that SE psych-verbs (class I, following Belletti and Rizzi's (1988) tripartite classification) are to be prototypes for those idioms, with the main argument (Experiencer) in the subject position, as presented in (4.77).[60]

[60] If an Experiencer is the trigger of emotion, it behaves like an agent, then "the experiencer (…) resembles the agent to the extent that his involvement in the action is volitional and he has control over the execution of the mental process" (Dąbrowska 1997: 94). Therefore, the performer of the process appears rather "active than passive, conscious rather than lacking consciousness, rational rather

OE psych-verbs (class II and class III), in turn, are to correspond to such psych idioms, which have an Experiencer realised in an object position, as exemplified in (4.78).

(4.77) Examples of SE psych-verbs and their idiomatic counterparts:

a. *Mark loves his girlfriend Lucy.* (SE psych-verb)
Mark ***carries a torch for*** *his girlfriend Lucy.*
(Type (B) idiom)
Mark ***has lost his heart to*** *his girlfriend Lucy.*
(Type (D) idiom)

b. *Mark was enjoying himself in the evening.* (SE psych-verb)
Mark ***was painting the town*** *in the evening.*
(Type (A) idiom)
Mark ***was kicking his heels*** *in the evening.*
(Type (A') idiom)
Mark ***was getting a buzz out of*** *dancing in the evening.*
(Type (B) idiom)

c. *Mark worries about his debts.* (SE psych-verb)
Mark ***has the blues*** *because of his debts.* (Type (A) idiom)
Mark ***eats his heart out*** *because of his debts.*
(Type (A'') idiom)
Mark ***has lost his sleep over*** *his debts.* (Type (B) idiom)
Mark ***has a bee in his bonnet*** *because of his debts.*
(Type (B') idiom)

(4.78) Examples of OE psych-verbs and their idiomatic counterparts:

a. *The comedy amused Mark.*
(OE psych-verb–class II)
The comedy ***gladdened*** *Mark's* ***heart.***
(Type (A') idiom)
The comedy ***tickled*** *Mark* ***to death.*** (Type (C) idiom)

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than irrational, [and] capable of referring to the objective world and seeing things that are really 'out there'" (Dąbrowska 1997: 97).

b. *The screaming children annoyed Mark*.
(OE psych-verb–class II)
The screaming children ***raised the hump,*** *so that Mark couldn't sleep.*
(Type (A) idiom)
The screaming children ***raised*** *Mark's* ***hackles***.
(Type (A') idiom)
The screaming children ***stirred up a hornet's nest in*** *Mark*. (Type (B))
The screaming children ***brought a hornet's nest round*** *Mark's* ***ears***. (Type (B') idiom)
The screaming children ***put*** *Mark's* ***nose out of joint.***
(Type (C') idiom)
The screaming children ***thumbed their noses at*** *Mark*. (Type (D) idiom)
The screaming children ***gave*** *Mark* ***the pip.***
(Type (E) idiom)
The screaming children ***drove*** *Mark* ***batty / bananas.***
(Type (E') idiom)

c. *This film appeals to Mark*. (OE psych-verb–class III)
This film ***tickles*** *Mark's* ***fancy***. (Type (A') idiom)
This film ***sets*** *Mark* ***on*** *his* ***ear.*** (Type (D') idiom)

As can be seen in (4.77) and (4.78), the position of the Experiencer in the aforementioned psychological idioms corresponds to the position an Experiencer takes in psych-verbs. In all the cases the parallelism goes in a straight line, *viz*. if an Experiencer (*Mark* for all these instances) occupies the preverbal position, having the role of a subject, it plays the same role and takes a preverbal position in the case of psychological idioms. On the other hand, if the Experiencer has the role of an object, its position both in psych-predicates and their idiomatic counterparts is postverbal.

What is more, the Experiencer, both for SE and OE psychological idioms, is realised mostly overtly as a DP. However, in the case of the idioms corresponding to OE psych-verbs, the Experiencer is realised either as a DP-direct object (e.g. *gave Mark the pip)*, or as a possessor of the DP-object (e.g. *tickles Mark's fancy*), or as a possessor of the DP-complement of P (e.g. *brought a hornet's nest round Mark's ears*), or as a PP complement (e.g. *thumbed their noses at Mark*). The Experiencer may be also covert, so that only the context of the discourse reveals who the

Experiencer is (e.g. *The screaming children raised the hump, so that Mark couldn't sleep*).

4.6.2 An Experiencer in psychological idioms as a mental location

The objective of this part of the chapter is to check whether English verbal idioms, which denote a psychological condition of an Experiencer and occur with locative Prepositional Phrases (PPs), may serve as an evidence for Landau's (2010) hypothesis of "Experiencers as mental locations, that is, locative" (Landau 2010: 6; cf Landau's analysis discussed in section 2.5.2 of Chapter Two). Consequently, all psych-idioms corresponding to class II and III psych-verbs can belong to the dataset to be investigated, providing these OE idioms comprise a PP with an open slot, realised by an Experiencer (Y). Thus, these are all OE idioms of Type (B), (B'), (D), and (D'), as illustrated in (4.79).

(4.79) Examples of OE (class II and III) psych-idioms with an Experiencer placed in a PP:

In TOTAL: 35 of these psych-idioms → 32%

Type (B): V + NP + preposition + NP (complement of a P):
26 idioms → 23%
cast a gloom / a shadow over Y "to depress Y"
blow a gasket on Y "to anger Y"
scare the bejesus out of Y "to horrify Y"

Type (B'): V + NP + preposition + possessor +N (complement of a P)
3 idioms → 3%
take the wind out of Y's sails "to depress Y"
bring tears to Y's eyes "to depress Y"
bring a hornet's nest round Y's ears "to annoy Y"

Type (D): V + possessor + N + preposition + NP (complement of a P)
4 idioms → 4%
vent X's spleen at Y "to anger Y"
thumb X's nose at Y "to annoy Y"
shake X's / a fist at Y "to scare Y"

Type (D'): V + NP + preposition + possessor + N
(complement of a P)

2 idioms → 2%

catch Y off (Y's) guards "to surprise Y"
sweep Y off Y's feet "to fascinate Y"
set / put Y on Y's ear "to appeal to Y"

As can be seen in (4.79), four types out of twelve elicited in Chapter Three consist of a PP, with an Experiencer overtly placed, which comprises altogether 35 psych-idioms out of 112 OE class II and III (→ 32%). Types (B)-(B') are the most numerous, covering 26%. These types include a verb and a fixed object, followed by a Prepositional Phrase realising an open position in a complement of the P, i.e. either in an NP (V+NP+P +NP), or in a possessor modifying the fixed noun (V+NP+P +possessor +N). Types (D)-(D'), in turn, realise two open positions, i.e. in the object position and within a PP, hardly ever occur in this idiomatic dataset (6%).

Interestingly, in 5 SE idioms out of 49 SE idioms (which comprises 10% of Type (B') and (D'')), the Experiencer is located in a PP, *viz*. the Experiencer is realised as a possessor modifying the fixed noun placed in a PP. The instances of these SE idioms are shown in (4.80) below.

(4.80) Examples of SE (class I) psych-idioms with an Experiencer placed in a PP:

In TOTAL: 5 of these psych-idioms → 10%

Type (B'): V + NP + preposition + possessor +N
(complement of a P)
have a bee in Y's bonnet "Y worries about X"
have ants in Y's pants "Y worries about X"
have butterflies in Y's stomach "Y worries about X"
have a yellow streak / belly down Y's back "Y fears X"

Type (D''): V + possessor + N +preposition + possessor +N
(complement of a P)
have Y's heart in Y's mouth "Y fears X"

Nonetheless, 10% in the entire set of SE psych-idioms sounds insignificant to provide evidence for Landau's (2010) and Fábregas and Marín's (2015) (cf. Arad 1998) assumptions about the locative nature of SEs. In fact, the proposal that SE psych-verbs should be treated as mental locations has not

be confirmed by the relevant evidence available in the literature so far (cf. section 2.5.2.1 in Chapter Two).

Consequently, only OE psych-idioms with a PP, such as those in (4.79), can work as a dataset to check whether it is justified to treat these idioms as "periphrastic variants" of psych-verbs with locative Prepositional Phrases (PPs). Since in Landau's (2010: 6) account, Experiencers are regarded as mental locations–locatives, i.e., containers or destinations of mental states or effects, Landau makes a claim that (i) all Object Experiencers are oblique (or dative); (ii) Experiencers undergo "locative inversion" (Landau 2010: 6). Landau's (2010) standpoint is compatible with Jackendoff's (1990: 300 n.4) decomposition approach, in which the relation between an *Experiencer*, and a non-Experiencer argument (called *Stimulus*, *Trigger of emotion*, *Causer* or *Target/ Subject Matter*, or *Theme*) (Landau, 2010: 10), can be presented in terms of a conceptual representation. According to Jackendoff (1990), the correspondence rules relating Conceptual Structures (CS) to Syntactic Structures (SS) are directly related. Following Jackendoff (1990), any psych-sentence can be represented by means of the functions BE, INCH, and AT, as illustrated in (4.81b), roughly read as in (4.81c).[61]

(4.81) a. X frightens Y
b. $[CS^{+}$ $([X]^{\alpha}$, [INCH [BE ([FEAR ([α])], [**AT** [Y]])]])]
c. X causes fear of X to come to be **IN** Y.
(Jackendoff 1990: 300 n.4, cited in Landau 2005: 7)

Jackendoff (1990) indicates the semantic representation in (4.81) to express the paraphrase "X causes fear to come to be in Y." FEAR in (4.81b), indicating a mental state, is somehow extracted from the verb, becoming a thematic argument, a co-argument of the Experiencer. This paraphrase implies the locational property of the Experiencer (Y), since fear (X) is described as a moving Object and Y as a container for the emotion. The Experiencer seems to be the object of a preposition (AT / IN), which locates the mental state within it.[62] Even though in

[61] Following Jackendoff (1990), the meaning of each sentence relies on the universal semantic categories that the relative construction is made up of. The inventory of such categories include EVENT, STATE, THING, PATH, PLACE, PROPERTY, and TIME. All these universal semantic categories can combine with each other by means of functions such as IN, AT, BE, INCH, and so on.

[62] Cf. Baker (1997) for a similar suggestion, Iwata's (1995) "reversed" option for the Experiencer to be placed within the mental state.

Jackendoff's (1990) analysis the target of fear equals its cause, Pesetsky (1995) does not find this equation necessary.

Moreover, Bouchard (1995) treats one's mental state as an independent semantic argument, called *psy-chose*, which he names also a *syntactic argument* since "in mental space, the psy-chose is somehow put in contact with the argument it affects" (Bouchard 1995: 272). This "argument" can absorb the emotion or feeling that the psy-chose denotes, as shown in the periphrastic psych construction[63] provided in (4.82a), or illustrated by means of the OE in (4.82b).

(4.82) a. Cela a éveillé en Pierre une rage terrible.
"That awoke in Pierre a terrible rage."

b. Cela a enragé Pierre.
"That enraged Pierre."

(Bouchard 1995: 275 (ex. 35a,c))

Landau (2010: 10) further assumes that despite the fact that psych-verbs are decomposed conceptually into an "action" light verb plus a mental state (psy-chose), this does not imply that this decomposition happens on the syntactic level as well.[64] Instead, the locative preposition is syntactically active no matter if the Experiencer is a bare nominal or not, while syntactic activity happens in the mental state only when it is visible, i.e. in periphrastic constructions.

In short, according to Landau's (2010) localist approach, the Experiencer designates a mental location, thus it is placed within the structure of a PP. This PP may be headed by a lexical P (as in English obliques) or a null P (as in Latin obliques); nevertheless, both cases are structurally distinct from bare DPs (Landau 2010: 21-22). On the ground of these fundamental assumptions of Landau's (2010) *localist* and *decomposition theory of psych-verbs,* the verbal idiomatic units that

[63] Cf. section 2.5.2.1. in Chapter Two for more details.

[64] Landau (2010: 137 fn. 2) mentions that, actually, some evidence has been provided to justify the claim that periphrastic and synthetic psych constructions have different forms in some semantic aspects that cannot be ascribed as the single factor of incorporation. While in non-agentive contexts, periphrastic forms are telic (as in (ii)), synthetic forms are not (as in (i)). Thus, simple N-to-V incorporation does not imply such aspectual shifts.

i. The movie horrified / enraged Mary for/*in 15 minutes.
ii. The movie filled Mary with horror / awoke rage in Mary in/*for 15 minutes.

(Landau 2010: 137 fn. 2)

comprise a PP might be treated as a periphrastic construction related to standard psych-verbs, in which the Experiencer is a mental location. However, the data show that a lexical P with the *Experiencer* as an object appears only in one third, i.e. 35 (31%) idiomatic expressions out of the 112 OE psych-idioms, whereas 77 items (69%) include an *Experiencer* preceded with no P. The latter might be treated as exhibiting an oblique Experiencer with a null preposition. However, no relevant syntactic evidence can be found in support of the claim that there is a covert P in this type of phrase. Therefore, the results obtained as regards the OE psych-verbs with explicit PPs do not provide enough evidence in favour of Landau's (2010) theory of Experiencers as mental locations, placed either in a covert or overt PP.

4.6.3 An Experiencer in Baker's (1989) *Thematic Hierarchy*

According to Kiparsky's (1987) and Baker's (1989) *Thematic Hierarchies*, reproduced in (4.37a) and in (4.37b), and repeated in (4.83) and (4.84) for the sake of con*v*enience, arguments which are part of the fixed portion of an idiom, are expected to be lower on the thematic hierarchy than arguments which are not part of the idiom.

(4.83) *Thematic Hierarchy Constraint*:
Agent > Theme > Goal / Location

(Kiparsky 1987: 35-36)

(4.84) *Extended Thematic Hierarchy Constraint*:
Agent > Instrument >|Experiencer>|Patient /Theme > Goal/Location

(Baker 1989: 544)

Following the *Hierarchy Constraint*, certain arguments may or may not be part of a verbal idiom, as it is encoded in a thematic hierarchy, i.e. Agent > Theme > Goal / Location. In fact, all psychological idioms comply with Baker's (1989) *Thematic Hierarchy*, formulated in (4.84), since the Experiencer (Y) is situated higher in the hierarchy than the Theme (for V-O idioms, V-DOC idioms, and V-small clause idioms) or Goal (for V-O-PP idioms). Moreover, scholars, such as Larson (1988), believe that the hierarchy reflects the order of composition of arguments with the verb. The argument lowest in the hierarchy is expected to combine with the verb first, whereas the argument which is highest in the hierarchy should combine last.

To sum up, the position of the Experiencer in the psychological idioms under scrutiny corresponds to the position that an Experiencer takes in typical psych-verbs. The OE (class II and III) psych-verbs with explicit PPs, found in our databank, do not provide enough evidence in favour of Landau's (2010) theory of Experiencers as mental locations. Finally, all the SE and OE psychological idioms comply with Baker's (1989) *Thematic Hierarchy*.

4.7 Aspectual properties of psychological idioms

This section is not meant to offer a comprehensive analysis of the aspectual properties of either psych-verbs or idiomatic expressions corresponding to them. The objective is, however, both to recognise some existing correlation between psych-verbs and psych-idioms, and to note some challenging dissimilarities between these two, as regards aspect.

To begin with, verbal predicates related to the psychological and/or mental /emotional condition of an Experiencer and their aspectual properties have attracted a great deal of attention in the literature cross-linguistically. Indeed, the fact that the meaning of psych-verbs is often ambiguous between states and events, and that they are likely to display subtle aspectual distinctions, not observed with non-psych verbs, makes these predicates even more special and challenging (cf. Grimshaw 1990; van Voorst 1992; Tenny 1994; Pesetsky 1995; Arad 1998; Rozwadowska 2005, 2012; Marín and McNally 2011; and Alexiadou and Iordăchioaia 2014; among many others). They have even been argued to comprise a special grammatical class with individual characteristics which are not found with other verb classes, or classified according to core / peripheral psych properties (cf. Landau 2010).

Therefore, with regards to psychological idioms, the question arises what aspectual properties this dataset of idioms exhibits. Should the aspect of psychological idioms be investigated along the diagnostics applied to usual psych-verbs, or rather should more idiom-bound rules related to aspectuality be followed? Importantly, in this section of the book, the stress is to be put more on principles related to idiomaticity of the psychological expressions under scrutiny than to canonical psych-verbs.

In section 2.4.2 of Chapter Two, some space has been devoted to the aspectual properties of both SE and OE psych-verbs, and the syntactic tests to distinguish between stative, eventive agentive, and eventive non-agentive readings of particular verbs. With this in mind, it is worth comparing the aspectual characteristics of psych-predicates and their idiomatic counterparts. Therefore, for the sake of convenience, some

observations related to the aspectuality of psych-verbs, made in (2.23) in Chapter Two, are repeated here.

In (4.85a)-(4.87a) below, some examples of SE and OE psych-verbs are displayed, whereas in (4.81b-c)-(4.84b-c) idioms corresponding to these predicates are tested against the basic syntactic diagnostics, adopted from Dowty (1979, 1991), Arad (1998, 1999), Rothstein (2004, 2008), Biały (2005), Guidi (2011), Rozwadowska (2012), and Grafmiller (2013), among others. In all the exemplary sentences *Mary* is an Experiencer, while *children* or *dogs* represent a Theme.

(4.85) Aspectual properties of SE psych-verbs and idioms corresponding to them:

a. SE psych-verb "**TO LOVE**" (stative / eventive reading (cf. (2.23a) in Chapter Two)
Mary *loves* children.

b. SE psych-idiom: ***carry a torch for X*** (eventive agentive / non-agentive reading)

Test 1: progressive tenses
Mary *is carrying* a torch for children.

Test 2: imperatives
Carry a torch for children!

Test 3: an adverb *unintentionally*
Mary *carries* a torch for children *unintentionally.*

Test 4: an adverb *on purpose / deliberately / intentionally*
Mary *carries* a torch for children **on purpose.*
but Mary *carries* a torch for children *intentionally / deliberately*.[65]

[65] Even though the native speakers' judgements vary concerning the grammaticality of this sentence with the adverbs *on purpose / deliberately / intentionally,* the most natural in this sentence is the adverb *intentionally.*

c. SE psych-idiom: ***have eyes for X*** (stative reading)

Test 1: progressive tenses
*Mary *is* *having* eyes for children.

Test 2: imperatives
**Have* eyes for children!

Test 3: an adverb *unintentionally*
Mary *has* eyes for children *unintentionally.*

Test 4: an adverb *on purpose / deliberately / intentionally*
Mary *has* eyes for children **on purpose/*
**deliberately/*
but Mary *has* eyes for children *intentionally.*

The SE psych-verb "to love" is stative, but shares some properties with eventive verbs, e.g. the imperative *Love children*! sounds good (cf. tests in (2.23a) in Chapter Two). As shown in (4.85), the predicate "to love" can be replaced by idioms corresponding to it, which do not always show the same aspectual property. To be precise, e.g. the idiom *carry a torch for X* has a non-stative *viz*. eventive agentive or eventive non-agentive reading, since it satisfies the progressive tense test and the imperative test for eventivity, and it can be used non-agentively (with the adverb *unintentionally*) or agentively (with the adverb *intentionally*), as shown in (4.85b). In turn, the idiom *have eyes for X*, fails the tests for eventive (agentive *vs*. non-agentive) reading, and satisfies the tests for stativity (it does not appear in the progressive or the imperative), which confirms its stative reading. Thus, psychological idioms with an Experiencer *Y* in the subject position can retain the same aspectual property (i.e. stative reading) as the usual psych-verb which corresponds to them. However, some SE idioms give rise to an eventive (agentive or non-agentive) reading, in contradistinction to the corresponding psych-verb, as illustrated in (4.85b).

Furthermore, the sentences in (4.86)-(4.88) below are to check the aspectual property of psychological idioms, in which the Experiencer *Mary* is realised in an object position of class II and III psych-verbs. In (4.86), the meaning of the idioms is "to depress;" in (4.87) the idioms mean "to annoy;" while in (4.88) the idioms mean "to matter to."

(4.86) Aspectual properties of class II OE psych-verbs and idioms corresponding to them:

a. OE psych-verb "**TO DEPRESS**"
(stative reading for unaccusative verbs of class II cf. (2.23b (i)) in Chapter Two)
Dogs *depress* Mary.

b. OE psych-idiom: ***give Y a hard time***
(eventive agentive / non-agentive reading)

Test 1: *progressive tenses*
These dogs *are giving* Mary a hard time.
but Dogs (in general) *give* Mary a hard time.

Test 2: imperatives
Give Mary a hard time!

Test 3: an adverb *unintentionally*
Dogs *give* Mary a hard time *unintentionally.*

Test 4: an adverb *on purpose / deliberately / intentionally*
These dogs / children *give* Mary a hard time *on purpose/ deliberately/ intentionally.*

c. OE psych-idiom: ***break Y's heart*** (eventive agentive/non-agentive reading)

Test 1: progressive tenses
These children *are breaking* Mary's heart.
but Small children (in general) *break* Mary's heart.

Test 2: imperatives
Break Mary's heart!

Test 3: an adverb *unintentionally*
Dogs *break* Mary's heart *unintentionally.*

Test 4: an adverb *on purpose / deliberately / intentionally*
These dogs / children *break* Mary's heart *on purpose/ deliberately/ intentionally.*

(4.87) Aspectual properties of class II OE psych-verbs and idioms corresponding to them:

a. OE psych-verb "**TO ANNOY**" (eventive non-agentive reading for stative or transitive verbs of class II or eventive agentive for regular transitive verbs of class II cf. (2.23b (ii)-(iii)) in Chapter Two)

These children usually *annoy* Mary.
(non-agentive)
These children *annoyed* Mary yesterday. (agentive)

b. OE psych-idiom: ***drive Y bananas***
(eventive agentive / non-agentive reading)

Test 1: progressive tenses
These dogs *are driving* Mary bananas.
but Dogs (in general) *drive* Mary bananas.

Test 2: imperatives
Drive Mary bananas!

Test 3: an adverb *unintentionally*
Dogs *drive* Mary bananas *unintentionally.*

Test 4: an adverb *on purpose / deliberately / intentionally*
These dogs / children *drive* Mary bananas *on purpose/ deliberately/ intentionally.*

c. OE psych-idiom: ***bring a hornet's nest round Y's ears***
(eventive agentive / non-agentive reading)

Test 1: progressive tenses
These children *are bringing a hornet's nest round* Mary's ears.
but Small children (in general) *bring* a hornet's nest round Mary's ears.

Test 2: imperatives
Bring a hornet's nest round Mary's ears!

Test 3: an adverb *unintentionally*
Dogs/children *bring* a hornet's nest round Mary's ears *unintentionally.*

Test 4: an adverb *on purpose / deliberately / intentionally*
These dogs / children *bring* a hornet's nest round Mary's ears *on purpose/ deliberately/ intentionally.*

(4.88) Aspectual properties of class III OE psych-verbs and idioms corresponding to them:

a. OE psych-verb "**TO MATTER**"
(stative reading for unaccusative verbs, cf. (2.16c) in Chapter Two)
Dogs *matter to* Mary.

b. OE psych-idiom: ***carry some weight with Y*** (stative reading)

Test 1: progressive tenses
#These dogs *are carrying* some weight with Mary.

Test 2: imperatives
Carry some weight with Mary!

Test 3: an adverb *unintentionally*
Dogs / children *carry* some weight with Mary *unintentionally.*

Test 4: an adverb *on purpose / deliberately / intentionally*
These dogs / children *carry* some weight with Mary **on purpose/ *deliberately/ *intentionally.*

c. OE psych-idiom: ***make a difference to Y*** (stative reading)

Test 1: progressive tenses
#These dogs *are making* a difference to Mary.

Test 2: imperatives
Make a difference to Mary!

Test 3: an adverb *unintentionally*
Dogs / children *make* a difference to Mary *unintentionally.*

Test 4: an adverb *on purpose / deliberately / intentionally*
These dogs / children *make* a difference to Mary **on purpose/ *deliberately / *intentionally.*

As shown in (4.86)-(4.87), the aspectual ambiguity of class II OE psych-verb between stative, eventive agentive, and eventive non-agentive reading is reflected in the aspectual properties of psychological idioms which correspond to these predicates. Interestingly yet, the idioms *give Y a hard time* or *break Y's heart*, which relate to the stative class II psych-verb "to depress," evoke non-stative, i.e. the eventive (agentive or non-agentive) reading. Whereas class III psych-verbs (e.g. "to matter to") and their idiomatic counterparts (e.g. *carry some weight with Y* or *make a difference to Y*) are stative, as demonstrated in (4.88). Therefore, it is more a matter of context in a particular sentence in which an idiom occurs, which defines the aspectual status of the idiom, than the psych-predicate which shares the same meaning.

Indeed, it was Nunberg (1978), who initially noticed the fact, developed later by McGinnis (2002), that the aspectual class of an idiom usually matches that of its non-idiomatic phrasal counterpart. Similarly, Stone (2016: 51) argues that the observation concerning the analogous event structure between figurative and literal readings seems to be confirmed for all verb phrase idioms; however, this sounds unexpected if idioms are simply recognised as listed lexical entries. An opposing viewpoint is held by Glasbey (2003; 2007), as is exemplified below (but cf. Ruwet 1991).

Additionally, Krifka (1992, 1998) and McGinnis (2002) argue that aspect should be compositional in idioms, in the same way that it is in literal expressions. Thus, taking that assumption as a starting point, McGinnis (2002) finds representatives of idioms from all four of Vendler's (1957, 1967) aspectual classes. Besides, McGinnis (2002) states that if a verb occurs with a count noun, a telic idiomatic predicate results. Likewise, combing the same verb with a mass/ uncountable noun results in obtaining an atelic idiomatic predicate. McGinnis' (2002) assumption can be confirmed by the examples of psychological idioms illustrated in (4.89a-d), but simultaneously, contradicted by other possible sentences with the same idioms. The predicates have been subjected to the most

widely used test for distinguishing telic and atelic predicates (the "*in-for* test"), since Verkuyl (1972), Dowty (1979), Hinrichs (1985), Levin and Rappaport (1995), Hay, Kennedy and Levin (1999), among others. It is said that *in*-adverbials constitute a test for telicity (*Mary painted the wall in two hours/*for two hours*), while *for*-adverbials for atelicity (*Mary walked for two hours/*in two hours*).

(4.89) Psych-idioms confirming *vs*. contradicting McGinnis' (2002) assumption:

a. These children *gave* the pip to Mary in two hours/*for two hours.→ "to annoy"
These children *were giving the pip* to Mary (*in two hours / for two hours) "to annoy"
(*the pip* → a count noun and "to annoy"→ a telic / an atelic idiomatic predicate)

b. Mary *was raising* the roof *in two hours / for two hours. → "to enjoy"
Mary *raised* the roof in two hours / *for two hours. → "to enjoy"
(*the roof* → a count noun *vs.* "to enjoy" → a telic / an atelic idiomatic predicate)

c. Mary *was carrying* a torch for her children * in two hours / for all these years. → "to love")
Mary *carried* a torch for her children in a long time / *for all these years. → "to love")
(*a torch* → a count noun *vs.* "to love" → an atelic / a telic idiomatic predicate)

d. These dogs *gave* Mary a lot of fright in two hours/*for two hours. → "to scare")
These dogs *were giving* Mary a lot of fright *in two hours / for two hours. → "to scare")
(*fright* → an uncountable noun *vs.* "to scare / horrify" → a telic / an atelic idiomatic predicate)

As shown in (4.89), distinguishing between telic and atelic interpretation of the psychological idioms is dubious. All these instances of idioms do not reveal a direct correlation between their (a)telicity and the nominal

(non)count components of these idioms. Therefore, psychological idioms under scrutiny cast a serious doubt on McGinnis' (2002) assumption.[66] Significantly, Stone (2016), in her recent account, explains that this correlation between lexical verbal idiom components and idioms as a whole is justified so long as "the functional elements make the same semantic contribution, and hence affect event structure composition, in the same way in both literal and figurative interpretations" (Stone 2016: 51-52). Undoubtedly, this statement with regard to idiom aspect has challenged the fundamental understanding of idiomaticity in terms of non-compositionality. This hypothesis concerning the aspectual contributions of functional items as being computed equally in literal and figurative readings also seems to confirm the compositional polysemy view of treating idioms as compositional units (cf. Stone 2016: 52).

Finally, Glasbey (2003) argues that, even though aspect in idioms complies in so many cases with their lexical component verbs, there are a number of interesting exceptions, in which aspect is not derived compositionally. Indeed, it is Glasbey's (2003) standpoint which complies with the results obtained for the psychological idioms, which in so many cases are aspectually non-compositional. Moreover, Glasbey (2003: 43) states that many (but not all) of these exceptions fall into a class described by Jackendoff (1997) as "fake object resultatives," and exhibit apparent non-compositionality.[67]

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[66] An interested reader is referred to McGinnis' (2002) detailed analysis in favour of her claim that "the meaning of idioms is not entirely arbitrary: the structural component of meaning (specifically, aspect) is both systematic and compositional. This observation supports the claim of Distributed Morphology that structural meaning, but not idiosyncratic meaning, is built in the syntax" (McGinnis 2002: 671).

[67] Glasbey (2003) suggests regarding these mismatching idioms as aspectually compositional, provided the aspectual composition is to include Krifka's (1992) "thematic relations" as part of its input.

Krifka (1989, 1992) argues that all thematic relations are cumulative in the sense that if a predicate applies to x and y, it applies to the sum x + y. What is more, Krifka (1989, 1992) states that telicity is a function of the structure of the "incremental theme" argument of the verb. Telicity refers to the relation between the structure of the argument and the described event (cf. Dowty 1991; Filip 1999; Jackendoff 1996; Tenny 1987, 1994; Verkuyl 1993; Ramchand 1997; and Rothstein 2004, 2008; among others). For Krifka (1989, 1992), a defining characteristic of the incremental theme role is that it can satisfy "Mapping to Objects" and "Mapping to Events" (cf. Punske and Stone 2015).

4.8 Concluding remarks

The behaviour of English idioms has been the focus of much linguistic research in the past few decades. In the generative linguistic literature in many studies idioms have been used to support various syntactic analyses, e.g. syntactic transformations, thematic hierarchy, compositional asymmetry between subjects and objects (cf. Chomsky 1980; Marantz 1984; Larson 1988; and Kiparsky 1987; among others). Nevertheless, much less linguistic research has been undertaken into the very structure of idioms (e.g. O'Grady 1998; Bruening 2010). The results of the syntactic examination have revealed some challenging properties of idioms, which can be syntactically transformed in various ways with their parts undergoing modification. For instance, parts of idioms can be passivized, focused, quantified, omitted, used as antecedents for anaphoric expressions, or replaced with other homomorphic lexical counterparts.

Since the variation within idioms can be indicative of some kind of internal structure, it is inevitably expected that there are numerous constraints which restrict both the size of idioms, their semantic and discourse productivity, lexical flexibility, and lexical substitution. But the most essential for our research is the fact that idiomatic constructions are subject to syntactic constraints. While some linguists argue that various constraints on idioms are better explained in terms of semantic properties or several rules applied in the figurative use of language; others point out to the syntax-semantic interface as the way out to solve the constraint problem.

Hopefully, the most current research done within the confines of the Phase Theory (cf. Svenonius 2005; Stone 2009; Harwood 2013, 2016, 2017; Harley and Stone 2013; Kim 2014, 2015; and Corver*et al.* 2017; among others) has shed light both on idiomaticity, and their constrained variability. The particular subset of idioms, namely the psychological idioms elicited in Chapter Three, have been used in this chapter to examine the validity and predictions made by the phase-bound approach.

Having provided some insight into the problem of idiom identification, categorization, (in)flexibility, aspectual properties, and syntactic constraints proposed for them in the literature so far, it can be concluded that there are still far more specific issues that should be addressed in future research, especially concerning the domain of psychological condition and emotions. One of the specific questions that needs to be addressed, for sure, refers to the status of English ditransitive idioms examined in the light of the Phase Theory.

Summary and Conclusions

The knowledge of individual words, as stated by Cieślicka (2010: 149), is not sufficient to understand and produce a language. Instead, a great number of formulaic utterances, or fixed expressions, such as: collocations, phrasal verbs, proverbs, idioms, slogans, common quotations, or sayings, is required to grasp the very core of the language. Only then can one's thoughts and feelings, national features and worldwide truths embodied in a language be communicated to give it life and richness by taking the existing words, combining them in a new sense and creating new meanings, just like in work of art (cf. Lennon 1998).

It seems futile to define and classify formulaic language in general; likewise, reaching an agreement as to what definition of an idiom to adopt appears to be impossible. However, despite all potential arrays of idiom diversity, some basic principles which most of the definitions share have been outlined:

1. an idiom is recognized as an expression that contains more than one word, and whose meaning is usually different from the sum of the literal meanings of its components;
2. some subset of idioms, classified by Nunberg *et al.* (1994), as *idiomatic phrases* (e.g. *kick the bucket* "to die"), has a fixed word order, a restricted set of variants and modifications (if any), and should be treated as comprising single entities since the link between the form of these idioms and their meaning has not been recognized (cf. Chomsky 1980; Cruse 1986; Fraser 1970; and Katz 1973; among others);
3. recently, with a great input of psycholinguistic (cf. Fernando 1996), and corpus studies (cf. Moon 1998; Grafmiller 2013; among others), a great number of idioms has been found to be far from being dead or frozen, but marked, instead, with possible alterations, metaphoricity and perceptible origins of their meanings. This subset of idioms is referred to as *idiomatically combining expressions* (e.g. *pull strings* "to use connections"), following the typology offered by Nunberg *et al.* (1994).

Moreover, the models of idiomaticity presented in this book have been based on the results of several novel empirical studies, reported in the first part of this work. These are:

1. The traditional non-compositional model, typical of generative grammar (e.g. Swinney and Cutler 1979; Gibbs 1980), with a view of idioms as compositionally non-derivable by the morpho-syntactic rules of a language, e.g. the meaning of the canonical idiom *kick the bucket* "to die" is not derived from the meanings of its constituents, i.e. "kick," "the," and "bucket" (van der Linden 1992: 223; cf. Katz and Postal 1963: 275). Idioms are held to be arbitrarily stipulated in memory (cf. Chomsky 1980; Cruse 1986; Fraser 1970; and Katz 1973; among others); and treated as "frozen" expressions "not predictable from the composition" (Machonis 1985: 306), since their structure is "non-compositional" (Chomsky 1980: 149; Kiparsky 1976: 79). Consequently, hardly any modification is possible in the case of this type of "frozen" idioms (called *idiomatic phrases* (IdP), after Nunberg *et al*. 1994).
2. The recent non-traditional compositional model (e.g. Cacciari and Tabossi 1988; Gibbs, Nayak, and Cutting 1989), which objects to the standard view of idioms as non-compositional strings. Hence, not all idioms are "frozen," and as opaque or unanalysable as *kick the bucket*. There are far more idioms, called *idiomatically combining expressions* (ICE) (cf. Nunberg *et al*. 1994), which are syntactically flexible in various ways, with their parts being modified and semantically productive (cf. Makkai 1972; Nunberg *et al*. 1994; O'Grady 1998; and Ifill 2002; among others). In these compositional idioms some relations between their overall meaning and form can be established. In fact, the meanings of particular components of idioms do play a role in the way idioms are used and understood (cf. Cacciari 1993; Cacciari and Glucksberg 1991; Gibbs 1990; and Keysar and Bly 1995, 1999).
3. The hybrid approaches with the *Model of Dual Idiom Representation* (e.g. Titone and Connine 1999), which try to combine the two previous accounts of viewing idioms.

For the purpose of the book, the compositional model of idioms, with a bipolar division of idioms into IdP and ICEs (cf. Nunberg *et al*. 1994; Harwood *et al.* 2016), has been adopted.

Furthermore, the type of idioms that has been chosen as the research dataset refers to emotional and mental condition of a human participant (called an Experiencer). Thus, some semantic correspondence between

psychological verbs and psychological idioms has been be established. Undoubtedly, to reveal one's emotional and psychological state is a challenging task, which requires openness and accuracy to name what is invisible. Nonetheless, an attempt has been made to find both in dictionaries, the online corpora and *via* the Google Search any verbal idiomatic expressions corresponding to the top psych-predicates, also fitting in the research criteria. As a result, the database of psychological idioms, obtained in the study, has contained a number of 161 English verbal idioms. The idioms under scrutiny have fallen into 12 distinct types, depending on the surface syntactic pattern the core of an idiom has formed (which is underlined in an idiom pattern) and the position in which an argument has been placed (e.g. Type (A): V + NP (no open position): *paint the town (red)*; Type (B): V + NP + preposition + NP (complement of a P): *carry a torch for X*; Type (C): V + NP + preposition + NP (complement of a P): *hold X in abomination / contempt*; Type (D): V + possessor + N + preposition + NP (complement of a P): *lose Y's heart to X*; Type (E): V + NP + NP (Double Object Construction): *give Y the blues*; and Type (E'): V + a complement small clause: *drive Y batty / nuts/ bananas / bonkers*). In these patterns of idioms, X (an NP argument) functions as a *Target* / a *Subject Matter* or a *Causer*, while Y (an argument corresponding to an *Experiencer*) is placed either in a subject or an object position. The arguments also represent open slots, i.e. positions which are not fixed, but occupied by X or Y (cf. Witkoś and Dziemianko 2006).

The idioms under scrutiny have comprised almost always agentive verbs, which occur necessarily, with an object, followed, or not, by a Prepositional Phrase. The open position is located either within the object complement or/and within a PP. The open position can be realised as either an NP or a possessive modifier. Some idiomatic phrases are opaque and have all their constituents (NP, PP, or a small clause) fixed, while in the case of other idioms, their component elements contribute to the overall meaning of the idiom, which makes the idiomatic meaning more predictable.

What is more, having analysed the structure of idioms referring to psychological states in more detail, and having discussed the constraints on the way they are built, let us now bring together the most relevant aspects of this analysis.

1. Idiom analysability, non-compositionality, and idiom semantic decomposition refer to the extent to which idiom constituent parts contribute to the idiom overall interpretation (cf. Nunberg 1978;

Cacciari and Tabossi 1988; Glucksberg 1991; and Gibbs 1994; among others).

2. Both the syntactic productivity and the lexical creativity of idioms are matters of degree, depending on the idiom compositional properties. The results of the syntactic examination of idioms (on the example of psychological idioms) have revealed their challenging properties. These are: the syntactic and lexical variability of ICEs, *viz*. their possibility to undergo quantification, topicalization, ellipsis, and anaphora, among others. As exemplified by psychological idioms, ICEs, thanks to their more compositional nature, tend to also exhibit a degree of lexical substitution; thus, parts of idioms may be replaced with other homomorphic lexical counterparts. IdPs, in turn, are usually entirely resistant to any such alterations, as summarised in *Table 4-1.* from section 4.3 in Chapter Four, repeated here for convenience.

Idiom	***Conventionality***	***Opacity***	***Compositionality***	***Lexical Variation***	***Open Slots***	***Syntactic Flexibility***
IdP	High	Opaque	Non-compositional	No	No	No
ICE	Low	Trans-parent	More compositional	Yes	Yes	Yes

Table 4-1. Properties IdPs and ICEs
(Corver *et al.* 2017: 10; cf. also Harwood *et al*. 2016)

3. The most current research performed within the scope of the Phase Theory (cf. Svenonius 2005; Stone 2009; Harwood 2013, 2016, 2017; Harley and Stone 2013; Kim 2014, 2015; and Corver *et al*. 2017; among others) has shed light both on idiomaticity, and idiom constrained variability. As a result of the analysis of psychological idioms in the light of the Phase Theory, it has been noted that, in addition to CPs and *v*Ps, also DPs, ApplHP, or PrPs may act as phases.
4. The *v*P-phase imposes an upper bound on verbal IdP idioms. In other words, IdPs are said to be confined to a single phase, namely the clause-internal phase;

5. ICEs are able to span multiple phase boundaries and can depend on the material beyond them. Moreover, nearly all idioms from our dataset can be characterized as having an open position located, e.g. in the direct object, small clause subject, or possessor.

Regarding the aspectual properties which psychological idioms display, the following conclusions have been reached.

1. Following Glasbey's (2003) stance, and on the basis of the results obtained in this book for the psychological idioms, we argue that in a far bigger number of idioms aspect is not derived compositionally. Indeed, the aspectual status of some psychological idioms corresponds to the aspect of the lexical component verbs.
2. In this sense, it is difficult to find a direct correlation between the aspectual properties of psych-idioms and the aspectual structure of psych-verbs, to which the idioms under scrutiny correspond. From this perspective and in agreement with Arad's (1998), and Alexiadou and Iordachioaia's (2014) stance, it has been noted that what makes OE psych-verbs special is their aspectual ambiguity, (between stative, eventive non-agentive and eventive agentive reading), rather than their Experiencer argument. Indeed, it is the diversity of aspectual readings, and more precisely, the non-agentive reading of some OE psych-verbs, in which these predicates reveal special "psych-effects" (Arad 1999; and Landau 2010; among others).

In a nutshell, the feature that most psychological idiomatic expressions share, even though the boundaries are sometimes overextended, is their metaphorical or figurative nature (Mäntylä 2004: 28-29). What is more, the ambiguity of many idiomatic expressions has been pointed out, as some idioms have one interpretation (the literal meaning) derived from the meanings of the words involved and / or the other (idiomatic meaning). To conclude, the heterogeneity of these idiomatic expressions indicates the necessity of learning at least some constraints and irregularities related to idioms. Having provided some perspectives on the overall picture of idiom identification, categorization, (in)flexibility, aspectual properties, and syntactic constraints proposed for them in the literature, the conclusion can be drawn that there are still far more specific issues that should be addressed in future research, such as the status of English ditransitive idioms in the light of the Phase Theory. Finally, so far too little linguistic research has been done into the very syntactic structure of idioms (e.g. O'Grady 1998; and Bruening 2010).

APPENDIX 1

The set of all idioms elicited for the 5 top SE psych-verbs under scrutiny

(3.13) ***love*** - feel deep affection (13 idioms)

a) carry a torch for X
You carry a torch for a girl you dated in high school.
(COCA)

b) fall head over heels in love with X
He fell head over heels in love with your sister Alice.
(Google)

c) set store by X
Her father had taught her not to set store by icons.
(COCA)

d) think the world of X
We both thought the world of my dad.
(COCA)

e) take (great) delight/ interest / joy / satisfaction in X
God likes us, takes delight in us, in fact.
(COCA)

f) take a fancy / a liking / a shine to X
John began to take a fancy to Sally late last August at the picnic.
(Google)

g) have a soft spot for X
Harry, I've got a soft spot for you, in my heart.
(Google)

h) have a thing about X
I have a thing about Maggie. I guess I'm in love.
(Google)

i) have a weakness for X
John has a weakness for Mary. I think he's in love.
(Google)

j) have eyes for X
"That may be true but I've only got eyes for you, Pretty Girl," he says.
(Google)

k) go a bundle on X
I don't go a bundle on Anne's new haircut.
(Google)

l) lose Y's heart to X
James had already lost his heart to the nearest choice, Jane Beaufort.
(Google)

m) set Y's heart on X
I am sorry you didn't get to pick the one you wanted; I know you had set your heart on Fred.
(Google)

(3.14) ***enjoy*** - receive pleasure or satisfaction from something (11 idioms)

a) paint the town (red)
After the show, we went out to paint the town red. We'd been sitting at an outdoor cafe, drinking rum.
(COCA)

b) raise the roof
The whole college is ready to raise the roof at next weekend's homecoming celebrations.
(Google)

c) have a ball
I'm having a ball interviewing the people.
(COCA)

d) blow / let off (some) steam
To blow off steam after training sessions, we'd go to the terrain park.
(COCA)

e) kick (up) Y's heels
She was kicking her heels while he slept.
(Google)

f) make the most of X
When you're being raised, you want to make the most of your life.
(COCA)

g) derive/gain/get pleasure from X
He derives pleasure from even the most trivial occupations bringing his talent into play.
(COCA)

h) take/find pleasure in X
I am taking pleasure in the simple act of her reading me a book.
(COCA)

i) get a buzz out of X
I hope you get a buzz out of Ted. He's a funny guy.
(Google)

j) get a kick / a charge / a bang out of X
This book is just the kind you like and you'll get a real kick out of it.
(Google)

k) reap the benefits of X
God blessed me to be in a position to reap the benefit of the performance.
(COCA)

(3.15) ***hate*** - feel strong dislike for or hostility toward (10 idioms)

a) pour scorn on X
He poured scorn on the defendants: And then came this cynical part of the alleged plot.
(COCA)

b)bear ill will toward X
Do you bear ill will toward Lady Di?
(COCA)

c) bear / owe a grudge against X
Dugliss has borne a grudge against me since that day he lost his first son, the Fourth of July.
(COCA)

d) bear / feel aversion / malice / hostility / repugnance toward (to) X
But those with the large rifts persist in their slanders and bear malice towards one another out of anger.
(Google)

e) have no stomach / taste / use for X
Pat has no stomach for violent movies.
(Google)

f) show contempt for X
Art critics for years ignored or showed contempt for De, especially for political reasons.
(COCA)

g) hold X in abomination / contempt
His created beings hold him in contempt and despise him.
(Google)

h) turn Y's back on X
But I don't think now is the time to turn your back on each other. So, therefore, I support him.
(COCA)

i) turn Y's nose up at X
John turned his nose up at Ann, and that hurt her feelings.
(Google)

j) look down (Y's) nose at X
Seniors have a way of looking down their noses at juniors.
(Google)

(3.16) ***fear*** - feel apprehensive, afraid or frightened of something / someone (9 idioms)

a) give / raise an alarm
Next you will raise an alarm that we are threatened by creatures of human size.
(COCA)

b) show the white feather
In the way of destruction, I do not turn tail or show the white feather at calamity's first notice. I try to stand up and put my face.
(COCA)

c) get cold feet
California's San Bernardino County got cold feet when representatives of the securities and banking industries sent threatening letters.
(COCA)

d) have goose bumps
He was leaving. We all had goose bumps. I mean, I saw exultation in the cast and crew.
(COCA)

e) have / get pins and needles
I had pins and needles until I got my job.
(Google)

f) turn tail (and run)
The pair turned tail and ran deeper into the mine, the Germans close on their heels. (COCA)

g) take dim view of X
They take dim view of those they consider outsiders. The public, however, seems willing.
(COCA)

h) have a yellow streak / belly down X's back
Tex has a yellow streak down his back a mile wide. He's afraid to cross the street! (Google)

i) have Y's heart in Y's mouth
I had my heart in my mouth when I waited for the news of my son.
(Google)

(3.17) ***worry*** – to feel uneasy or concerned about something; to fret or be anxious about the welfare of someone or something (SE)

(6 idioms)

a) have the blues

After seeing the old house in such bad shape, I had the blues for weeks

(Google)

b) eat Y's heart out

She is still eating her heart out over being fired.

(Google)

c) lose sleep over X

Akiko Murakami, meanwhile, is losing sleep over the worst-case scenario.

(COCA)

d) have a bee in Y's bonnet

My colleague Dan Buirski had a bee in his bonnet about eating disorders.

(Google)

e) have ants in Y's pants

I have ants in my pants. I'm a jitterbug, a worrywart, a wiggle worm.

(COCA)

f) have butterflies in Y's stomach

Her mouth was dry, there were butterflies in her stomach, and her knees were shaking so much it was hard to walk on stage.

(Google)

APPENDIX 2

The set of all idioms elicited for the 8 top OE (class II) psych-verbs under scrutiny, illustrated with the help of sentences extracted from the COCA / *via* the Google Search.

(3.18) ***annoy*** - make (someone) a little angry; irritate, upset, irritate, aggravate

(26 idioms)

a) play (a game of) cat and mouse

Enemy warplanes have been playing a deadly game of cat and mouse, trying to bring American fighter planes into range of their missiles.

(Google)

b) get the hump

Tony got the hump because he thought we hadn't invited him to the party.

(Google)

c) get Y's goat

Do you ever hear annoying phrases that get your goat?

(COCA)

d) raise Y's hackles

Jim could raise her hackles quickly, but she enjoyed being with him anyway.

(Google)

e) rattle Y's cage / chain

I rattled his cage by telling him I hated his art.

(Google)

f) try Y's patience / try the patience of Y

People were always disappointing her, or trying her patience, or boring her into a state of stupefaction.

(COCA)

g) ruffle Y's feathers

I didn't mean to ruffle his feathers. I just thought that I would remind him of what he promised us.

(Google)

h) get Y's dander /hacklers/ Irish up

I insulted him and really got his hackles up.

(Google)

i) put/get Y's back up
She put my back up immediately by interrupting everything I said.
(Google)

j) get a rise out of Y
Ignore him - he's just trying to get a rise out of you.
(Google)

k) take it out of Y
This construction job really takes it out of me.
(Google)

l) stir up a hornet's nest (of something) amongst/ in Y
An unfortunate remark made by a member stirred up a hornet's nest in the Club.
(Google)
He certainly stirred up a hornet's nest of angst amongst the Welsh-speaking fraternity.
(Google)

m) upset the apple cart against Y
Dundee will be hoping they can upset the apple cart against Rangers.
(Google)

n) bring a hornet's nest round Y's ears
However, the chief offenders for the time were flogged and kept in bounds; but the victorious party had brought a nice hornet's nest about their ears.
(Google)

o) cut Y to the quick / bone
Your heartless comments cut me to the quick.
(Google)

p) drive Y up the wall
These slovenly workmen drive me up the wall.
(Google)

q) put Y in a hole /a bind
I campaigned against two opponents from this state, and I think it put me in a hole.
(Google)

r) put Y on the spot
She asked if I would vote for her, which really put me on the spot because I had decided not to.
(Google)

s) put Y out of countenance
They perfectly put her out of countenance by staring at her through their spying glasses.
(Google)

t) put Y through wringer
They really put me through the wringer in my interview.
(Google)

u) throw/send Y into a tizzy / tizz
The idea of producing a meal for fifty people threw her into a tizzy.
(Google)

v) put Y's nose out of joint
Don't disappoint Little Mabel; though he has put her nose out of joint.
(Google)

w) thumb X's nose at Y
Walter thumbed his nose at Fred and asked the gang to send someone else to do the job.
(Google)

x) give Y the pip
That sort of talk gave Jimmy the pip.
(Google)

y) rub Y (up) the wrong way
One can see how [his] expression of his ideals and intentions must have rubbed many people the wrong way.
(Google)

z) drive Y batty/nuts/ bananas / bonkers / crazy
You're certainly annoying! You're going to drive me batty!
(Google)

(3.19) ***fascinate*** – attract the strong attention and interest of (someone) (11 idioms)

a) catch Y's eye / catch the eye of Y
We need a new advertising campaign that really catches the eye of younger demographics. (Google)

b) win Y's heart / win the heart of Y
Good thing I had probably won her heart by tumbling backward over my chair at our first meeting.
(COCA)

c) turn Y's head
Success has never turned her head – she's still the same simple unaffected girl she always was.
(Google)

d) tickle Y's fancy
This doesn't tickle my fancy at all. This is dull and boring.
(Google)

e) stir the /Y's blood
The Olympics as a concept, as a package, doesn't stir my blood, and I don't greatly care as such whether Australians win things or not.
(Google)

f) cast a spell on Y
She is a real beauty. She cast a spell on every man she met.
(Google)

g) make a hit with Y
The dessert you served really made a hit with the guests.
(Google)

h) pay court to Y
The lobbyist paid court to all the influential members of Congress.
(Google)

i) put Y in a trance
He put me in a trance with those brown eyes.
(Google)

j) set Y on fire
Ted's presentation didn't exactly set me on fire, but it was a good summary of the project.
(Google)

k) sweep Y off Y's feet
She was hoping that some glamorous young Frenchman would come along and sweep her off her feet.
(Google)

(3.20) ***amuse*** – cause (someone) to find something funny; provide interesting and enjoyable occupation for (someone); entertain
(4 idioms)

a) gladden Y's hearts / the heart of Y
Wine gladdens human hearts. (Google)
b) make the grade for Y
I find your number doesn't make the grade for most women.
(Google)

c) play the fool for Y
I still play the fool for them, and from time to time I am called upon to amuse them.
(COCA)

d) tickle Y to death / to pieces / pink
What you told her just tickled her to death!
That story just tickles me to pieces. Bill told a joke that really tickled us all pink.
(Google)

(3.21) ***scare*** – cause great fear or nervousness in; frighten
(11 idioms)

a) curdle / chill Y's blood
The terrible scream was enough to curdle my blood.
(Google)

b) frighten / scare the life / the hell out of Y
She frightened the life out of me, shouting like that.
(Google)

c) put the fear of God into Y
They'd put the fear of God into the most hardened criminal.
(COCA)

d) put/get the wind up Y
Say you'll take him to court if he doesn't pay up – that should put the wind up him.
(Google)

e) strike terror into Y
These are words that strike terror into the hearts of artisan bakers and advocates.
(COCA)

f) chill Y to the bone/marrow
The sound of scraping at the window chilled me to the bone.
(Google)

g) send Y into a cold sweat
With the discovery came a sudden nervous reaction that sent him into a cold sweat.
(Google)

h) throw /send Y into a panic
The lack of knowledge threw her into a panic.
(Google)

i) shake (a / X's) fist at Y
I shake a fist at my childhood friend in mock anger.
(COCA)

j) give Y goose pimples/ bumps
That truth seemed to creep beneath her clothes, give her goose pimples.
(Google)

k) give Y (quite) a (bit of) turn / a fright
I have to tell you, it gave me a turn. I saw a man die

. (COCA)

(3.22) ***depress*** – make (someone) feel utterly dispirited or dejected (20 idioms)

a) upset the applecart
I don't want to upset the applecart now by asking you to change the date for the meeting.

(Google)

b) break Y's heart / spirit
The children looked so desperately sad it broke my heart to see them sweltering.

(COCA)

c) damp Y's hopes
Notwithstanding your endeavours, too, to damp my hopes, I comfort myself with expectations of their promised return.

(Google)

d) dampen/damp Y's spirits
She was in the hospital for a while, and that was just dampening my spirit.

(COCA)

e) dash / wither Y's hopes
Mary dashed my hopes when she said she wouldn't marry me.

(Google)

f) cast a gloom / a shadow over Y
For some time the presence of the Peer seemed destined to cast a gloom over the society.

(Google)

g) do a number on Y
The editor did a number on me because of my term paper.

(Google)

h) knock the stuffing out of Y
It was their third defeat in a row and it really knocked the stuffing out of them.

(Google)

i) put a damper on Y
We both wanted kids, but it didn't happen for us, which put a damper on the marriage.

(COCA)

j) bring tears to Y's eyes

The mention of my child's name may bring tears to my eyes, but it never fails to bring music to my ears.

(Google)

k) take the wind out of Y's sails

She took the wind out of his sails by turning down his offer to marry him.

(Google)

l) cut Y down to size

He started he thought he knew everything, but we soon cut him down to size.

(Google)

m) take/ knock Y down a peg / notch (or two)

The teacher's scolding took Bob down a notch or two.

(Google)

n) put / send / throw Y into a (blue) funk

Having to change her menu threw the whole day off schedule and put her into a blue funk.

(Google)

o) leave Y in the / a lurch

I hope they can find someone to replace me at work. I don't want to leave them in the lurch.

(Google)

p) bring Y into disrepute

My bankruptcy brought me into disrepute.

(Google)

q) knock Y for six

It really knocked me for six when my ex-boyfriend announced he was getting married.

(Google)

r) give Y a bad /hard time/ the blues / the run around

The coach really gave me a bad time when I missed that catch last night.

(Google)

The rain sometimes gives me the blues.

(COCA)

s) bring Y low / to naught

Dave was boasting so much about getting an A on the test that I finally had to bring him low and tell him that Miss Hayes is a really easy grader.

(Google)

t) knock Y sideways
The news of her brother's death knocked her sideways.
(Google)

(3.23) ***anger*** - fill (someone) with anger; provoke anger in
(10 idioms)

a) fan the fire / flame (of something)
She already found him attractive, but his letters really fanned the flames.
(Google)

b) kindle Y's wrath
This insufferable mutability of the king's temper kindles my wrath.
(Google)

c) get Y's back / dander up
Bill's arrogance really got my back up.
(Google)

d) put / set Y's back (up)
The foolish delays at the bank only put her back up.
(Google)

e) blow a gasket on Y
We blew a gasket on our French press – we debated the day's itinerary.
(COCA)

f) breathe fire over Y
The bishop was breathing fire over the press release made a few days ago.
(Google)

g) drive Y out of mind
You are driving me out of my mind with your nagging. (Google)

h) drive Y to distraction
The problems I am having with my boss are driving me to distraction.
(Google)

i) drive Y round the bend / twist
You're driving me round the bend with your constant complaining.
(Google)

j) vent X's spleen at Y
Jack vented his spleen at his wife whenever things went badly at work .
(Google)

(3.24) ***surprise*** – cause (someone) to feel mild astonishment or shock. (15 idioms)

a) take Y's breath away
The first time I saw Tyler's studio operation, it took my breath away. (COCA)

b) knock Y's socks off
"Your story knocked my socks off," I said, not adding that ever since I'd heard it. (COCA)

c) knock Y down / over with a feather
It really knocked me down with a feather to hear that my ex-wife had already remarried. (Google)

d) blow Y out of the water
Her singing blew me out of the water – I haven't heard anyone sing like that since Sarah Vaughn. (Google)

e) catch Y off balance / up short / napping
I didn't expect you so soon. You caught me off balance.
The thieves caught the security guard napping. (Google)

f) catch Y on the hop
I'm afraid you've caught me on the hop – I wasn't expecting your call until this afternoon. (Google)

g) throw Y off balance
Your last question sort of threw me off balance. (Google)

h) strike Y with awe
Being treated by persons who were so much my superiors struck me with awe. (Google)

i) strike Y with wonder
Lord's great love struck me with wonder and astonishment at His free and undeserved love. (Google)

j) catch Y off (Y's) guards
He's used to being interviewed and it seems that no question catches him off guard. (Google)

k) throw Y a curve (ball)
John threw me a curve when we were making our presentation, and I forgot my speech.
(Google)

l) catch Y unawares
The question caught me unaware as I stood there on the corner in a daze searching for some sort of an answer.
(Google)

m) leave Y open-mouthed
Such courage left me open mouthed in wonder.
(Google)

n) leave Y at a loss for words
Father's tirade left us all at a loss for words.
(Google)

o) strike Y dumb
And all we learned about the Fair filled my heart to overflowing and struck me dumb with dread.
(COCA)

(3.25) ***horrify*** – fill with horror; shock greatly
(8 idioms)

a) freeze Y's (the) blood
Believe me, every meal at their table freezes my blood.
(COCA)

b) put the screws on Y
They put the screws on him until eventually he was forced to resign.
(Google)

c) scare the shit / the wits out of Y
The door blew shut and scared the shit out of me.
(Google)

d) frighten / scare the pants off Y
The piano lid fell and scared the pants off my parents.
(Google)

e) scare the bejesus out of Y
I look at what she does and it scares the bejesus out of me.
(Google)

f) frighten / scare Y to death
The thought of standing in front of a huge crowd frightens me to death.
(COCA)

g) frighten / scare Y out of their wits
Don't sneak up behind me like that – you frightened me out of my wits!
(Google)

h) give Y a turn
You gave her quite a turn, suddenly appearing like that!
(Google)

APPENDIX 3

The set of all idioms, exemplified with the sentences taken from the COCA / *via* the Google Search elicited for the 2 top OE (class III) psych-verbs under scrutiny.

(3.26). ***appeal*** – be attractive or interesting
(4 idioms)

a) float Y's boat
I think this new job in the lab will really float Isabel's boat.
(Google)

b) tickle Y's fancy
I have an interesting problem here that I think will tickle your fancy.
(Google)

c) whet Y's appetite
Her work on this show has whetted her appetite to do theatrical sets for other shows.
(Google)

d) set / put Y on Y's ear
The presence of the movie star set the whole town on its ear.
(Google)

(3.27) ***matter to*** – be important or significant for someone
(3 idioms)

a) carry some / a lot of weight with Y
Your argument does not carry a lot of weight with me.
(Google)

b) cut (no) ice with Y
The party's stance on taxation no longer cuts ice with voters.
(Google)

c) make a difference to Y
Health and safety over the past decade had made a difference to their business.
(COCA)

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