

From Physical to Mental Acquisition: A Corpus-Based Study of Verbs

Marie Nordlund



L I M S

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Marie Nordlund

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Abstract

Based on the hypothesis that the frame to which a verb is linked influences how easily that verb can be extended into the mental domain, the aim of this thesis is to carry out a lexico-semantic analysis of the six verbs *acquire*, *buy*, *gather*, *grasp*, *receive* and *seize*. These verbs were chosen because they can express physical as well as mental acquisition and because they are linked to frames of varying complexity. Frames contain not only linguistic (syntactic and semantic) information, but also language users' knowledge of how society and its values affect the use of verbs. The complexity of a frame involves, among other things, the number and nature of necessary participants, circumstances under which the action may be successfully carried out and institutionalised rules imposed or sanctioned by society. Prior to the analyses, it was assumed in this work that the verbs *gather*, *grasp* and *seize* are used as mental verbs to a higher extent than *acquire*, *buy* and *receive*. This is so, because the simplicity of the former verbs' frames facilitates meaning extension from the physical to the mental domain. Specific questions addressed in the study are: (i) To what extent are the verbs used as mental verbs? (ii) What other usages do the verbs display? (iii) What is the relative frequency of different usages for each verb? (iv) Are any of the verbs better suited to express mental acquisition than others? And, if so, in what way?

The analyses of the verbs are based on material collected from the *British National Corpus (BNC)*, a 100 million word electronic corpus containing both spoken (10%) and written (90%) British English. The material retrieved from the corpus suggests that it is possible to claim that frames exert a considerable influence on the circumstances, contextual or otherwise, under which the verbs may be appropriately put to use. It is shown that experience-based and uncomplicated verbs such as *gather* and *grasp*, which are tied to minimalist unspecified frames, are used to a much greater extent within the mental domain than *acquire*, *buy* and *receive*, which are linked to more complex and institutionalised frames. The analyses further reveal that most instances of *seize* are linked to a more complex frame than was assumed. As a result, extensions of the verb into the mental domain are very rare. On the whole, *grasp* is the one verb that more than any of the others lends itself to mental usages: almost every second instance of *grasp* found in

the *BNC* expresses mental grasping. The results suggest that although English is full of expressions pointing towards a conceptualisation of ideas and other mental entities as concrete objects – the IDEAS ARE OBJECTS metaphor – it might be the case that ideas are conceptualised as entities that are close enough to be grasped or gathered rather than bought or acquired. As demonstrated here, then, a vocabulary for mental activities and cognition is more commonly borrowed from verbs that involve direct bodily movement.

Keywords: verbs of acquisition, physical acquisition, mental acquisition, frames, meaning extension, word meaning, conceptual mappings, cognitive linguistics, corpus linguistics, usage-based, possession, lexicology, semantics, entrenchment, verb analysis, English

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Definitions

The following list contains definitions of terms as used in the present work.

Frame	In this work, <i>frame</i> is used in a broader sense than originally described by Fillmore. Following standard practice in linguistics today, it is used as a cover term for the linguistic frame associated with a word as well as the larger contextual framework in which the word is commonly used.
Frame, complex	A frame containing more than two conceptually necessary participants. A complex frame is often affected by rules and conventions sanctioned and/or imposed by society.
Frame, simple	A frame containing only two conceptually necessary participants. Furthermore, in a simple frame there are no restrictions as to where, how and when, that is, under what circumstances the action of the verb can be successfully carried out.
Object	Refers to all the clause elements that are directly affected by the action expressed by the verb, most commonly the direct object of an active sentence and the syntactic subject of a passive sentence. The term is used to cover all the semantic roles in which these clause elements can appear.
Organisation	Subtype of human Subject used in the analyses in chapters 3-9. Refers to named companies as well as to countries and their institutions.
Subject	Refers to the syntactic subject of an active sentence as well as the agent of a passive sentence. The term is used to cover all the semantic roles in which these two syntactic elements can appear.
Usage	The various ways in which a verb can be interpreted.

Abbreviations

BNC	British National Corpus
CMT	Conceptual Metaphor Theory
LDOCE	Longman Dictionary of Contemporary English
LCCM	Theory of Lexical Concepts and Cognitive Models
OED	Oxford English Dictionary

Typographic conventions

Concepts	Single inverted commas: ‘possession’
Emphasis	Italics: <i>something</i>
Frame elements/ semantic roles	Capitalised: Agent
Frames	Small caps: GATHERING UP
Linguistic forms	Italics: <i>grasp</i>
Meanings of linguistic forms	Single inverted commas: ‘understand’
Metaphors	Small caps: UNDERSTANDING IS GRASPING
Metonymies	Small caps: OBJECT FOR MATERIAL
Quotations	Double inverted commas: “...”
Terms	Italics: <i>usage-based</i>

CHAPTER 1

INTRODUCTION

1.1 General introduction

In this thesis, the six English verbs *acquire*, *buy*, *gather*, *grasp*, *receive* and *seize* are analysed. These verbs were chosen because they all express the physical action of acquiring something, but they can also be used in situations describing mental acquisition; for example, understanding, learning and believing. The purpose is to investigate the extent to which their frames have a restraining effect on their extensions into the mental domain, that is, on their use as mental verbs. From a linguistic point of view the semantic domain of possession, the hyperonym of acquisition, is quite well researched, although most studies have focused on the grammatical aspect, that is, genitive constructions. Semantic studies are much rarer¹ and none of the six verbs that are part of this study have been the subject of any previous comprehensive or comparative analysis. Moreover, when it comes to the language of cognition and mental experiences, studies previously undertaken have mainly dealt with emotions (Palmer 2003: 98). Nevertheless, research carried out on the language of cognition shows that verbs within the domains of possession and acquisition are important in the production of expressions for mental activity and provide vital clues to the understanding of the relationship between language, body and mind (see 2.4 for a fuller treatment of this relationship). Thus, the study contributes to an aspect of language which, so far, has been insufficiently researched.

Verbs are especially interesting when it comes to the study of word meaning because they are “arguably the most important lexical and syntactic category of a language [...] provid[ing] the relational and semantic framework for [the] sentence” (Fellbaum 1990: 278). Since speakers have a lot of complex syntactic and semantic information about verbs stored in their mental lexicons, Christiane Fellbaum (1990: 278) claims that this is the lexical category which is the most difficult to study. Martin Pickering and Steven

¹ On possession verbs in general, see Bendix (1966), Fillenbaum & Rapoport (1971) and Gentner (1975); on *get*, see Kimball (1973), Lindstromberg (1991), Oksefjell (1994), Johansson & Oksefjell (1996), Grone-meyer (1997, 1999) and Raukko (1999), see also Israel (2000, forthcoming), Viberg (2002a) and Nerlich, Todd & Clarke (2003); on *give*, see Dixon (1973) and Newman (1996, 1997b, 1999, 2005), see also Viberg (2002b) and Nerlich & Clarke (2003); on *have*, see Brugman (1988) and Baron & Herslund (2001); on *own* and *possess*, see Nordlund (2006); on *take*, see Norvig & Lakoff (1987).

Frisson are of the same opinion and declare that “in English, verbs are psychologically more complex and therefore more difficult to process than nouns” (2001: 557). The difficulties are further enhanced by the polysemous nature of many verbs. According to Fellbaum (1990: 278), verbs have on average 2.11 senses as compared to 1.74 for nouns. In part, this is so because “a noun typically forces a collocate adjective, verb, or preposition to adjust its meaning so that it becomes compatible with that of the noun” (Alm-Arvius 2007: 50). Pickering and Frisson (2001: 557) note that in interpretations, verbs are more “malleable” than nouns and therefore more central to the semantic cohesiveness of a sentence. Thus, whereas the meaning of a noun is relatively stable no matter which verb it co-occurs with, a verb is more likely to have its meaning affected by the presence of a certain noun.

There are many different ways of grouping verbs together and depending on what aspect of a verb is considered its categorisation might differ. Thesauri group words together according to semantic fields and since many verbs can have more than one meaning, the same verb often appears in more than one field. This is the case for the six verbs analysed in this work. Apart from being classified as verbs of acquisition one or more of these verbs could also be labelled ‘verbs of transfer’, ‘verbs of bodily movement’, ‘activity verbs’, ‘verbs of physical manipulation’, ‘steal verbs’, ‘get verbs’, ‘obtain verbs’, ‘herd verbs’, ‘learn verbs’ and ‘hold verbs’ – to mention just a few of the categorisations used in linguistic literature. For this study, however, it is the fact that the verbs can be used to express the action of acquiring something that is of relevance.

1.2 The domains of acquisition and possession in human experience

The domain of acquisition is part of the superordinate semantic domain of possession. In the lexical database FrameNet (see 1.4.1 for a description of FrameNet), acquisition is described as an act where “[a] Recipient starts off without the Theme in their possession, and then comes to possess it,” whereas the *Oxford English Dictionary* (OED) defines it as “the action of obtaining or getting for oneself, or by one’s own exertion.” Although the concept of ‘acquisition’ is perhaps most commonly associated with humans, the action of acquiring things is fundamental to all living creatures, above all with respect to the acquisition of basic necessities for survival such as food. Human beings differ, however,

from most other animals in that we also acquire “unnecessary” things, that is, things without any importance for the sustenance of life. As such, things can, for example, be acquired simply because of their beauty and because of the pleasure ownership brings to the acquirer. Despite the fact that physical acquisition, that is, the concrete action of obtaining a concrete object, generally can be regarded as the “normal” state of affairs, other objects can be acquired as well. In the case of mental acquisition, which is focused upon in the current work, it is rather cognitive objects such as knowledge, facts, ideas, beliefs, etc. that are acquired and incorporated into the already existing store of knowledge in a person’s mind. One of the definitions of *acquisition* in the *Longman Dictionary of Contemporary English (LDOCE)* is directly applicable to mental acquisition: “the process by which you gain knowledge or learn a skill.” Mental acquisition includes, among others, the cognitive processes of understanding, learning, believing and accepting.

Where physical acquisition is concerned, it is often seen as necessary and important to state the rights of the acquirer vis-à-vis other people as regards control of the thing acquired. *Buy* is one example illustrating that such information is sometimes inherent in the verb. ‘Acquisition’ is thus closely related to and entails the concepts of ‘possession’ and ‘ownership’. Ownership has played an important role in the lives of human beings ever since the Neolithic Revolution started some 12,000 years ago, but the concept of ‘possession’ existed in our predecessors’ mental world long before they settled down as farmers. Archaeological excavations and anthropological research have shown that even people living in so-called primitive societies distinguished between what is owned in common and what is private property (Dowling 1968: 504; Hoebel 1972: 270; Hann 1998: 11). Furthermore, research shows that all languages studied so far have some way of expressing ‘possession’, even if the rules and traditions surrounding the concept might differ between societies (Langacker 1994: 43-44; Heine 1997: 225).

The acquisitive nature of humans is displayed as early as babyhood. It seems that seizing, grasping and holding are instincts innate to human beings. Children as young as four to six months display these instincts when they consciously reach for and grasp objects (Bee 1997: 107). The grasping reflex, one of several so-called primitive reflexes, is present right from birth in human beings as well as in other primates. For apes and monkeys, this reflex is vital for survival since it enables the young to cling to their mothers as they climb the trees. When it comes to humans, most evolutionist scholars assume that this reflex is an evolutionary residue without any current function (Bee 1997:

78; Cole, Cole & Lightfoot 2005: 129). In contrast, there are also scholars who claim that the grasping reflex forms the basis for the later development of conscious and voluntary grasping (Askland & Sataøen 2003: 61) or promotes a closer relationship between mother and child (Cole, Cole & Lightfoot 2005: 129). Between the ages of sixteen and thirty-six months, children usually start to show signs of having acquired some sort of notion of the concept of ‘possession’ or, as Helen Bee puts it, “a newly proprietary attitude toward toys (‘Mine!’) or other treasured objects” (1997: 280). It is not unusual that a child, surrounded by, for example, more balls than she or he can possibly play with at the same time, adamantly reclaims a ball that another child happens to take. Moreover, researchers have found that possession and the transfer of ownership, one aspect of acquisition, are among the first topics of conversation among children of all cultures (Tomasello 1997: 349; Cole, Cole & Lightfoot 2005: 293). As such, ‘possession’ is a concept which is developed through the child’s interaction with other people.

It has been the concern of many philosophical and ideological thinkers to find a solution concerning how to limit an individual’s acquisition of possessions. John Locke, in his *Second Treatise of Civil Government* (1690), stated that “[a]s much as any one can make use of to any advantage of life before it spoils, so much he may by his labour fix a property in: whatever is beyond this, is more than his share, and belongs to others” (5.31). According to this view, any person was allowed only as much as was necessary for subsistence and anything exceeding that was regarded as depriving other people of the same opportunity. The *Encyclopaedia Britannica Online* (EBO) gives the following definition of *possession*:

in law, the acquisition of either a considerable degree of physical control over a physical thing, such as land or chattel, or the legal right to control intangible property, such as a credit – with the definite intention of ownership. [...] possession tends to be regarded as prima facie evidence of the right of ownership; it gives this right against everyone except the rightful owner. (EBO)

Apparently, then, the concept of ‘possession’ involves several aspects (for instance, control, ownership and property) that need to be considered if a full understanding of the concept is to be reached. However, while other disciplines, for example, anthropology, philosophy, law and political theory, make a distinction and put strong emphasis on the dividing line between the two possible outcomes of acquisition – on the one hand mere possession, on the other ownership – opinions among linguists differ. Bernd Heine says

that it is a relevant distinction, but does not elaborate further since “it appears to be highly culture-specific” (1997: 3). Michael Herslund and Irène Baron consider ownership to be central to and prototypical for the concept of ‘possession’

because ownership – of course a very culture dependent notion – is the most salient representative of the possessive relation, i.e. a basically locative relation between two distinct entities enriched with “something more”, this “more” being of an institutionalised or legal sense. (Herslund & Baron 2001: 11)

Thus, ownership, which results from acquisition, is upheld and sanctioned by society and without this “social contract” it would not exist. However, acquisition can be carried out in a number of different ways, not all of them equally acceptable. Acquisition by means of, for example, buying is socially sanctioned, whereas the same is not true for stealing. Seizing, on the other hand, can be viewed either way depending on who does the seizing and how. Consequently, not all forms of acquisition result in a socially sanctioned change of ownership.

Even though linguists in general agree that ‘possession’ is a universal concept found in all societies and cultures and that these societies and cultures have conventionalised ways of talking about possession (Seiler 1983: 1; Langacker 1995: 51; Heine 1997: 1), there is no general consensus on how to define the concept. Heine (2001: 312), for example, following Hansjakob Seiler (1983: 4), defines it as “a bio-cultural domain involving a relationship between a prototypically human possessor [...] and the possessee” and states further that possession prototypically involves the possessor controlling the possessee in some way, which thus implies a spatial proximity between the two (Heine 1997: 3). This is substantiated in the material analysed here where physical closeness is often a prerequisite for acquisition to actually take place. According to Ronald Langacker, possession is “a kind of static control, involving the potential for interaction of a spatial, experiential, and/or force dynamic nature” (2003: 91). Control in Langacker’s meaning of the word involves having exclusive rights of access to the possessee. Physical closeness and control are thus important aspects of both ‘acquisition’ and ‘possession’ and many expressions for ‘possession’ originally involved – or still involve – a notion of seizing, grasping or holding an object. In other words, the meanings of words expressing ‘acquisition’ have been extended to express the final state, ‘possession’, thereby showing how closely related and intertwined the two concepts are.

1.3 Aim and scope

Based on the hypothesis that the frame to which a verb is linked influences how easily that verb can be extended into the mental domain, the aim of the thesis is to carry out a lexico-semantic analysis of six English verbs (*acquire*, *buy*, *gather*, *grasp*, *receive* and *seize*). Any differences between the verbs as regards such extensions should thus be explained by the structure and complexity of their frames. Specific questions that are addressed are:

- To what extent are the verbs used as mental verbs?
- What other usages² do the verbs display?
- What is the relative frequency of different usages for each verb?
- Are any of the verbs better suited to express mental acquisition than others? And, if so, in what way?

In answering these questions, the current work shows how frames restrain and limit the ways verbs are used and how they, consequently, influence possible sources for a vocabulary for mental activities and cognition.

Frames contain not only linguistic information but also the language user's knowledge of how society and its values affect the use of verbs. Frames "are motivated by human experiences, social institutions, and cultural practices" (Coulson 2001: 18). Some verbs, for example *buy*, describe a situation set up and sanctioned through joint accord between the members of a certain society and this will, as a consequence, also influence the frame connected with them. Thus, it is assumed here that it should not be possible to use verbs with more specified and complex frames in an extended mental way to the same degree as verbs with simpler frames.³ The latter are also more experience-based, that is, connected to everyday human bodily experiences. That is not to say that verbs such as *acquire*, *buy* and *receive* occur less frequently and are more seldom used in everyday human interaction; only that the action they describe does not directly involve the human body in the same way.

² The term *usage* will be used in the analyses in preference to the terms *meaning* and *sense* (for a fuller explanation, see the next page).

³ Complex and simple frames are defined and explained in section 1.4.1 below.

The study is limited to simple verbs only. Thus, no phrasal verbs are considered in the analyses. The reason for this exclusion is that the particle in a phrasal verb adds something to the meaning of the verb that is not present in its simple form. Also, in the case of verbs which can be used in both intransitive and transitive sentences, only sentences which are syntactically and/or semantically transitive are dealt with. Conceptually, transitivity is an absolute property of sentences in which verbs of acquisition occur also when there is no overtly expressed direct object.

The analyses do not address the issue of homonymy versus polysemy, that is, whether different usages should be seen as distinct meanings of a homonymous word rather than as distinct senses of a polysemous word. This is an issue which is best solved by performing psycholinguistic experiments involving a heterogeneous group of native speakers of English. Such a study remains a matter for future research. Since *meaning* and *sense* are often used in linguistics to describe homonymy and polysemy respectively (Klein & Murphy 2001: 259) the more neutral term *usage* (following Sandra & Rice 1995) is chosen to denote the various ways in which the verbs can be interpreted.

Percentage figures in tables are used for the sole purpose of making comparisons between the verbs possible. No figures presented have thus been tested for statistical validation or statistical significance as this would not add anything of value to a study of this kind.

It further lies outside the scope of the work to provide a comprehensive study covering the whole field of verbs of acquisition. Instead, the research aims at supplementing previous research on possession in general and acquisition in particular as well as on the language of cognition and mental experiences, thereby filling some of the research gaps within these fields of study.

The present analysis, based on corpus data, adds new and valuable information about the character and use of the verbs not previously accounted for in dictionaries. Patrick Hanks (1996: 80) notes, for example, that the imbalance between different usages of a word, which is clearly noticeable in a corpus analysis, is not mentioned in dictionaries where the rarest usage is given the same weight as the most frequent one. Furthermore, in their study of *crawl* Charles Fillmore and Beryl Atkins (2000: 95) find that many of the frequently occurring usages found in the corpus do not have a corresponding definition in any of the six dictionaries surveyed. Observations in line with those recorded by Hanks and by Fillmore and Atkins are also made in the research presented here. The analyses of

the data thereby supplement the information about the verbs already existing in dictionaries.

1.4 Method and material

In order to test the hypothesis that frames influence how easily a verb can be extended from the physical to the mental domain, verbs of acquisition of two different kinds are needed: (i) verbs that to a large extent describe a concrete and simple action, directly involving the human body, which is mirrored in a simple frame, and (ii) verbs that are less physical and often affected by rules and conventions set up by society, which is reflected in more detailed and elaborate frames. Likewise, it is important that the verbs are used to express both physical and mental acquisition. In order to find as wide a range of verbs of acquisition as possible the *Longman Lexicon of Contemporary English* (McArthur 1981) and *Roget's Thesaurus of English Words and Phrases* (Roget 2004) were examined, whereas the *OED* (sometimes supplemented with information from the *LDOCE*) was consulted to find verbs that meet the last criterion. This reduced the rather extensive list of verbs collected from the two thesauri to twenty potential candidates. Six verbs were subsequently selected for analysis: *gather*, *grasp*, *seize*, *acquire*, *buy* and *receive*. The first three were chosen because of their “physical” properties, whereas the reason for choosing the latter three was that they do not involve the human body in the same direct way. All six verbs were also considered to be frequent enough to provide a sufficient amount of material for the analyses. Geoffrey Leech, Paul Ryson and Andrew Wilson (2001) have compiled a frequency list of verbs in the *British National Corpus* (*BNC*). If only verbs from the domain of possession (in total, thirty-four verbs) are considered, all six verbs chosen are found among the eighteen most frequently occurring verbs in that group in the *BNC*. In addition to the verbs selected, the verbs *catch*, *get* and *take* were considered for the study but were eventually excluded because they are verbs of a very high frequency. As such, they rather merit separate studies, something which has, to a certain extent, already been done. Yet, although *get* has been thoroughly analysed by Claire Gronemeyer (1997), she does not go into any detail when it comes to the interpretation of the verb as ‘understand’. Likewise, Peter Norvig and George Lakoff

(1987) have provided an analysis of *take*, but without discussing the verb's use as a mental verb.

1.4.1 FrameNet

Information about the frames of the verbs was collected from FrameNet, which is an on-line lexical database created at the University of California, Berkeley. The database, which is based on frame semantics and supported by corpus evidence (mainly from the *BNC*), currently contains more than 10,000 lexical units in more than 825 frames and is continuously enlarged. Because corpus data is used as its main source of input, FrameNet can be seen as a tool for lexicographers, an attempt to bridge the gap between traditional lexicology and more cognitively based approaches. A lexical unit in FrameNet is a pairing of a word with a meaning. Hence, a word with more than one meaning will produce more than one lexical unit, each located in a different frame. Frames are conceptual structures describing situations and events of varying levels of abstractness and detail. They are organised into a network of related frames where more general and schematic frames function as over-arching parent frames to more specific child frames, as illustrated in Figure 1.1, which presents part of the network to which the COMMERCE BUY frame belongs.

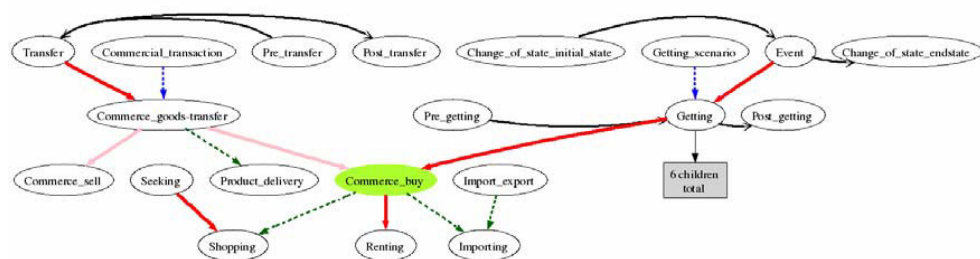


Figure 1.1. Part of the network comprising the COMMERCE BUY frame. (FrameNet)

The different colours of the arrows, pointing from the parent to the child, are used to describe different relationships between the frames. Red is used for inheritance, which means that all the frame elements in the parent should have equal or more specific counterparts in the child. This can be contrasted with the subframe relationship presented in

blue. Here, too, frame elements are mapped from the superordinate frame onto the sub-frame, but not necessarily all of them. Green stands for a relation of using in which part of the event evoked by the child refers to the parent. Pink, finally, signals different perspectives on one and the same situation.

In FrameNet, frames are not generally defined as being either simple or complex. In the current work, however, a simple frame refers to a frame containing only two conceptually necessary participants. Furthermore, a simple frame does not include any information about the circumstances under which the action of the verb can be successfully accomplished, nor does it carry any implications of that sort. A complex frame, on the other hand, has more than two conceptually necessary participants and is more detailed and elaborate, that is, it provides more information that restrains the situational contexts in which the verb can be used.

1.4.2 The *BNC*

In order to establish how each verb is used and to detect and examine differences and similarities between them the *BNC* was searched. This corpus, which was compiled between 1991 and 1994, is one of the largest language corpora presently available to the general public. It contains approximately 100 million words, from both spoken (10%) and written (90%) British English, the latter representing a wide variety of text genres. The *BNC* is surpassed in size only by Collins Cobuild's *Bank of English* currently containing 524 million words and the recently launched 360 million word *BYU Corpus of American English*.⁴ The advantage of using the *BNC* is that it is fixed and stable. It is thus possible to search for and retrieve exactly the same material even after a lapse of several years. Still, not even a corpus of the size of the *BNC* can be exhaustive. It only represents the language produced during a specific period of time and it might be biased towards one specific register. In the case of the *BNC*, for example, it is possible that the predominance of written language in the corpus may influence the results achieved. As Douglas Roland and Daniel Jurafsky (1998, 2002) have observed, there is much variation between corpora as regards the frequencies of usages as well as the usages which are found. It should also be remembered that even if a corpus does not contain any evidence of, for example, a certain verb usage, this can only be taken as an indication that the usage is rare, not as

⁴ BYU = Brigham Young University.

proof that it does not exist. Bearing these limitations in mind, using the *BNC* nevertheless provides a comprehensive and varied working material.

The importance of studying language actually produced by people is emphasised by, for example, John Sinclair who states that “human intuition about language is highly specific, and not at all a good guide to what actually happens when the same people actually use the language” (1991: 4). Suzanne Kemmer and Michael Barlow (2000: xv) stress the importance of usage-based analyses, that is, analyses of data retrieved from corpora, and maintain that the linguist’s primary object of study should be language in use. Using corpus data for linguistic analyses has several advantages compared to other approaches, such as the use of elicited or introspective data. Stefan Gries and Dagmar Divjak list the following advantages:

- corpora provide many instances rather than a few isolated judgments
- corpora provide data from natural settings rather than ‘armchair’ judgments or responses that potentially reflect experimentally-induced biases
- corpora provide co-occurrence data of many different kinds
- corpora allow for bottom-up identification of relevant distinctions as well as for a more comprehensive description than is typically provided (Gries & Divjak forthcoming)

Corpora have become important tools for linguistic analysis. The approach adopted here is thus in line with the most recent developments within the field.

For each verb, the data retrieved from the *BNC* is analysed as regards different usages as well as regards the semantic roles that occur together with the verb. Semantic roles are a complex matter and the analyses reveal that the various usages of the verbs demand a variety of semantic roles to correctly label the participants, namely Agent, Experiencer, Force, Goal, Patient, Recipient, Stimulus and Theme. Furthermore, FrameNet uses an additional number of semantic roles (*frame elements* in FrameNet terminology), in some cases more specified than those mentioned above and connected to a specific frame. A full specification of all the semantic roles encountered in the analyses would be detrimental to a clear overview of the results. Therefore, the terms *Subject* and *Object* are used throughout the analyses to facilitate presentation and discussion of the results. The term *Subject* refers to the noun phrases constituting the syntactic subjects of active sentences as well as the agents of passive sentences, whereas *Object* refers to all the clause elements that are directly affected by the action expressed by the verb. These ele-

ments are most commonly the direct objects of active sentences and the syntactic subjects of passive sentences. The two terms are thus used as shorthand to cover all the major semantic roles in which these clause elements can appear depending on the way they are semantically involved in the action, process, state or event denoted by the verb. The FrameNet classification is only used when the frames linked to the verbs are presented in chapters 3-8. The survey of Subjects and Objects is made because the interpretation of a verb is to a very large extent dependent on its arguments. This is also the outcome of psycholinguistic experiments on the interpretation of polysemous verbs (Gibbs & Matlock 2001). Objects, in particular, are generally of decisive importance for how a verb is interpreted (Ide & Véronis 1998: 20; Pickering & Frisson 2001: 557). Furthermore, an analysis of the Objects could also reveal semantic patterns that might otherwise remain undetected.

In the chapters of analysis, frequencies for verb usages as well as for Subjects and Objects are presented in the form of tables comprising main categories and subcategories. It turned out to be the case that many of the usages found in the corpus actually correspond very well to definitions listed in the *OED*. Therefore, in those cases where there is a correlation, an adapted version of the dictionary definition is used to label the subcategory. Adapted labels of this sort are shown in italics in the tables. The *OED* was also consulted to find information about the verbs' etymology and to establish the earliest attested records for each of the main categories of physical, non-physical (other than mental) and mental usages.

1.5 Overview of the thesis

The thesis is divided into ten chapters. Chapter 1 briefly outlines the aims, method and material of the study, whereas chapter 2 provides the theoretical background of the thesis. Here, frame semantics is presented and an overview of research on word meaning and conceptual mappings is given.

In chapters 3 through to 8, the analyses of the six verbs are presented in the following order: *gather*, *grasp*, *seize*, *acquire*, *buy* and *receive*. The analyses include discussions of the various usages of each verb as well as presentations of the different Subjects and

Objects that appear together with the verbs. The results of the analyses of the six individual verbs are then summarised and discussed in chapter 9.

Finally, a few concluding remarks are made in chapter 10 and prospects for future research are indicated.

CHAPTER 2

THEORETICAL BACKGROUND

2.1 Introduction

The most influential sources for shaping the theoretical platform of the thesis have been Charles Fillmore's frame semantics (e.g. 1975, 1976a, b; see also 2.2 below) and research on word meaning (e.g. Croft 2000; Traugott & Dasher 2002) and conceptual mappings (e.g. Sweetser 1984). As such, the study is situated within the framework of cognitive linguistics of which the main tenets are the centrality of meaning in language (that is, all linguistic units are meaningful and merit investigation) and the close relations existing between language, mind and body. The first developments of cognitive linguistics along these lines were introduced in the works of a number of influential linguists, such as Fillmore's theory of frame semantics, George Lakoff's and Mark Johnson's work on metaphors (Lakoff & Johnson [1980] 2003, 1999; Johnson 1987; Lakoff 1987), Gilles Fauconnier's idea of mental spaces ([1985] 1994), Ronald Langacker's development of a cognitive grammar (1987, 1991) and Leonard Talmy's advances in cognitive semantics (2000a, b). The works by these scholars have subsequently been followed by a vast range of different studies developing cognitive linguistics into a broad area of research with connections to neighbouring disciplines such as psychology, sociology, neurology, anthropology and cognitive science.

2.2 Frames

Frame semantics is most commonly connected with Fillmore who developed this approach to the understanding of word meaning in the 1970s as a reaction to the feature list approach and elaborated on it in a number of articles during the 1980s and 1990s (Fillmore 1975, 1976a, b, 1977a, b, c, 1982, 1985; Fillmore & Atkins 1992). According to the feature list approach, as advocated by structuralists and componential analysts, categories are defined by a limited set of necessary and sufficient features, which are either present

or absent. Words are thus considered to “have” meaning in isolation, that is, they have an inherent meaning that can be defined and which is not affected by changing contexts (see also 2.3). According to this view, the category CHILD is defined as [+animate] [+human] [-adult], whereas the definition of FOAL is [+animate] [-human] [-adult] [+equine]. The last feature is necessary to distinguish FOAL from categories of other young animals. A frame, on the other hand, “represents the particular organization of knowledge which stands as a prerequisite to our ability to understand the meanings of the associated words” (Fillmore 1985: 224; see also Barsalou 1992: 27; Martin 2001: 58). Similarly, Roy D’Andrade maintains that “one can get at the meaning of items through the way items are distributed in different environments” (1995: 59). Willy Martin claims that

[i]n integrating the description of word meaning into a frame-based approach, word meaning can be regarded as a knowledge structure (a conceptual knowledge frame), in other words, as an organized chunk of knowledge that language users have available and that allows them to understand and produce language. In the same vein, the lexicon should no longer be regarded as a set of existing words, as in a dictionary (the pre-linguistic, ‘naïve’ conception), but rather as an organized knowledge bank which is needed in order to be able to understand and produce language (the cognitive-functional approach), including capturing and motivating the polysemous potential of lexical items [...] (Martin 2001: 62)

Thus, the meaning(s) of one particular word is (are) not separately stored in the brain in the form of a list of features but rather as conceptually and correlationally structured relations between the word in question and other words.

The idea of a frame is, however, not new and Fillmore (1975: 124) acknowledges that it has been used in cognitive psychology at least since Frederic Bartlett ([1932] 1977) introduced his theory of schema. When analysing and evaluating experiments of perception and memory retrieval, Bartlett comes to the conclusion that it is easier to remember something which matches an already existing mental image, what he terms as “some preformed scheme or setting” (Bartlett [1932] 1977: 20). He defines a schema as “an active organisation of past reactions, or of past experiences” ([1932] 1977: 201). Other terms used in linguistics to describe the same or similar structures are, for example, ‘scene’ (Fillmore 1977b), ‘script’ (Schank & Abelson 1977), ‘experiential gestalt’ (Lakoff & Johnson [1980] 2003), ‘idealised cognitive model’ (Lakoff 1987), ‘domain’ (Langacker 1987), ‘scenario’ (Palmer 1996) and ‘cognitive model’ (Evans 2007).

A frame, as defined in the early works by Fillmore, is “a collection of linguistic forms or processes related in precise ways to specific cognitive schemata” (1976b: 13). In

addition to frames, which are linguistic concepts or structures, there are also scenes, which are associated with linguistic frames in people's minds:

I use the word scene in a maximally general sense, including not only visual scenes but also familiar kinds of interpersonal transactions, standard scenarios defined by the culture, institutional structures, enactive experiences, body image, and, in general, any kind of coherent segment of human beliefs, actions, experiences or imaginings. I use the word frame for any system of linguistic choices – the easiest cases being collections of words, but also including choices of grammatical rules or linguistic categories – that can get associated with prototypical instances of scenes. (Fillmore 1975: 124, underlining in original)

Once the connection between a scene and a frame has been learnt and stored in a person's mind they activate each other. Fillmore states that “whenever we pick up a word or phrase, we automatically drag along with it the larger context or framework in terms of which the word or phrase we have chosen has an interpretation” (1977b: 74). As shown in the current work, this fact has a restraining effect on how frequently the verbs can be used in extended ways. Moreover, frames can be associated with other frames because of some shared linguistic feature(s). Likewise, scenes can be associated with each other because they contain the same or similar participants, settings, etc. or because they occur in the same or similar contexts (Fillmore 1975: 124). Both scenes and frames can in this way be seen as hierarchically structured or linked together into a chain or network (cf. Figure 1.1 in section 1.4.1). As is generally the practice today, the term *frame* in this thesis is used in a somewhat broader way than originally described by Fillmore, and is defined as a cover term comprising linguistic (syntactic and semantic) features associated with a word as well as the larger contextual framework (*scene* in Fillmore's terminology, cf. the quote above) in which the word may be used. This more comprehensive definition also seems to be the one applied by Fillmore in his later works on frames (Fillmore 1985; Fillmore & Atkins 1992).

Within cognitive linguistics, frames are considered to be fundamental to the way humans organise their knowledge and understand and reason about experiences (Lakoff & Turner 1989: 65; Barsalou 1992: 21). Frames are situated in “the cognitive unconscious” (Lakoff & Johnson 1999: 116) and therefore applied automatically and without effort. Furthermore, frames form the basis for a person's syntactic knowledge of verbs since they decide what arguments must or may occur with a specific verb (Barsalou 1992: 28). It is not always the case or even desirable that all possible arguments are explicitly expressed in a sentence. The analyses of *acquire*, *buy*, *gather*, *grasp*, *receive* and *seize*

presented in chapters 3-8 show that the omission of Subjects and Objects is not unusual. According to Fillmore, “a case frame need not comprise a description of all of the relevant aspects of a situation, but only a particular piece or section of a situation” (1977b: 72). Similarly, John Newman states that a frame “is made up of numerous domains (spatial, temporal, sensory, causal, socio-historical etc.), though for convenience some of these can be backgrounded at different points in the discussion” (1996: 37). To clearly state all the arguments that could be present in a sentence describing, for example, an acquisitional event could make the sentence cumbersome: *I bought a new car from Tom for Mary for \$5,000*. To form a grammatically correct sentence in this case, only the two arguments *I* and *a new car* are actually needed (Faber & Mairal Usón 1999: 177). All the other arguments are syntactically optional but always conceptually present. Hence, knowing the verb *buy* entails the knowledge that an entity is acquired from another person in exchange for an amount of money and sometimes for the benefit of a third person.

The sentence *I bought a new car from Tom for Mary for \$5,000* is an example taken from the most well-known scene in frame semantics, the COMMERCIAL EVENT as introduced by Fillmore (1976a).⁵ Associated with this event is a linguistic frame containing words such as *buy*, *sell*, *purchase*, *charge*, *pay*, *cost*, *money*, *payment*, *buyer*, *seller*, *goods*, etc. The schematic event scene provides a “setting within which specific notions related to this [event] can be specified or defined” (Fillmore 1977a: 59). The use of any of the words linked to the linguistic frame anchors the event in the interpreter’s mind and imposes a certain perspective on the situation. Moreover, using any of these words in a sentence can activate other frames which are in some way derived from the COMMERCIAL EVENT. Using metaphors, Fillmore says, is “the act of applying to one scene a frame which is known to be more basically associated with a different scene” (1975: 129). This is what happens in a sentence such as *I don’t buy that argument*, where a word from the linguistic frame associated with the COMMERCIAL EVENT is applied to a scene of accepting or believing. Mappings of this kind are further discussed in the analysis of *buy* in chapter 7. In the same way, Zoltán Kövecses (2006: 98) maintains that frames make metonymy and metaphor possible. He calls metonymy “within-domain mapping,” that is, “an entity is mapped onto another entity within the same frame” (2006: 112), and metaphor “cross-domain mapping” (2006: 116), in which an element from one frame is mapped onto an entity in another frame.

⁵ Fillmore (1972) briefly refers to this event as a buying/selling transaction.

In addition to illustrating more stable and conventional events such as the COMMERCIAL EVENT, frames can also be used in more dynamic and innovative ways. Lawrence Barsalou states that “frames also lend themselves to representing the dynamic flow of events over time” (1992: 54) and applies this to a description of the working of an engine and the acquisition of a used car (1992: 54-56). In these cases, frames for physical and temporal domains are merged in order to create a representation of an event sequence. In addition to being used to describe and conceptualise events of different kinds, frames also play a major role in the planning of events so that “[w]hen people plan events such as trips, purchases, social events, and repairs, they often begin by partially activating a frame for the event being planned” (Barsalou 1992: 59). Depending on the choices made when planning, for example, a holiday, different frames for location, activity, time, and so forth, are subsequently activated and closed down. Thus, a holiday including swimming and sunbathing does not activate the same frame as a holiday involving skiing. When the decision has been made as regards what kind of holiday one wants, the frame for the discarded alternative is closed down. In a similar way, alternative times of departure, season, etc. activate different frames of location, means of transport, and so on. This is also the case for different types of acquisition: instances of mental acquisition do not activate exactly the same frames as instances of physical acquisition (cf. the analyses in chapters 3-8).

Barsalou further asserts that “frames are dynamic relational structures whose form is flexible and context dependent” (1992: 21) and uses frames to illustrate prototype representations of, among other things, geometric forms and birds (Barsalou 1992). The fact that prototypes play an important role in human categorisation and conceptualisation was first recognised by Eleanor Rosch (1977, 1978) and her findings have later been substantiated by other scholars: “prototypicality appears to be the outcome of some fundamental, deep-seated principles of cognitive functioning” (Geeraerts 1988: 224). In the same vein, Lakoff and Johnson state that “[r]easoning with prototypes is, indeed, so common that it is inconceivable that we could function for long without it” (1999: 19). Equally, Fillmore maintains that “many of our framing abilities require a knowledge of prototypes” (1976a: 26). The claim that the prototype theory presupposes is that, based on the number of common attributes that members of a category display, they can be seen as more or less prototypical of that category: “Membership in the category *bird* is discrete; something is or is not a bird. But some birds may be birdier than others” (Geeraerts 1989: 596). Fillmore acknowledges the importance of prototypes in frame

semantics and declares that “in some cases the area of experience on which a linguistic frame imposes order is a prototype” (1975: 123). He points out that

very often the frame or background against which the meaning of a word is defined and understood is a fairly large slice of the surrounding culture, and this background understanding is best understood as a ‘prototype’ rather than as a genuine body of assumptions about what the world is like. (Fillmore 1982: 117-118)

In other words, a frame can be seen as a prototypical description of an event and of how a particular word is used. As such, frames and prototypes have many features in common. Fillmore explains this connection:

A given real-world scene is perceived according to the degree to which it matches some paradigm or prototype outline scene. Prototype scenes can be thought of as scenes from simple worlds, worlds whose properties simply do not take in all of the facts of the real world. Prototype scenes account for the clearest cases, the best examples. Much of our use of language, however, requires us to use words that activate a prototype scene even though we are talking about something that departs from the prototype. (Fillmore 1977c: 87; cf. Lehrer 1990: 370)

In this way, different usages, that is, interpretations of a word, can be seen as either constituting a core meaning or as in some way deviating from it. The result of the latter is sometimes a change of word meaning. Examples of deviating usages are when the verbs that are part of this study occur with an abstract direct object or are extended by mappings from the physical to the mental domain to mean ‘understand’, ‘learn’, and so forth. This is further elaborated in the analyses of the verbs in chapters 3-8.

2.3 Word meaning

Applying elements from one frame onto another is one example of how words change their meanings over time or develop polysemous senses. Elizabeth Traugott and Richard Dasher (2002: 12) state that one rarely, if ever, encounters a word in ordinary language with only one possible interpretation. Langacker even claims that polysemy in words “should be expected as the normal state of affairs” (2000: 35). It is through continued usage that meaning variants become conventionalised and entrenched, in other words, they are cognitively routinised as separate linguistic units. Language users seem to prefer

semantic extension of an already existing word to coining new words because it is easier and does not require as much cognitive effort (Frisson, Sandra, Brisard & Cuyckens 1996: 615-616). Furthermore, it is usually easier to learn and remember new information if it is somehow related to already existing knowledge (cf. Bartlett [1932] 1977: 20). The issue of polysemy versus homonymy has been widely discussed. The question is, do words with multiple usages have more than one sense (polysemy) or should they rather be regarded as words with more than one meaning (homonymy)? This issue is related to the debate concerning whether multifunctional words, especially verbs, actually have any meaning at all (see, e.g., Weinreich 1963; Ruhl 1975; Brugman 1988; Newman 1996).

Traditionally, word meaning has been seen as stored in language users' minds, in their mental lexicons, and as definable in a context-independent way (cf. the feature list approach discussed in 2.2). Increasingly, however, linguists have begun to question whether prestored and definable word meanings really exist. This view is expressed by William Croft when he maintains that "the sort of knowledge that is relevant to a linguistic expression's meaning cannot be enumerated in such a way that all contexts of use can be predicted" (2000: 107). John Lyons agrees, stating that "[i]t may well be that the whole notion of discrete lexical senses is ill-founded" (1977: 554). Instead, there is a growing awareness of and interest in the impact of context on the interpretation of word meaning. These are not new ideas, however. The fact that context affects word meaning was discussed as early as 1957 by John Firth, who maintains that there is a "general rule that each word when used in a new context is a new word" (1957: 190). Nancy Ide and Jean Véronis (1998: 18) assert that context is the only way to interpret a polysemous word correctly, whereas Vyvyan Evans is less categorical, but states that "it is not at all clear that word-meaning is ever independent of context" (Evans forthcoming). François Recanati emphasises that "[t]he only meaning that words have is that which emerges in context" (1998: 630). The same idea is more elaborately expressed by Croft (2000):

The conventional meaning of a linguistic expression cannot be as specific as a small finite set of semantic properties. Meaning is encyclopedic and subject to the conceptualization of the speaker. Both speaker's meaning and the meaning of an expression in a speech community are better described as a lineage of rich, context-specific meanings for which the expression has been used. Finally, meaning is negotiated jointly between speaker and hearer, just as other speech acts are. (Croft 2000: 99)

In other words, word meaning is protean (Croft 2000: 87), that is, word meaning is flexible and subject to contextual influence and extra-linguistic knowledge on the part of speaker and hearer. The current verb analyses, the one of *grasp* in particular (see chapter 4), display several examples of usages which are not conventionalised and therefore probably created on-line and not prestored as distinct senses in language users' semantic memory. These should instead be seen as modulated by (see Cruse 1986, 1990), that is, adapted to, other words present in the surrounding context. From the data, it is thus clear that context is decisively important for how the verbs that are analysed in this study are interpreted.

Somewhat contradicting the views expressed above, Alan Cruse (2000) acknowledges that word meaning is variable and context dependent but maintains at the same time that "there are nonetheless regions of higher semantic 'density' [...], forming, as it were, more or less well-defined 'lumps' of meaning with greater or lesser stability under contextual change" (Cruse 2000: 30). If Cruse is right in his assumption, and the data gives reason to believe he is, these 'lumps' of meaning could be seen as constituting a core sense of the word. Despite the fact that the analyses presented in this work do not go into any detail as to how many distinct senses each verb has, it is nonetheless possible to discern facets of meaning that are more frequent than others and seem to be present in most usages and, hence, could point in the direction of a potential core sense.

Rather than viewing word meaning as something fixed and ready-made just waiting to be used, linguists now tend to see words as having meaning potentials (Hanks 2000; Allwood 2003).⁶ A word's meaning potential contains linguistic as well as extra-linguistic (encyclopaedic) information, for example, its semantic properties, involving how the word has been used before and how it may contribute to the interpretation of the sentence, etc. (cf. the quote above from Croft 2000; see also Carston 2002). When a word is found in a specific context, its meaning potential, or part of it, is activated, thereby providing an access point (see Langacker 1987; Croft 2000) to a network of knowledge linked to the word in question.⁷ It is worth noting that the network of knowledge accessed via a word's meaning potential bears a close resemblance to the frame to which a word is

⁶ Dominiek Sandra and Sally Rice (1995) prefer 'usage potential' instead, whereas Evans (2006) uses 'semantic potential'. Related notions are also 'ID tags' (Atkins 1987), 'behavioural profile' (Hanks 1996; Gries 2006; Gries & Divjak forthcoming), 'cluster of citations' (Kilgariff 1997) and 'lexical profile' (Evans forthcoming).

⁷ Dirk Geeraerts (1993) suggests the metaphor of a searchlight to explicate the activation process: each time a word is used, subsets of its meaning are lit up, that is, activated.

linked (cf. section 2.2). Among other things, they are both accessed by words in use. The activation of a word's meaning potential is a cognitive process initiated by other words in the context (Hanks 2000: 214) and once activated in a certain contextual environment the meaning potential is likely to be activated more easily in identical or similar circumstances (Allwood 2003: 44). According to this view, therefore, meaning is not an inherent part of words as such but words provide cues for how to construct meaning in the context at hand (Kemmer & Barlow 2000: xxi). In a similar vein, Mark Turner (1991: 206) states that expressions are prompts for language users to create meaning. This does not mean, however, that words are devoid of semantic content (cf. Cruse 2000: 30), only that meaning cannot be accounted for solely on the basis of a single word's semantic properties.

That language users employ context to decide how a word should be interpreted has been shown in several psycholinguistic studies (e.g. Tabossi, Colombo & Job 1987; Kishner & Gibbs 1996; Gibbs & Matlock 2001; Klein & Murphy 2001, 2002; Pickering & Frisson 2001). Linguistic analyses of individual words also call attention to the importance of contextual clues in word interpretation (e.g. Gronemeyer 1997; Fillmore & Atkins 2000). This aspect is also apparent in the present analyses where the context determines whether the verbs should be interpreted in a concrete way or whether a usage expresses an extension into the mental domain. Furthermore, it has been suggested (Gibbs & Matlock 2001) that the number of meanings a word can have is infinite because each context in which the word appears calls for a slightly differentiated nuance of interpretation (cf. Firth 1957: 190). This is also one of the basic assumptions of the Theory of Lexical Concepts and Cognitive Models (LCCM) as developed by Evans (2006, 2007, forthcoming; Evans & Zinken forthcoming), but LCCM does not regard every minimally different interpretation of a word as a distinct sense.⁸ Rather, it is essential to "draw the line between what counts as a distinct sense conventionalized in semantic memory and a contextual inference, produced on-line for the purpose of local understanding" (Tyler & Evans 2003: 45). As stated by Adam Kilgarriff (1997: 96), context may either select a distinct sense or modulate the meaning of a particular word. Moreover, Hanks (2000: 206) maintains that listing different instances of a word as separate senses would overlook the fact that words characteristically have fuzzy edges, and result in a failure to discern possible overlap among senses. The data used for the current

⁸ In this respect, LCCM also contradicts the so-called full-specification approach (see below).

study displays many examples of how words have fuzzy edges and how the interpretations of different usages often overlap. This is particularly true for usages concerned with mental acquisition. Still, the lumping versus splitting issue, that is, the question whether a word should count as homonymous or polysemous, is not easy to resolve and without having recourse to informant testing of native speakers it may well be a matter left to the subjective decisions of individual researchers.

Many studies of individual words have resulted in detailed analyses with a fine-grained structure of distinctions, a lexical network of distinctions that are close in meaning. English prepositions, in particular, have been the objects of analyses of this kind (e.g. Brugman 1981; Lakoff 1987). However, as such analyses have relied largely on introspection and on the linguist's own implicit knowledge of the language, their validity has been questioned. Gries (2006) points out that

it is highly unlikely that intuitions of linguists concerning (i) what are possible uses of a lexeme and (ii) how frequent (or, more cognitively speaking, how entrenched) the uses are will turn out to provide a data base reliable enough for analyzing a word's senses. (Gries 2006: 87)

Sandra states that “[w]hen looking at such analyses one has the strong impression that many of the distinctions are unnecessary” (1998: 370) and that they are evidence that the scholar has committed what Sandra calls the polysemy fallacy, that is, has exaggerated the number of distinct senses that a word actually has in the minds of language users. The same kind of criticism has been directed towards dictionaries. Ide and Véronis stress that “the sense distinctions made in many dictionaries are sometimes beyond those which human readers themselves are capable of making” (1998: 23). Even though lexicographers make more frequent use of corpora of natural language to get a truthful picture of a word's usages, it is still difficult to establish what distinct senses a word has without thorough informant testing. The results presented in chapters 3-8 have not been psycholinguistically tested and will therefore not include any discussion of which usages may count as senses in their own right. The usages presented should be seen as indications of distinct senses.

Sandra (1998) continues his criticism of the so-called full-specification approach (Lakoff 1987) to network analyses by claiming that

[t]he best piece of evidence that network analyses are more like proclamations of a shared belief than true linguistic exercises is the suspicious lack of a set of decision principles, which would make it possible to decide in an *objective* and *replicable* way whether two usages of a linguistic unit (lexical item or grammatical construction) are distinct or not. In other words, what is lacking from the enterprise is a set of *scientifically valid* principles. (Sandra 1998: 371, italics in original)

In order to remedy the lack of scientifically valid principles for determining whether different usages of a word (or other linguistic units) should count as distinct senses, Anne Tyler and Vyvyan Evans (2003) have developed an approach of principled polysemy. The approach posits that through conventionalised use words may be associated with two or more distinct but related senses, but not all the contextually varying usages of a word may be seen as distinct senses (cf. the polysemy fallacy). For a usage to count as a distinct sense, Tyler and Evans propose two separate criteria that must be fulfilled:

- (i) a sense must contain additional meaning not apparent in any other senses associated with a particular form, and
- (ii) there must be instances of the sense that are context independent, that is, in which the distinct sense could not be inferred from another sense and the context in which it occurs. (adapted from Tyler & Evans 2003: 42-43)

These criteria were designed for the lexical class of prepositions. As an elaboration of this work, Evans (2004: 93-94) suggests new criteria to address the abstract noun *time*: the meaning criterion (identical with (i) above), the concept elaboration criterion concerned with selectional or collocational restrictions and the grammatical criterion, which has to do with the nature of the word's grammatical profile. For a sense to count as distinct the meaning criterion and at least one of the other two must be satisfied. Whether or not these criteria can be applied to the analyses of words belonging to other lexical classes as well remains to be seen.

An alternative approach to defining word meaning is proposed by Ide and Véronis (1998: 23; see also Allwood 2003) who view word meaning as a continuum of varying shades of meaning. The same approach is advocated by Devorah Klein and Gregory Murphy (2002: 556) who see the continuum as a measure of the degree of closeness between different senses. The description of word meanings as organised in a continuum accounts for overlaps and fuzzy edges in a clear way. Related to the continuum approach is John Taylor's (2003: 110) suggestion that various meanings of a word are related

through a meaning chain and assembled in a family resemblance category. The latter term is associated with Ludwig Wittgenstein's (1953) notion of family resemblance, but corresponds more closely to Lakoff's (1987) radial category. The idea of meaning chains is also adopted by Klein and Murphy (2002). The psycholinguistic experiments on polysemous words which they have carried out show that the result of a meaning chain is not a set of similar senses but rather a set of pair-wise related senses. The notions of word meaning as a continuum or as a chaining process are ideas which may be worth exploring in further elaborations of the material used in the present study.

The influence of context on word meaning also has implications for semantic change. Croft (2000: 87) declares that "slipperiness of meaning" is one of the main reasons behind language change. Traugott (1999) states that it is now commonly agreed among historical linguists that semantic change is largely motivated by pragmatics. In other words, language change is enhanced by language use. The more often a specific usage is encountered in language, the more it will become entrenched in the language users' minds and, as a consequence, the higher the likelihood that it will be used in the same way again (cf. Allwood 2003: 44). A high degree of entrenchment might accordingly speed up the process of semantic change. The data on *grasp* (see chapter 4), suggests that this verb might be in a transitional state of semantic change. The basic hypothesis of the Invited Inferencing Theory of Semantic Change, as developed by Traugott (e.g. 1999; Traugott & Dasher 2002), is that such semantic change is a regular occurrence. This regularity can be explained by the fact that a word may acquire semantic properties from the context in which it typically occurs. Diachronic changes in word meaning are thus often regular and follow distinct patterns. One example is change through conceptual mappings between domains.

2.4 Conceptual mappings

Semantic change through mappings between different domains is common. These mappings are usually one-way, directed from concrete domains to more abstract ones or from physical to mental domains (Sweetser 1987: 446, 1990: 35; Gibbs 1994: 160). There is "a general tendency to borrow concepts and vocabulary from the more accessible physical and social world to refer to the less accessible worlds of reasoning,

emotion, and conversational structure” (Sweetser 1984: 26). This kind of metaphorical mapping between domains is highly frequent in English, but cross-linguistic studies show that it is also a characteristic of many other languages, both within and outside the Indo-European language family (Viberg 1984: 157; Fortescue 2001: 20) and Eve Sweetser (1990: 31) goes so far as to suggest it might be universal. Fillmore states that the linguistic frames used for orientation and classification could not be (easily) understood “if we lacked bodies or if we lacked a body image” (1975: 123). Likewise, Newman (1996: ix) emphasises the importance of taking human cognition and human experience into consideration when trying to explain linguistic structures. Human everyday bodily experiences are thus important for the conceptualisation and description of more abstract phenomena (cf. Lakoff & Johnson [1980] 2003, 1999). Whereas numerous studies of the metaphorical realisation of emotions have been carried out, research on other conceptual mappings is somewhat more scarce (Palmer 2003: 98). The work presented here, where extensions from a physical action to a mental one, that is, extensions from physical to mental acquisition, are discussed, is thus one step towards filling this research gap.

As regards the domain of mental acquisition or cognition (understanding, learning, believing, etc.), mental verbs in general are often semantically derived via metaphor or metonymy from verbs with a more concrete meaning (Viberg 2005: 153). In her work on historical semantics, Traugott (1989, 1990) has drawn up three tendencies for unidirectional paths of diachronic semantic change. The first tendency specifies that meanings based in an external situation extend to meanings based in an internal one, that is, an evaluative, perceptual or cognitive situation. Many changes from concrete to abstract are subsumed by this tendency, in particular changes from physical to mental (Traugott & Dasher 2002: 95). Extensions from the domain of physical acquisition to that of mental acquisition can thus be seen as an example of how this tendency works. Cross-linguistically, the domain of mental acquisition can be divided into at least six different conceptualisations (Fortescue 2001: 21). In particular, it is well known that perception verbs such as *see*, which is, according to Åke Viberg (2001), the most basic of all perception verbs, readily lend themselves to metaphorical extensions into the mental domain. This is possible because humans tend to judge what they see with their own eyes as more objectively true than information gathered through any other sources (Sweetser 1990: 39; cf. also the perception hierarchy in Viberg (1984) and the reliability hierarchy in Viberg (2001)). Sweetser claims that “vision and intellection are viewed in parallel ways, partly [...] because of the focusing ability of our visual sense – the ability to pick

out one stimulus at will from many is a salient characteristic of vision and of thought” (1990: 38). Because of the similarities between seeing and cognition the vocabulary for vision can also be used for a metaphorical description of mental processes (Sweetser 1990: 39-40). Nicholas Evans and David Wilkins (2000) have shown, however, that the claims made by Sweetser cannot be generalised to languages outside the Indo-European language family. In analysing approximately sixty Australian languages throughout the continent, they find that the only perceptual modality that regularly extends into the cognitive domain is hearing, whereas extensions from vision are related to the domain of social interaction. Evans and Wilkins do not present any conclusive evidence for this difference between Australian and Indo-European languages, but suggest that the frequent use of the ear as the metaphorical organ of cognition in Australian languages and the existence of culture-specific scripts that facilitate extensions from hearing to cognition may be part of the explanation.

Perception verbs are not, however, the only source domain for conceptual mappings onto the mental domain. The domains of possession and acquisition can be used in a similar manner. Referring to the example *He grasped the idea*, Clare Hough maintains that “many words in the semantic field of cognition have been transferred from a physical application, often reflecting well-established metaphors such as physical possession as mental possession” (2004: 140). Gronemeyer argues in a similar vein that a phrase such as *to get the impact of this fact* meaning ‘to understand the consequences of this fact’ “show[s] the well-known extension from the domain of possession to the domain of mental understanding[, ...] a metaphorical transfer from possession to the cognitive domain” (1999: 4). Also, Michael Fortescue (2001: 22) attests to the fact that words for mental activities tend to derive from the domain of physical acquisition. More often than being referred to as verbs of acquisition, some of the verbs analysed here – *gather*, *grasp* and *seize* – are frequently categorised as verbs of physical manipulation or physical movement. The links between physical and mental manipulation are commonly reflected in linguistic expressions and are “absolutely pervasive” (Sweetser 1984: 21; cf. Johnson 1999: 157). Olaf Jäkel stresses that “the conceptualization of mental activity in terms of manipulation seems to be at least a cross-cultural strategy, if not a cognitive universal” (1995: 226). According to Constance Classen (1993: 58), more words for thought and intellectual functions in English are based on tactile or kinaesthetic terms than on vision. She sees this as an indication that “thought is, or was, experienced primarily in terms of touch” (Classen 1993: 58). Extensions of the meaning of physical manipulation verbs to

metaphorically express cognition can thus be regarded as at least as common as the extensions from verbs of vision such as *see*. Since this phenomenon has not been much treated in the linguistic literature, an investigation that demonstrates the frequency of these extensions is necessary. Mappings of this kind are analysed in chapters 3-8 where meaning extensions from physical to mental acquisition are presented and discussed.

How, then, can this link between physical manipulation and mental activities be explained? According to Sweetser, physical manipulation and the action of grasping something have to do with the control of an entity. This physical control is then analogously mapped onto cognition where facts understood can be seen as facts under control (Sweetser 1984: 38). Control is also one important aspect of possession, the outcome of acquisition (cf. section 1.2). In other words, something that has been acquired, that is, something that one possesses, mentally or otherwise, is thus something one controls. Similarly, Jäkel argues that “the abstract domain of mental activity [...] is conceptualized metaphorically in terms of the physical manipulation of solid objects” (1995: 197) with the structural metaphor UNDERSTANDING AN IDEA IS ESTABLISHING PHYSICAL CLOSENESS (Jäkel 1995: 199) also entailing control: what is close can be controlled. Moreover,

there is an experiential correlation [...] between mental activity and manipulation. At both levels, there is an intentional gathering of knowledge about the world: through tactile contact with objects as well as through learning and realization. Active investigations are made – by concrete dismantling of solid objects as well as by intellectual analysis. [...] abstract thinking is an internalized version of manipulative sensorimotor activity. (Jäkel 1995: 221; cf. Traugott’s (1989, 1990) Tendency I described above)

In other words, understanding something, for example some kind of fact, means metaphorically having this fact close and under control in order to investigate it carefully. The analyses presented in this thesis have shown that physical closeness and control are important aspects if acquisition, whether physical or mental, is to take place. In addition, Raymond Gibbs maintains that “people understand the word *grasp* to mean ‘understand’ because of the live conceptual metaphor UNDERSTANDING IS GRASPING” (1994: 276). This metaphor is part of the Conceptual Metaphor Theory (CMT) developed and elaborated by Lakoff and Johnson ([1980] 2003, 1999; Lakoff 1987; see also Gibbs 1999) where the understanding of abstract concepts is seen as arising not only from recurring bodily experiences but also from the very nature of the human brain and body:

The same neural and cognitive mechanisms that allow us to perceive and move around also create our conceptual systems and modes of reason. Thus, to understand reason we must understand the details of our visual system, our motor system, and the general mechanisms of neural binding. (Lakoff & Johnson 1999: 4)

In a similar way, although using another terminology, Joseph Grady (1997) defines UNDERSTANDING IS GRASPING as a primary metaphor which has a direct experiential basis and for which there is independent linguistic evidence. Other primary metaphors are, for example, STATES ARE LOCATIONS, CHANGE IS MOTION and KNOWING IS SEEING (cf. Lakoff & Johnson 1999).

The UNDERSTANDING IS GRASPING metaphor is present in people's minds because of the metaphor IDEAS ARE OBJECTS, which, according to Sweetser (1987), is pervasive in the Indo-European language family as a whole and even more so in English:

Possibly the single most productive etymological source-domain for English mental-state verbs is that of object-manipulation: the mind is a manipulator of thoughts or ideas, which are identified with manipulable objects. Our cognitive processes are seen as holding, touching, and moving mental objects. (Sweetser 1987: 449)

Evans and Wilkins (2000) have shown that contrary to what is the case for perception verbs, extensions from grasping to understanding are common also in Australian languages, which suggests that ideas may be conceptualised as objects outside the Indo-European language family as well. The IDEAS ARE OBJECTS metaphor is entailed by the CONDUIT metaphor (Lakoff & Johnson [1980] 2003: 10-12; Reddy 1993), where ideas are seen as objects and words as containers for the ideas, which are sent from speaker to hearer along a conduit. In the same vein, Jäkel explains the sentence *What did you gather from his statement?* as an example of “conclusions [being] simply drawn from the container into the open” (1995: 210; for an analysis of *gather*, see chapter 3).

Apart from the CONDUIT metaphor, which can be regarded as a schema for several different mappings from physical manipulation to mental activities, there is another closely related schema, or general mapping, where the mind is conceptualised as a body (Sweetser 1990). This schema, THE MIND IS A BODY metaphor, can be applied to different bodily functions such as moving, perceiving, object manipulation and eating (Lakoff & Johnson 1999: 236). The application of object manipulation onto cognition provides a number of underlying metaphors, for example THINKING IS OBJECT MANIPULATION, a mapping that Lakoff and Johnson (1999: 241) claim is widespread and can be found in languages all

over the world. Related to this mapping is also THE MIND IS A CONTAINER metaphor (Gibbs 1994: 162) where information and ideas are kept as valuable possessions which are shared with others only if the “owner” so wishes (Pauwels & Simon-Vandenberghe 1995: 47). Sweetser explains:

The idea here is that a new piece of knowledge or belief is “imported” into some mental space – perhaps from outside, perhaps from elsewhere in the mind. [...] Ideas are objects “contained” in our mental space, which has smaller “containers” like categories as subspaces. A newly “grasped” concept will thus be brought *into* a mental space where it was not previously located. (Sweetser 1987: 450, italics in original)

It thus seems as though many everyday linguistic expressions containing a vocabulary from the domain of physical manipulation or acquisition but used to convey the meaning of a cognitive activity such as understanding, learning, believing, and so on, actually point towards a conceptualisation of information, facts, etc. as entities which can be acquired, bought, gathered, grasped, received and seized.

The claim that concepts and language should be in this way embodied has found some support in psycholinguistic experiments but also, more recently, in neurolinguistic research (see, e.g., Gibbs 1994, 1999, 2005; Sinha & Jensen de López 2000; Gallese & Lakoff 2005; Rohrer 2005). There is, however, some evidence suggesting that this “strong embodied view,” where the conceptualisation of abstract domains is seen as being built directly on the bodily experience itself, needs some reconsideration. Lara Boroditsky and Michael Ramscar (2002) acknowledge the fact that there seems to be some relation between people’s thinking about abstract domains and their everyday bodily experiences. Nevertheless, their studies of the relationship between spatial thinking and people’s thinking about time reveal that actual motion is not necessary to influence the way the subjects think about time: “it is thinking about spatial motion that seems to underlie thinking about time” (Boroditsky & Ramscar 2002: 188). Their conclusion is that abstract thinking is based on more experience-based domains which are separable from the actual physical, or sensorimotor, experience. Despite the fact that CMT has had an enormous influence on the development of cognitive linguistics since it was presented by Lakoff and Johnson ([1980] 2003), the theory as a whole has recently been exposed to criticism (e.g. Glucksberg & McGlone 1999; McGlone 2001; Haser 2005; Evans & Zinken forthcoming). Experiments in which subjects were asked to paraphrase sentences related to the metaphors LOVE IS A JOURNEY and LOVE IS A CONTAINER did not support the CMT view

that such mappings are part of the human conceptual system and that conceptual metaphors are important for the interpretation of everyday metaphors (Glucksberg & McGlone 1999; McGlone 2001). However, these experiments concentrated on the concept of 'love' and it is possible that the fact that the concept is abstract in some way biased the result. Given that verbs such as *grasp* and *buy* can be used to express both the acquisition of, for example, a concrete entity like a book (*I grasped/bought the book*) and an abstract entity like an idea (*I grasped/bought the idea*), it appears to be the case that language users must see some kind of similarity between the two actions.

2.5 Summary

Frames are structures of relations between words: whenever a specific word is used in language it activates a larger contextual framework in which the word is interpreted. Frames are further closely connected to prototypes, which are important for human categorisation and conceptualisation. One important aspect of cognitive linguistics is that of semantic changes through conceptual mappings between different domains. These mappings are usually directed from the concrete/physical to the abstract/mental and one important source domain is possession together with its subdomain acquisition. Cross-domain mappings often result in a word acquiring two or more meaning variants. The traditional view of word meaning as something that is stored ready-made in the minds of language users and as definable out of context is increasingly questioned by linguists. Instead, word meaning is seen as flexible and highly dependent on the surrounding context as well as on the extra-linguistic (encyclopaedic) knowledge possessed by speaker and hearer. The analyses of *acquire*, *buy*, *gather*, *grasp*, *receive* and *seize* presented in chapters 3-8 provide strong evidence for this latter view: context plays a major role in the interpretation of the verbs.

CHAPTER 3

GATHER

The first verb to be presented is *gather*. It was chosen to be part of the study because it is physical and experience-based. In other words, the concrete action of *gather* generally involves the human body in a direct way. Furthermore, it is linked to a simple and uncomplicated frame. Like all the other verbs that are part of this work, *gather* is used to express physical acquisition, but can also be extended to function as a mental verb. The main focus of the analyses lies on the frequency of these extensions, that is, on how much a verb's frame limits that verb's use within the mental domain. The analysis of *gather* shows that the verb frequently appears as a mental verb and that the humanness of the Subject seems to be a necessary requirement if *gather* is to be used to express mental acquisition. It is further shown that the verb often collocates with lexemes from a few clearly discernible semantic domains, that is, with words that are linked to the concepts of 'knowledge', 'power' and 'speed'. This is a fact that is seldom emphasised in dictionaries.

3.1 *Gather* in FrameNet

In the on-line lexical database FrameNet, *gather* is one of the verbs belonging to the GATHERING UP frame, which describes "an Agent's gathering of Individuals (people or entities) into a group, the Aggregate, defined by relative proximity." The capitalised words in the definition constitute the three core frame elements, or semantic roles, associated with this frame. As can be seen from the definition, GATHERING UP is a rather simple frame with few necessary participants and little additional detailed information is given about them: the Agent, for example, is defined as "the person who gathers Individuals." Even though there are three core frame elements listed, only Agent and Individuals are necessary to form a grammatical sentence, whereas Aggregate can be left out as in *She gathered the books (into a pile)*. The GATHERING UP frame does not comprise any requirements that need to be fulfilled as regards necessary conditions or

circumstances tied to the action of the verb. The only piece of specific information provided is that the outcome of *gather* is physical closeness, in relative terms, between the Agent and what is gathered. In addition to the core frame elements, FrameNet further lists six non-core frame elements, which may or may not be explicitly expressed in the sentence: Instrument, Manner, Means, Place, Purpose and Time.

3.2 *Gather* in the *OED*

Gather has its roots in Old English *gad(e)rian* with cognates in other Germanic languages, for example, Old Frisian *gad(e)ria*, *gaduria* (modern Frisian *gearjen*), Middle Dutch and Dutch *gaderen* (*garen*), Middle Low German *gadern* and Middle High German *gatern*. Related is also the word *together* from Old English (*tó)gædere* (*OED*).

In the analysis, the usages found in the *BNC* are divided into the superordinate categories physical, non-physical (other than mental) and mental usages. Information provided by the *OED* makes it possible to follow the diachronic development of the verb's usages:

PHYSICAL:	to join or unite; to put together, form by union (c725)
NON-PHYSICAL:	to collect or summon up (one's energies); to gain or recover (breath, etc.) (c1400)
MENTAL:	to collect (knowledge) by observation and reasoning; to infer, deduce, conclude (1535)

The earliest attested record from each main usage group is given within parentheses. Attested records for physical gathering are found from about 725, whereas non-physical usages emerged approximately seven hundred years later. No records of mental gathering earlier than 1535 have been found.

3.3 *Gather* in the *BNC*

In the *BNC*, there are a total of 2,430 instances of *gather*, *gathers*, *gathering* and *gathered*. As the focus of this thesis is physical and mental acquisition, examples that are not concerned with acquisition have been discarded. Also excluded from the analysis are conceptually intransitive examples. In other words, only sentences in which an Object is overtly expressed or otherwise conceptually present have been considered for analysis. Sentences (1) and (2) illustrate the difference:

- (1) Together with the Commonwealth Secretariat, it has also called on the Guyanese government to grant local Indian tribes legal rights to hunt and gather in the reserve, [...]
- (2) There is a time when people gather to say prayers and comfort the mourners.

In (1), but not in (2), it is understood that some Object is meant to be gathered even though it is not expressed explicitly. In FrameNet, *gather* is linked to the CONGREGATING frame when used as in (2). The conceptual difference between the two usages in (1) and (2) is thus acknowledged in FrameNet by the fact that they are linked to different frames.

The corpus data is analysed from three different perspectives, based on usages, Subjects and Objects. Firstly, the various usages of *gather* are discussed.

3.3.1 Usages of *gather*

Typically, as suggested by the data, *gather* is a verb that describes a process of bringing together or collecting items of some sort. This is also implied by the GATHERING UP frame provided by FrameNet (see section 3.1 above). Table 3.1 presents the different usages of *gather* found in the data.

Table 3.1. Usages of *gather*⁹

Usage	Number of tokens	Percentage
Physical gathering	666	27.41
- <i>bring together</i> (concrete entities)	477	19.63
- <i>collect/pick</i>	136	5.60
- gather passively	53	2.18
Non-physical gathering (other than mental)	1,180	48.56
- bring together (abstract entities)	782	32.18
- <i>gain</i>	289	11.89
- <i>summon up/recover</i>	109	4.49
Mental gathering	584	24.03
- <i>understand/believe</i>	575	23.66
- learn	9	0.37
Total	2,430	100.00

The various usages of *gather* are presented and discussed in the following order: firstly, usages constituting physical gathering, secondly, those of non-physical (other than mental) gathering and, finally, usages expressing mental gathering.

3.3.1.1 Physical gathering

Physical gathering constitutes somewhat more than a quarter of the data. Most common is the bringing together of some sort of concrete entities, accounting for more than two-thirds of the tokens of physical gathering. Sentences (3) through to (5) below illustrate different usages within this group:

- (3) [...] for the modest expenditure of one hundred pounds [I] managed to gather a very good collection of standard books on Burma and Buddhism.
- (4) [...] they had stopped at the bay to gather mussels.
- (5) Luke pointed to a red spotted scarf gathering dust up on the dashboard.

All the sentences in this usage group exemplify an intentional act, except for those represented by (5), which are grouped under the label ‘gather passively’. The sentences also give evidence of the processual character of *gather*: Objects are gathered one at a

⁹ Italics in tables are used throughout the thesis to indicate that the label of the subcategory coincides with a definition in the *OED*. All other labels are formulated by the present author.

time and/or during a period of time. It should be noted that the expression *gather dust*, apart from describing a physical action as is done here in (5), can be used to express a non-physical act as well. In the *BNC*, approximately two-thirds of the instances of *gather dust* refer to a physically concrete action.

Although, according to the *OED*, various forms of physical gathering were in use long before the first attested instance of non-physical gathering, none of the usages assigned to the former category constitutes the most frequent usage of *gather*. The earliest attested record and/or frequency are often used as criteria for establishing the core sense of a word (see, e.g., Williams 1992; Tyler & Evans 2003; Gries 2006), but there is so far no general consensus among scholars how to best approach the issue. The analysis of *gather* suggests that aspects of the ‘bring together’ usage, which is one of the earliest attested usages of *gather* recorded in the *OED* (a975), are present in most other usages. Thus, it is possible that ‘bring together’ represents the context-independent “lumps” of meaning that Croft (2000: 30; see also 2.3) puts forward as indicators of a potential core sense from which other non-physical usages are derived.

3.3.1.2 Non-physical gathering other than mental

Despite the fact that non-physical usages of *gather* emerged much later than their physical counterparts, non-physical gathering constitutes the largest group found in the material: 1,180 tokens or almost 49% of the material as a whole. Analogously to bringing together concrete entities when it comes to physical usages, the bringing together of abstract entities is the most common among non-physical usages and it is also the single largest subgroup of *gather* found in the corpus (782 tokens or just above 32%). If frequency was used as the only criterion for establishing a core sense, then, ‘bring together (abstract entities)’ would be the most natural choice. It is questionable, however, whether language users really distinguish between the physical and the non-physical variants of ‘bring together’.

In the ‘bring together (abstract entities)’ usage there are a number of frequent expressions where the verb appears together with words from one and the same semantic domain – the domain of knowledge. Sentence (6) is one example:

- (6) The year-long study, commissioned by Highlands and Islands Enterprise, will gather knowledge on deep-sea fishing worldwide before field trials are undertaken.

This is yet another example of *gather* as a process: the knowledge will not be gathered instantly but during the course of a whole year. In addition to *knowledge*, words such as *information*, *data*, *evidence*, *material*, *intelligence*, *facts* and *statistics* are represented and together they add up to a total of 594 examples, which is more than three-quarters of the subgroup as a whole. Hence, the semantic domain of knowledge, and as a consequence also understanding and believing, is commonly associated with *gather*.

Non-physical gathering also comprises the ‘gain’ usage, examples of which are mainly commonly used collocations, as exemplified by (7) and (8):

- (7) [...] the steady encroachment of the Japanese car industry into Europe is gathering pace.
- (8) A spiritual movement of independence gathers force underground and comes out into the open [...]

Other frequent words are *momentum*, *speed*, *steam* and *strength*. Almost 90% of the instances of the ‘gain’ usage contain one of these six lexemes. In addition to the semantic domain of knowledge, *gather* is thus commonly used in collocations within the domains of power and speed as well. Approximately one-third of the examples in the data as a whole are in this way connected with only a small number of semantic domains. Connections such as these can be said to constitute an essential part of the verb’s semantics. Knowledge about them can therefore be regarded as an important aspect of really “knowing” and understanding the verb and how it is used, but associations with semantic domains are seldom or never highlighted in dictionaries. The conclusion that can be drawn from the fact that so many of the examples in the data on *gather* are connected with only a few semantic domains is that even though some usages apparently are very frequent, the range of Objects with which *gather* commonly appears is to a certain degree limited.

The ‘summon up/recover’ usage constitutes the third subgroup of non-physical gathering. Sentences (9) through to (11) are examples from this group:

- (9) Harry lay still, gathering his breath and tasting his chagrin [...]
- (10) The music gathered its strength.
- (11) [...] the wave lifted her, carried her forward, drew back to gather force, then surged forward again, higher.

In the ‘summon up/recover’ usage, the Subject is usually animate, typically a human being as exemplified in (9). In contrast, in sentences like (10) and (11), the animate ability of intentionally bringing forward certain inherent powers has been extended to include also inanimate and abstract Subjects. Also, Subjects such as *the wave* (other examples are *electricity*, *heat* and *ocean*) can be seen as containing a natural element of force, which further motivates the extension of meaning. Unlike an animate Subject, however, which deliberately and by her/his/its own choice instigates the gathering, an inanimate or abstract Subject cannot be said to act with volition. That a wave can be more forceful or heat stronger occurs naturally and can be explained by various laws of physics. The lexemes *force* and *strength* are found in both the ‘gain’ and the ‘summon up/recover’ usages. The difference is that in the first case, the force or strength is gathered from outside of the Subject, that is, it is dependent on external factors, whereas in the latter case, it is gathered from within the Subject. Sentence (10) differs somewhat from the other examples in this subgroup since it is an example of a sentence with an implicit human Subject behind the action: the music has been created by a human composer and is performed by human musicians, who, by adding more strength to a particular part of the piece played, carry out the intentions of the composer. Following Kövecses (2006: 102), a sentence such as (10) could be defined as an unorthodox example of the OBJECT FOR MATERIAL metonymy, where tones, key, measure, intensity, etc. make up the material out of which the object, the music, is created.¹⁰ A more common metonymy here would most likely be the WHOLE THING FOR PART OF THE THING metonymy.

3.3.1.3 Mental gathering

Mental gathering constitutes quite a substantial part of the corpus data: close to one-quarter of the examples can be assigned to this category. Just like physical gathering, its mental counterpart is usually, but not always, a process.¹¹ In this case, it is the process of bringing together pieces of information in order to achieve a full understanding of something or to believe it. Mental gathering can thus be seen as being derived from the GATHERING UP frame. The fact that pieces of information are gathered in much the same

¹⁰ The OBJECT FOR MATERIAL metonymy belongs to the CONSTITUTION frame, which is one of the PART FOR WHOLE metonymies (Kövecses 2006: 102).

¹¹ This conforms to the statement that “[m]any mental verbs describe cognitive activities that are relatively dynamic in meaning” (Biber, Johansson, Leech, Conrad & Finegan 1999: 363).

way as other, concrete entities activates the GATHERING UP frame, but by applying the frame to a scene other than the one it is basically associated with (cf. Fillmore 1975: 129) and by means of the underlying conceptual metaphor IDEAS ARE OBJECTS (Lakoff & Johnson [1980] 2003; see also section 2.4), the extended mental usage is motivated. There is, however, not much explicit evidence in the data supporting the part of the CONDUIT metaphor claiming that words are containers for ideas (see Reddy 1993; Jäkel 1995). In no more than 5% of the instances of mental gathering is the CONDUIT metaphor directly applicable.

Sentences (12) through to (14) are examples of mental gathering. As is evident from the examples, the source of information is often, but not necessarily, explicitly expressed:

- (12) Readers will doubtless have already gathered that, if forced to choose a version of Marxism, we should favour one similar to Thompson's.
- (13) "I have never seen [the family estate], but from what he says, I gather it must be large."
- (14) From the brilliantined hair and the smart lounge suit, Wexford gathered that here was a wedding guest.

Sentences (12) through to (14) show that a full understanding can be achieved in several ways: the information can be gathered from a written source, (12), it may be based on hearsay, (13), or gathered by one of the perceptive faculties, (14).¹² Either way, *gather* meaning 'understand' or 'believe' can be likened to a mental jigsaw puzzle where conclusions are eventually drawn and incorporated into the Subject's store of knowledge. Johan Vanparys (1995) claims that when used to express understanding *gather* implies "some effort or difficulty on the part of [the] H[earer]" (1995: 22). This claim is not substantiated in the material analysed here where the vast majority of examples consist of positive declarations of having understood. Moreover, in the example sentence used by Vanparys (*I didn't gather much from the confused story he told me*), the inability of "I" to understand seems to have more to do with the way the story is told than with being implied by the verb. That this is the case becomes more clear if *gather* is substituted for

¹² Sentence (14) can be compared to Lakoff's (1995) example *John looks sick to me from the pictures*, which he states is a sentence "about the acquisition of information via perception" (1995: 141).

another verb, for example, *I didn't understand much of the confused story he told me*. The change of verb does not radically change the meaning of the sentence.

That the domain of knowledge is often associated with *gather* is evident in examples such as (15) where, in addition to 'understand/believe', *gather* could also be interpreted as 'learn':

- (15) I knew nothing at all about England, apart from what I had gathered from reading a number of the works of P.G. Wodehouse translated into Italian; [...]

There is a close connection between learning and understanding and since both processes contain the element of bringing things together that is characteristic of *gather*, it is to be expected that the verb should allow both interpretations.

The data indicates that a prerequisite for mental gathering is that the Subject is human. There are no examples of animal Subjects in the material in connection with mental gathering and the reason for this is probably the fact that *gather* usually describes a process. Human beings often pride themselves on being the only animal capable of progressive deductive thinking and it would therefore be paradoxical to use *gather* in combination with an animal as the Subject in order to express that animal's understanding of something. There is, however, one example of a non-human but otherwise animate Subject:

- (16) A Martian arriving in Britain in late 1992 might have gathered from window-stickers along the high streets that mortgages were cheap and plentiful.

Ascribing in this way the same mental capacities as that of a human to extraterrestrials is certainly indicative of the never-ending human yearning for finding intelligent (human-like) life also on other planets. Moreover, it shows how difficult it is for speakers/writers to disregard and liberate themselves from human experience.

In addition to the fact that the Subject is always human in connection with mental gathering, it is also worth noting that when the Subject is explicitly mentioned, which it usually is, it consists of an individual or a group of individuals. In cases where the Subject is not explicitly stated, the sentence receives a generic meaning, as in (17):

- (17) What can be gathered from such figures as are available, are trends in disease prevalence and changes in the geographical patterns of infection.

What is absent from the group of human Subjects in connection with mental gathering, compared to physical gathering, is an organisation as the Subject: among the 584 examples of mental gathering retrieved from the corpus there is not one such case. The reasons for this absence are not at all self-evident. Analogous to the extension from an individual person gathering, for example, clothes and blankets to an organisation doing the same thing (see sentence (19) below), it should be possible also for an organisation to understand something through the process of mental gathering. In both cases the organisation stands metonymically for the people constituting it and they, not the organisation per se, are the ones doing the gathering, be it physical or mental. It seems as if the humanness of the Subject, previously suggested as a prerequisite for using *gather* as a mental verb, cannot be transferred to a metonymic substitute in the case of mental gathering. In other words, even though an organisation is made up of people who can gather facts and draw conclusions from them, the material analysed suggests that it might not be possible to extend this ability to the organisation as a whole. However, definite conclusions concerning the non-existence of organisations as Subjects of mental gathering should not be made before any new material and/or experiments have been analysed that can substantiate the results presented here.

Another fact that has emerged during the analysis as regards Subjects of mental gathering is the predominant use of the first person pronoun *I*, as in (13) above: in close to three-quarters of the examples of mental gathering (435 tokens out of 584), the first person pronoun *I* functions as the Subject. Furthermore, it is often the case that *I* as the Subject occurs in direct speech situated within a conversational event. According to Rodney Huddleston and Geoffrey Pullum (2002: 131), *gather* typically has a first person Subject when it is used in a backgrounded main clause with the content of the foregrounded subordinate clause referring to a past time occurrence; that is, in the case of (13), his telling “me” about the estate has happened at some point in the past. The backgrounding of the main clause is achieved by the use of the present tense even though the clause refers to a communication event in the past.

There is so far no mention in FrameNet of *gather* in connection with a frame for understanding or believing. Considering the rather high number of occurrences of mental gathering found in the *BNC*, FrameNet’s main source of input, this comes perhaps as a surprise. Should such a frame (a MENTAL GATHERING UP frame) be construed instead of assimilating the verb into the GRASP frame (see 4.1), the core frame elements would be Cognizer and Phenomenon with Evidence (indicates the source of the Cognizer’s know-

ledge) as an optional non-core frame element.¹³ Apart from Agent and Individuals (in an extended sense), the material on *gather* as a mental verb provides examples of only two other frame elements that are included in the GATHERING UP frame, namely Manner and Time. These frame elements are, however, not very frequent and occur in no more than a dozen cases. Using, among others, the sentence *I gather from Angela that you're short of money again* as an illustration, Huddleston and Pullum (2002) explain the scarcity of manner and time adverbials by stating that in a case like this the main clause is backgrounded and only provides the evidence for believing the content of the subordinate clause. Therefore, the main clause “generally does not contain elaboration by adjuncts, and in particular will not include temporal specification” (Huddleston & Pullum 2002: 131). Consequently, the two frame elements Manner and Time can be regarded as peripheral in a frame for mental gathering.

3.3.2 Subjects of *gather*

Gathering, whether physical, non-physical or mental, is typically performed deliberately by a human Subject, sometimes with the help of some – usually implicit – instrument. The semantic role Instrument is appropriately listed as a non-core, that is, optional frame element in FrameNet. Fillmore explains the optionality of the Instrument, although implicitly present conceptually, in the following way: “One typical way of dealing with conceptually obligatory but superficially optional elements in a sentence is to claim that these elements are present in the deep structure but deleted or given zero representation on the surface structure” (1977b: 73). It can also be explained by the cognitive process *windowing of attention*, whereby “languages can place a portion of a coherent referent situation into the foreground of attention by the explicit mention of that portion, while placing the remainder of that situation into the background of attention by omitting mention of it” (Talmy 2000a: 257). However, as evidenced by (5) above and as is shown below, gathering can also be achieved without volition by an unwitting inanimate entity. This is not accounted for in FrameNet where it is explicitly stated that the Agent is a person. The distribution of Subjects is presented in Table 3.2.

¹³ Cognizer, Phenomenon and Evidence are all taken from the GRASP frame (see 4.1).

Table 3.2. Distribution of Subjects in sentences with *gather*

Type of Subject	Number of tokens	Percentage
Human	1,964	80.82
- individual or group of people	1,736	71.44
- organisation	216	8.89
- body part/other human feature	12	0.49
Non-human (animate)	65	2.68
Inanimate	138	5.68
Abstract	263	10.82
Total	2,430	100.00

The figures in Table 3.2 clearly show that Subjects of *gather* are usually human beings: 1,964 tokens or 81% of the examples in the data can be assigned to this category. Most typically, the Subject is an individual or a group of people, but it can also be an organisation of some sort, which metonymically represents the people of whom it is made up, the WHOLE FOR PART metonymy (cf. Kövecses 2006: 100-1). Sentences (18) and (19) exemplify the group of human Subjects:

(18) The film subsisted on funds that Dorfmann would gather along the way [...]

(19) Twenty-three tonnes of clothes and blankets gathered by Oxfam, [...]

The Subject is not always explicitly mentioned (cf. Pauwels's (2000) discussion of the "hidden TR"), in which case the sentence is usually interpreted as carrying a generic meaning:

(20) Gathering and assessing information is an integral part of any research.

As is evident from (20), it is not possible to interpret the missing Subject as being anything other than human. This applies to other sentences where the Subject is left out as well.

In the data, there are also a few examples where the Subject is a body part or some other kind of human feature:

(21) Her breasts quivered and gathered the attention of every male in the vicinity.

(22) Owen's voice gathered anger from his own helplessness.

Usually, when a body part functions as the Subject it stands as a metonymic substitute for the person as a whole. As is shown in chapters 4 and 5, this is the case for both *grasp* and *seize* (see 4.3.2 and 5.3.2). In the material on *gather*, only two such examples have been found. Instead, as exemplified by (21) and (22), the body part or feature itself is the actual gathering-place, the action is usually performed without volition and the Object being gathered has an abstract character. It should also be taken into consideration that whereas the body part in sentences with *grasp* and *seize* commonly is a hand, this is not the case for *gather*. This difference in behaviour compared to *grasp* and *seize* can probably be explained by the fact that body parts in sentences with *gather* function as Subjects in their own right, not as metonyms for the person. It is thus possible that the use of one's hands is not as closely connected with gathering as it is with grasping and seizing and that this is reflected in the way the verb is used. That this is so, is implied by the fact that whereas the GATHERING UP frame only contains the frame element Instrument, the MANIPULATION frame, to which both *grasp* and *seize* are linked, contains the frame elements Instrument as well as Bodypart of Agent. In the definition of the latter, it is stated that the hands are the default.

Non-human but otherwise animate Subjects are represented sixty-five times in the corpus. With the exception of two examples where a plant gathers water, minerals or energy from the sun, the Subject is always an animal that acts volitionally or instinctively according to its nature:

- (23) [...] bees must work frantically hard, gathering what pollen and nectar they can while it is available, [...]

Just as a human Subject, the animal Subject uses some kind of implicit instrument in order to carry out the gathering, for example, as in (23), the hind legs or some other bodily organ. In a few cases, it is not the animal as such which functions as the Subject but an animal body part of some sort. However, unlike the sentences with human body parts as Subjects which have been discussed above, the animal body part metonymically represents the animal as a whole. In comparison with human body parts as Subjects, this seems to be a contradiction. Yet, there is a decisive difference in that animal body parts, like human body parts in sentences with *grasp* and *seize*, always gather something concrete.

Inanimate Subjects make up a little less than 6% of the corpus data (138 examples). Here, there is no volition involved, the gathering is passive and the Object gathered may be of either a concrete or an abstract nature as shown in examples (24) and (25):

- (24) [...] my jeans, saturated with a witch's brew of chemicals, were gathering dust and fluff like a thieving magpie.
- (25) A sheet hung out of a window and shaken on a morning of sunlight and warm bread will gather such lights into its folds that it drains the street and all you see is this radiant flapping thing, [...]

The fact that the Object can be either concrete or abstract also entails that the action of gathering can be either physically concrete, as in (24), or non-physical, as in (25): while dust and fluff can be gathered into concrete wads and layers of varying size and thickness, sunlight is not so easily gathered in a concrete, physical sense.

Finally, abstract entities as Subjects of *gather* appear in slightly less than 11% of the material (263 tokens). Typically, abstract Subjects are found in sentences that can be assigned to the 'gain' usage of *gather* (see 3.3.1.2 above), they are often made up of long and elaborate clauses and what is gathered is usually an abstraction in itself. Sentences (26) and (27) are examples of abstract Subjects:

- (26) The violence gathered pace after Ronald Reagan's election in 1979.
- (27) The move towards natural gas as the vehicle fuel of the future is gathering momentum.

In examples like these, which represent the largest part of the group of abstract Subjects, it can be argued that even though the explicit Subject is an abstraction there is an implicit human Subject behind the action. Neither *the violence* nor *the move towards natural gas as the vehicle fuel of the future* would gather anything whatsoever if there were not people promoting it.

3.3.3 Objects of *gather*

FrameNet does not give any detailed description of the nature of a typical Object but restricts itself to stating that Objects should be people or entities. The total distribution of Objects with *gather* is presented in Table 3.3.

Table 3.3. Distribution of Objects in sentences with *gather*

Type of Object	Number of tokens	Percentage
Concrete	647	26.63
- concrete entity	610	25.11
- human or human body part	37	1.52
Abstract	1,781	73.29
No Object	2	0.08
Total	2,430	100.00

The analysis shows that concrete Objects, exemplified by (28) below, only represent a little more than one-quarter of the material as a whole.

- (28) [...] two peasants in a Brueghel winter landscape gathering fuel for the fire.

Instead, and contrary to what is stated in the GATHERING UP frame, almost three-quarters of all the Objects (just above 73% or 1,781 tokens) can be assigned to the group of abstract Objects, which comprises abstract entities and concepts, often in the form of multi-word clauses:

- (29) He paused, and she sensed him gathering his thoughts.
 (30) And I gather that it hasn't cost the department too much money.

The most common words occurring as abstract Objects are (listed in frequency order) *information*, *data*, *momentum*, *evidence*, *pace*, *strength* and *speed*. Together these seven words appear 789 times in the material on *gather*, a number that is close to half of all the abstract Objects and thus shows how important the knowledge of collocations is for language users as part of their knowledge of the verb. That these words commonly collocate with *gather* is also acknowledged in dictionaries where the individual expressions are often listed under the entry of the verb. Even so, there is usually no mention of the specific semantic domains to which the words belong although such information should also be regarded as an essential part of the verb's semantic content.

One reason why the Objects most commonly appearing in sentences with *gather* are not of a concrete but of an abstract character is the fact that *gather* to a great extent – in almost 35% of the cases – is used together with a few high-frequency lexemes such as the abstract nouns discussed above. Another reason is the relatively high number of cases in

which *gather* functions as a mental verb: almost a quarter of the data belongs to this category (see 3.3.1.3), in which the Object is always abstract, most commonly a clause. According to FrameNet, the Objects in sentences associated with the GATHERING UP frame should be people or entities, but the nature of these entities is left undefined. However, the example sentences given for the frame seem to indicate that a concrete Object is intended. It thus appears to be the case that the GATHERING UP frame is somewhat too narrow as regards the nature of the Object. On the other hand, the term *entity* can be interpreted in lay terms as well as in a more scientific way. Langacker uses the term to indicate “anything one might refer to for analytical purposes: objects, relationships, locations, sensations, points on a scale, distances, etc.” (1991: 16). If used in this way, *entity* in the GATHERING UP frame accounts for all kinds of Objects.

3.4 Summary

Generalising, *gather* can be defined as meaning ‘to bring together, to collect something’ as illustrated in the GATHERING UP frame. The analysis shows that this is a feature that seems to be present in most of the verb’s usages. Physical gathering accounts for only slightly more than a quarter of the data, which means that all sorts of non-physical usages constitute the rest. Almost half of the tokens refer to non-physical usages other than mental and in every third sentence *gather* is used in more or less fixed phrases with words from the semantic domains of knowledge, power and speed. Most interesting for this study is the occurrence of extensions into the mental domain, which make up almost one-quarter of the material.

The most frequent usage of mental gathering is ‘understand/believe’, but there are also a few examples where *gather* is more appropriately interpreted as ‘learn’. There is a close proximity between these two usages and the dividing line is not always clear-cut. Like other types of gathering, mental gathering is usually a process. Here, it is a process where pieces of information are gathered and a conclusion is drawn based on that information. Since only human Subjects appear in connection with mental gathering, the humanness of the Subject seems to be a prerequisite for *gather* to be used in this way. Considering that there are no examples of organisations as Subjects in sentences expressing mental

gathering it appears to be the case that it is not possible to transfer the ability to draw conclusions from information gathered to a metonymic substitute.

Typically, gathering is a deliberate action performed by a human Subject, sometimes with the help of an instrument, which may or may not be explicitly mentioned. Human Subjects are also decidedly the largest group among the Subjects of *gather* and appear in almost 81% of the examples. An individual or a group of people functions as the Subject in 71% of the cases. Organisations are thus not only non-existent in the data on mental gathering retrieved from the *BNC*, they are also relatively scarce in the data on *gather* as a whole. In language, human body parts are often used as metonymic substitutes for a person. In connection with *gather*, however, that is not the case. Instead, the human body part (or other feature) itself is the actual gathering-place and acts as the Subject in its own right.

The character of what is gathered varies, but the overwhelming majority of Objects in sentences with *gather* are made up of abstract Objects. As shown in the data, this is explained by the fact that *gather* frequently appears in collocations with a limited number of abstract nouns from a few semantic domains. Another reason is that *gather* as a mental verb constitutes quite a substantial part of the data.

To conclude, most usages of *gather* are not concerned with the physical side of the verb but rather with different forms of non-physical gathering. Furthermore, almost one-quarter of the data expresses mental gathering and *gather* is frequently used in collocations with words from the semantic domain of knowledge. The analysis shows that *gather* is a verb with a relatively high frequency of extensions from the domain of physical acquisition into the domain of mental acquisition. The extensions are motivated by the experience-based similarities between gathering, on the one hand, concrete entities of some sort and, on the other, information or knowledge in order to reach an understanding of a subject. In agreement with the hypothesis advanced here, the analysis of *gather* points towards a connection between the degree of mental gathering in the data and the simplicity of the verb's frame.

CHAPTER 4

GRASP

Like *gather*, *grasp* was chosen for analysis because the action expressed by the verb directly involves the human body. The data shows that physical grasping is strongly associated with the use of hands or fingers. Furthermore, *grasp* is the textbook example of how physical verbs extend into the mental domain and the verb is often used to exemplify conceptual mappings from physical to mental domains (see 2.4). Significantly, the frame for ‘understanding’ in FrameNet has been named the GRASP frame. As such, *grasp* is highly relevant to the present work. The analysis shows that the verb is used within the mental domain to a great extent. Mental usages are predominant in the data and account for almost half of the material. In contrast to *gather*, intelligence rather than the humanness of the Subject seems to be a prerequisite for mental grasping.

4.1 *Grasp* in FrameNet

Unlike in the case of *gather*, FrameNet offers two different frames for *grasp*: the MANIPULATION frame and the GRASP frame.¹⁴ The former concerns physical grasping, whereas the latter refers to mental grasping, that is, understanding. From this, the conclusion can be drawn that the makers of FrameNet regard *grasp* as having developed two distinct uses or core senses. This can be compared with Jarno Raukko’s (1999: 100) claim that the ‘understand’ sense of *get* has acquired an independent status.

The MANIPULATION frame is quite simply defined as “the manipulation of an Entity by an Agent.” The core frame elements of the MANIPULATION frame are Agent, Bodypart of Agent and Entity. Of these three only Entity and either Agent or Bodypart of Agent are necessary to form a well-structured sentence. FrameNet provides rather extensive additional information about the Agent: “Agent typically refers to animate beings, but is also extended to mechanical and other inanimate objects. Agent is most frequently expressed as the external argument of verbs.” About the Bodypart of Agent it is stated that “[w]hile

¹⁴ The MANIPULATION frame also applies to *seize* (see 5.1).

the default is for an Agent to use his/her hands, other body parts may be specified.” As is shown in the analysis below, it happens fairly often that a body part substitutes the human Agent. The MANIPULATION frame does not contain any information about necessary and/or restricting circumstances for the action of the verb to be successfully achieved. There is also quite a substantial number of optional non-core frame elements listed in FrameNet for the MANIPULATION frame: Duration, Instrument, Locus, Manner, Means, Place, Purpose, Reason, Result and Time. Despite the fact that FrameNet makes a distinction between Bodypart of Agent and Instrument, it could be argued that the former is a subtype of the latter.

The GRASP frame, which describes understanding, is given a rather elaborate definition in FrameNet:

A Cognizer possesses knowledge about the workings, significance, or meaning of an idea or object, which we call Phenomenon, and is able to make predictions about the behavior or occurrence of the Phenomenon. The Phenomenon may be incorporated into the wider knowledge structure via categorization, which can be indicated by the mention of a Category. The Cognizer may possess knowledge only in part and this may be expressed in a Completeness expression. The Cognizer may also be realized as a cognitive-emotional Faculty that is conceived of as having understanding. Note that the knowledge may have been acquired either from instruction or from the Cognizer’s own experimentation, observation, or mental operations. Words in this frame are frequently used metonymically to denote the transition into the state described above. (FrameNet)

The frame also includes, among others, the words *apprehend*, *comprehend*, *get*, *grasp* (noun), *graspable*, *see* and *understand*, but, as mentioned in 3.3.1.3, *gather* is not part of this frame for understanding. Even though the definition is detailed, the frame itself is very simple and comprises only two necessary core frame elements, namely Cognizer and Phenomenon, whereas Faculty is sometimes optional and sometimes used instead of the Cognizer. Non-core frame elements listed in FrameNet are Category, Completeness, Evidence, Manner, Reference point and Time.

4.2 *Grasp* in the *OED*

According to the *OED*, *grasp* has its origin in Middle English *graspen*, a metathesis of *grapsen*, which possibly comes from Old English **grápsan* and Old Germanic **graipi-sôn* and is related to *grope*. Cognate words in other Germanic languages are Low German and East Frisian *grapsen* ‘to grasp, snatch’ and possibly also Old Norse *krafsa* ‘to paw or scratch with the feet’.

The earliest attested record in the *OED* for each of the main usage groups physical, non-physical and mental grasping is:

PHYSICAL:	to make clutches with the hand (1382)
NON-PHYSICAL:	to seize and hold firmly with the hand (figurative or in immaterial sense) (1602)
MENTAL:	to lay hold of with the mind; to become completely cognizant of or acquainted with; to comprehend (1680)

There are thus attested instances of physical usages a little more than two hundred years earlier than for any non-physical usage. Mental grasping is first attested approximately one hundred years later.

4.3 *Grasp* in the *BNC*

The material retrieved from the *BNC* contains 1,505 instances of *grasp*, *grasps*, *grasping* and *grasped*. *Grasp* is thereby the least frequent of the verbs analysed in this work. As is the case for all the verbs that are part of this study, instances not concerned with acquisition have been discarded.

4.3.1 Usages of *grasp*

Contrary to *gather*, *grasp* is a verb of instantaneity. The usages attested in the data are more or less variations on the same theme: one clutches at, seizes or holds firmly with

one's hands, fingers or arms. This is also indicated in the MANIPULATION frame where it is said that the Subject normally uses her or his hands. The only exception to this is, of course, mental grasping where one's mind (Faculty in the GRASP frame) is used instead of one's hands. However, the analysis of the data retrieved from the *BNC* shows that there are more aspects of *grasp* than these. Table 4.1 presents the distribution of the different usages of *grasp* found in the corpus.

Table 4.1. Usages of *grasp*

Usage	Number of tokens	Percentage
Physical grasping	558	37.08
- grasp and hold (concrete entities)	558	37.08
Non-physical grasping other than mental	223	14.82
- grasp and hold (abstract entities)	209	13.89
- miscellaneous usages	14	0.93
Mental grasping	724	48.10
- <i>understand</i>	688	45.71
- learn	19	1.26
- accept	6	0.40
- perceive	6	0.40
- miscellaneous usages	5	0.33
Total	1,505	100.00

4.3.1.1 Physical grasping

Even though physical grasping of a concrete entity emerged much earlier than any other usage, it is not the one with the greatest number of occurrences in the data: physical grasping accounts for no more than 558 examples (a little more than 37% of the material as a whole). One reason why physical grasping appears relatively rarely could be that *grasp* in physical usages has to compete with other verbs that have a similar meaning, for example, *take hold of*, *seize*, *grab* and *grip*. Interpreted as 'grasp and hold', *grip* is almost twice as frequent as *grasp* in the *BNC*, whereas *grab* is four times as common. *Take hold of* and *seize* occur slightly less frequently (cf. also the analysis of *seize* in 5.3.1.1).¹⁵ In sentences with mental grasping, on the other hand, *grasp* cannot be as easily substituted by another verb, except for *understand*.

¹⁵ The figures are based on a search of a subpart of the *BNC*, the A- and C-files, which represent approximately one-third of the corpus.

The pattern of the earliest attested usage not being the most frequent one is recognisable from *gather*. As is also the case for *gather*, the analysis of *grasp* indicates that there are aspects of the physical act that are part of non-physical usages as well. In the case of *grasp*, ‘grasp and hold’ seems to be a potential candidate for a core sense. Douglas Biber, Stig Johansson, Geoffrey Leech, Susan Conrad and Edward Finegan (1999: 361) observe that for verbs with more than one meaning it sometimes happens that the verb is more common with a non-core sense. They define core sense as the sense people tend to mention first when asked to define a word. In his study of the abstract noun *time*, Evans (2004: 80) comes to the conclusion that the word’s different senses are organised around a sanctioning sense that typically is close in meaning to the earliest sense. It is also the sense that language users are most likely to name if asked to give a definition of *time*. He points out, however, that this does not necessarily mean that the sanctioning sense is the most frequent one (Evans 2004: 261, fn. 2). Future informant testing is likely to show whether ‘grasp and hold’ really constitutes a core sense of *grasp*.

The examples of physical grasping are all concerned with grasping with one’s hands, fingers or arms (or with a body part of an animal used in the same way) and holding the entity in a firm grasp, as exemplified in sentences (31) and (32):

- (31) Its end is both sticky and muscular so that a toad can use it first to grasp a worm or a slug and then to carry it bodily back to the mouth.
- (32) Suddenly she was grasped from behind and the sky swam all around her [...]

Most commonly, the body part used is the hands: almost 90% of the instances referring to physical grasping involve the use of hands. In the *BNC*, physical grasping always relates to an instantaneous action, to a situation describing temporary acquisition: there is no intention of keeping the entity grasped, only to establish an amount of control. This is characteristic of what Beth Levin (1993) calls ‘hold verbs’, a category in which she includes *grasp*. Hold verbs “describe prolonged contact with an entity, but they do not describe a change of possession or a change of location” (Levin 1993: 145). The Subject grasps someone or something and only retains her or his hold for a (usually) short period of time.

4.3.1.2 Non-physical grasping other than mental

Non-physical grasping accounts for just below 15% of the data and is thus the least frequent usage group. It is here exemplified by sentences (33) and (34):

- (33) The latter began to make half-hearted movements to go, but recalling his new role as protector, grasped the excuse to stay.
- (34) [...] and it will marvel at the failure of countries and their leaders to grasp the opportunities for progress.

Most examples with an abstract entity as the Object involve the grasping of an opportunity and the like, as exemplified by (34). There are seventy examples of this sort and the phrase *grasp the opportunity/chance* could thus be regarded as a fairly common collocation. This fact is also acknowledged in many dictionaries where the phrase is often included under the entry of *grasp*. Using an opportunity for one's own benefit usually means acting quickly since the chance might not be repeated. The collocation is motivated by the instantaneous character of *grasp*.

The data on non-physical grasping also contains examples of idiomatic expressions. The vast majority (sixty tokens) involves the idiom *to grasp the nettle* 'to deal with a difficulty in a decisive way':

- (35) The Government has shown in the past that it is willing to grasp nettles that others have shied away from, [...]

What kind of "nettle" is to be grasped is sometimes specified attributively, *the legal nettle*, *the management nettle*, and sometimes in a following *of*-construction, *the nettle of recession*, *the nettle of a common agricultural policy*. There are examples in the data that indicate that there appears to be some confusion among language users as to the construction of this idiom, as illustrated in sentence (36):

- (36) We all would, but the question is is John Major the man to grasp that mettle?

It seems here as if the two idioms *to grasp the nettle* and *to show/prove one's mettle* have been mixed. This is probably due to the similarities in spelling and pronunciation of *nettle* and *mettle* and also to the similarity between the meanings of the idioms, 'to deal

with a difficulty in a decisive way’ and ‘to show that one has the ability to deal with a difficult situation’, respectively.

The usages of *grasp* discussed so far can all be regarded as rather conventionalised, that is, they are entrenched in the minds of language users and thereby cognitively routinised. There are, however, examples in the data where the context indicates that *grasp* must be given an interpretation that differs quite substantially from those mentioned above. Still, these examples retain traces of the physical act and the extensions from a physical usage are, in that way, motivated. In some of the examples, it is possible to interpret *grasp* as ‘comprise’, or possibly as ‘catch’:

- (37) [...] because public choice theory narrowly defines bureaucratic behaviour in terms of budget or staff maximization, it fails to grasp more important aspects of bureaucratic rationality – such as the desire to avoid conflict from troublesome staff at lower levels and interference from councillors.

Depending on the context, physical grasping can be interpreted as ‘embrace’, that is, grasping and encircling with one’s arms. Sentence (37) can be seen as an example of an extension from this usage, an extension that is motivated by the perceived similarity between a human Subject embracing someone/something so as to almost make them/it a part of her-/himself and an abstract Subject comprising something, where indeed the Object grasped is made part of the Subject.

There are other examples where the context suggests that the closest interpretation of *grasp* is ‘describe’:

- (38) The activity of psychoanalysis in the therapeutic setting cannot be adequately grasped and stated in mechanistic, quantative terms.

Here, too, the non-physical use of *grasp* must be regarded as an extension from physical grasping. The verb *capture* is probably a more established metaphor for *describe* than *grasp*.¹⁶ In sentences such as (38), the use of *grasp* might be explained by the semantic similarities that exist between *grasp* and *capture*.

Yet another possible interpretation of *grasp* is illustrated in (39):

¹⁶ See, for example, the definitions of *capture* in the *LDOCE* and *Macmillan*.

- (39) Hygienists spoke of the need to grasp the actual moment when the nerve centres of life were poisoned through hereditary influence or degenerate living.

In this example, the verb can be interpreted as ‘pinpoint’ and it is still possible to see the connection with physical grasping that has motivated the extended use of *grasp*.

The usages of *grasp* illustrated by examples (37) through to (39) may seem to be somewhat peripheral with respect to a potential core sense of the verb. It is, however, possible to motivate their presence among the usages of *grasp* because they are all in one way or another related to physical grasping. In the same vein as Wittgenstein (1953) formulated his theory of family resemblances within noun categories, the philosopher John Austin (Lakoff 1987: 18) thought of word senses as forming a category, similar to that described by Wittgenstein, around a primary nuclear sense. According to this view, the different senses can be said to constitute a category not because they share properties but because they are related to each other in specifiable ways. In other words, elements of the situations depicted in examples (37) through to (39) have been seen as somehow related to elements of physical grasping and those relationships motivate the extended use of *grasp*. Still, there is a strong possibility that these usages cannot be said to constitute distinct senses in their own right in the minds of language users. They are rather to be regarded as variations dependent on context and background knowledge for their interpretation (see, e.g., Tyler & Evans 2003; see also section 2.3). It could be argued that because *grasp* displays such a wide range of non-physical usages, mental usages included (see also 4.3.1.3 below), and incorporates so many different extensions from the physical act, it should be considered a complicated verb with many facets that need to be taken into account. It is more probable, however, that *grasp* as such can be regarded as quite simple and that it is this simplicity that makes the many extensions possible. From this perspective, the different usages can be seen as forming a network of usages emanating from the verb’s suggested simple core sense.

In the data there are another four cases where the use of *grasp* is more puzzling. In example (40) the expression *grasp the point* has been used:

- (40) Trying to imagine Suede on Top Of The Pops, one pictures a mint condition Morris Minor Traveller (with the wooden bits on the window frames) in a stock car race comprised of BMW 320s or some other Yuppie-scum-sucking vehicle of that nature. That doesn’t really grasp the point, but it sets Bernard off on another low-fi tirade against “jump up and down bands” becoming part of the mainstream and generally bringing the whole world down: [...]

Usually, this phrase means ‘understand’, but the context does not support such an interpretation. Rather, it seems here that what the writer wants to express is that a problem has not been approached, described or illustrated in the right way. The use of this particular phrase in the context of (40) might be due to a simple mix-up or possibly the result of a specific jargon. In example (41) another fixed phrase has been used, *grasp the situation*:

- (41) [The Holy Spirit] knows the varied and perplexing circumstances in which we are placed. And he helps – the very word in Greek is highly suggestive. It means he grasps the situation for us and with us. He frames the petitions in our lips; and he prays within us to the Father, with sighs too deep for words.

Apart from (41), there are other examples in the material containing the same phrase where the meaning of the expression is ‘understand the situation’, for instance:

- (42) It looks as if Mr Honecker, 77 and only slowly recovering from a gall-bladder operation, is incapable of grasping the situation in his country.

In (41), however, this interpretation does not seem to be applicable. Instead, the context suggests that the grasping of the situation in this case has more to do with making something happen than with understanding something. It is also possible that the use of *grasp* in (41) is no more than an instance of the verb being used in the wrong way, that is, an involuntary error on the part of the speaker/writer.

Sentence (43) contains the expression *grasp an appreciation*, which at first sight does not seem to make sense.¹⁷

- (43) The song is but brief, and perhaps an appreciation of Kerman’s penetrating, if occasionally purple, dissection and minute analysis would have been much easier to grasp had all the music been reproduced.

A Google search, however, resulted in 749 hits for *grasp/grasping/grasped an appreciation*, predominantly on American web-sites.¹⁸ Considering the examples found, the expression appears to have two different interpretations, ‘understand’ and ‘appreciate, value’, the latter of which seems to be the most appropriate in the context of (43).

Finally, example (44):

¹⁷ Discussions with native speakers of British English also confirm this.

¹⁸ The search was carried out on 13 February 2007.

- (44) I am one of many who saw the appointment of Dr Carey as Archbishop of Canterbury as a prophetic choice for England. I only pray that the vision which he grasped so clearly for the local church might be taught clearly and then caught by the whole Church of England.

Here, the use of *grasp* might be a case of mental grasping, that is, ‘understand’ (see 4.3.1.3 below), but it looks as if the context calls for a more complex interpretation consisting of more than one layer, where the vision is first interpreted, pondered over and adopted by Dr Carey who then introduces it to the local church where it is implemented. Again, this is an expression that does not appear to make sense, but there are actually between two and three hundred instances of different forms of *grasp a/the vision for* on the Internet.¹⁹

4.3.1.3 Mental grasping

Mental grasping constitutes the largest part of the data analysed on *grasp* (about 48%) and the most frequent usage is ‘understand’. The earliest attested example of this usage, according to the *OED*, appeared approximately three hundred years later than the original act of physical grasping. As was discussed in 2.4, conceptual mappings from physical or perceptual domains to mental ones are frequent in many languages (see, e.g., Sweetser 1984, 1987, 1990). Within cognitive linguistics the human body and its functions are seen as providing a frame for humans to conceptualise and organise the world around them (e.g. Johnson 1987). Hence, it is a fairly small step from accessing something by physically grasping it with one’s hands to getting mental access to something by grasping it with one’s brain, that is, understanding it. In this instance, then, the development of *grasp* over the centuries can be regarded as a natural process, linguistically and conceptually. The fact that the frame for understanding in FrameNet has been named the GRASP frame shows how entrenched, that is, cognitively routinised (Langacker 1987: 100), this meaning of *grasp* has become in the minds of language users. It is also likely that a high degree of entrenchment could speed up the process of semantic change. In other words, a possible development is that because *grasp* is used so often as a mental verb the result could be that it will be used even more within the mental domain. In total, there are 688 examples (or just below 46% of the data as a whole) of the usage ‘understand’, for instance:

¹⁹ A Google search was conducted on 28 April 2008.

(45) [...] Grundy, the modest television company that never really grasped *Neighbours* worldwide success.

(46) [...] it was easy to grasp that the changes they foreshadowed would be fundamental.

Usually, the Subject is human and, in contrast to *gather*, organisations appear in that role, too, as shown in (45), but there are also a few examples involving animals as Subjects in sentences where *grasp* can be interpreted as ‘understand’:

(47) Horses are not stupid and will soon grasp how to avoid hard graft!

(48) Were a chimp to grasp the meaning of “in” or “on” in Ameslan [...]

Hence, again in contrast to *gather*, it does not seem to be the case that a human Subject is necessary for *grasp* to be used in this extended way. However, the examples found in the corpus involve animals which are usually regarded as quite intelligent, as explicitly stated in (47). Even though the data is not extensive enough to draw any definite conclusions, it therefore seems as if intelligence were a prerequisite for the usage ‘understand’ to be extended into the animal realm. In the case of the chimp in (48), its ability to use its hands in the same way as a human is a further motivation for this extended use of *grasp*.

In addition to cases where *grasp* is interpreted as ‘understand’, there are examples with similar but not exactly the same meaning, as illustrated by the following:

(49) Corbett nodded understandingly while he concentrated on listing a sequence of events surrounding the Scottish King’s death. There was something wrong, very wrong but he could not grasp it.

In this example, *grasp* can of course be interpreted as ‘understand’, but equally well as ‘put one’s finger on’. The choice of one interpretation instead of the other appears to be one of nuance. Sentences (50) and (51) exemplify similarity of meaning of another kind. Here, a plausible interpretation of *grasp* seems to be close to ‘memorise’.

(50) [...] but all the while she was watching him, seeing how his eyes cast a line to the climbing bird. Saw how he grasped every last detail of it and held that knowledge tight in his memory.

- (51) To this, as he matured, more was added, until the whole declaration of faith was perfectly grasped, part of his deepest consciousness: [...]

Mental usages of *grasp* often seem to overlap, which often makes a definite categorisation impossible. This is illustrated in sentence (51) where it would be possible to interpret the meaning of *grasp* as ‘learn’ or ‘understand’ as well. Again, this is a case where it is difficult to decide on one single interpretation. Another detail worth noting here is how the metaphors IDEAS ARE OBJECTS (e.g. Lakoff & Johnson [1980] 2003), UNDERSTANDING AN IDEA IS ESTABLISHING PHYSICAL CLOSENESS (Jäkel 1995: 199) and THE MIND IS A CONTAINER (Gibbs 1994: 162) discussed in 2.4 are given expression in (50): every *detail* is *grasped* and that *knowledge* is *held tight in memory*.

In the same way as a physical entity can be shelved and later brought out when needed, it should be possible to access knowledge again once it has been stored in memory.

- (52) He tried to grasp what he had been rehearsing but he seemed to have lost it.

Sentence (52), in which *grasp* is best interpreted as ‘retrieve’, shows that it is not always the case that it is possible to recall pieces of knowledge. Just as it sometimes happens that physical entities are mislaid, things once learned may also be lost, that is, forgotten.

In addition to sentence (51) above, there are other sentences where it could be argued that *grasp* should be interpreted as ‘learn’. Sentences (53) and (54) are examples of this:

- (53) The general lesson to be grasped from these observations is clear.
- (54) Academic basics can be drummed into a reasonably receptive dealer through the BIDS or Stock Exchange courses, but the practical market know-how that was most needed could be grasped only over a period.

Since lexemes such as *lesson* and *know-how* belong to the domains of knowledge and learning, the contexts in these two examples also make the interpretation of *grasp* as ‘learn’ plausible. As is pointed out in the analysis of *gather* (see 3.3.1.3 above), the difference between learning and understanding is a minor one and the two concepts are intimately intertwined: learning something generally includes understanding it and vice versa. The following sentences exemplify contexts where *grasp* can be interpreted as either ‘understand’ or ‘learn’:

- (55) Far from being an enriching process in which students can more easily grasp the basics of science, [...]
- (56) Provide some evidence that the function of paragraphing (ie to separate distinct ideas, events, etc and to unify related ones) has been grasped.

Again, because of the close relationship between understanding and learning, as regards these and other sentences of the same kind, it is difficult, and perhaps not necessary, to decide on only one interpretation of *grasp*. As has been pointed out previously (see 2.3), fuzzy edges and overlap between usages are common features of language.

Other examples involve *grasp* expressing ‘acceptance’, which is exemplified by sentences (57) through to (59):

- (57) [... the great truth] which the Church still finds so hard to grasp, namely that God does indeed throw his largesse to all and sundry.
- (58) Howard is still a little jealous of his authority, hasn’t yet quite grasped the new set-up since my Ministry was established.
- (59) I should hate him, only it seems so unreal sometimes, as though none of it ever happened. I know it did, but sometimes I can’t grasp the reality.

To a great extent, ‘accept’ and ‘understand’ are concepts to which the same mental processes are applied. Hence, the boundary between them is very fine. Considering the contexts, however, especially in (57) and (58), it seems as if the acceptance involves a certain amount of reluctance.

There is also a small number of sentences in the data where it appears to be possible to interpret *grasp* as some kind of perception, as is illustrated by sentence (60):

- (60) An audience listens to music, not to words (in fact, especially in choral music, the words are frequently indistinguishable, or so difficult to grasp that listeners ignore them).

In the sentence above, a plausible interpretation of *grasp* is ‘hear’ or ‘discern’. Other examples include visual and tactile perception. It could perhaps be argued that mental grasping is not the best categorisation for such examples. The decision is motivated by the fact that both perception and understanding are cognitive faculties and the former

usually leads to the latter. According to the modality hierarchy proposed by Viberg (1984: 136), the path for semantic extensions of sense modalities commonly go from sight and hearing to touch, whereas sentence (60) seems to indicate an extension in the reverse direction. It is very likely, however, that examples such as (60) are isolated off-the-cuff cases. For all the various mental usages of *grasp* discussed here, the situation is the same as for the extended non-physical usages in that they are highly dependent on the surrounding context for their interpretation.

In addition to the extension from physical grasping performed with one's hands to mental grasping performed with one's brain, there are two examples where an image of physical grasping is used to further enhance the extended usage of 'understand'.

- (61) Every solid fact slipped out of Blanche's grasp as soon as she believed she grasped it.
- (62) No one fully understands the workings of these interlocking systems and we may forgive ourselves for having a sensation of something slipping through our fingers when we try to grasp them [...]

Here, the phrases *slipped out of Blanche's grasp* in (61) and *slipping through our fingers* in (62), both instances of physical grasping, are used in combination with *grasp* as a mental verb. This clearly shows how the physical action of grasping something with one's hands has been extended to the mental action of grasping something with one's brain, that is, understanding it. Again, the examples in (61) and (62) can be seen as motivated by the IDEAS ARE OBJECTS metaphor (Lakoff & Johnson [1980] 2003). This is further enhanced by the description of the facts in (61) as 'solid'. It is also worth noting that *grasp* as 'understand' often co-occurs with other words from the same semantic domain, for example, *understand*, *know*, *comprehend*, *learn*, *memory* and *knowledge*, as illustrated by (62) above and by the following sentences:

- (63) And if we can learn more about their sensitivity to ultrasonic sounds, we may finally grasp how they can "know" that someone is approaching from a great distance.
- (64) [...] form allows a sense of completeness in a work of art, one that can be grasped by us and held in our memories.

In total, 724 examples (a little more than 48%) of various forms of mental grasping have been found in the corpus material.

In addition to the issues presented so far, the data provides yet another detail worth pointing out. In contrast to *gather*, when *grasp* is used for mental grasping the statements are often negative or express an amount of uncertainty: almost 39% of the examples of mental grasping contain such features, here exemplified by sentence (65).

- (65) And being engrossed in our present moments, we fail to grasp the significance of the time behind and the time ahead.

This can be compared with physical grasping where the corresponding figure does not reach 3% and other kinds of non-physical grasping with a figure just below 17%. Of course, this might be just a coincidence, a quirk in the corpus, but since the differences are quite considerable another explanation must be looked for. Unfortunately, the data available does not provide enough information for anything but guesses. It may be the case that physical grasping, an act which is quite simple and as such does not involve much effort, is considered more likely to reach a successful conclusion than is mental grasping. When grasping for an entity one usually ends up having it in one's hands. When one tries to understand something, on the other hand, it is not always the case that one succeeds and, in addition, the process of understanding often requires a certain amount of effort. This is also observed by Vanparys (1995: 22) who claims that both *gather* and *grasp* imply that the hearer might experience difficulties when trying to understand an utterance. Moreover, a connection between *grasp* and the understanding of difficult issues is sometimes mentioned in dictionaries as in, for example, the *LDOCE* where one definition of the verb is 'to completely understand a fact or an idea, *especially a complicated one*' (emphasis added). As was shown in the analysis of *gather* (see 3.3.1.3 above), no confirmation of the claim could be found as regards this particular verb, but taking into account the number of statements with *grasp* expressing negation or uncertainty, it seems as if it might hold true in this case. However, the example sentence used by Vanparys (*I grasped the main points of the speech*), retrieved from his main data source the *LDOCE*, does not show convincingly enough that any difficulties in understanding are implied by the verb. Rather, as is the case with *gather*, implications of that sort, if any, appear to derive from the context. The same applies for the material on *grasp* analysed here, which supports the view discussed in 2.3 that context has a major influence on the interpretation of words and sentences (see, e.g., Ide & Véronis 1998; Kemmer & Barlow 2000; Klein & Murphy 2001, 2002). Further evidence that the diffi-

culties a hearer might experience when she or he tries to make sense of an utterance are intimately related to the process of understanding as such and not to individual verbs, is given by the *BNC*. In the A-files, which contains about 14.6 million words, close to 38% of sentences with *understand* express either an inability to understand on behalf of the hearer or a degree of uncertainty concerning whether an understanding really has been reached. More research on this subject will be needed before any definite conclusions can be drawn.

4.3.2 Subjects of *grasp*

From the data it is evident that *grasp* is strongly associated with the use of hands, fingers or arms. It follows that, in sentences with *grasp*, the Subject should be human in some way. This is also confirmed by the figures in Table 4.2 in which the distribution of different Subjects is presented: almost 95% of the data (1,427 instances) can be referred to the group of human Subjects.

Table 4.2. Distribution of Subjects in sentences with *grasp*

Type of Subject	Number of tokens	Percentage
Human	1,427	94.82
- individual or group of people	1,285	85.38
- organisation	70	4.65
- body part	72	4.79
Non-human (animate)	45	2.99
Inanimate	6	0.40
Abstract	27	1.79
Total	1,505	100.00

Subjects in sentences with *grasp* demonstrate a similar distribution pattern as the Subjects of *gather*. Table 4.2 clearly shows that the overwhelming majority of Subjects in connection with *grasp* are either an individual or a group of people. This group constitutes more than 85% of the material, or 1,285 instances. The Subjects are either explicitly named or referred to with nouns or pronouns, but equally, generic reference is also expressed (*anyone*, *you*, etc.). Sentences (66) and (67) are examples of individuals or groups of people as Subjects:

- (66) I grasped his arm firmly and led him away.

- (67) That is the stark truth electors have to grasp before it is too late.

The Subject need not always be explicitly mentioned but it can be inferred from the context that it is a human. In such cases, the sentence usually receives a generic reading, as exemplified by sentence (68):

- (68) Definitions are sometimes hard to grasp on first reading.

Compared to *gather*, *grasp* has a much lower rate of organisations being viewed as Subjects: organisations appear in less than 5% of the data.

- (69) I suspect that Microsoft has been reluctant to grasp the virus nettle [...]

- (70) But, in general, clubs seem incapable of grasping an elementary fact that cynicism is rife among an ever-increasing number of people who believe that many players are overpaid, overrated and out of touch.

In cases such as these, again like *gather*, the Subject is not human per se but is ultimately made up of humans. The organisations function as metonyms for the humans they represent and the ability of human beings to grasp with their hands or with their minds is thus transferred to the organisations.

The fact that body parts often function as metonymic substitutes for humans is a well-known feature of language (e.g. *head of the department*, *All hands on deck!* or *We need a pair of strong arms here*). Depending on what aspect of a person is in focus, different body parts are used metonymically. Kövecses maintains that “[w]hen we are concerned with intellectual abilities, we use the head; when we are interested in certain physical aspects of the person, we use the hand” (2006: 110). Consequently, it is not surprising that body parts also appear as Subjects in some of the data analysed (seventy-two instances or almost 5%). Since *grasp* is so strongly associated with the use of one’s hands or fingers, it is perhaps more surprising that the examples of body parts as Subjects are so few. A possible explanation is provided by Langacker, who states that

we think of the world as being populated by people and objects, not by their parts; and when we do focus on a part, the person or object as a whole is generally invoked as a reference point for its characterization. In this sense the whole has special cognitive salience that makes it a preferred candidate for explicit linguistic coding. (Langacker 1991: 455)

It may also be the case, Langacker continues, that the body part used does not need to be explicitly specified since some verbs activate “a cognitive domain (the conception of a familiar process) that intrinsically specifies the nature of the subject’s involvement” (1991: 455). Sentences (71) and (72) are examples of body parts as Subjects:

- (71) My eyes began to flicker open as a hand grasped my shoulder.
- (72) [...] as well as forming a compact arrangement quickly grasped by the eye of the conductor.

Apart from example (72), which must be considered an instance of non-physical grasping, most sentences with a body part as the Subject refer to physical grasping, with *hand* as the predominantly used lexeme (forty-three out of seventy-two instances). Using a body part instead of a human Subject can be seen as an example of the phenomenon *active zone* as introduced by Langacker: “Those facets of an entity which participate most directly in a relation are referred to as its **active zone** with respect to that relation” (1991: 454, bold print in original). In the same fashion, Kövecses argues that the active zone phenomenon is “[a]n interesting special case of the WHOLE THING FOR PART OF THE THING metonymy” (2006: 100). When *grasp* is used as ‘understand’, the Subject is sometimes described with references made to the human brain (an example of the Faculty role which is part of the GRASP frame defined in 4.1 above):

- (73) [...] but her conventional mind could not grasp that a thing so often impure, can be made absolutely and perfectly pure.
- (74) “Facts” do not just exist, they have to be grasped by the intellect, using a conceptual framework.

This usage is an example of the BODY PART FOR THE PERSON metonymy: the brain, which is used for understanding, replaces the human as the active part in this particular act of grasping. This is also in line with Kövecses’ (2006: 110) statement that the head is often used to describe intellectual abilities. There are only sixteen examples of Subjects where reference is made to the brain or the like, but they are nonetheless interesting as illustrations of how physical grasping with one’s hand has been extended to cover mental grasping with one’s brain, with the brain explicitly placed in the role of the Subject.

Close to the typical human Subject are those examples where other primates figure as the Subject. Just like humans, they are able to grasp with their hands. Similarly, the talons of a bird can grasp in much the same way as the hands of humans. Sentences (75) and (76) offer examples with primates and birds respectively:

(75) The larger of the two chimpanzees stood upright and grasped the bars of the cage.

(76) There, grasping the snail firmly in the talons of one foot, [the Everglades kite] waits.

Examples with other animals often involve the mouth or jaws as the instrument of grasping or the use of some body part in a way similar to that of a human hand. In approximately every sixth or seventh sentence with a non-human Subject, there is an animal body part appearing in the role of the Subject. Just as is the case with *gather*, this body part can be seen as standing metonymically for the animal as a whole. In total, non-human Subjects represent 3% (forty-five instances) of the data.

If one does not have the extended definition of the Agent from FrameNet in mind (see 4.1 above), it could be seen as somewhat surprising that both inanimate and abstract entities appear as the Subject in sentences with *grasp*. Inanimate entities occur six times in the material analysed and abstract entities as Subjects account for another twenty-seven instances. Since neither inanimate nor abstract entities have the ability to grasp anything, either physically or mentally, all these cases exemplify Subjects that have been ascribed human qualities. In other words, they have been personified (see, e.g., Lakoff & Turner 1989: 72-80). The following examples are illustrations of inanimate entities as Subjects:

(77) [...] a huge pain took hold of her left arm, as if an iron claw had grasped it.

(78) [...] in realist feminist film “what the camera in fact grasps is the “natural” world of dominant ideology”.

In example (77), the resemblance between the activity performed by the Subject and that of a human hand is obvious: they are both actions involving taking hold of something and holding it tight, a fact which makes the link to the physical action logical. It is also possible that the use of the lexeme *claw* may have influenced the choice of verb. In sentence (78), the camera has been assigned the human property of being able to catch something and keep hold of it. Moreover, there is usually a human being behind the

camera deciding in what direction to point it. Hence, (78) can be seen as containing an implicit human as the actual Subject with the camera being the Instrument used.

Sentences with abstract entities as Subjects can be divided into two different groups depending on the interpretation of *grasp*: extensions from physical grasping and extensions from mental grasping, as shown in sentences (79) and (80) respectively:

- (79) They applauded the attempt to cross the sectarian divide to stress the problems common to members of the working-class in both communities. However, they felt that this did not grasp the nettle of community division and conflict [...]
- (80) The predilection in established forms of leftist media analysis for unravelling hidden agendas has proved incapable of grasping the dynamics of the new situation.

These examples involve an abstract entity which has been given the human characteristics of being able to deal with a difficult situation and the ability to understand. As is the case for (78) above, it could be argued that the actual Subject in (79) as well as in (80) is human (a group of people) and that the abstract Subjects are only metonymic substitutes. Common to both groups with abstract entities as Subjects is that the Subject can be quite elaborate and complex.

4.3.3 Objects of *grasp*

The Object in sentences with *grasp* is filled by an entity which is either of a concrete or an abstract nature. There is a small group of examples in the material where *grasp* seems to be used intransitively, that is, no Object is explicitly mentioned:

- (81) This orang utan demonstrates its ability to grasp efficiently with both hands and feet [...]
- (82) [...] every anthropologist has experienced “culture shock”; a temporary inability to grasp and act and think in the terms of the assumptions upon which the newly entered culture is based.

However, as discussed in connection with *gather* (see 3.3), there is an implicit Object conceptually present in these sentences. Whether it be physical or mental grasping, one does not simply grasp, one has to grasp *something*. In Table 4.3, the overall distribution of different Objects in sentences with *grasp* is presented.

Table 4.3. Distribution of Objects in sentences with *grasp*

Type of Object	Number of tokens	Percentage
Concrete	556	36.94
- concrete entity	254	16.88
- human or human body part	302	20.06
Abstract	941	62.53
No Object	8	0.53
Total	1,505	100.00

In the corpus material there are 556 examples (or approximately 37% of the data) where the Object of *grasp* is concrete: 302 instances depict a situation where a human or a human body part functions as the Object (see (83) below) and in another 254 instances the Objects are concrete entities such as a rope, an iron or a paper, as in (84).

- (83) Roberta came running down, grasped Alice, stood rocking the sobbing girl, [...]
- (84) The man leans forward, grasps the paper as if to take a closer look at it, [...]

FrameNet does not give any clarifying information as to the nature of the frame element Entity in the MANIPULATION frame.²⁰ Considering that it is often explicitly expressed that the grasping is done with the help of one's hands, a typical Object should be a concrete entity. Nevertheless, most Objects, 941 examples or 62% of the material as a whole, belong to the abstract group. Abstract Objects are abstract entities and concepts, often made up by elaborate clauses:

- (85) [...] he was a practical man who simply believed power should be grasped and wielded.
- (86) What he fails to grasp is that if that obstetric experience is withdrawn from Downpatrick, then there will be no selection of patients whatsoever and all will have to make their way to Belfast or Lisburn irrespective of clinical condition.

Since abstractions are by nature ungraspable, that is, they cannot be physically held with one's hands, in examples such as (85) and (86) *grasp* is used in a non-physical way. The material on *grasp*, unlike that on *gather*, does not contain many high-frequency collocations.

²⁰ However, cf. the discussion of the interpretation of *entity* in 3.3.3.

tions, the only two are *grasp the opportunity* (fifty-six tokens; see (34) above) and *grasp the nettle* (sixty tokens; see (35) above). In addition to *the nettle* there are other examples where the Objects undoubtedly are concrete entities but used in a non-physical extended way, for example, sentence (87):

- (87) When Edward III grasped the reins of government in November 1330, he was as determined as any of his predecessors to vindicate the Forest rights of his Crown.

The expression in (87) metaphorically symbolises the king's taking control of government in the same way as a rider or a coachman takes control of the horse(s) by grasping the reins.

So, rather than being explained by a high number of frequent collocations in combination with a fairly high occurrence of mental usages, as in the case of *gather*, the fact that most Objects of *grasp* are abstract is instead mainly the result of the existence of mental grasping (see 3.3.1.3 above), which accounts for almost half of the examples found. In the GRASP frame, the Object (the label used by FrameNet is Phenomenon) is defined as: "A state of affairs or dynamic system whose internal make-up and working the Cognizer comes to assimilate into their knowledge structure." Abstractness is a characteristic that all entities processed mentally have in common.

4.4 Summary

Generally, as is suggested by the data and indicated by the MANIPULATION and the GRASP frames, *grasp* can be said to mean (i) 'to take hold of something' and (ii) 'to understand something'. Grasping is usually done with the use of one's hands or the like and in the extended usage of (ii) with one's brain. 'Grasp and hold' is a feature that seems to be common to all the various usages of *grasp*, which might be an indication that the feature could constitute a core sense of the verb. The extended mental usage of *grasp*, where the brain is used as the instrument for grasping, is a conceptual mapping common in many languages motivated by metaphors such as IDEAS ARE OBJECTS (Lakoff & Johnson [1980] 2003) and THE MIND IS A BODY (Sweetser 1990; Lakoff & Johnson 1999). Physical grasping, where a Subject uses her/his hands, fingers or arms to grasp a (usually) concrete

Object and holds it firmly, accounts for approximately 37% of the data, whereas non-physical grasping other than mental is represented in a further 15% of the examples. Compared to *gather*, *grasp* is not used to any greater extent in specific collocations. The only two occurring with any higher frequency in the data are *grasp the opportunity* and *grasp the nettle*.

It is thus mental grasping that has the highest frequency in the material of the three main usage groups. The largest usage within mental grasping is ‘understand’ and this is also the single most frequent usage of *grasp*. Besides ‘understand’, *grasp* as a mental verb can be interpreted in a number of other ways that are similar in meaning but not exactly the same as understanding. Even though almost all the examples of mental grasping have a human Subject, there are a few with an animal in that role. Since the animals in question are usually regarded as quite intelligent, the data suggests that intelligence might be a prerequisite for *grasp* to be interpreted as ‘understand’.

Typically, Subjects of *grasp* are human. This is the case in almost 95% of the data. Most commonly, human Subjects are individuals or groups of people, but there are also examples where body parts function as metonymic substitutes for human Subjects.

Considering how grasping is generally carried out, a typical Object should be a concrete entity of some sort. However, concrete entities only make up just over 42% of the Objects. Most Objects are instead abstract, either abstract entities/concepts or elaborate clauses. This is explained by the high frequency of mental grasping. In such cases, the Objects cannot, of course, be concrete entities.

To conclude, *grasp* appears to have a core sense, ‘grasp and hold’, from which other usages are derived. Mental grasping accounts for close to 48% of the examples. Consequently, *grasp* is readily extended into the mental domain. So much, in fact, that ‘understand’ is the single largest usage found in the data as a whole. The extension is motivated by similarities perceived between, on the one hand, grasping a physical entity in order to both hold it and examine it and, on the other, grasping a fact in order to understand it. This understanding is achieved by “holding” the fact in one’s mind and “examining” it. Therefore, as in the case of *gather*, the analysis of *grasp* confirms the hypothesis that a verb associated with a simple frame is easily extended into the mental domain. Given that *grasp* appears in many various usages in the data, the analysis further suggests that the simplicity of the frame might even be a factor that facilitates extended usages.

CHAPTER 5

SEIZE

Just as in the case of *gather* and *grasp*, the reason for choosing *seize* as one of the verbs for study was the physical feature of the verb, that is, seizing is an action that directly involves the human body. The analysis shows, however, that there are many more aspects of *seize* to consider and that the physical aspect is less prominent in the data than was expected. Depending on the usage, *seize* is associated with two different frames of varying complexity, one of them more complex than the other. It turned out to be the case that most instances of the verb are linked to the more complex frame, a fact that has shown to have implications for the extent to which the verb is used within the mental domain. Mental seizing is the least frequent usage attested in the data and makes up less than one per cent of the material on *seize* as a whole. The analysis further shows that, like *gather*, *seize* is frequent in combination with words from a small number of specific semantic domains. In the case of *seize*, the words are related to the concepts of ‘power’ and ‘control’, and to situations where someone takes advantage of the circumstances at hand.

5.1 *Seize* in FrameNet

Like *grasp*, *seize* figures in two different frames in FrameNet: the MANIPULATION frame and the TAKING frame. The MANIPULATION frame has already been described in connection with the analysis of *grasp* (see 4.1). The TAKING frame is defined as an action where “[a]n Agent removes a Theme from a Source so that it is in the Agent’s possession.” In this frame, there is an explicit reference to acquisition: after an Object has been seized it is in the possession of the Subject.²¹ In other words, the Subject has, rightfully or not, acquired the Object for her-/himself. Necessary core frame elements in this frame are Agent and Theme, whereas Source may be left out. Hence, it is the relationship between the

²¹ Note that the term *possession* is inconclusive as to whether ownership has changed or not (see Nordlund 2006).

Agent and the Theme that is profiled (see Langacker 1987: 183-4), or put in focus, in the TAKING frame. This follows from the fact that the TAKING frame inherits from and is a subtype of the GETTING frame (see 6.1).²² Still, even when it is not explicitly expressed in a sentence the Source is always conceptually present.²³ Other non-core frame elements that may be optionally added to a sentence within the TAKING frame are Containing event, Manner, Means, Place, Purpose, Reason and Time.

5.2 *Seize* in the *OED*

Seize entered the English language as a loan-word in the thirteenth century when it was borrowed from Old French *saisir*, *seisir* (modern French *saisir*) meaning ‘to put in possession’, ‘to take possession of’, ‘to take hold of’. The Old French word in its turn is derived from the eighth-century Frankish Latin word *sacire*, whose source probably is the Germanic **satjan* ‘to place’ (*OED*).

The *OED* divides the different meanings of *seize* into three categories: ‘to put in possession’, ‘to take possession’ and ‘technical senses’. Within the category ‘to take possession’, which is the only one relevant for this study, the *OED* provides the following dates for the earliest attested records of the main usage groups:

PHYSICAL:	of a feudal superior or a sovereign: to confiscate (the property of a vassal or subject) (c1290)
NON-PHYSICAL:	with impersonal subject, e.g. death, disease, calamity: to oppress or attack suddenly. Also of a fear, a belief, etc.: to take sudden possession of (a person, his mind) (c1381)
MENTAL:	to grasp with the mind or perceptive faculties; to apprehend (1855)

As can be seen from the dates given within parentheses above, there are attested records of physical as well as non-physical seizing before the end of the fourteenth century, whereas the first record of mental seizing did not appear until the mid 1850s.

²² FrameNet makes use of kinship terminology for the description of relations between different frames in that “child” frames inherit from “parent” frames. This means that for each frame element in the parent there is a corresponding frame element in the child. See 1.4.1 for more information about FrameNet.

²³ Cf. the discussion of the implicit Instrument in 3.3.2.

5.3 Seize in the *BNC*

In the *BNC* as a whole, there are 2,163 instances of *seize*, *seizes*, *seizing* and *seized* concerned with some kind of acquisition. Usages that do not express acquisition have been discarded and are not part of the analysis.

5.3.1 Usages of *seize*

Like *grasp*, *seize* is a verb characterised by instantaneity: seizing is usually made in one fell swoop. Quite often, this is explicitly expressed in the sentence by the use of words and expressions such as, for example, *suddenly*, *quick to*, *immediately* and *at once*. The data further indicates, as do the definitions quoted from the *OED* above (see 5.2), that an act of seizing often involves power or force. The complete distribution of the different usages of *seize* is presented in Table 5.1.

Table 5.1. Usages of *seize*

Usage	Number of tokens	Percentage
Physical seizing	1,422	65.74
- <i>take hold of</i>	480	22.19
- <i>confiscate</i>	477	22.05
- <i>take by force</i> (concrete entities)	298	13.78
- <i>arrest</i>	167	7.72
Non-physical seizing (other than mental)	728	33.66
- <i>take by force</i> (abstract entities)	309	14.29
- <i>take advantage of</i>	286	13.22
- <i>be seized by illness or feeling</i>	103	4.76
- <i>impress someone's mind</i>	30	1.39
Mental seizing	13	0.60
- <i>understand</i>	9	0.42
- <i>perceive</i>	4	0.18
Total	2,163	100.00

The presentation of the various usage groups begins with physical seizing followed by non-physical seizing other than mental. A discussion of mental seizing concludes the section.

5.3.1.1 Physical seizing

Unlike the situation for both *gather* and *grasp*, physical seizing, which is represented by the earliest attested usage in the *OED*, accounts for almost two-thirds of the examples in the data. It is difficult to say exactly why this should be the case. A possible explanation might be that the many specialised variants of physical seizing, although related to each other by sharing similar traits, make it difficult to substitute *seize* for another verb. This can be compared to physical grasping, which is much simpler: only the body part used differs. It is possible that the many specific variants of the physical action make *seize* less prone to extensions. It must also be taken into consideration that unlike both *gather* and *grasp*, the extension of *seize* into the mental domain is very rare, which, of course, has a considerable impact percentage-wise on the overall distribution (for a fuller discussion of mental seizing, see 5.3.1.3 below). More important as an explanation of why physical usages are so plentiful at the expense of mental usages, however, is the fact that *seize* is linked to two different frames of varying complexity. The simpler MANIPULATION frame, which, it is assumed here, would facilitate extended usages, proved to be less conspicuous in the data than had been intuitively expected beforehand. Instead, most instances of *seize* turned out to be associated with the more complex TAKING frame.

The various usages of physical seizing – ‘take hold of’, ‘confiscate’, ‘take by force’ and ‘arrest’ – are discussed below, starting with the usage ‘take hold of’, which is exemplified by (88):

- (88) She watched Victorine glance out of the window, seize a shovel and bucket, dash outside.

Approximately one-third of physical seizing can be assigned to the usage ‘take hold of’, illustrated by example (88). Like *grasp*, *seize* used in this way describes a situation where only momentary accessibility of the Object is aimed for, often with the purpose of preventing a person from moving, getting a person’s attention or simply grabbing something. As such, the ‘take hold of’ usage is best included in the MANIPULATION frame. The situation is somewhat different in the case of the ‘confiscate’ usage, illustrated by (89) and (90):

- (89) He would, for instance, like the courts to have authority to seize the legitimate businesses of convicted gangsters.

- (90) [...] if Anselm did not return to England on the king's terms, the king would seize his lands and revenues.

The 'confiscate' usage accounts for another third of physical seizing and is thus of the same size as the usage 'take hold of', but contrary to the latter, 'confiscate' belongs to the TAKING frame. The result of something being confiscated is a change of possession. As can be seen from the definition for the earliest attested record of physical seizing in the *OED*, the confiscation should be done by "a feudal superior or a sovereign," as exemplified in (90), but the feudal system is extinct and sovereigns today seldom have that kind of power. Still, it could be argued that the modern state with its apparatus of government, courts, police, etc. could be seen as performing the very same role; one example from the data is given in (89). According to this view, seizures made by, for example, police or customs could be regarded as confiscations in this sense. It should be remembered, however, that there is a difference between the often arbitrary and capricious decisions formerly made by a feudal lord and the law-based regulations governing the actions of modern-state institutions. Nevertheless, both forms of confiscation have here been labelled the same although the vast majority of examples refer to the modern version.

Sentences assigned to the usage 'take by force', illustrated by (91), typically appear in the context of conquests of war or rebellion and the Subject is predominantly an organisation.

- (91) Desiderius responded to the Pope by raising an army and seizing Sinigaglia and Urbino, hitherto papal cities.

In a few cases of 'take by force', the interpretation of *seize* is closer to 'steal', as shown in (92):

- (92) Walking home from his job one payday, he was set upon by two young men who hit him with a stick, pushed him to the ground and seized his meagre wages.

However, the context of (92) clearly shows that in addition to simple stealing this is definitely an act of taking by force. This usage, too, is associated with the TAKING frame, which is also the case for the last physical usage discussed here, 'arrest':

- (93) John McCarthy was working as a journalist in Beirut when he was seized on his way to the airport to leave.

The usage ‘arrest’ is the least frequent physical usage studied in this work. In contrast to ‘take hold of’, which is also a usage where human beings frequently occur as Objects, ‘arrest’ implies that persons subjected to the treatment are moved, often by force, to a location where they are placed in controlled custody, that is, in the “possession” of their capturers.

5.3.1.2 Non-physical seizing other than mental

Non-physical seizing can be divided into the usages ‘be seized by an illness or feeling’, ‘impress someone’s mind’ and ‘take advantage of’; the first two are cases of an abstract Subject seizing a human Object and the latter of a human Subject seizing an abstract Object. In the usage ‘impress someone’s mind’, it is often the case that there is a human Subject behind the abstraction, for example, when a work of art, a book or a film seizes someone’s attention. According to Fillmore (1975: 219), extensions such as these are made possible when a frame associated with one scene (a person seizing a concrete entity) is applied to another scene (an abstract entity seizing a person/a person seizing an abstract entity). The frame associated with *seize* that seems to be most appropriate here is the MANIPULATION frame. On the other hand, where the usage ‘be seized by an illness or feeling’ is concerned it would be possible to consider the TAKING frame the most appropriate. When seized by an illness, a person may be seen as having her or his health taken away by force. Likewise, if seized by a feeling the person has had her or his emotional balance removed. Both scenarios can further be viewed from a force-dynamics perspective (see Talmy 2000a: 413) where the person is seen as the Agonist who tries to resist (that is, stay healthy or emotionally balanced) the force of the Antagonist (the illness or feeling), which aims at deteriorating the Agonist’s health or emotional balance. Sentences (94) and (95) are examples of someone being seized by an illness or a feeling:

- (94) A Mrs. Furness, for example, “was last night seized with vertigo and other symptoms of congestion of the head which by the immediate application of a dozen leeches was presently relieved”.
- (95) “What sweet madness has seized me?” he cried suddenly.

Among the examples of this usage, the ones referring to an illness are clearly outnumbered by those which are concerned with feelings: only one-fifth of the sentences refer to an illness seizing someone. From the material at hand, it is not possible to draw any conclusions about the reasons for this. It might be because there are other, more commonly used ways of referring to the state of suffering from an illness – *contract*, *come down with*, etc. – but it could also be that because humans are emotional beings, the mention of emotional states is regarded as important. In other words, it seems to be the case that, generally speaking, descriptions and expressions of emotions are more important and/or interesting than those of illnesses.

The ‘impress’ usage is the least frequent case of non-physical seizing in the data. Here, it is exemplified by sentence (96):

- (96) Whatever we may make of Leonard’s Judaism, he is a man seized by its traditions, its scriptures and their imagery.

In (96), the Object being seized, that is, impressed by this belief, is clearly a human being. In more than half of the examples interpreted as belonging to this usage, however, the Object is instead a metonymic representation of a human, such as *attention*, *imagination* and *interest*. Seizing someone’s attention entails apprehending a person’s mind and, ultimately, the person. In this way, the ‘impress’ usage is an example where Langacker’s (1991: 454) idea of an active zone is applicable (see also 4.3.2).

Much more common than ‘impress’ is the usage ‘take advantage of’, of which sentence (97) is one example:

- (97) For fathers in say, metalworking or joinery, there was no chance at all of their daughters following in their footsteps, but it made sense for them to seize the chance offered by the printing trade.

In addition to *chance*, the semantically similar lexemes *opportunity*, *moment* and *occasion* are common and also the idiomatic expression *seize the day*. Together, these collocations make up almost 40% of the non-physical usages, a number which corresponds to about one-eighth of the data on *seize* as a whole. Taking advantage of something often means acting quickly or else the chance might be lost for ever. Considering that *seize* often implies a sudden and forceful action, it is not surprising that there are relatively many examples in this category. The expression *seize an opportunity* is the

most frequent collocation of the usage ‘take advantage of’. *Grasp* also collocates with *an opportunity* (see 4.3.1.2), but the examples in which *seize* occurs are almost twice as common. Possibly, then, an action of grasping is seen as less quick and less forceful than an action of seizing. Just as in the case of *grasp an opportunity*, the commonness of *seize an opportunity* is acknowledged in dictionaries where the expression is often mentioned under the entry of *seize*.

There are also a large number of examples of non-physical seizing which cannot be assigned to one of three aforementioned usages but where the physically concrete ‘take by force’ and ‘take hold of’ usages are interpreted as non-physical actions. In other words, what is being taken is an abstraction and cannot as such be physically seized, as illustrated by sentence (98):

- (98) Yeltsin seizes control of media.

Apart from *control*, frequent lexemes in the non-physical variants of ‘take by force’ and ‘take hold of’ are *power* and *initiative*. Almost every tenth example contains one of these lexemes. Again, the collocations are motivated by the fact that an action of seizing is often sudden and forceful. A situation where control, power or the initiative is seized is also similar to the taking advantage of a situation in that one usually gets only one chance to achieve one’s objectives. If one hesitates, someone else might step forward instead. In a way similar to that of the expression *seize an opportunity*, the high frequency in the data of the phrases *seize control/the initiative* is acknowledged in dictionaries by the mention of these collocations. However, there is usually no reference to the fact that, as the analysis presented here shows, the collocations are related to a limited number of semantic domains.

Assigned to the group of non-physical ‘take by force’ and ‘take hold of’ are also the examples found in the data where originally concrete Objects are used in an extended non-physical way. They are here exemplified by (99) and (100):

- (99) Bruce has a claim to the Scottish throne. Why should Edward now object to his old friend and comrade-in-arms seizing the Scottish crown?
- (100) One resort seizing the bull by the horns is little old Adelboden, which for 1991 is building a big new gondola to link two of its smaller ski areas to its major one.

In sentence (99), it is not the Scottish crown as such which is to be seized but rather military control and supremacy of the country. The concrete Scottish crown is metonymically representing that abstraction. In (100), it is only the metaphorical bull that is seized by the horns. In other words, Adelboden has decided to take measures to solve a difficult situation. Idiomatic expressions such as (100) are in the minority in the data. Most commonly, concrete Objects used in a non-physical way refer to *the crown*, as shown in (99), or to *the throne* (see also (119) in 5.3.3 below).

5.3.1.3 Mental seizing

Mental seizing constitutes by far the least frequent usage of *seize* with only thirteen instances found in the whole corpus. Note, however, the relatedness between mental seizing as discussed here and the usages ‘be seized by a feeling’ and ‘impress someone’s mind’. In the latter two cases, feelings, facts, beliefs, and so on, can be said to take mental possession of a person and are in that way assimilated with already existing knowledge in the person’s mind. Besides being the least frequent usage discussed here, mental seizing is also the usage which has emerged most recently: the earliest entry in the *OED* dates from 1855.

In one-third of the examples of mental seizing, the seizing is primarily achieved with some perceptive faculty other than the mind, as shown in sentences (101) and (102):

- (101) I tried to find a method whereby I could seize the effect of motion ... how to arrest a movement in a few bold strokes, catching the passing moment and finding new forms [...]
- (102) [...] she seemed always to need to seize people’s names at once, perhaps for reassurance, just as she’d grabbed the teacher’s hand.

In (101), the artist is trying to visualise the effect of motion in order to understand it and to be able to transfer it onto the canvas, whereas the woman in (102) is trying hard to perceive people’s names immediately so as to remember them. In addition to ‘perceive’, sentence (102) could also be interpreted as ‘memorise’ (cf. examples (50) and (51) in 4.3.1.3 above).

Mental seizing interpreted as ‘understand’ occurs nine times in the data, always with a person or a group of people as the Subject. Two examples are (103) and (104):

- (103) Speakers [at the Kufra assembly] required a certain formality and elaboration, even explicitness, if the audience were to seize a point.
- (104) “It wasn’t you [killing] three times,” he reminded her. “No.” She seized that. “So I saw something, but I didn’t do it. [...]”

Together, these nine examples represent less than half a per cent of the material as a whole, a figure which can be compared with 22% for *gather* and 45% for *grasp*. A likely explanation is the fact that *seize* is linked to two different frames. Since most examples of *seize* in the *BNC* are associated with the more complex TAKING frame rather than the simpler MANIPULATION frame, this should have a restraining influence on the use of *seize* as ‘understand’. The TAKING frame inherits from the GETTING SCENARIO, which presupposes that the Object is taken from someone. A larger contextual framework involving more participants and necessary conditions is thus activated and it appears to be the case that this is not regarded as compatible with mental seizing. Furthermore, examples (101) through to (104) are best regarded as extensions from the ‘take hold of’ usage, which is linked to the simpler MANIPULATION frame. That it is a usage from this frame and not one from the more complex TAKING frame that is extended into the mental domain can thus be seen as evidence supporting the hypothesis put forward here. It must also be taken into consideration that *seize* interpreted as ‘understand’ has a serious competitor in *grasp*. The two verbs share the feature of instantaneity and both grasping and seizing are typically sudden actions. Considering this, it should, in some cases at least, be possible to use the two verbs interchangeably.²⁴ Because *grasp* has been used to mean ‘understand’ for almost two hundred years longer than *seize* has and because *grasp* seems to be more open to non-physical extensions, it is likely that this has had an effect on the frequency of the two verbs as regards their use as mental verbs.

As is the case with *gather*, there is no mention of *seize* in connection with a frame for understanding. Judging by the data, however, mental seizing is a highly peripheral, if not an almost non-existent usage. Bearing this in mind, the absence of a frame for mental seizing cannot be regarded as controversial. Given the scarcity of mental seizing, in

²⁴ For instance, it should be possible to use *grasp* instead of *seize* in sentences (103) and (104): [...] if the audience were to grasp a point and She grasped that. Likewise, sentence (45) (see 4.3.1.3), for example, can be paraphrased by using *seize* instead of *grasp*: [...] that never really seized Neighbours worldwide success. Generally speaking, however, *seize* is a better substitute for *grasp* in physical usages than in mental ones.

percentage as well as in actual tokens, it could even be argued that it is open to question whether *seize* as a mental verb will at all survive. Only the future can tell.

5.3.2 Subjects of *seize*

Considering the usages of *seize* attested to in the data, Subjects should most commonly be humans, but other kinds of Subjects can also be expected, as shown in Table 5.2.

Table 5.2. Distribution of Subjects in sentences with *seize*

Type of Subject	Number of tokens	Percentage
Human	1,935	89.46
- individual or group of people	1,186	54.83
- organisation	731	33.80
- body part	18	0.83
Non-human (animate)	59	2.73
Inanimate	13	0.60
Abstract	156	7.21
- feeling	80	3.70
- illness	23	1.06
- other	53	2.45
Total	2,163	100.00

From the figures in table it is evident that the Subjects of *seize* are typically human: close to 90% of the examples (1,935 tokens) refer to a human Subject of some sort, as exemplified in (105) and (106):

(105) Irina seized the slip of paper, said “Thanks” and followed.

(106) Sofaer nodded, and Lorre was seized by many pairs of dusky hands.

In almost 55% (1,186 tokens) of the cases, an individual person or a group of people constitutes the Subject, whereas organisations of different kinds, metonymically representing the people of whom they are made up, appear as the Subject in one-third of the examples. Unlike *gather*, but as is the case for *grasp*, body parts – arms, hands or fingers – are used as metonymic substitutes for a human Subject, as shown in sentence (106). This can be seen as indicative of the fact that in the usage ‘take hold of’ (see 5.3.1.1 above) an act of seizing often involves the use of one’s hands or arms.

There are some examples in the material where there is no Subject explicitly mentioned. From the context, however, it is possible to determine that the Subject should be interpreted as human:

- (107) Burning brands from the huts and from two galleys the MacLans had fired were seized and thrown into the MacLans' own ships, [...]

When no Subject is explicitly mentioned, the sentence sometimes requires a generic reading.

Animate Subjects other than humans constitute a small group in the material: fifty-nine instances, or less than 3% of the data as a whole. As is the case for *grasp*, there are only animals of different kinds represented among the non-human Subjects of *seize*. Again, this may be indicative of the need for an instrument of some kind when something is to be seized or grasped, the instrument *par préférence* is one's hands or arms or some animal equivalence. Not many plants are equipped in a similar way. Like human Subjects, animals are sometimes metonymically represented by a body part as the Subject.

Inanimate Subjects are the smallest group of Subjects found in the data: the group comprises only thirteen tokens, or less than 1% of the material. Most examples in this group describe an entity seizing someone's attention, but there are also some examples of a natural force acting as the Subject:

- (108) Early that January a bitter wind blowing off the far Urals seized East Anglia in a grip of ice.

This is yet another example of personification, where the wind, in a way similar to a human, is ascribed the ability to take hold of something. Here, the personification is brought even one step further by the following noun phrase, *a grip*, which makes the picture of an anthropomorphic wind reaching out its icy hand towards the ground even more vivid and clear.

Abstract entities as Subjects of *seize* constitute just over 7% (156 instances) of the data. In approximately half of the cases with an abstract Subject, a feeling of some sort appears as the Subject:

- (109) A sudden fear seized him: that the door would be locked, [...]

The person experiencing the feeling is often seized by it suddenly. This is sometimes explicitly stated in the sentences, as exemplified by (109). As regards feelings as the Subjects of *seize*, a distinct pattern can be observed in the material: negative feelings such as the one displayed in (109) constitute the vast majority, two-thirds, of this group of Subjects, leaving only one-third for positive or other, less easily categorised feelings. Why this should be the case is open to question. Because of their unwanted character, it is possible that negative feelings are experienced as coming upon a person in a more sudden way, sort of hiding in the shadows waiting for the right (or, from the experiencer's point of view, wrong) moment to appear. Hence, it could be the case that positive feelings are, to a greater extent, seen as "growing" on a person rather than suddenly seizing her or him. It is also possible that the element of force present in many usages of *seize* affects the way the verb is used: negative and unpleasant feelings can be seen as forced upon a person in a way that positive feelings are not.

Cases where an illness appears as the Subject resemble those that have feelings as Subjects:

- (110) When the Bohemian king, Wenceslas IV, heard of the revolt, he was seized by an epileptic fit and died a few days later.

Of course, illnesses and diseases are never welcome and they often appear suddenly and without warning. The use of *seize* in such contexts is therefore not surprising. The fact that feelings and illnesses can appear as Subjects is again due to personification, that is, the feelings and illnesses have been ascribed the human quality of being able to take hold of a person.

Apart from feelings and illnesses, other abstractions of different kinds appear as the Subjects of *seize*, as shown in examples (111) and (112):

- (111) Its activities enabled the Heseltine campaign to seize the initiative [...]
 (112) Some eternal quality in the atmosphere seized me and I stood silent, [...]

Sentences (111) and (112) each exemplify one of the two main forms of abstractions appearing in this group of Subjects. Sentence (112) represents a "pure" abstraction, whereas in the case of (111) it could be argued that there is an implicit human Subject actually performing the action. It is not *the Heseltine campaign* as such that seizes the initiative

but the people working to promote the campaign. Thus, (111) can be considered to be an example of the WHOLE FOR PART metonymy where *the Heseltine campaign* represents the whole and the people are the parts making up the whole.

5.3.3 Objects of *seize*

In the material on *seize*, there are two examples where no Object is explicitly mentioned:

(113) [...] wear an angel's face, Seize with an eagle's talons.

(114) In carnivorous forms the teeth are sharply pointed, being adapted for seizing and cutting, [...]

Neither of these examples should be confused with an intransitive use. In the same way as the act of grasping, seizing always involves the seizing of some entity, and in (113) and (114) that entity is most probably a prey. Analogously to a conceptually present Object with no overt expression, Rudzka-Ostyn (1988b), in analysing the sentence *John threw it out* where the place to which John threw something remains unidentified, observes that "[t]his lack of overt expression does not thus mean that the landmark is absent from our conceptualization of the scene; it simply means that it is either too obvious or not worth bothering about" (1988: 520). In (113) and (114) it might then be the case that the writer/speaker has considered the mentioning of the Object redundant. Table 5.3 illustrates the distribution of different Objects as a whole.

Table 5.3 Distribution of Objects in sentences with *seize*

Type of Object	Number of tokens	Percentage
Concrete	1,540	71.20
- concrete entity	1,006	46.51
- human or human body part	534	24.69
Abstract	621	28.71
No Object	2	0.09
Total	2,163	100.00

To match the usages found in the data, an Object of *seize* should typically be a concrete entity or a person. This is also confirmed by the figures in Table 5.3: concrete Objects

account for more than 71% of the examples. In most cases, almost half of the material as a whole, the Object is a concrete entity of some sort, as shown in (115):

(115) She fought her attacker, who eventually seized her plastic bag and ran off.

Human beings or human body parts are also frequent as Objects of *seize*, constituting close to one-quarter of the examples. When human beings or human body parts appear as Objects, it is often in the context of them being arrested, taken prisoner or simply taken hold of. Human Objects are also naturally predominant in the usages ‘be seized by an illness or feeling’ and ‘impress someone’s mind’.

Abstract Objects account for more than one-quarter of the Objects of *seize* (621 instances, or 29 %). In all these cases, given that the Objects are abstractions, no actual seizing is ever performed. The largest group among abstract Objects (272 instances) has to do with taking advantage of something, as exemplified by (116):

(116) Dad always said that he wanted me to seize all the opportunities that he had missed.

The group represented by (117) is somewhat smaller (198 instances):

(117) The present ruler, Gen. André Kolingba, seized power in a bloodless coup in 1981.

Hence, the data shows that *seize* readily collocates with lexemes concerned with someone’s taking advantage of a situation and with lexemes from the domains of power and control. In the same way as for *gather*, then, it is possible to discern a pattern of a few predominant semantic domains with which *seize* frequently interacts. Where this group of Objects is concerned, it is often the case that the same lexemes appear in the material on *grasp* as well as *seize*; for example, *chance*, *control*, *initiative*, *opportunity* and *power*. Regardless of which verb is used, the interpretation of the collocations remains the same and is a sign of the interchangeability of the two verbs in certain contexts.

Like the verbs previously discussed, it is sometimes the case that the Object is of a concrete character but used in a non-physical way. In the material, a total of twenty-nine such cases have been found. In sentences (118) through to (120) some of these examples are shown:

- (118) My mother seized the dangling reins of conversation. After all it was her house and the choice of topic should lie with her.
- (119) [...] he reiterated Henry's constant and pious intent: namely, to seize the throne of France for himself.
- (120) Perhaps there was a glimmer of hope in 1949 when someone of the stature (rather than the disposition) of de Gaulle might have seized the burning brand [the issue of Vietnamese independence]; [...]

In (118), *seize the reins* is to be interpreted in its metaphorical meaning 'take control of', in this case the conversation (cf. also the discussion of sentence (87) in 4.3.3). The interpretation 'take control of' is further substantiated by the contents of the second clause in the example. In (119), an analogue to (99) above (see 5.3.1.2), *the throne* stands metonymically as a symbol for France itself and for supremacy over the country. Most likely by using military force, the idea is for Henry to defeat all his competitors for power, thereby making it possible to proclaim himself king of France. The example in (120) can be contrasted with (107) above, for convenience repeated here:

- (107) Burning brands from the huts and from two galleys the MacLans had fired were seized and thrown into the MacLans' own ships, [...]

In both (120) and (107) the Objects seized are burning brands, but the difference is that whereas the burning brands in (107) are physically real entities, the burning brand in (120) is only a way of metaphorically describing a burning issue difficult to handle. A way of paraphrasing (120) would be to use the idiomatic expression *grasp the nettle* discussed in 4.3.1.2. This would, however, not allude in the same way to the issue as topical and "hot".

5.4 Summary

In FrameNet, *seize* is linked to two different frames: the simple MANIPULATION frame and the more complex TAKING frame. Generally speaking, there is usually an element of power and force involved in seizing and the action is often carried out suddenly. Seizing

is typically performed with the help of some instrument, which varies depending on which usage of *seize* is in focus. When the usage ‘take by force’ is applied, the instrument is generally an armed force, whereas hands, arms, etc. are prominent in the usage ‘take hold of’. When *seize* is used as a mental verb, the brain is, of course, the instrument. The instrument is usually not explicitly mentioned except in sentences assigned to the usage ‘take hold of’.

Unlike the case for *gather* and *grasp*, physical usages of *seize* constitute the largest group in the data. The two largest subcategories, the ‘take hold of’ and the ‘take by force’ usages, belong to physical seizing and account for almost half of the material. The two subcategories each represents one of the frames to which *seize* is linked, but most instances of the verb belong to the TAKING frame. In other words, the data indicates that *seize*, to a greater extent, is associated with a more complex framework.

The association of *seize* with a larger contextual framework explains the scarcity of mental seizing in the data. Judging by the frequencies found in the corpus, mental seizing constitutes the most peripheral usage of *seize*: less than one per cent of the data can be assigned to the two different forms of mental seizing, perceiving and understanding. The TAKING frame presupposes a Source from whom the Object is taken. It is also implied that the action might not be approved of by the Source. Furthermore, the action of seizing is often associated with power and force. Taken together, these facts seem to make *seize* unsuitable for extensions into the mental domain.

Subjects of *seize* are commonly human, usually an individual or a group of people, but also organisations of different kinds and body parts, metonymically representing a human Subject, are present in the material. The second largest group of Subjects comprises abstract entities, where illnesses and feelings account for the majority of examples.

Typically, as suggested by the various usages, an Object of *seize* should be a concrete entity or a person. This is also the case in more than two-thirds of the data. Apart from concrete entities and people, Objects of *seize* can also be abstract entities, most frequently abstract concepts expressed by the lexemes *power* and *opportunity*. A little less than one-quarter of the sentences with *seize* are fixed expressions of this kind. Like *gather*, then, *seize* is commonly used together with words from a few clearly discernible semantic domains.

To conclude, the analysis suggests that *seize* does not lend itself easily to extended usages. This is particularly evident in the case of mental seizing that accounts for less than one per cent of the examples. As hypothesised, the relatively low number of

extended usages is explained by the fact that most usages of *seize* are linked to the TAKING frame, which activates a larger contextual framework than the simpler MANIPULATION frame, in that way making *seize* less suitable for use as a mental verb.

CHAPTER 6

ACQUIRE

Unlike the three previously presented verbs, *acquire* is *not* a verb describing an action in which the human body is directly involved. Instead, *acquire* is less physical and tied to a more complex frame that requires more necessary participants. As such, *acquire* should not be easily extended into the mental domain, an assumption which is substantiated by the analysis. Even though the verb is not uncommonly linked with words related to the domain of cognition, not even nine per cent of the data on *acquire* is concerned with mental acquiring. This is a result which strengthens the hypothesis that the complexity of a verb's frame and the degree to which the verb can be used to express mental activities essentially correlate. In addition to the domain of cognition, the analysis indicates that *acquire*, just like *seize*, is common together with lexemes related to the concepts of 'power' and 'control'.

6.1 *Acquire* in FrameNet

In FrameNet, *acquire* is one of the words belonging to the GETTING frame, which is defined as: "A Recipient starts off without the Theme in their possession, and then comes to possess it. Although the Source from which the Theme came is logically necessary, the Recipient and its changing relationship to the Theme is profiled." Hence, unlike the TAKING frame (see 5.1), the profile of this frame is explicitly acknowledged in the definition making Recipient and Theme the only core frame elements necessary for a sentence to be grammatical. The main focus (the profile) in a sentence with *acquire*, is the final part of an event of acquisition that involves the Recipient and the Theme. The preceding steps of the event may be omitted or *gapped* (to use Talmy's (2000a) term). From a conceptual and semantic point of view, however, the logical necessity of a Source makes *acquire* a three-argument predicate (cf. *give* in Newman 1996). This is also shown in the frame of the GETTING SCENARIO, of which the GETTING frame is a subframe, where it is explicitly stated that the Recipient acquires the Theme from a Source, usually a person. In

addition to Source, FrameNet also provides a number of other non-core frame elements, namely Manner, Means, Place, Purpose, Reason, Result and Time.

6.2 *Acquire* in the *OED*

Like *seize* (see 5.2), *acquire* is ultimately derived from Latin (*acquirere* ‘to get in addition’) and entered the language as a loan-word via Old French *a(c)querre* with the same meaning (*OED*). The earliest attested record in the *OED* for each of the verb’s different usage groups is:

PHYSICAL: to gain, obtain, or get as one’s own, to gain the ownership of (by one’s own exertions or qualities) (c1435)

NON-PHYSICAL: (1601)

MENTAL: ---

The first attested record concerned with non-physical acquisition dates from 1601. It is one of the example sentences incorporated into the definition of what is here labelled physical acquiring. As can also be seen above, the *OED* does not make any explicit reference to mental acquisition. In the *LDOCE*, however, one definition of *acquire* is “to gain knowledge or learn a skill,” but unfortunately this dictionary does not provide any dates.

6.3 *Acquire* in the *BNC*

On the whole, there are a total of 5,538 instances of *acquire*, *acquires*, *acquiring* and *acquired* in the *BNC*. In general, the verbs analysed in this and in the following two chapters are much more frequent in the corpus than the ones analysed previously (see Leech, Ryson & Wilson (2001) for frequencies of all the verbs found in the *BNC*). This might indicate that writing and talking about simple everyday actions such as grasping something are not considered to be as necessary and important as writing and talking

about what has been acquired, bought or received. This is not to say, however, that *acquire*, *buy* and *receive* are not used in everyday language, only that the Objects that are obtained in such ways are usually more prominent than Objects grasped.

6.3.1 Usages of *acquire*

According to the definition of the GETTING frame, and also to the definition of physical acquiring quoted from the *OED* above, *acquire* can be summarised as ‘to get something for oneself’, sometimes with a change of ownership as the result of the action. However, the analysis shows that the different contexts in which the verb appears result in a much wider range of usages. The complete distribution of usages found in the data is presented in Table 6.1.

Table 6.1. Usages of *acquire*

Usage	Number of tokens	Percentage
Physical acquiring	2,564	46.30
- <i>obtain</i>	1,992	35.97
- <i>get</i> (concrete entity)	468	8.45
- develop (physical) property/feature	46	0.83
- miscellaneous usages	56	1.05
Non-physical acquiring (other than mental)	2,477	44.73
- <i>get</i> (abstract entity)	1,525	27.54
- develop (abstract) property/feature	545	9.84
- learn (a manual skill)	341	6.16
- contract disease	66	1.19
Mental acquiring	497	8.97
- understand	104	1.88
- learn	291	5.25
- develop (mental) property/feature	102	1.84
Total	5,538	100.00

Since *acquire* is unspecified as to the manner in which the acquiring is carried out (see the definition of the GETTING frame in 6.1 above), it is possible to use the verb in many different contexts and, hence, interpret the verb differently. This is also the case for other verbs of acquisition that leave manner unspecified, for example, *get* (Lindstromberg 1991; Gronemeyer 1997, 1999). Physical acquiring is the usage group with the highest frequency – more than 46% of the examples found in the data can be categorised as

belonging to this category – but it is closely followed in frequency by non-physical usages, which account for almost 45% of the material.

6.3.1.1 Physical acquiring

Physical acquiring can be further divided into several subgroups depending on the context in which the verb appears, the largest usage is ‘obtain’. This is also the single most frequent usage of *acquire* and it is here exemplified by sentences (121) and (122):

(121) BA is also on the verge of acquiring a £400 million stake in USAir.

(122) They clearly appreciated what a magnificent building they had acquired and spent £800,000 on restoration [...]

This usage is the earliest attested one in the *OED* (c1435) and together with ‘get’ (whether as a physical or a non-physical usage) it can be regarded as a possible candidate for a core sense of *acquire*. The core sense of a word may be established in several ways, for example, by means of informant testing where subjects are asked to give a definition of the word. Tyler and Evans (2003: 47; see also Evans 2004) list five linguistic criteria for deciding what sense is most primary. The first criterion is the earliest attested meaning. Gries (2006: 76), on the other hand, maintains that the centrality of a sense is reflected in its frequency: the more frequent a sense is the more central. In a similar way, Kevin Durkin and Jocelyn Manning (1989: 584) suggest that frequency data may be taken as an indication of whether a certain sense is the dominant one or not, but conclude that the sense “which comes most readily to mind for a majority of native speakers when the word is presented without any biasing context” (Durkin & Manning 1989: 589) should be considered the most typical. As was discussed in section 2.3, however, it could be questioned whether a non-biased context really exists. The definition of *acquire* suggested by FrameNet and the *OED*, ‘to get something for oneself’, can be said to be a schematic summary of the semantics of the usages ‘obtain’ and ‘get’. The schematic definition is present in the other usages as well.

When interpreted as ‘obtain’, *acquire* can easily be used interchangeably with *buy*, but the former appears more often in combination with Objects of a high economic value (see also 7.3.3). This is partly explained by the fact that quite a substantial part of the Subjects of *acquire* are organisations and they appear frequently in takeover situations in which

the verb is commonly used. When *acquire* is used as ‘obtain’, it is often the case that the amount of money involved to close the transaction is mentioned, as in (121). Hence, ‘obtain’ expressed by *acquire* entails a transfer of ownership of the Object. For the transfer of ownership to take place, it is not necessary that the equivalent physical transfer of the entity acquired is completed. In other words, transfer of ownership may successfully be carried out even though the Object does not enter under direct physical control of the acquirer. So, unlike *gather*, *grasp* and *seize*, close proximity between Subject and Object is not a necessary requirement for *acquire*. Again, sentence (121) is an example of this. Sometimes, *acquire* and *buy* are used in the same sentence, as illustrated below:

- (123) In short, the acquisition policy of the Getty continues coherent and very strong. In the light of what has been available on the market between 1986 and 1989, it is fascinating to see what was not acquired as well as what has been bought.

It seems as if *acquire* and *buy* can be interpreted in the same way in the above example, yet the writer has chosen to make use of both verbs. A likely explanation for this choice is to avoid using the same verb twice; in other words, it is simply a matter of style.

It is not always the case that *acquire* is used in the context of a regular commercial transaction involving the transfer of goods, money and ownership. This is shown in sentences (124) through to (127):

- (124) This expert pastoralist [the ant *Dolichoderus cuspidatus*] acquires all the food it needs from its herds of mealy bugs, [...]
- (125) In examining the pay advantage of married men over bachelors, we tentatively concluded that for men, but not women, acquiring a spouse leads to higher pay, [...]
- (126) By expanding their rule over the rest of Spain the Romans acquired the Douro, the Tagus and the mineral deposits of the Asturias.
- (127) Soviet military facilities in Africa and Asia had been acquired and retained only by diverting considerable resources into military assistance programmes [...]

As these sentences show, *acquire* is sometimes used to describe how someone simply gets something in some unspecified manner. Moreover, in none of these examples is a transfer of ownership involved, possible exceptions being (126) and (127). While it is highly likely that the Romans would adamantly claim ownership of their Spanish

colonies, the various peoples living there before the Roman invasion would probably just as adamantly claim their independence. It is also often the case that foreign installations in another country are regarded as belonging to the nation in question. It is unlikely, however, that any formal transfer of ownership has been concluded in either (126) or (127). In contrast to (124), it should be noted that in a “normal” situation of acquiring food – for example, in a situation involving people at the supermarket – there is commonly a transfer of the ownership of the food items acquired. Also, as regards the acquiring of a spouse in (125), acquiring a wife, in particular, has previously been a matter of transferring money and ownership. There are also examples where it is explicitly stated that a transfer of ownership is not taking place:

(128) An 80hp Gnome engine has been acquired on loan from the Air Force Museum [...]

The expression *on loan* clearly shows that possession is to be regarded as only temporary. Other expressions appearing in the material that imply that ownership is not to be, or has not yet been transferred, are *on lease* and *on hire purchase*.

Among the physical usages of *acquire* there are some examples which express that someone/something is developing or has developed a physical property or feature:

(129) When the ancestors of whales reinvaded the sea, they did not acquire fins by hybridizing with fish.

As shown in (129), the development is typically seen from an evolutionary point of view, but it may also be a case of maturing and reaching adulthood. Not only animate Subjects but also inanimate ones can develop distinctive physical properties, as illustrated in (130):

(130) Falling sea levels periodically gave mainland species, isolated on islands for thousands of years, the opportunity to join up again. By then some of them had diverged far enough from their original forms to become new species, and were no longer genetically capable of breeding with their mainland ancestors. Many of these new species survived, notably squirrels, rats and bats. Thus the forests of the Malay peninsula, Thailand and Burma and Indo-China acquired a rich and diverse mammalian fauna.

Here, as in the previous example, the development, and, hence, the acquisition, is set in an evolutionary context. The usage ‘develop property/feature’ is not very frequent in the corpus as regards physical usages. However, properties and features that are developed need not always be physical but can be abstract as well. As a non-physical usage ‘develop property/feature’ occurs more than ten times as often (see 6.3.1.2 below).

In addition to ‘develop (physical) property/feature’, there are also two other physical usages with a very low occurrence in the data. In one of them, *acquire* can be interpreted as ‘employ’:

- (131) The Library recently acquired its first teleworker in Mrs Louise Graham, of Gairloch, Wester Ross.²⁵

This usage could perhaps be seen as a variation of ‘get (concrete entity)’, but background knowledge tells a reader of this sentence that the Library has not simply “got” this person in an unspecified manner. This knowledge is provided by the EMPLOYMENT SCENARIO frame, which, among other things, contains information about the process leading up to the employment of a person. According to this view, the interpretation of *acquire* in (131) as meaning ‘employ’ is performed “behind the scenes” by unseen and often unconscious conceptualisation processes – what Fauconnier ([1985] 1994) calls *backstage cognition*.

In the second low-frequency physical usage discussed here, *acquire* expresses ‘become equipped with’. This usage is illustrated by examples (132) and (133):

- (132) And just as cars acquired more and more lamps, cookers acquired dials. Control panels bristled with up to thirty-five switches and buttons as if the housewife-technologist required the skills of an airline pilot.
- (133) [Bottighofen] has recently acquired a fine new harbour, and for those who prefer the delights of the countryside to those of the waterfront, several footpaths lead iii [sic] to the adjacent meadows and woodlands.

In general, the Subjects in this usage can be considered no more than passive recipients of the entities acquired. This is particularly true for the Subject in (132). In (133), it could be argued that Bottighofen is a metonymic substitute for its inhabitants and it is possible that they have made an active effort towards the creation of a new harbour. Still, the choice of using *acquire* rather than some other verb (e.g. *build*, *construct*, *develop*) makes such a

²⁵ A teleworker is a person working from home using a computer linked to their employer’s headquarters.

metonymic interpretation less likely. The town of Bottighofen should thus be seen as an inanimate entity that has, without any contribution of its own and in some unspecified way, become equipped with a harbour. The usage ‘become equipped with’ resembles ‘develop property/feature’ in that the Subject is not actively instigating the acquiring. Furthermore, in both usages the Subject ends up with an additional feature. In the latter case, however, the acquiring is the result of natural forces and processes, whereas in the former some external physically concrete entity is responsible.

Most usages within the group of physical acquiring have a very low rate of occurrence in the corpus. Added together, the last three usages discussed do not account for even 2% of the data. This signals that they probably do not constitute distinct senses in their own right and that, in each case, “in the course of ongoing interaction meaning is negotiated, that is, jointly and collaboratively constructed” (Lewandowska-Tomaszczyk 1985: 300, as quoted in Traugott & Dasher 2002: 25; cf. also Croft 2000: 99). If these usages should become more entrenched, that is, become cognitively routinised and attain a higher level of frequency, it is possible that more specified definitions are needed in dictionaries. As Kilgarriff (1997: 105; see also Fillmore & Atkins 2000: 99) rightly observes, the main reason why lexicographers decide to omit a usage from a dictionary is shortage of space: only the most frequent usages qualify.

6.3.1.2 Non-physical acquiring other than mental

In contrast to *gather*, *grasp* and *seize*, physical and non-physical usages of *acquire* are almost of the same size – 46% and 45% respectively – and some physical usages also have a non-physical counterpart. The usages ‘get’ and ‘develop property/feature’ are examples of this, as illustrated in (134) and (135):

- (134) Labour today is rather like a car company whose models have acquired a reputation for unreliability.
- (135) [...] the pre-exposed stimulus might already have acquired some of the properties of a safety signal.

The main difference between physical and non-physical interpretations of the ‘get’ and ‘develop property/feature’ usages is, of course, that in the latter case what is acquired is an abstraction and, as a consequence, no physically concrete acquisition is carried out. It

is worth noting that both usages occur more frequently in non-physical contexts: ‘get’ is three times as common in its non-physical usage, whereas the corresponding figure for ‘develop property/feature’ is twelve times. The reason why ‘develop property/feature’ is so much more frequent in the non-physical usage could be that the properties and features are quite often abstract entities that are ascribed to the Subject by someone else. As regards the higher frequency of non-physical ‘get’, the most likely explanation is that it is not possible to own and accordingly transfer the ownership of the Objects occurring in this usage. Therefore, non-physical ‘get’ does not have to compete with ‘obtain’.

Acquire is quite frequently used in the context of learning a skill. Sentence (136) serves as an example of this usage:

- (136) She went to lessons in drawing, ice-skating, junior aerobics and many other skills which she had absolutely no hope of acquiring.

The sentence above illustrates the acquiring of physical skills involving the body in various ways. Despite that, this usage is categorised as being non-physical since what is acquired is not a concrete entity. In 6.3.1.3 below, examples involving the acquiring of more mental skills are discussed. Of course, all learning situations, whether the skill to be acquired is manual or intellectual, require the activation of various brain functions. Nonetheless, the division has been made since the acquiring of intellectual skills and abilities usually lacks direct involvement of body movements and is often more related to understanding.

In the same way as *seize*, *acquire* can be used in the sense of ‘contracting a disease’ (cf. 5.3.1.2). Sentence (137) is one example of this usage:

- (137) Gonorrhoea is almost exclusively acquired sexually.

In most examples, the disease is not specified as in (137) but simply referred to as *an/the infection*, often in the context of sexually transmitted conditions. There seem to be some semantic differences between *seize* and *acquire* in the sense of contracting illnesses. Firstly, whereas *seize* only appears together with humans, *acquire* is used together with both humans and animals. Secondly, while in the former case the person falling ill has done nothing to be the victim of the condition in question, in the latter case the person (or animal) has in some way contributed to the state of being ill, for example, by having had

unprotected sex or by having eaten something inappropriate.²⁶ Moreover, when contracting an illness is expressed by *seize*, the illness always appears as the Subject, as in *Another racking fit of coughing seized him*, which further strengthens the argument of the person being an innocent victim.

Just as the verbs analysed in the previous chapters, the material comprising *acquire* contains examples where the entity acquired is concrete but used in an extended way:

- (138) [...] the accession of Artaxerxes, who acquired the throne by murdering his elder brother, [...]

This sentence is similar to two of the sentences discussed in the previous chapter (see (99) in 5.3.1.2 and (119) in 5.3.3; cf. also (179) below) and contains a PART FOR WHOLE metonymy, where *the throne* stands metonymically for power and control of the country as a whole. Like the sentences containing *seize*, there is here an element of force involved in the event, which would seem to prevent the use of *acquire* in this context. It is possible, however, that *acquire* has been chosen to imply planning and scheming on the part of Artaxerxes, actions that would disqualify the use of *seize*, which is characterised by an element of instantaneity.

6.3.1.3 Mental acquiring

Mental acquiring constitutes less than one-tenth of the material (approximately 9% or 497 tokens) and can be divided into a number of usages. One of these is ‘understand’, as exemplified in sentences (139) and (140):

- (139) [...] a means for non-scientists to acquire an understanding of the importance of science in shaping the modern world, [...]
- (140) But a grasp of the subject’s structure and its relationship to other subjects should be acquired before the literature is approached.

These two sentences show that, unlike *gather*, *grasp* and *seize*, *acquire* cannot be used as a direct substitute for *understand*. For an interpretation of *acquire* as ‘understand’ to be possible, the verb needs to be complemented by noun phrases such as *an understanding*,

²⁶ However, see example (152) in 6.3.2 below for a contradicting exception.

a *grasp* or something similar. In this way, *acquire* seems to describe a more distant, more depersonalised manner of reaching an understanding of a subject.

Acquire used as ‘learn’ has been divided into two groups: one comprising the acquiring of manual skills (discussed in 6.3.1.2 above) and the other intellectual skills. The most prominent intellectual skill for a human being is the ability to use language and the collocation *acquire (a) language(s)* is frequent in the data. Sentence (141) is one example:

- (141) Knowledge about the way children acquire language is obviously important to teachers.

Almost one-fifth of the examples (94 tokens out of 497) interpreted as ‘learn’ within the mental domain consist of this collocation. Even though *acquire (a) language(s)* is frequent in the corpus the expression *learn language* is even more common with almost twice the number of instances (184 tokens). It is sometimes the case that the two verbs are found in the same sentence, as illustrated in (142) and (143):

- (142) An earlier view of second language knowledge was that only children could acquire while adults learned, [...]
- (143) [The Personal Language Profile] contains information such as: [...], what other languages they have learned, acquired and used in their lives [...]

It may seem as though the choice for using either *acquire* or *learn* in combination with *a language* is quite random and that it is impossible to explain the reasons for the choice, but in these two sentences, *acquire* and *learn* have been juxtaposed and there is obviously a difference in meaning between them. It could be that *acquire* is used here because it is unspecified as regards manner and also, perhaps, because of the seemingly effortless way in which children learn new languages. *Learn*, on the other hand, would then imply a considerable mental effort on the part of the learner, an image that is possibly strengthened by the complex frame of a learning situation that is evoked by *learn*. More likely is that the juxtaposition of the two verbs is a conscious choice due to the distinction made by some scholars within the field of language acquisition – especially by Stephen Krashen in his Input Hypothesis (e.g. 1975, 1985, 1988) – between the two concepts ‘acquisition’ and ‘learning’. In this context, ‘acquisition’ is a subconscious process where the language is acquired through mere exposure, whereas ‘learning’ is a conscious pro-

cess with explicit teaching resulting in a knowledge about the language. Contrary to the widely accepted idea of a critical age for the individual in terms of language acquisition, Krashen maintains that second languages can be acquired also by adults in a way identical to that used by children acquiring a first language “if they obtain comprehensible input and if their affective filters are low enough to allow the input ‘in’” (Krashen 1985: 4). Krashen’s theories have been challenged (see Brown (2000) for a summary of the critique) and not every scholar adheres to this distinction between ‘acquisition’ and ‘learning’ but uses the latter terms more or less synonymously (see, e.g., Braine 1971; Gleitman & Wanner 1982), something that is evident in the corpus.

In addition to using language, there are other intellectual skills to be learned:

- (144) The skills required for proficient reading take time to acquire.

The ability to read is, of course, closely related to the ability to use language – without the latter, the former would not be possible. Apart from intellectual skills, there are also facts and information to be learned, as shown in (145):

- (145) Up to this time no genuine attempt had been made to acquire knowledge of our [the county of Sussex’] early inhabitants, [...]

Acquire knowledge is an even more frequent collocation than *acquire language*, comprising more than 40% of the examples of mental acquiring. Hence, although mental acquiring constitutes only a small part of the data, *acquire* is a verb with close connections to the domain of knowledge.

It has already been shown that *acquire* can be interpreted as ‘develop property/feature’, a property or feature that is either physically visible or of a more abstract character. There are, however, also mental properties to develop, as illustrated in examples (146) and (147):

- (146) Some aspects of gender identity also take longer to acquire than socialization theory predicts.
- (147) Someone who has not the concept of age cannot be expected to see someone as young or old. If, then, someone had to appear old to him [sic] for him to acquire the concept “old”, he would never get started.

When *acquire* is used as ‘develop (mental) property/feature’, it is in one of two possible contexts: (i) the development of an understanding of one’s own role in society in relation to other people, as in (146), or (ii) the development of an understanding of the relationship between aspects of language and the external world, as in (147).

There are only four examples of mental acquiring in the material where an animal appears as the Subject. In all four cases, *acquire* can be interpreted as ‘learn’.

- (148) However, sometimes the knowledge that a horse has acquired from its own species brings an unexpected result for the horse when used in relation to us.
- (149) Although much of the area around a pool at this time may be exposed rock, the gobies never land on it. They know just where other pools lie and are able to judge their leaps with such accuracy that they always drop into one. Presumably they acquire this knowledge when the tide is high and they can swim from one basin to another, and they are able to translate that information into a mental picture of their entire territory.

In the remaining two examples yet another horse and an ape appear as the Subjects. The analysis of mental grasping (see 4.3.1.3) showed that intelligence seems to be a prerequisite for *grasp* to be used as a mental verb in combination with an animal as the Subject. For mental acquiring, the necessary condition appears to be that the animal in question is equipped with some sort of learning abilities. This learning can be acquired as part of a socialisation process for members of a specific community, as illustrated in (148), or based on direct individual experience, as shown in (149). Thus, it seems as if mental acquiring within the animal realm has more to do with absorbing species-specific instinctive behaviour than with making use of other mental abilities. As is the case for *gather* and *seize*, there are no examples in the data of organisations as Subjects in sentences expressing mental acquiring. It is possible that what has been said here about animals as Subjects can be applied to organisations as Subjects, only in the reverse direction. In other words, organisations cannot appear as Subjects of mental acquiring because, although consisting of people, they do not possess any learning abilities, they cannot be socialised into a community and they cannot learn from individual experience. It is worth repeating here that a corpus can give “only indirect evidence for meanings” (Hanks 1996: 79). In other words, just because a usage is not represented in the corpus it does not automatically prove that it does not exist in language. Similarly, the absence of a specific kind of Subject does not imply that it is altogether absent in language.

6.3.2 Subjects of *acquire*

The Recipient in the GETTING frame is defined as “the entity that ends up in possession of the Theme,” a definition that is indecisive as to the nature of the Subject.²⁷ Judging by the usages found in the *BNC*, a Subject should typically be human, as shown in Table 6.2.

Table 6.2. Distribution of Subjects in sentences with *acquire*

Type of Subject	Number of tokens	Percentage
Human	4,733	85.47
- individual or group of people	3,049	55.06
- organisation	1,668	30.12
- body part/other human feature	16	0.29
Non-human (animate)	157	2.83
Inanimate	273	4.93
Abstract	375	6.77
Total	5,538	100.00

The overwhelming majority of Subjects occurring with *acquire* (just above 85% or 4,733 tokens) are human, as exemplified by sentence (150):

- (150) Fiction has it that Mrs Marcos was a grand art collector, acquiring beautiful paintings as a testament to her taste.

Typically, the Subject in sentences with *acquire* is either an individual, as shown in (150), or a group of people: 55% of the examples belong to this group. The second largest group of Subjects (just above 30%) comprises organisations of different kinds. There are also a small number of sentences where the Subject is a human body part or some other kind of human feature. In agreement with the material on *gather* (see 3.3.2), in sentences with *acquire* the body part does not function as a metonymic substitute for the person as a whole, which is otherwise usually the case when body parts appear as the Subject. Instead, the body part on its own constitutes the “place” where the entity that is acquired ends up.

In the same way as the three verbs previously analysed, it is not always the case that the Subject is explicitly mentioned, as in example (151):

²⁷ Cf. the discussion of *entity* in 3.3.3.

- (151) The best and longest-lasting tans are acquired slowly – quick tans are usually fast burns and peel off in a trice.

From the results of self-paced reading experiments, Gail Maurer, Jean-Pierre Koenig, Alissa Melinger and Breton Bienvenue (2002) draw the conclusion that information about unexpressed and implicit Subjects are accessed through linguistic sources. In the case of example (151) and other sentences without a Subject, the semantic content of *acquire* stipulates the presence of a Subject. The context makes it clear that a human Subject is intended – the frame for tans includes the background knowledge that sun-bathing and the acquisition of a tan are human activities – and that the sentence should be given a generic reading.

Animate Subjects other than humans are mostly made up of animals, but there are also a few examples of a plant as the Subject. Non-human Subjects are shown in sentences (152) and (153):

- (152) Foals, lambs and piglets may acquire infection immediately after birth [...]

- (153) Plants acquire their energy in a different way, [...]

An Object acquired by a plant is usually the same as, or similar to, an Object gathered by a plant, that is, the Object is water, energy, and so on. Just as in the group of human Subjects, it sometimes happens that an animal body part functions as the Subject. Again, in the same way as human body parts, the animal body part does not stand metonymically for the animal as a whole – the body part is the entity that actually acquires the Object. In addition to acquiring in a natural context, as illustrated in (152), there are also a number of examples in the data that refer to situations where laboratory animals are made to acquire certain behaviours through stimulus and response experiments. Assigned to this group are also sentences describing an organism's or a cell's acquiring of different traits and characteristics in the course of evolution.

Inanimate Subjects occur in slightly less than 5% of the examples, always in the context of the acquiring of qualities, traits, characteristics, etc. – features that an inanimate entity may also have (see also 6.3.3 below).

- (154) The patina the bronzes had acquired during burial was much admired, [...]

The situation for abstract Subjects is comparable to that of inanimate Subjects: what is acquired is often a quality or something similar:

- (155) For example, the period 1945-51 has come to acquire a retrospective glow which it may not altogether deserve.

Of course, in sentences such as (155), it is not the case that the Subjects in any way act volitionally to acquire something: *the glow* is ascribed to the passive abstract Subject by people. The fact that abstract and inanimate entities appear in this way in sentences with *acquire*, is mirrored in data retrieved from the *BNC* A-files regarding *possess*, where the number of inanimate and abstract entities possessing a quality – acquired either by being ascribed to the entity or through natural processes – is fairly high (Nordlund 2006). Although semantically related to *acquire* and *possess*, *buy* and *own* cannot be used in these contexts because they entail a change of ownership, a feature that is incompatible with Objects such as qualities.

6.3.3 Objects of *acquire*

In FrameNet, the Object (Theme in FrameNet terminology) is simply defined as “the object that changes possession.” Hence, no information is provided that makes it possible to draw any conclusions as to the nature of a typical Object. The distribution of Objects found in the *BNC* is presented in Table 6.3.

Table 6.3. Distribution of Objects in sentences with *acquire*

Type of Object	Number of tokens	Percentage
Concrete	2,787	50.33
- concrete entity	2,552	46.08
- human or human body part	104	1.88
- physical property	131	2.37
Abstract	2,741	49.49
No Object	10	0.18
Total	5,538	100.00

The inconclusiveness of FrameNet as regards a typical Object of *acquire* is reflected in the figures in Table 6.3 where the difference between concrete and abstract Objects is

almost negligible with only slightly more concrete ones. There are also examples where no Object is overtly expressed, as in, for example, (156):

(156) Like Iago, like Goneril and Regan, [Edmund] pretends in order to acquire.

As has been stated in the previous chapters, this should not be confused with an intransitive use of the verb: the Object is implicitly present in the sentence. This becomes even clearer if the context that follows (156) is considered:

(157) Since he is well built, and inventive, he argues [...], he has a right to the land reserved for the son born “by order of law”: [...]

What Edmund desires to acquire, the reason why he pretends, is his father’s land. Not only is context important for a correct interpretation of a word (cf. the discussion in 2.3), as demonstrated in (156) and (157) the context also provides vital clues to the disclosure of missing arguments. Roland and Jurafsky (1998: 1124) observe that there is a correlation between the amount of context and the need to express all the arguments: when the former increases, the latter decreases. Hence, context can be used not only to disambiguate word meaning but also to facilitate comprehension and interpretation of incomplete sentences.

Concrete Objects make up just over half of the material as a whole. The majority of concrete Objects, almost 46%, consist of concrete entities, typically companies, land, works of art, cars and computers. Even though most concrete Objects can be described as high-value entities, less expensive Objects also appear in the material:

(158) [...] an article in the newspaper that I acquired in Strasbourg, said that he was born in this little village [...]

This, however, is more of an exception to the rule since 82% of the concrete Objects can be regarded as having a rather high economic value. In addition to sentences where a specified entity is being acquired, it is also common that the Object is referred to in more general terms, such as *goods*, *asset*, *product* and *thing*.

Humans appear as Objects in a small number of examples – representing less than 2% of the material. Human Objects group together in a few clearly discernible categories. The first is concerned with family relations, as exemplified by sentences (159) and (160):

- (159) Tottie Pig's Special Birthday by Vivian French and Clive Scruton (Walker Books, £6.99) is perfect for toddlers who are about to acquire a little brother or sister.
- (160) Conscious that he needed an heir, James now acquired a wife, having instructed the envoy sent to find him a suitable bride that she should not be "too horrible".

These two sentences are characteristic of family-relation Objects and show that they can be acquired in two different ways: either, as in sentence (159), the Subject simply gets the Object without actively participating in the action or, as in (160), the Subject instigates the action, but seemingly more out of necessity than anything else. In the second category, human Objects appear in the role of a wanted human resource:

- (161) Even Nick-Nack, the dwarf assistant of triple-nippled assistant Scaramanga in *The Man With The Golden Gun*, shows loyalty beyond the call of duty. How can one acquire such loyal employees?²⁸

As in (161), it might be a case of hiring someone for a job, but there are also examples of financial transactions involving the acquiring of, for example, players for a football team. The third category of human Objects involves people who join a Subject because of her/his views, opinions or beliefs:

- (162) Julian [of Norwich, 1342-1420] reached a far smaller audience than any of these later reformers and she has never had a decisive effect on the history of Christianity as they did, but she has acquired a considerable following in our own day.

Together, these three categories make up almost 70% of the human Objects, whereas the rest consists of more or less wanted Objects, which are thus more or less actively acquired by the Subject: enemies, new neighbours, contacts, to mention just a few. Unlike the previously analysed verbs, it is very rare for human body parts to function as Objects in sentences with *acquire*. In the material as a whole, there are no more than four

²⁸ It should be noted that Scaramanga is an *assassin*, not an assistant.

examples of this. Considering that body parts are not something that normally is acquired – if not for an organ transplant – this can hardly be regarded as surprising.

One feature that distinguishes *acquire* from the other verbs that are part of this study is the fact that the Objects to a great extent are properties, qualities and characteristics, which can be of either a physical or a more abstract character. Examples of physical characteristics are shown in (163) and (164):

- (163) It was thus that [Loch Ness] acquired its unique form: 35 km long and about 1.6 km wide with steep sides sloping to a flat bed.
- (164) [...] and finally Oxford (where he was a boxing blue and acquired the dramatically-bent nose which for six decades has lent drama to what would in any case have been a distinguished face).

Common to all the physical-property Objects is that they instantiate a visible characteristic trait of the Subject, such as shape, appearance, built, and so on.

Abstract Objects account for close to half of the examples in the data and are thus almost as frequent as concrete Objects. Abstract Objects form a heterogeneous group of wide variety. Still, it is possible to discern a number of distinct groupings of similar or related Objects. One large group is concerned with abstract qualities and properties:

- (165) In recent years the lifestyle of the intelligence officer has acquired a glamorous image thanks to the literary world and the screen.
- (166) All the children helped her redecorate the house. When it was done the whole house had acquired a new pleasantness and comfort.
- (167) Her voice changed too. It acquired an impossible sweetness, a tenderness that was almost sinister.
- (168) Once Queen Victoria had been established on the throne for a few decades, she acquired a natural authority when dealing with her prime ministers.

These examples demonstrate that the quality is sometimes ascribed to the Subject, as in (165), or, as shown in (166), it can be the result of actions carried out by people, which leads to the Subject acquiring the Object. It can also be regarded as a more temporary feature, as in (167), or as being incorporated with the Subject, (168), thereby becoming part of the Subject's personality and character. Other frequently appearing lexemes,

closely related to these abstract qualities, are *(nick)name*, *taste*, *meaning*, *reputation*, *behaviour* and *habit*.

Another group of abstract Objects has to do with status and position, often in the context of a position in society or business:

- (169) [The land-owning aristocracy and gentry] were accorded deference as a socially superior body. It was a status that was passed on by inheritance, not one that could be acquired by merit or work.
- (170) Having acquired a dominant position in a market, a firm will presumably seek to exploit that position, unless it is constrained by the threat of potential competition.

Other lexemes in the material that can be seen as related to these examples are *power* and *control*. Control is one aspect of ownership and possession (Heine 2001; Herslund & Baron 2001; Langacker 2003; Nordlund 2006) and *ownership* is well represented among abstract Objects:

- (171) Conditional sale and credit sale agreements. Each of these is a type of contract of sale of goods and each has the characteristic that the buyer is committed to acquiring ownership of the goods.

The expression *acquire ownership of* is mostly found in various legal documents. The related expressions *possession* and *the right to* have also been assigned to this group.

A third clearly delineated group of abstract Objects contains expressions describing the acquiring of, for example, an education or qualifications of various kinds:

- (172) He did study law and acquired all the necessary qualifications but he became increasingly depressed [...]
- (173) And then I wonder if another means of acquiring something of a scientific education might not be found.

Other examples in this group relate to *competence*, *experience*, *learning*, *degree* and *training*. Some of these expressions touch the mental domain, but the sentences are articulated in such general terms that it seems more plausible to interpret them as focusing on the formal aspects of education and learning rather than on the mental integration of knowledge. With a frequency of about 3.4% of the data, they nevertheless show that *acquire* is used in situations that are related to cognition.

The fourth easily distinguishable group is concerned with the acquiring of skills and abilities of various kinds:

- (174) John acquired many other manual skills. He learned to knit clothes for himself and others, [...]
- (175) Words such as “both”, “pint”, and “steak” become unrecognisable if pronounced according to the GPC rules (they would rhyme with “moth”, “mint”, and “meek”), [...] Knowing when not to apply the rules is clearly an important skill to acquire.

Examples (174) and (175) demonstrate that the skills acquired may be either manual, for example learning how to knit, or mental, as learning the rules of pronunciation. One of the most important skills for a human to acquire is, of course, language (cf. the discussion of examples (141) through to (144) in section 6.3.1.3). Taking the uniqueness of human language into consideration, it has often been claimed that the ability to use language is what ultimately distinguishes a human being from other animals.

In addition to mental skills and abilities, language being the most prominent example, there are other examples where the abstract Object is connected to the cognitive domain, as shown in sentences (176) through to (178):

- (176) The project will examine the long term retention of knowledge that was originally acquired from formal education and which has since lain dormant.
- (177) To begin with, geometry has more value than simply as a means of acquiring a grasp of mathematical concepts.
- (178) The different patterns of boys’ and girls’ play were accounted for by suggesting that girls had acquired a more differentiated understanding of gender rules governing behaviour.

Knowledge and understanding are two closely related concepts, the former entailing the latter and vice versa. This group of abstract Objects also includes other examples of the acquiring of “mental” Objects, such as *a sense of*, *concept(s)*, *belief* and *attitude(s)*. It can thus be concluded that, as far as Objects are concerned, *acquire* is quite frequently associated with the mental domain.

As is the case with *gather*, *grasp* and *seize*, there are some examples in the data on *acquire* where a concrete entity is used in a non-physical way, that is, it is not the Object as such that is acquired:

- (179) In return Ferdinand renounced his claims to the Spanish and Burgundian lands held by the Habsburgs, but he later acquired the crowns of Bohemia and Hungary and ascended the Imperial throne on the abdication of Charles in 1558.

This sentence is similar to (138) discussed above (see 6.3.1.2) and also to two of the sentences discussed in chapter 5 (see (99) in 5.3.1.2 and (119) in 5.3.3). Again, *the crowns* stand metonymically for the countries as wholes and represent the power and supremacy Ferdinand will have over those countries as their king. Should Ferdinand be crowned in an official ceremony, a practice that was customary at the time, he would also, as a consequence, acquire the crowns in a physical sense. Even though the outcome of these four sentences is the same – someone ultimately ends up as the head of state – it is worth noting that *acquire* as used in (179) gives a much more peaceful and calmer image of the events than, for example, *seize*.

6.4 Summary

As one of the words in the GETTING frame, *acquire* is conceptually a three-argument predicate even though it is not grammatically necessary to express explicitly from whom an Object has been acquired. The usage ‘obtain’ is the single most frequent example found in the data. Most other usages of physical acquiring are not very frequent, which might indicate that their meanings are not yet well established (entrenched) through repeated usage in the minds of language users. In non-physical usages, *acquire* occurs fairly often together with words from the semantic domains of power and control, education and cognition. Besides expressions where *acquire* collocates with words dealing with neighbouring subject areas, such as education and cognition, examples of mental acquiring are found in a little less than one-tenth of the material. The most common usage is ‘learn’, which accounts for approximately 5% of the data with the collocations *acquire (a) language(s)* and *acquire knowledge* representing the vast majority of examples. Hence, even though *acquire* is not uncommon in relation to the mental domain, extensions of the verb into that domain are not very frequent.

More than 85% of the Subjects of *acquire* are in some way human. Most frequent are individuals or groups of people, but organisations appear in a fairly large number of

examples. Consequently, neither non-human nor inanimate or abstract Subjects are very common.

The number of Objects of *acquire* is almost evenly divided between concrete and abstract examples. Most concrete Objects can be described as high-value entities, but they can also be humans or physical properties. When interpreted as ‘obtain’, *acquire* can just as well be replaced by *buy*, but it seems as if *acquire* is favoured before *buy* in the case of high-value possessions. Hence, it could be the case that *acquire* is more closely associated with acquisitions demanding more investment and planning rather than everyday purchases in the supermarket (cf. the analysis of *buy* in chapter 7). Abstract Objects form a heterogeneous group displaying a wide variety of different entities. However, it is possible to distinguish four major groupings: (i) abstract qualities or properties, (ii) status and position in society/business, (iii) education, and (iv) skills and other abilities.

To conclude, the extension of *acquire* into the mental domain is seen in less than one-tenth of the examples, most of which can be interpreted as ‘learn’. The extension can be motivated by the fact that *acquire* is unspecified as to the manner of the action, that is, the manner in which the acquiring is done. In contrast to the three verbs analysed in the previous chapters, *acquire* cannot be used as a direct equivalent to *understand*. To be interpreted as ‘understand’, *acquire* needs to be accompanied by noun phrases such as *an understanding* or *a grasp*. Since the number of tokens for mental acquiring is rather low, this points towards a correlation between the complexity of the frame and the degree of extension into the mental domain. To put it differently, even though *acquire* occurs together with words related to or within the mental domain, the analysis shows that *acquire* can only to a limited extent be used to express cognition and mental activities.

CHAPTER 7

BUY

Of the six verbs analysed in this work, *buy* is linked to the most complicated contextual framework. Therefore, the extent to which the verb is used within the mental domain should be very small. The analysis shows that the overwhelming majority of the instances of *buy* in the data illustrate a conventional buying event, that is, a situation where a human Subject buys some sort of concrete entity. In other words, *buy* comes up to what could be expected from a verb associated with such an institutionalised framework. Less than half a per cent of the data on *buy* is concerned with mental buying, which means that it is by far the least frequent usage. The result of the analysis further indicates that even though it is possible that ideas are conceptualised as concrete entities, it seems as if a conceptualisation in terms of ideas being graspable rather than buyable is more likely.

7.1 *Buy* in FrameNet

Buy is part of the COMMERCE BUY frame in FrameNet. The COMMERCE BUY frame in turn is one aspect of the COMMERCIAL EVENT frame (Fillmore 1976a; see also 2.2) showing the event from the perspective of the buyer. In FrameNet, words belonging to the COMMERCE BUY frame are described as follows:

These are words describing a basic commercial transaction involving a buyer and a seller exchanging money and goods, taking the perspective of the buyer. The words vary individually in the patterns of frame element realization they allow. For example, the typical pattern for the verb BUY: BUYER buys GOODS from SELLER for MONEY. (FrameNet)

The COMMERCE BUY frame inherits elements from the GETTING frame (see 6.1), but is more specific as regards the necessary participants (e.g. Buyer versus Recipient, Goods versus Theme). The profile of the two frames is the same, making Buyer and Goods the only core frame elements. In other words, it is the relationship between the Buyer and the Goods that is in focus. A sentence with *buy* can be further elaborated and detailed with

the help of the non-core frame elements Duration, Manner, Means, Money, Place, Purpose, Purpose of Goods, Rate, Reason, Recipient, Seller, Time and Unit, all of which are listed in FrameNet. Although there are only two core elements for this frame, the use of a word such as *buy* evokes the whole complexity of the COMMERCIAL EVENT. The more direct aspects of the COMMERCIAL EVENT can be described in the following way:

Commerce is a situation in which a Buyer and a Seller have agreed upon an exchange of Money and Goods (possibly after a negotiation), and then perform the exchange, optionally carrying it out with various kinds of direct payment or financing or the giving of change. The Seller indicates their willingness to give the Goods in their possession to a Buyer who would give them some amount of Money. The Seller may have already decided on the amount of money that they would require, in which case it is called the Asking price. The Buyer also indicates their willingness to give an amount of money called an Offer to a Seller who would give them the Goods. Normally the process is begun by the Seller. The means by which the Seller indicates their wish to engage in an exchange are various, ranging from putting a price tag on an item on a store shelf, to advertizing, to communication directly and specifically with a possible Buyer. In some cases, however, the process may be initiated by the Buyer indicating to a possible Seller that they would like to make an exchange. (FrameNet)

So, even if a sentence with *buy* only contains the two core elements Buyer and Goods a language user is still (sub)consciously aware of the larger context into which the verb fits (Fillmore 1977b; Barsalou 1992).

7.2 *Buy* in the *OED*

Buy originates from Old English *byc3(e)an*, which corresponds to Old Saxon *buggjan* and Gothic *bugjan*. The word is of unknown origin and not found outside the Germanic language branch (*OED*). The following earliest attested records for the main usage groups are provided by the *OED*:

PHYSICAL:	to get possession of by giving an equivalent, usually in money; to obtain by paying a price; to purchase (c1000)
NON-PHYSICAL:	(figuratively) to obtain, gain, procure, in exchange for something else, or by making some sacrifice (c1175)
MENTAL:	to believe; to accept, to approve (1926)

The dates given within parentheses above show that physical as well as non-physical usages of *buy* emerged relatively early, whereas the extension into the mental domain is of a more recent date. There is no record of this usage in the *OED* before the mid 1920s.

7.3 *Buy* in the *BNC*

In total, there are 22,156 instances of *buy*, *buys*, *buying* and *bought* in the *BNC*. This makes *buy* the most frequent of the six verbs analysed, which may be taken as an indication of how essential acquisition and possession are as everyday features. Things that have been bought are worth mentioning and commenting on in both speech and writing. As is the case for the other verbs that are part of this study, usages not concerned with acquisition have been excluded from the analysis.

7.3.1 Usages of *buy*

Unlike *acquire*, *buy* normally entails a change of ownership: there is a socially sanctioned agreement that when goods are exchanged for money, ownership is, as a consequence, transferred from the seller to the buyer. The analysis shows that this is the most frequent usage of *buy* in the data. The complete distribution of usages is presented in Table 7.1 below. As shown in the table, compared to the other verbs analysed here, the data on *buy* does not give evidence of a wide variety of diversified usages.

Table 7.1. Usages of *buy*

Usage	Number of tokens	Percentage
Physical buying	20,913	94.39
- <i>buy</i> (concrete entity)	20,913	94.39
Non-physical buying (other than mental)	1,172	5.29
- <i>buy</i> (abstract entity)	1,172	5.29
Mental buying	71	0.32
- <i>believe/accept</i>	71	0.32
Total	22,156	100.00

7.3.1.1 Physical buying

The figures in Table 7.1 give ample proof that physical buying clearly outnumbers other usages of *buy*: almost 21,000 instances belonging to this usage group (94% of the material as a whole) have been found. The single most frequent usage of *buy* is the buying of a concrete entity, as exemplified by sentences (180) and (181):

(180) In the transit lounge at Vienna Airport, Professor Kubik bought a German paperback.

(181) Either she pays her rent or she can buy a property and pay £500 a month mortgage.

Human beings are also included among concrete entities being bought. Human merchandise occurs mainly in the context of the slave trade, the transfer of professional footballers as well as prostitution, but there are also occasional references to marriage and to “buying” a suitable spouse (cf. (125) in 6.3.1.1):

(182) You have told me many times that you know nothing of women. Does it never occur to you that they lead lives of dependence so complete as to breed uncertainty and fear? That their lives are like those of slaves, or of animals that are used by creatures stronger than themselves, and sometimes cruel? Why, even royal ladies are bought and sold, and are bred to lead their lives far from their homes and their people, as the property of men unknown to them.

The idea of marriage as a transaction brought about by political and economic advantages rather than as a mutual commitment based on love and affection between two people is even more accentuated in (182) by the description of women as ‘the property of men’.

In some instances of physical buying the Subject as such is not actively instigating the buying:

(183) The money from the kettle would buy him fish and chips, popcorn and a seat at the pictures.

(184) In 1972, 28 kilogrammes of bananas bought one barrel of oil.

Instead, Subjects in examples such as these can be seen as merely representing a value equivalent to that of the Object, whereas the actual Subject is a human being (cf. the discussion of examples (200) through to (202) in 7.3.2 below). Sentence (183) represents

the vast majority of examples found of this kind. Most commonly, they contain the lexeme *money* and other related expressions, but, as is shown in (184), other expressions occur as well.

7.3.1.2 Non-physical buying other than mental

Buy is sometimes used in an extended way to cover situations other than a regular commercial transaction. Most common of these non-physical usages are examples where *buy* is used together with an abstract entity as the Object:

- (185) Talks continue between MTM and its banks, following its breach of covenants. MTM's debt stands at £70 million. The appointment last week of company doctoring group Postern to work on an MTM recovery should help in buying time with the banks.
- (186) With a franchise you are still your own boss. You simply buy the rights to run a known-name business.
- (187) [...] a Cotswold farmhouse with a French accent. That much was real estate, available to anyone with the right money, [...] What no one could have bought, what wasn't for sale at any price, was Alison's way with the place. Every geranium, every chicken, every snoozing cat was in its place, like so many movie extras.

The extended use of *buy* in contexts such as the ones described in (185) through to (187) is motivated by the similarities existing between these situations and an ordinary buying event: in all three examples, it is possible to find the equivalents of a buyer, a seller, money and goods, what Kövecses (2006) calls metaphorical cross-domain mappings.

In a few cases of non-physical buying, *buy* could be interpreted as 'bribe', as shown in example (188):

- (188) Hauser, who worked by instinct, unloaded his mountain of junk bonds in the late eighties – and converted it into a mountain of money. He bought politicians at the lowest level – and the highest. Several state governors were tucked away safely in his pocket.

No matter what is bought – political influence, love, or something else – the extension is again motivated by the fact that situations such as the one described in (188) have features that are common in regular business transactions. So, even though not all the features contained within a frame are transferred to the new situation (cf. Newman 1996: 138-

140), the perceived similarities are enough to motivate the extension. The reason why examples such as (188) have been categorised as non-physical rather than physical buying is that it is not people per se that are bought but their loyalty and the services they can offer the Subject.

7.3.1.3 Mental buying

Another non-physical usage of *buy* is when the verb is extended into the mental domain to express ‘belief’ or ‘acceptance’. This usage is not very frequent in the material and accounts for less than half a per cent of the examples. Sentences (189) through to (191) with their surrounding contexts illustrate mental buying:

- (189) Some writers enter into an intimacy with the reader (Rabelais provides a lively example), some ignore the reader, some (as Laurence Sterne in *Tristram Shandy*) take the reader “for a ride”. Such reading requires us to be active and critical. Goodman (1970, p.36) says that “The reader asks himself not only “Do I understand what this means?” but “Do I buy it?”” Reading is not a passive process. To be passive is, in many instances, to be “had”, to be fooled, or misled.
- (190) “Don’t worry, Pen. I’ll deal with it.” He fell back on the swaggering confidence of years of salesmanship, of persuading people to buy ideas and arguments, not because they were all particularly good but because his audiences found themselves captivated by his energy and enthusiasm. In a world full of cynicism, they wanted to put their trust in a man who seemed to believe so passionately in what he was offering.
- (191) And what about Body Shop supremo Anita Roddick, the woman who has been feted for the last ten years as some kind of environmentally conscious feminist icon. I have always been deeply suspicious of Roddick and her cliché-ridden slogans and highly-publicised efforts to save the world, while quietly amassing a fortune on the side. I never bought that stuff about her ever-expanding conscience and I certainly never bought any of her beauty products.

The *OED* states (see 7.2 above) that *buy* as a mental verb has three different meanings, namely ‘believe’, ‘accept’ and ‘approve’. These three meanings are very close to each other and it is therefore difficult to decide which interpretation to choose. Even though context is now widely advocated and accepted as an important means to disambiguate between two usages of a word (see, e.g., Hintzman 1986; Tuggy 1993; Ide & Véronis 1998; Coulson 2001), in the case of mental buying contextual clues have turned out to be inadequate in order to establish a definite interpretation of the verb. Still, it does not seem

as though any of the examples of mental buying in the corpus should be interpreted as 'approve'.

There may be several explanations why there are so few examples of *buy* used within the mental domain. Firstly, it is an example of informal language often used in conversational contexts. Indeed, most examples in the data are utterances taken from direct or reported speech situations. Hence, the low frequency of mental buying could depend on the fact that the *BNC* contains only 10% spoken English. Roland and Jurafsky (2002: 337, 342) make the observation that the types of topics as well as the types of genres that a corpus contains, influence which usages of a word are found. Moreover, they (Roland & Jurafsky 1998: 1127) find that the frequencies for different usages vary significantly depending on which corpus is searched. Secondly, and related to the previous explanation, it is possible that the use of *buy* as a mental verb is strongly tied to factors of age, style and register. Mental buying would be more common among young people and depend on whom they are talking to. This view has emerged in informal discussions with non-linguist native speakers of British English. However, some kind of informant testing would be needed to substantiate the claim. Thirdly, and closely linked to what has been said so far, according to the *OED*, mental buying is mainly an American phenomenon. It is possible that using a corpus of American English would yield a slightly different result. A by no means exhaustive search of the newly launched *TIME Corpus*, resulted in seventy-three instances of *buy* being used as a mental verb.²⁹ Converted into percentage, this number corresponds to 0.21%, which is actually lower than the equivalent figure 0.32% from the *BNC*.³⁰ It should be noted, however, that the corpus was only searched for *buy/buys/buying/bought* directly followed by the pronouns *it* or *that*. A more thorough and detailed search is likely to yield a higher figure, but whether it will exceed the one from the *BNC* is as yet open to question. It must also be taken into account that the *TIME Corpus* contains only written material, a fact which might bias the results.³¹ Fourthly, and most importantly, the elaborate frame to which *buy* is linked makes it difficult to extend

²⁹ The *TIME Corpus of American English*, compiled by Mark Davies at Brigham Young University, was launched in June 2007. It contains 100 million words of written text, based on more than 275,000 articles published in the *TIME Magazine* from 1923 to 2006. It is freely accessible on-line at: <http://corpus.byu.edu/time/>.

³⁰ In total, the *TIME Corpus* contains 34,153 instances of different forms of *buy*.

³¹ An entirely new 360 million word corpus of spoken and written American English, the *BYU Corpus of American English*, was launched in February 2008. It is evenly divided between five different genres, one of them is spoken language. It is freely available on-line at: www.americanacorporus.org. Unfortunately, the corpus was launched too late for it to be used in this work.

the verb into the mental domain. Despite the fact that language use suggests the existence of metaphors such as IDEAS ARE OBJECTS (Lakoff & Johnson [1980] 2003; see also 2.4), it seems as if information, facts, etc. are more readily conceptualised as being graspable or gatherable rather than buyable. One aspect of *buy* and its frame is the transfer of control and ownership. Since these features cannot be transferred from Source to Subject as regards Objects related to cognition (cf. Miller & Johnson-Laird 1976: 571) they contribute to increasing the problems of using *buy* as a mental verb.

The connection between physical and mental buying might seem weak and far-fetched. Possibly, the extension is motivated by the fact that just as in an ordinary buying event there is a “seller,” the person uttering the proposition, that is, the “goods,” and a “buyer” who has to make a decision about the credibility of the “goods.” Eventually, when something is mentally bought it resides in the “buyer” as her or his mental property. Trying to interpret *buy* in a concrete way in contexts such as those presented in examples (189) through to (191) would result in semantic incoherence. The fact that a reader/hearer conceives these sentences as semantically coherent is due to background assumptions, or “conceptual unities,” in particular the conceptual unity of domain (Croft 1993: 361). Following Croft (1993: 362) in the analysis of *buy* as a mental verb in the examples quoted above, there are three requirements to satisfy: (i) *buy* must be mapped onto the mental activity domain, (ii) the subject arguments should have the domain of mental capacities activated (or *highlighted* to use Croft’s term), that is, the Subject must have mental capacities, and (iii) the object arguments should belong to the mental activity domain. All three requirements are met in the examples above. As a matter of curiosity, the last sentence of (191) is particularly noteworthy. Here, an event of mental buying is juxtaposed with an event of physical buying. Despite the fact that this is probably a conscious rhetorical move, it is nonetheless an example of the ease with which a speaker/writer can move from one conceptual domain to another while using the same verb. Traugott and Dasher (2002: 280) point out that it is often the case that old and new meanings are found in the same text. Possibly, this might also indicate that conceptually the connections between physical and mental buying are stronger than might be expected.

Unlike *acquire*, an organisation can be the Subject of a sentence expressing mental buying (see (192) below), but the number is limited and only four such examples have been found.

- (192) “It worked.” Buckmaster threw his check cap on a couch, strode across the room and lolled in his executive chair. “Special Branch bought it [that Tweed has murdered a girl], swallowed it – hook, line and sinker.”

The fact that an organisation can act as a juridical person in a commercial transaction and that it is ultimately made up of people, motivate the appearance of an organisation as the Subject when *buy* is used as a mental verb. From the examples found it is clear, however, that the organisation Subject is seen as a metonym for its parts, that is, the people. They are the ones who accept or believe in the name of the organisation.

7.3.2 Subjects of *buy*

Since *buy* describes an “institutionalized interpersonal activit[y]” (Fillmore 1972: 9) it follows that the Subject should be human. This is also evident from the definition of the COMMERCE BUY frame in FrameNet. The total distribution of Subjects as found in the *BNC* is presented in Table 7.2.

Table 7.2. Distribution of Subjects in sentences with *buy*

Type of Subject	Number of tokens	Percentage
Human	21,525	97.15
- individual or group of people	18,961	85.58
- organisation	2,563	11.57
- body part	1	---
Non-human (animate)	5	0.02
Inanimate	297	1.34
Abstract	329	1.48
Total	22,156	100.00

The figures in Table 7.2 clearly illustrate that the overwhelming majority of Subjects in sentences with *buy* are human (see (193) and (194) below), most typically an individual or a group of people, but also, to a lesser extent, organisations.

- (193) She never buys a paper and never goes out for the evening.

- (194) Volkswagen has seized an investment opportunity by buying Skoda, [...]

As previously mentioned, in a commercial transaction, companies such as, for example, Volkswagen, act as a juridical person in the same way as an individual does. Furthermore, the decision to buy Skoda has not been taken by the company per se but by the individuals constituting its management. Hence, sentence (194) is yet another example of the metonymic relationship existing between an organisation and the people of whom it is made up. That various organisations appear as Subjects of *buy* is, thus, a logical consequence of these facts.

In addition to individuals, groups of people and organisations as Subjects, there is also one example where the human body functions in that role:

- (195) He knew what he had let himself in for and he was glad. Let the fat old queen use his body. It had put food on his mother's table. It had bought the kids clothes. It would eventually bring him untold riches.

In the context of (195), it is not the body as such that has bought the clothes. Rather, it can be seen as a means to an end, an indispensable working tool providing the person "he" with the money necessary to feed and clothe his family. In other words, access to a prostitute's body for a certain amount of time is seen as the equivalent price for food and clothes and as such the body is simply put on a par with any other commodity (cf. (183) and (184) above).

It is fairly common for *buy* to be used in sentences where no Subject is explicitly expressed:

- (196) Buying a horse is exciting – but mistakes can lead to misery all round.

Even though this sentence (and others similar to it) does not contain a Subject, the context makes it clear that the unexpressed Subject is human. Furthermore, psycholinguistic experiments on verb sense disambiguation have shown that not only do "verbs immediately activate relatively detailed information about typical fillers of their agent and patient roles" (Hare, McRae & Elman 2003: 298; cf. Mauner, Koenig, Melinger & Bienvenue 2002: 252), they also "provide access to the generalized situation structure corresponding to the event to which it refers, and thus facilitate processing of participants associated with that event" (Hare, McRae & Elman 2003: 298). In other words, background knowledge of a verb's frame helps the reader/hearer to also process and interpret incomplete linguistic information. In the case of (196), therefore, the hearer/reader

would (sub)consciously interpret the sentence as being about a person buying a horse simply because horses are bought by people and not by any other kind of Subject. Just like the other verbs analysed in this study, when *buy* is used in this way, that is, with no Subject explicitly mentioned, a generic reading is often intended.

Given the semantics of *buy*, the fact that five examples of non-human but otherwise animate Subjects have been found may be somewhat unexpected. However, in three of the five examples *buy* is used in an abstract extended way, as in (197):

- (197) A snail that spends lots of resources on making an extra-thick shell has bought safety for its own body. But at what cost? It may live longer, but it will be less successful at reproducing and may fail to pass on its genes.

Here, words from the COMMERCIAL EVENT frame (*buy*, *cost*) have been used in an extended way to describe a situation where neither buyer nor goods nor price fits a typical commercial transaction. When *buy* is used in this way in combination with an abstract entity as the Object, the verb has moved away from its “normal” interpretation and lost some of its semantic content. According to Adrienne Lehrer, “single words will frequently be extended in meaning for non-prototypical things, events, situations, and processes. Under these conditions, the expected inferences and presuppositions associated with words may be cancelled” (1990: 370). This is a consequence of language being underspecified. A finite inventory is used to express an infinite range of concepts and thoughts.

The other two examples of an animal as the Subject involve a dog buying crisps. Both examples are presented in (198):

- (198) A four-year-old Labrador has discovered a passion for crisps – he even buys them himself. JB, who lives with his publican owners, always makes a bee-line for the regulars as soon as he hears the last orders bell. They usually give him a 20 pence piece and he heads straight for the bar to buy his favourite ready-salted snack.

It is a well-known fact that dogs learn various tricks easily, the trick in the case of JB is to exchange a coin for a packet of crisps. The use of *buy* in connection with an animal Subject, as shown in (198), can thus be motivated by the nature of the trick, by its similarities with a typical buying event. Beyond such contexts, it is not likely that *buy* is found together with an animal Subject.

Inanimate Subjects as a group cannot be considered to constitute a significant part of the data analysed – less than 1.5% of the material as a whole. Sentence (199) is one example with an inanimate Subject:

(199) A theatre has doubled its size by buying and renovating the houses next door, [...]

Just like people and organisations, inanimate Subjects such as this one can conclude a legally binding agreement with another part and as such act as one part of a commercial transaction. Brian MacWhinney (1998: 231) maintains that a sentence such as (199) is an example of fictive agency: the perspective is animate and human, and the theatre is not a real agent. In other words, the theatre is not the actual Subject. So, again in the same way as an organisation, an inanimate Subject per se does not conclude the agreement, this is done by its management. The data on *buy* does not contain any examples of inanimate Subjects that are not made up by human beings.

Compared to inanimate Subjects, abstract ones occur more frequently. Yet, they are not very common in the material. Most frequent in this group of Subjects are the lexeme *money* and other related terms, as shown in (200) and (201):

(200) £50 will buy enough tools and seeds to set up a tree nursery.

(201) It's true what they say, money can't buy happiness, thought the simple sergeant.

Example (200) illustrates that when a fixed sum appears as the Subject, the Object is usually a concrete entity, while *money* can be connected to concrete as well as abstract entities (as in (201)). There are also a few examples where the Subject is made up by a clause:

(202) Agreeing to her suggestion of a “meeting” would buy them time, but for what?

When a clause appears as the Subject, the Object is always the lexeme *time*. Common to all the sentences with abstract Subjects is that it is possible to trace an implicit human Subject in the background, someone providing the money or agreeing to a meeting. To put it another way, the window of attention (see Talmy 2000a) has been moved from the actual buyer to the means for concluding the transaction. Langacker (1991) refers to this

as ‘the stage model’. The part of an event to which attention is directed is in the ‘onstage region’ that defines “a *viewing frame* that delimits the scene immediately available for focused observation” (1991: 499, italics in original).

7.3.3 Objects of *buy*

Considering the usages found in the *BNC*, a typical Object should be a concrete entity. In Table 7.3, an overview of all the Objects in sentences with *buy* is presented.

Table 7.3. Distribution of Objects in sentences with *buy*

Type of Object	Number of tokens	Percentage
Concrete	19,698	88.91
- concrete entity	19,335	87.27
- human or human body part	363	1.64
Abstract	1,203	5.43
No Object	1,255	5.66
Total	22,156	100.00

The analysis of the Objects confirms that most Objects are indeed concrete, in particular concrete entities of some sort, as illustrated in sentences (203) and (204):

(203) Where are they gonna go to shop, buy food and clothes?

(204) I bought a British car and I am proud of it.

Concrete entities as Objects come in a wide variety ranging from simple toothbrushes to multinationals, but there are some Objects that appear more frequently than others. Food and drink, clothes and vehicles of different kinds, as exemplified in (203) and (204), are frequent, as are real estate and companies. These examples provide an insight into social norms: people need food for subsistence, clothes for protection, somewhere to live and, preferably, a means of transportation. Furthermore, transactions involving companies are often the topic of the financial pages in newspapers. In contrast to *acquire* (cf. chapter 6), then, and considering that Objects of *acquire* commonly are high-value entities, whereas Objects of *buy* come in all possible price ranges, it looks as if the latter verb might be considered somewhat more “everyday” than the former and less sensitive to the value of

its Objects. Put differently, the field of application is much wider for *buy* than for *acquire*, a fact that is clearly noticeable in the number of instances retrieved from the corpus for each verb: the frequency of *buy* is more than four times that of *acquire*. In a way similar to the claim that frequency and centrality are interrelated when it comes to verb usages (cf. Gries 2006: 76; see also the discussion in 6.3.1.1), the higher frequency of *buy* can be taken as an indication of its importance (centrality) in the English lexicon as compared to *acquire*.

Sentences where the Object is a human being are less frequent in the data, two examples are (205) and (206):

(205) Chapman strengthened his squad by buying Charlie Jones from Nottingham Forest.

(206) I was beginning to think of the bordello. The madam might occasionally slap the girls or call them rude names, but in the end she wants the customers to buy at least one of them.

The examples found in the corpus show that people are usually bought in their capacity of being (i) slaves, (ii) professional footballers (as in (205)), or (iii) prostitutes (as in (206)). In all three cases, the Object can be regarded as a kind of merchandise over which the buyer exercises a certain authority and therefore also has the right to dispose of, more so in (i) and (ii) than in (iii). People can also be bought because it is desirable to have them on one's side. This can be achieved with bribes or by hiring their services as professionals (cf. also 6.3.3).

A few examples contain body parts as the Objects. Those Objects can be metonymic, as in (207):

(207) I can buy the best legal brains in the business, [...]

but they can also refer to the trafficking of organs for transplantation:

(208) Most [agents] prey on migrant workers and the poor, telling them they need only one kidney to live and offering to buy the other.

Sentences where no Object is explicitly mentioned account for slightly less than 6% of the material. Sentence (209) is one such example:

- (209) In the main survey, only one per cent of those who had recently bought on credit had difficulty making payments [...]

Many examples without an overt Object refer to situations where something is bought on credit. Again, this is a reflection of society. At least in Western society it is not unusual that various commodities are paid for by credit cards or purchased by instalments. Even though it is not overtly expressed, the Object is still conceptually present. Fillmore (1971: 375) defines *buy* as a verb that conceptually requires four arguments: a buyer, a seller, goods and money. This should be distinguished from the number of arguments that must be explicitly present in the sentence to make it grammatical (see 2.2). Quite often the surrounding context gives information as to what exactly the missing Object is:

- (210) Premises first of all. We couldn't afford to buy and rents are exorbitant.

In this example, the second clause containing *buy* indicates that the Object most likely is a property of some kind but leaves open the question of exactly what kind of property is intended: a house, a flat, a shop, a factory building, or something else. The word *premises* in the preceding clause removes some of this ambiguity and suggests that, rather than private housing, what is discussed is some type of business property. Thus, this is an example that supports the observation made by Roland and Jurafsky (1998: 1124) that larger stretches of discourse decrease the need to express all the arguments overtly. It is further an example of how the linguistic frame to which a word is linked helps in sentence interpretation: language users are (consciously or subconsciously) aware that a word such as *premises* is more likely to appear in a discussion on finding business facilities than in a conversation about the search for a flat.

Abstract Objects make up slightly more than 5% of the examples found in the corpus. Just like concrete Objects, the range of abstract Objects is wide and varied, as is shown in sentences (211) through to (213):

- (211) Europe's airport slots should be bought and sold like any other asset, [...]
(212) But you will also get something that money can rarely buy... complete peace of mind.
(213) In other words, for a steep sum, whites could buy the right to forget their guilt.

These three sentences demonstrate how the concrete entity Goods from the COMMERCE BUY frame is mapped onto abstract entities, thus placing them on a par with any other item that can be bought. Among the abstract Objects idiomatic expressions such as *buy time* (see (185) and (202) above) and *buy one's way out of/into* are found. Besides these two, the most frequent ones are *money can/can't buy X*, exemplified by sentence (212) above, and *the best/cheapest etc. X that money can buy*. Added together, however, these four expressions account for less than one per cent of the data. Thus, fixed phrases and idiomatic expressions are not a common feature in the data on *buy*.

7.4 Summary

Buy is one of the verbs linked to the COMMERCE BUY frame, itself one part of the COMMERCIAL EVENT frame. The COMMERCIAL EVENT frame describes a complex situation where participants interact in accordance with socially sanctioned rules of conduct. Within this frame, *buy* expresses one aspect of a regular buying event from the perspective of the buyer. A human Subject who buys a concrete entity of some sort is the most frequent usage of *buy* found in the material analysed in this study. It accounts for the vast majority of examples, 94% of the data as a whole. From this it follows that non-physical usages of *buy* are not very common in the corpus. Most frequent among non-physical usages is the buying of an abstract entity, which accounts for just above 5.5% of the examples. The extension of *buy* into the mental domain is by far the least frequent usage: only seventy-one examples accounting for less than half a per cent of the material have been found. The regulated nature of a buying event paired with factors such as transfer of control and ownership hinder the verb's extended use as a mental verb. In other words, the frame of *buy* prevents the use of the verb to express mental experiences.

As could be expected from a verb associated with the COMMERCIAL EVENT frame, Subjects in sentences with *buy* are predominantly human: 97% of the examples have a human Subject of some sort. Most frequent as Subjects are individual people. Non-human but otherwise animate Subjects are almost negligible in the material. Given the institutionalised character of *buy*, this comes as no surprise. Inanimate Subjects are generally of the type *the school*, *the theatre*, and so on. Just like organisations, they are made up of and managed by people and they can be part of a legally binding agreement. These are fea-

tures that motivate the extension from a typical human Subject. Abstract Subjects usually come in the form of the lexeme *money* or other related terms. Here, the money argument has been put in focus as the Subject and the logical Subject – a human buyer – has been gapped (Talmy 2000a). Even so, although omitted from the sentence the buyer is still conceptually present (cf. Fillmore 1971) as a necessary argument.

Considering the semantics of *buy*, a typical Object is a kind of concrete entity. This is also true for the material analysed where 87% of the examples contain a concrete Object. *Buy* is not used in fixed phrases to a very great extent: less than 1% of the examples contain an idiomatic expression or fixed phrase.

To conclude, *buy* belongs to a highly institutionalised frame. The analysis has shown that *buy* in general conforms to what could be expected from a verb linked to this kind of frame: the most frequent usage is a person who buys a concrete entity. Furthermore, *buy* is only to a very limited degree extended into the mental domain. The result suggests that even if ideas, facts, etc. may be likened to concrete entities (cf. the metaphor IDEAS ARE OBJECTS), they are more likely to be conceptualised as entities that can be grasped or gathered rather than bought. Although there may be several explanations why this is so, it nonetheless confirms the hypothesis put forward in this thesis: verbs linked to a complex and detailed frame are not so easily used as mental verbs.

CHAPTER 8

RECEIVE

Like *acquire* and *buy*, the verb *receive* is linked to a more complex frame compared to the other verbs that are part of this study. The analysis of *receive* shows that the extent to which the verb is used within the mental domain is very small indeed. Hence, just as is the case for *acquire* and *buy*, and also for *seize*, it is possible to establish a correlation between frame complexity and frequency of mental usages. In addition to the complexity of the verb's frame, another inhibiting factor in the semantics of *receive* is an inherent feature of passivity that is distinguishable in all its various usages. No matter if the receiving is physical or non-physical, the Subject is always a passive recipient of the Object. It is shown in the analysis that such passivity is incompatible with mental processes and activities which generally require an active Subject.

8.1 *Receive* in FrameNet

The definition in FrameNet of the RECEIVING frame, to which *receive* belongs, is:

A Recipient comes into possession of the Theme as a result of the joint action of the Donor and the Recipient. The Receiving frame like the Giving frame requires that the Donor first has possession of the Theme and that following the transfer, the Donor no longer has the Theme and the Recipient does. (FrameNet)

FrameNet lists Donor, Recipient and Theme as core frame elements, clearly stating that Donor and Recipient are persons and that Theme is a physical object. Just like the COMMERCE BUY frame (see 7.1), the RECEIVING frame inherits from the GETTING frame (see 6.1). The RECEIVING frame, however, uses much of the same unspecified terminology as the parent frame. Even though the Donor is explicitly mentioned in the definition of the frame and listed as a core frame element, it is not always the case that the Donor is overtly expressed in a sentence. The data analysed contains many examples of sentences where the Donor is only implied by the context. In addition to the three core frame

elements, FrameNet presents a list of the optional non-core frame elements Countertransfer, Depictive, Manner, Means, Mode of transfer, Path, Place, Purpose of Donor, Purpose of Theme, Role and Time.

8.2 Receive in the OED

Like *seize* and *acquire*, *receive* has entered the English language as a loan-word. It is an adaptation of Old Norman French *receiver* (*receyvre*), which is derived from Latin *recipere* (*re-* + *capere* ‘to take’) via Old French *reçoivre* (*OED*).

The date for the earliest attested record in the *OED* for each main usage group is given below within parentheses:

PHYSICAL:	to take in one’s hand, or into one’s possession (something held out or offered by another); to take delivery of (a thing) from another, either for oneself or for a third party (a1300)
NON-PHYSICAL:	to accept (something offered or presented) (a1300)
MENTAL:	to give credit to; to believe (1382)

While there is only one definition each for mental acquisition as regards the other five verbs analysed in this work, there are two for *receive*. In addition to the one given above, there is another mental usage attested in the *OED* that dates from 1603: ‘to take into the mind; to apprehend mentally; to understand; to learn’. Here, there is an explicit reference to understanding and learning. Furthermore, there are records of mental receiving from as early as 1382. None of the other verbs show such an early use within the mental domain. Possibly, the early appearance of this usage is influenced by and derived from another usage, which is reported in the *OED* to have emerged at approximately the same time: ‘to accept as an authority, rule, or practice; to admit the truth or validity of’. It should also be noted that unlike the other five verbs, the earliest attested records for physical as well as non-physical usages of *receive* coincide in time.

As is shown in the analysis below, *receive* is a verb that is extensively used, so much in fact that it has been considered worth commenting on in the *OED*:

The leading distinction between the senses of *receive* in Eng. is that between the more active senses included in branches I and II, and the almost passive ones placed under III. This distinction, however, is not always perfectly clear in actual use, and it is often difficult or impossible to determine which aspect of the word is meant to be prominent in particular instances. Owing to the very extensive use of the vb. from the 14th c. onwards, there is also much overlapping of its various applications, and in many examples it is uncertain whether a specific or merely general sense is intended. (*OED*)

This being so, there are twenty-five different definitions of *receive* listed in the *OED*. Many of these are broken down further, which gives a total of sixty-two different aspects of the verb.

8.3 *Receive* in the *BNC*

There are 20,907 instances of *receive*, *receives*, *receiving* and *received* in the *BNC*. *Receive* is thus the second most frequent of the six verbs analysed here, only surpassed by *buy* (see chapter 7). This clearly shows how extensive the use of the verb is. As always in this work, only usages concerned with acquisition have been considered for analysis.

8.3.1 Usages of *receive*

Receive resembles *acquire* in that the question of whether a transfer of ownership has been completed is left unsettled. In most cases, the Subject is nothing more than a passive recipient of some entity of which it is uncertain whether the recipient could or wants to claim ownership. It is very difficult, often impossible, to decide what usage a specific instance of *receive* exemplifies and there are many borderline cases. Furthermore, the frequency of most usages is very low. The main usages attested in the data are presented in Table 8.1.

Table 8.1. Usages of *receive*

Usage	Number of tokens	Percentage
Physical receiving	10,236	48.96
- <i>receive</i> (concrete entity)	9,606	45.95
- miscellaneous usages	630	3.01
Non-physical receiving (other than mental)	10,611	50.75
- <i>receive</i> (abstract entity)	10,040	48.02
- miscellaneous usages	571	2.73
Mental receiving	60	0.29
- <i>understand</i>	26	0.12
- <i>learn</i>	20	0.10
- <i>accept</i>	14	0.07
Total	20,907	100.00

The figures in Table 8.1 demonstrate that the difference between physical and non-physical receiving is not very great. So, if a core sense of *receive* were to be established, neither frequency nor diachronic evidence would be very useful as criteria. Instead, a suggested core sense could be schematically described as ‘be the recipient of an entity’, which seems to be the central feature of all the usages of the verb. A contrasting view is expressed by Klein and Murphy (2001: 270, 277-278) who argue that if a core sense really exists it is minimal and not shared by all the usages. Instead, it is “the original basis from which the other senses were historically derived” (2001: 278). However, in contrast to Cruse (2000), their results lead them to draw the conclusion that there are no core senses at all. On the other hand, it has been proposed (Groefsema 1995, as reported in Gibbs & Matlock 2001: 234-235) that the senses of polysemous words stored in language users’ minds are highly abstract and that relevant interpretations are derived from context, a suggestion that strengthens the idea of a schematic core sense of *receive*.

The analysis of the material on *receive* further shows that just like *gather*, *grasp* and *seize*, *receive* requires physical closeness between the Subject and the Object if the action of the verb is to be successfully carried out. This applies to all the different usages of the verb.

8.3.1.1 Physical receiving

Physical receiving accounts for just below 49% of the examples in the data. The most frequent usage of physical receiving is the receiving of a concrete entity of some sort:

almost 46% of the material can be assigned to this usage. Sentences (214) and (215) exemplify the receiving of a concrete entity:

(214) She had received £70 in cash, repaid £35, and still owed £101 15s.

(215) How nice to receive a letter so full of constructive criticism.

The sentences above represent two of the four largest subgroups of the receiving of a concrete entity: various expressions for money and related terms, and letters and other messages. The remaining two refer to receiving various types of documents, and trophies, awards and medals. Together, these four subgroups account for more than 7,500 tokens, which is close to 80% of all the sentences involving the receiving of a concrete entity.

In addition to ‘receive (concrete entity)’, there are other usages that are here assigned to the group of physical receiving that are all very small: most of them account for less than one per cent each of the material. Hence, although these usages are often listed in dictionaries, it is not certain that they constitute distinct senses in language users’ minds (cf. Ide & Véronis 1998; Tyler & Evans 2003). Some examples refer to situations where the Subject can be seen as a container of the Object:

(216) The waiting room of Nyugati station, in Budapest, built like a palace to receive passengers from the “Orient Express”.

(217) The high ground of Harris and Uig receive proportionally more orographic rainfall, with the summits receiving about 1000 mm more rain per year than adjacent western coasts.

Here, *receive* can be interpreted as either ‘provide room for’ or ‘be a receptacle of’. As seen in the two examples above, Subjects in sentences like these are commonly inanimate. There are, however, variations on the same theme where the Subject is human. Most of these examples refer to someone receiving communion. This is related to the non-physical usage ‘receive (in religious use)’ (see 8.3.1.2) in that in addition to the concrete physical action of consuming the wine and the bread, receiving communion is also a matter of faith, of receiving metaphorically the blood and the flesh of Jesus Christ as a reminder of his sacrificial death.

Just less than half a per cent of the material analysed can be assigned to the usage ‘get (concrete) feature’, here exemplified by sentences (218) and (219):

- (218) Sophie Parke was only the third child in Britain to receive two hearts in a piggy back style transplant.
- (219) Other cars received straight hand rails and folding platform steps.

These two sentences are typical of this usage, which describes either a person undergoing transplant surgery or some sort of machine or vehicle undergoing various modifications. In the latter case, the usage is close in meaning to the ‘become equipped with’ usage of *acquire* (see (133) and (134) in 6.3.1.1).

Slightly less than 1% of the examples in the data involve someone receiving an injury (or becoming damaged in the case of inanimate Subjects):

- (220) The woman transferred from intensive care had received disfiguring head and chest injuries.

Even though an injury in some respects can be seen as quite abstract – for example, it is not possible to physically hold or move it – this usage has still been considered as a part of physical receiving in this study. The reason for this choice is that a received injury has a physical and often visibly noticeable impact on the Subject.

8.3.1.2 Non-physical receiving other than mental

Non-physical receiving makes up slightly less than 51% of the data analysed with the usage ‘receive (abstract entity)’ accounting for the vast majority of the examples. This is also the single most frequent usage of *receive*.

- (221) It has been said that it is unsporting to receive help from another angler when you catch a fish.
- (222) Why does society try to ensure that every child receives an education?

Abstract entities that are received form a heterogeneous group and come in a multitude of forms. Together with Objects such as *reply*, *request* and *information*, the examples given above represent some of the major subgroups in the data. Sentences where the Subject is the actual Object of some treatment, as illustrated in sentences (223) and (224), are also frequent:

- (223) If trade unions can stir up support they will receive sympathy from non-Communists who cherish the five storey factory as part of the national heritage.
- (224) Would most multiple rapists have received only seven years for such horrific offences?

The range of treatments to which someone or something may be subjected is vast and covers both positive and negative actions. Other lexemes that are frequent in similar contexts are, to mention just a few, *approval*, *attention*, *criticism*, *publicity* and *recognition*. Common to all the Objects in the usage ‘receive (abstract entity)’ is the rather passive way in which they seem to be received.

Like physical receiving, its non-physical counterpart comprises several usages with a very low frequency. One of them is the usage ‘receive signal/picture/sound’ represented by sentences (225) and (226):

- (225) The wristwatch has a [sic] antenna coil across its face to receive the radio signals.
- (226) Underwater, we are at even more of a disadvantage, for our ears are best suited to receive air-borne sound.

This usage makes up approximately 1% of the data and the scarcity of examples is, of course, a consequence of the narrowness of its field of application.

Receive can also be used to express how a person has found salvation, that is, a belief in Jesus Christ:

- (227) [...] in the vast majority of cases people who say no, I will not receive Jesus it is not because of so called intellectual doubts, that is only an excuse, because his reasoning his far above our reasoning. The real reason is I am frightened what folk will say, or I do not want to give up this particular habit of mine.

Like the previous usage, ‘receive (in religious sense)’ has a very narrow field of application and, consequently, it is not very frequent in the corpus.

Analogously to receiving a concrete feature, as illustrated above in (218) and (219), it is possible to receive an abstract feature:

- (228) For each trait (for example, the trait of being tall or short, or of being smooth or wrinkled), each individual receives two genes, one inherited from each parent: thus an individual might receive two genes for tallness, or two for shortness, or one of each.

This usage is among the least frequent ones found and occurs in only slightly more than one-quarter of a per cent of the cases. It could be argued that the examples that have been categorised as pertaining to this usage could just as well have been assigned to the usage ‘get (abstract entity)’. It is uncertain whether language users, if asked, would regard ‘get (abstract) feature’ as a distinct usage. As observed by Ide and Véronis (1998: 22), it is important to establish a suitable level of “sense granularity” in linguistic analyses. In other words, the researcher has to decide how fine-grained and detailed the division of the data into different usages should be. The level of sense granularity is generally subjectively determined, however, and varies between different studies, thus making it difficult to evaluate whether or not a usage has been correctly assigned. Still, the division between ‘get (abstract entity)’ and ‘get (abstract) feature’ has been kept for the sake of analogy between physical and non-physical usages.

The last usage of non-physical receiving to be presented is ‘be exposed to’, here exemplified by sentences (229) and (230):

- (229) In one case, people had received radiation doses of 50 roentgens – four times that of those who had been evacuated from Chernobyl.
- (230) The reason vitamin D was regarded as a vitamin is because it is found in our food, and this is important for those who do not receive adequate exposure to sunlight – for example, the house-bound elderly.

Again, the field of application is limited and this is shown by the low number of examples found in the corpus for this usage, about two-thirds of a per cent of the examples are here assigned to this usage.

8.3.1.3 Mental receiving

Mental receiving constitutes only a minor part of the examples retrieved from the *BNC*: sixty instances, corresponding to slightly more than one-quarter of a per cent, have been found. Most frequent among the usages of mental receiving is ‘understand’, as shown in sentence (231):

- (231) Uncivilised tribes, surrounded by magnificent scenery, have the utmost difficulty in receiving the simplest moral and intellectual concepts.

The fuzziness of words in general (cf. Lehrer 1990) and mental concepts in particular is evidenced in this example: besides an interpretation as ‘understand’, *receive* may just as well be taken to mean ‘learn’ or ‘accept’. Another example of mental receiving where the verb is most appropriately interpreted as ‘learn’ is (232):

- (232) When parents are presented with the blocks from which their children must select their GCSE subjects, they realise it is now impossible to avoid choosing one, or probably two, of the sciences. So one may take it that everyone receives at least a smattering; and more flexible A-level and university courses make it possible for people to combine more advanced science with arts subjects in a way that was virtually impossible in my day.³²

There are also some examples where the verb conveys a degree of acceptance, of giving credit to something, as shown in examples (233) and (234):

- (233) A form of words may, in one context, be opinion (and therefore defensible as “fair comment”) while in another context appear as a factual statement, consequently requiring proof of correctness. There is no hard and fast rule: once again, the test is that of ordinary readers. Would they, on reading or hearing the words complained of in context, say to themselves “that is an opinion”, or “so that is the fact of the matter?” Unattributed assertions in news stories and headlines are likely to be received as factual, while criticism expressed in personalised columns is more likely to be regarded as opinion, [...]
- (234) The planning departments determine in advance which [economic outlooks] they choose to receive.

In a context such as the one provided in (233), for example, it would be possible to interpret *receive* as ‘understand’ or, indeed, as ‘interpret’. Hence, as these examples demonstrate, it is seldom easy to distinguish between the various aspects of mental receiving expressed in the examples found and the aspects often overlap each other in meaning. As discussed in section 2.3 (see also, e.g., Ide & Véronis 1998; Taylor 2000; Coulson 2001; Pickering & Frisson 2001), context is often the only means to disambiguate a word with multiple usages, but as these examples of mental receiving show, sometimes not even context is enough.

³² GCSE = General Certificate of Secondary Education.

Individuals or groups of people are the only Subjects in examples of mental receiving. As in the case of *acquire*, the corpus does not give any evidence of organisations in combination with *receive* as a mental verb. The material on mental receiving is not extensive enough for any definite conclusions as to why this should be the case. One possibility is that the different usages of *receive* as a mental verb, that is, ‘understand’, ‘learn’ and ‘accept’, are understood as somehow incompatible with an organisation as the Subject. It could also be an effect of a fairly low percentage of organisation Subjects in general, combined with the very low frequency of *receive* as a mental verb. This is a plausible explanation since *grasp*, which is much more frequent as a mental verb but has an even smaller number of organisations as Subjects compared to *receive*, fairly often takes an organisation as the Subject when used within the mental domain.

The scarcity of examples referring to mental receiving could depend on several factors. Firstly, the feature of passivity associated with the verb could constitute an impediment to using the verb within the mental domain. Mental activities such as understanding and learning involve a certain amount of conscious effort on the part of the Subject. Classen points out that “auditory terms rarely serve as metaphors for thought or intelligence in English. [...] This is perhaps because hearing is conceived of as a passive sense” (Classen 1993: 59). Analogously, a degree of activity, which is lacking in *receive*, might be regarded as a prerequisite for a verb to be used as a mental verb. Activity is, for example, a prominent feature of both *gather* and *grasp*. Secondly and most importantly, the frame of *receive* requires that there is a Source from whom the received Object comes. This requirement is inconsistent with the fact that mental processes generally involve only a Subject and an Object, but tallies with the view advocated in this thesis: the more complex a frame associated with a certain verb is, the less likely it is that the verb is extended into the mental domain. Thirdly, it is often very difficult to distinguish between usages. It could therefore be the case that if an analysis of the wider context of, for example, a collocation such as *receive information* should be undertaken, this would result in a recategorisation of some examples from the usage ‘get (abstract entity)’ into mental receiving. It is not probable, however, that this would significantly increase the figure of the latter. Following the practice proposed in WordNet, it would also be possible to recategorise the usage ‘receive (in religious use)’ as mental receiving.³³ In

³³ WordNet is a lexical database developed at Princeton University. It groups nouns, verbs, adjectives and adverbs into synsets (sets of cognitive synonyms) expressing a distinct concept. The synsets are linked into a network of related words and concepts.

WordNet, the definition of this usage is ‘accept as true or valid’. The grounds for not including religious receiving among mental usages is that it is seldom possible to explain religious beliefs with the help of rationality. In other words, finding a faith has been considered an emotional rather than a rational and cognitively grounded experience.

8.3.2 Subjects of *receive*

According to FrameNet, a typical Subject in sentences with *receive* should be a person. This is explicitly stated in the definition of Recipient. The distribution of Subjects in sentences with *receive* as found in the data is presented in Table 8.2.

Table 8.2. Distribution of Subjects in sentences with *receive*

Type of Subject	Number of tokens	Percentage
Human	17,308	82.79
- individual or group of people	14,702	70.32
- organisation	2,494	11.93
- body part	112	0.54
Non-human (animate)	281	1.34
Inanimate	1,779	8.51
Abstract	1,539	7.36
Total	20,907	100.00

The material retrieved from the *BNC* confirms that human Subjects are typical of *receive*: close to 83% of the Subjects are in some way human. Most frequent as Subjects (more than 70% of all the examples) are individuals or groups of people:

(235) He himself had received letters from all over England, [...]

Organisations of various kinds are also assigned to the group of human Subjects:

(236) The publishers of *The Satanic Verses*, Viking Penguin, who still receive death threats, have already spent £2 million on extra security.

Subjects such as companies, countries and their institutions make up just below 12% of the data as a whole. As always, organisations can be considered metonymic representations of the people who constitute them. In addition to individuals, groups of people and

organisations, there are also some examples where a body part appears as the Subject, as shown in sentence (237):

- (237) Every month during the reproductive years, the uterus prepares to receive a fertilized ovum by building up a velvety, [...]

In (237), it is the body part as such that receives something. In other words, the body part does not metonymically represent the human as a whole. In this, *receive* resembles both *acquire* (see 6.3.2) and *gather* (see 3.3.2), both of which also have body parts as Subjects in their own right. For *receive*, only one-quarter of the examples with a body part as the Subject should be interpreted metonymically.

All the other verbs analysed here have a number of examples of sentences without any overtly expressed Subject and *receive* is no exception. *Receive* follows the pattern set by the other five verbs: the missing Subject can be retrieved from the surrounding context and it is commonly a human Subject. Roland and Jurafsky (2002) state that the omission of a verb argument hinges on several different factors: “the semantics of the verb, what kind of omission the verb lexically licenses, the definiteness of the argument, and the nature of the context” (2002: 331). According to Newman (1996: 1, 58), *receive* is the same as *give* but seen from a different perspective. He defines *give* as an act where a person passes on an entity to another person. Following Newman, then, *receive* is also a three-argument predicate, in any case if considered from a conceptual point of view.

Non-human Subjects account for only a small portion of the group of Subjects: less than 1.5%. The scarcity of examples could possibly be explained by the fact that *receive* is mainly seen as a verb requiring human Subjects, at least if judging by the definition provided by FrameNet. Sentence (238) exemplifies non-human Subjects:

- (238) Water houseplants regularly and ensure they receive enough humidity.

When the Subject is a plant, what is received is usually water and light. Plant Subjects of *receive* are in this way similar to their counterparts in the data on *gather* and *acquire*. Should the Subject be an animal the received entity is instead love and care, provided that the animal is not a bat or a dolphin, which, according to the examples in the data, generally receive sounds or echoes.

Given the fact that *receive* primarily takes human Subjects, inanimate Subjects might be regarded as constituting a surprisingly large part of the Subject group: more than 8% of the Subjects are inanimate. Here, sentence (239) illustrates inanimate Subjects:

- (239) The famous hospital gets all royalties from the books, and has already received £287,000 for the film.

Other studies confirm that *receive* frequently occurs with an inanimate Subject. In the *Longman Spoken and Written English Corpus*, this is the case at least twenty times per million words (Biber, Johansson, Leech, Conrad & Finegan 1999: 378). Still, this number is far from the frequency attested in the *BNC*. One explanation why there is a comparatively high number of examples with inanimate Subjects could be that in many cases it would be possible to interpret the Subject as a metonymic substitute for the people constituting its management (see (239) above). Hence, it is not the hospital (or school, museum, etc.) per se that has received the money but the members of the hospital board on behalf of the hospital (cf. MacWhinney's (1998) fictive agency). This is also often the case when inanimate Subjects appear together with the other verbs part of this study. It is also difficult to define a core sense of *receive*. Thus, it is possible that, if there is such a thing as a schematic core sense of the verb as proposed in 8.3.1, that is, 'be the recipient of an entity', this might bring on and facilitate an extension of the Subject role. There are furthermore some usages of *receive* where the Subject must be inanimate, for example, 'receive signal/picture'.

In the same way as inanimate Subjects, abstract Subjects also account for an unexpectedly high proportion of the Subject group as a whole: more than 7% of the Subjects are abstract. They are here exemplified by sentence (240):

- (240) Prior to the mid 1960s, pollution issues received only limited and sporadic attention from a public whose interest was largely restricted to [...]

Abstract Subjects constitute a heterogeneous group with one thing in common: they commonly appear in the usage 'receive (abstract entity)', often as the actual Object of some kind of treatment. The reason why the number of abstract Subjects is fairly high could be explained in the same way as for inanimate Subjects: the schematicity of a core sense of *receive* might encourage the use of less typical Subjects.

8.3.3 Objects of *receive*

In FrameNet, the definitions of the RECEIVING frame and of the Theme (the FrameNet term for the Object) seem to favour a concrete Object, but the definitions of some of the optional frame elements indicate that the Object can be either concrete or abstract. The *BNC* shows a similar result, as presented in Table 8.3 below, where the difference in frequency between concrete and abstract Objects is very small – only a slight predominance for abstract ones can be detected.

Table 8.3. Distribution of Objects in sentences with *receive*

Type of Object	Number of tokens	Percentage
Concrete	10,214	48.85
- concrete entity	10,040	48.02
- human or human body part	174	0.83
Abstract	10,616	50.78
No Object	77	0.37
Total	20,907	100.00

Apart from a small number of human Objects, concrete Objects are commonly some sort of concrete entity:

- (241) Earlier this year, or was it last year, I received this marvellous booklet.

Concrete entities as Objects form a varied and heterogeneous group. However, four main categories can be discerned: (i) money, (ii) letters, (iii) other written documents, and (iv) medals and awards. Given that these four categories account for almost 80% of this Object group, concrete-entity Objects are, with a few exceptions, usually of a rather low value or have a value which is difficult to estimate.

Human Objects generally appear in only one context, that is, as patients in need of hospital care, as shown in example (242):

- (242) On July 13th 1803 John Wing reported that one six-bedded ward would be fit to receive patients by August 7th.

Human body parts have also been assigned to the group of human Objects:

(243) Linda received a liver from another child [...]

Example (243) is typical of sentences with a body part as the Object: almost all the cases where a body part functions as the Object are found in the context of organ transplants (see also example (218) above).

The group of abstract Objects, too, comprises a variety of different Objects, for example, *discount* and *premiere*, as in the two examples given here:

(244) Regional Council employees receive ten per cent discount on Blindcraft products [...]

(245) The latest film by Steven Spielberg “Hook” is to receive its premiere in London tonight.

Other lexemes that appear frequently as abstract Objects are *answer*, *vote* and *sentence*, to mention just a few.

There are furthermore a few examples of sentences where no Object is explicitly mentioned:

(246) It’s as blessed to receive as to give – at least I hope!

Sentences without an Object are typically to be interpreted as ‘receive (concrete entity)’, ‘receive signal/picture’ and ‘receive (in religious use)’. As pointed out by Mauner, Koenig, Melinger and Bienvenue, “the fact that an argument does not receive overt syntactic expression is no guarantee of its absence from a verb’s representation” (2002: 251). In other words, as always when verbs of acquisition are involved, there is an Object conceptually present even when it is not overtly expressed.

The analyses of *gather*, *seize* and *acquire* (see chapters 3, 5 and 6 respectively) show that these verbs quite often appear in the company of words from a few clearly discernible semantic domains. This is not absolutely true for *receive*. Even though there are some Objects that occur more frequently than others in the data, this is more of a reflection of the structure and composition of the *BNC* than a feature of the verb itself. *Receive* in combination with an abstract Object is often used in more formal situations, whereas the same linguistic content would probably be expressed in a different way in, for example, spoken discourse, which only accounts for 10% of the corpus.

8.4 Summary

Receive belongs to the RECEIVING frame and its usages are almost evenly divided between physical and non-physical receiving. There is only a slight predominance for different forms of non-physical receiving. Frequency and diachronic evidence as attested in the *OED*, have little help to offer if a core sense of *receive* is to be established. A feature that all the different usages of the verb seem to have in common could be schematically expressed as ‘be the recipient of an entity’. The majority of examples expressing physical receiving can be interpreted as ‘receive (concrete entity)’. Other usages of physical receiving are much less frequent and most of them do not comprise even 1% of the data. Slightly more than 50% of the instances of *receive* found in the corpus express non-physical receiving. Most common is ‘receive (abstract entity)’, which is also the single most frequent usage. As is the case with physical receiving, other usages are not as common and do not reach even 1% each. Common to all the usages, whether physical or non-physical, is that the Subject in general does not actively instigate the action but should rather be seen as passively receiving the Object.

Receive within the mental domain is very rare: only slightly more than one-quarter of a per cent of the examples (sixty tokens) express mental receiving. This scarcity can be connected to the frame of the verb in two ways. Firstly, the frame for *receive* demands a Source from whom the Object has originated, a demand conflicting with the fact that mental processes generally engage only the Subject and an Object. Secondly, *receive* is commonly associated with a feature of passivity, which may be seen as incompatible with mental usages since mental processes usually require an active Subject.

In the RECEIVING frame, it is stated that the Subject (Recipient according to FrameNet) should be a person. This is also the case in the data, where more than 82% of the Subjects are human in some way. Most commonly, Subjects in sentences with *receive* are individuals or groups of people. Due to the fact that *receive* primarily takes human Subjects, non-human Subjects are not very frequent in the material. As a consequence, inanimate and abstract Subjects, too, should be scarce. This is, however, not absolutely true. Although neither of the groups accounts for even one-tenth of the material, this may still seem like a fairly high portion in light of what has been said about the typical Subject. As regards inanimate Subjects, the rather high percentage can be explained in several ways. In many cases it is, for example, possible to see the inanimate Subject as a metonymic substitute for a human Subject. There are also some usages that require an

inanimate Subject. An explanation that might serve for both inanimate and abstract Subjects is that the schematicity of the suggested core sense of *receive* might promote the use of less typical Subjects. That is to say, should *receive* be schematically defined as ‘be the recipient of an entity’, *recipient* is vague and wide enough to encompass all sorts of Subjects.

Considering the definitions given in FrameNet, it seems that *receive* has no typical Object. This is also confirmed in the data where the difference in frequency between concrete and abstract Objects is almost negligible.

To summarise, *receive* belongs to a frame with certain requirements as regards necessary participants. The frame is, however, not as strict and institutionalised as the one for *buy* (see 7.1). It is difficult to find a core sense of *receive*, but a suggestion is the schematic ‘be the recipient of an entity’ where neither recipient nor entity is defined in any detail. In the material analysed, physical and non-physical receiving account for almost the same number of examples, but the single most frequent usage is ‘receive (abstract entity)’. Like *buy*, *receive* is not used very frequently within the mental domain: the instances found for mental receiving account for less than half a per cent of the data. Again, this substantiates the claim that the complexity of a verb’s frame has implications for its use as a mental verb. The feature of passivity inherent in *receive* as part of its semantic content – and therefore also part of the verb’s frame – further impedes a mapping of *receive* from the physical onto the mental domain: mental activities usually require an active effort on the part of the Subject. Thus, the lack of a feature of activity in the semantics of *receive* seems to make the verb unsuitable for extensive use within the language of mental experiences.

CHAPTER 9

SUMMARY OF ANALYSES

Acquire, buy, gather, grasp, receive and *seize* can all be used to express physical acquisition of an entity. They are also, to a greater or lesser extent, used for mental acquisition, that is, as mental verbs expressing understanding, learning, believing, and so on. The presentations in chapters 3-8 include analyses of the contexts in which the verbs are used, how frequently they extend into the mental domain and what kinds of Subjects and Objects they typically occur with. The basic premise of the current work is the hypothesis that the frame to which a verb is linked exerts a considerable influence on how easily the verb can be used as a mental verb. In other words, extended usages and mental usages in particular are the main focus of the thesis. Verbs that are linked to more complex and elaborate frames as regards, for example, the number and nature of necessary participants, situational context, etc., are less easily extended into the mental domain, while the extension of more physical verbs is facilitated by the fact that they are linked to simpler frames. The analyses have aimed at illuminating the extent to which the six verbs chosen for the study are used as mental verbs and how much this use is restricted by the frames associated with the verbs. Frames express the totality of knowledge that language users have about a verb. This knowledge includes information regarding the semantics and the syntax of the verb as well as background knowledge of the contexts in which the verb is generally used and how its usages are affected by rules and regulations sanctioned or introduced by society. Frames are important tools that help humans organise and structure their knowledge. They provide a mental framework for the action, process, state or event depicted by the verb and assist in the interpretation of words, concepts and sentences. Hence, the background knowledge contained in frames cooperates with the context at hand to select the most appropriate interpretation of an utterance. *Gather, grasp* and *seize* (chapters 3-5) were chosen for analysis because of their physically concrete properties, whereas the reason for choosing *acquire, buy* and *receive* (chapters 6-8) was that they do not involve the body in the same direct way. They were also considered to be linked to more complex frames than the other three verbs. The analyses of the verbs have shown that there is a clear correspondence between how frequently a

verb is extended into the mental domain and the complexity of the frame to which that particular verb is linked.

9.1 Usages

In contrast to the analyses of the individual verbs, only findings concerned with the main usage groups physical, non-physical and mental usages are summarised and discussed in this chapter. Since different verbs are, of course, used in different contexts it is neither feasible nor practical to compare the verbs in all their various usages. In Table 9.1, the figures of frequency for the main usage groups are given for each verb.

Table 9.1. Percentage for main usages with *gather*, *grasp*, *seize*, *acquire*, *buy* and *receive*

Usages	Gather %	Grasp %	Seize %	Acquire %	Buy %	Receive %
Physical usages	27.41	37.08	65.74	46.30	94.39	48.96
Non-physical usages (other than mental)	48.56	14.82	33.66	44.73	5.29	50.75
Mental usages	24.03	48.10	0.60	8.97	0.32	0.29
- understand	23.66	45.71	0.42	1.88	---	0.12
- learn	0.37	1.26	---	5.25	---	0.10
- accept/believe	---	0.40	---	---	0.32	0.07
- other	---	0.73	0.18	1.84	---	---
Total	100.00	100.00	100.00	100.00	100.00	100.00

Since the extension of the verbs into the mental domain is the main focus of the study, mental usages are treated in somewhat more detail, as indicated in the table above. The possible interpretations of the various mental usages attested in the data on each verb are restricted to a limited number, which makes comparisons between the verbs possible.

In general, the analyses have shown that *gather* can be said to describe a process, whereas *grasp* and *seize* illustrate a quick and instantaneous action. The characteristics of the latter two verbs are sometimes expressed in the sentences by means of various time and manner adverbials. The character of *acquire*, *buy* and *receive*, on the other hand, is not as easily pinned down. Depending on the usage, the two former verbs illustrate either a situation limited to an exact point of time or a process prolonged in time, whereas receiving something is always done at one specific moment. Additionally, while *gather*,

grasp and *seize* are characterised by a high degree of activity on the part of the Subject, this is not always the case for *acquire*, *buy* and *receive*. As regards *acquire*, it has been established that, depending on the usage, the Subject can be seen as either an active instigator of the action or a passive recipient. Subjects of *buy*, on the other hand, are always active while those of *receive* are passive.³⁴

9.1.1 Physical and non-physical usages

Even though the frames of the verbs that are part of this study are sometimes inconclusive as to what typical Subjects and Objects should be like, they nonetheless seem to indicate that the action defined and described is commonly of a physical, or concrete, character. To put it differently, the frames provided by FrameNet do not generally account for extended usages. As can be seen from the figures in Table 9.1, the frequencies of the verbs when employed in physical usages range from slightly more than one-quarter of the instances (*gather*) to a not far from 100% domination (*buy*). To a certain extent, then, the analyses have demonstrated that the information in FrameNet is far from exhaustive. However, as stated by Fillmore (1977c: 87), using a particular word often activates a typical scene or situation even though the word is used in a context that deviates from what is typical. This means that a concrete-situation frame can be mapped onto a similar but abstract situation. Nevertheless, a logical consequence of having a smaller share of its usages referring to a physical action is that a verb occurs more often in non-physical extended usages and vice versa. In other words, the proportion of physical usages to other usages can be taken as a first indication of whether or not the hypothesis put forward in this study holds true.

For some of the verbs, as established in the analyses, it is possible to detect a pattern of frequent semantically related collocations, that is, the verbs are common in combination with lexemes from a few clearly discernible semantic domains. For all the verbs, these collocations are instances of non-physical usages. It has been shown that the extent to which the individual verbs appear in fixed phrases, idiomatic expressions and so on, varies quite considerably and depending on how frequently they connect with certain domains, the verbs can be divided into two groups. The first group consists of *buy*, *receive* and *grasp*. The results of the analyses of these three verbs illustrate that they are

³⁴ These observations are confirmed by an informal survey among native speakers of both British and American English.

never or seldom used together with words from specified domains. The fact that *receive* occurs more often with certain Objects does not automatically imply that the verb is more suited to appear together with these specific Objects than with others: just about *anything* can be received. Rather, the fairly high frequency of some abstract Objects can be linked to the make-up of the *BNC*. Choosing *receive* is often a sign of more formal language and in informal spoken language (which only accounts for 10% of the corpus) many of the examples with *receive* in combination with an abstract Object would probably be expressed in another way, for example, with *get* or as a paraphrase with *be/get* + a participial adjective. The analyses further indicate that for *buy*, fixed phrases account for less than one per cent of the examples, which means that the verb, in this particular respect, is almost as infrequent as *receive*. Unlike some of the other verbs, *buy* is not found together with lexemes from specific semantic domains but occurs only in a few idiomatic expressions: *buy time*, *buy one's way out of/into*, *the best X money can buy* and *money can/can't buy X*, all of which refer to a situation similar to that of a typical commercial event. In fixed expressions, *grasp* occurs somewhat more frequently than *buy* and *receive* (about 8% of the examples), but is similar to them in that it does not collocate with words from any particular semantic domain. The only collocations of more occurrence in the data are *grasp an/the opportunity* and the idiomatic expression *grasp the nettle*. However, considering that non-physical grasping other than mental accounts for less than 15% of the data on *grasp* as a whole, it can be concluded that the presence of these two collocations must be regarded as rather important features of the verb.

In contrast to *buy*, *receive* and *grasp*, it is evident from the analyses that particular semantic domain patterns can be detected in the data on non-physical usages of *gather*, *seize* and *acquire*. The last verb collocates with a number of frequent words in approximately every tenth example found. Most common are lexemes connected to concepts such as 'power' and 'control', but about 5% of the data is concerned with the semantic domains of education and cognition: the two collocations occurring most frequently are *acquire language* and *acquire knowledge*. Since *acquire* is often used as a technical term within the field of language acquisition, this comes as no surprise. It should be noted, however, that the two collocations mentioned are instances of mental acquiring and not of any other form of non-physical acquiring. It has been demonstrated that the domains of power and control are also frequent in collocations with *seize*. Together with words describing a situation where someone is taking advantage of something (an opportunity, a chance, etc.), lexemes referring to 'power' and 'control'

appear in every fourth instance of *seize*. The frequency of these collocations is motivated by the semantics of the verb. Seizing is generally done quickly and it often involves an element of power or force. In the same way as in the case of *grasp*, high-frequency collocations of *seize* make up quite a substantial part of non-physical usages as a whole, which is an indication of how closely connected they are to the verb. As pointed out in the analyses, *gather* is the verb that collocates most frequently with words from a few clearly delimited semantic domains. About 35% of all the examples with *gather* refer to the domains of knowledge, power and speed.³⁵ Again, these collocations form a large part of the non-physical usages of the verb. They are motivated by the fact that *gather* generally describes a process where entities are accumulated over a period of time. In a similar way, the amount of knowledge, power or speed can be increased. The analyses of the verbs have shown how important it is to emphasise connections to particular semantic domains as essential parts of the verbs' semantics. As lexicographers nowadays regularly use corpus data when compiling dictionaries, high-frequency collocations are often exemplified under the entry of the verbs. In general, however, dictionaries only list the most common collocations and there is usually no mention of semantic domain patterns. It is possible that dictionary users and language learners in particular would benefit if the information were structured differently. In other words, knowledge about what semantic domains a verb is frequently associated with is part of knowing the verb and such information might therefore enhance the language user's awareness of how the verb is used.

The three verbs *gather*, *grasp* and *seize*, analysed in chapters 3-5, are here defined as physically concrete verbs that express an uncomplicated and straightforward action. Because people have everyday experience of this physical concreteness and simplicity through interaction with other people or various entities, the conceptualisation of these verbs is seen as embodied, that is, based in human bodily experiences (see, e.g., Lakoff & Johnson [1980] 2003; Johnson 1987; Lakoff 1987; Mandler 1992). As indicated in the analyses, if an action of gathering, grasping or seizing is to be successful, relative proximity between the Subject and the Object is important. Of the other three verbs, only *receive* has such a requirement. The simplicity of the action described by an embodied verb is also reflected in the frame to which the verb is linked. Frames connected with this kind of verb are commonly very simple, requiring only a Subject and an Object (for

³⁵ Note that in connection with *gather*, *power* refers to force and strength rather than to political control as is the case for *acquire* and *seize*.

examples, see 3.1 and 4.1 where descriptions of the GATHERING UP and the MANIPULATION frames respectively are provided). There are no presuppositions concerning how or when the action may take place and no necessary formal conditions to be satisfied for the action to be successful. This is also true for the mental GRASP frame. The idea of embodiment also has implications for how language is used and facilitates meaning extension from concrete domains to more abstract ones (Johnson 1987; Lakoff 1987). As can be seen in Table 9.1, a fairly low percentage of *gather* as well as of *grasp* is concerned with concrete physical usages. Thus, as is evident from the data retrieved from the *BNC*, both *gather* and *grasp* mainly appear in non-physical usages, that is, usages that instantiate a more or less abstract situation. When it comes to *grasp*, Christopher Johnson (1999: 157) suggests that the noun *grasp* is undergoing changes that make the literal use of the word (*I don't have a firm grasp on the handle*) seem less natural than the extended metaphorical use (*I don't have a firm grasp on the issues*). The same kind of change, Johnson states, has resulted in French *comprendre* 'understand' developing a meaning separate from its Latin root *comprehendere* 'seize' (1999: 157). The fact that *grasp* as a verb predominantly occurs in non-physical extended usages and especially in mental usages could be a sign that both forms of the word – noun as well as verb – are progressively losing connection with their concrete roots. Semantic changes of this kind usually take a long time to become generally accepted in a linguistic community. Thus, it is more than likely that *grasp*, both as a verb and as a noun, will continue to be used in concrete as well as in abstract situations in the foreseeable future. As David Tuggy puts it: "There is no hard and fast boundary that a form [of a word] needs to jump all at once: it can straddle the fence indefinitely, shifting its weight back and forth, before gradually moving more to one side than the other" (1993: 285). However, Kemmer and Barlow (2000: x) observe that high frequency of a certain usage results in a higher degree of entrenchment. This means that the more often a word is used in a specific context the more likely it is to be used in the same way again (cf. Allwood 2003: 44). Therefore, it can be concluded that the fact that *grasp*, at least as evidenced in the material retrieved from the *BNC*, is used as a mental verb expressing 'understand' in almost every second sentence is an indication of semantic change. Moreover, it is possible that the high frequency of mental *grasp* will speed up the process of change even more.

9.1.2 Mental usages

The main focus of this thesis is the extent to which the six verbs presented above lend themselves to extensions into the mental domain. In other words, the focus is the investigation of how frequently the verbs are used as mental verbs. The figures for mental gathering and mental grasping presented in Table 9.1 above show that *gather* and *grasp* commonly appear as mental verbs. This is particularly true for *grasp* where mental usages account for close to 50% of all the cases, whereas the equivalent figure for *gather* is just above 24%. Hence, the results of the analyses carried out on *gather* and *grasp* confirm the hypothesis that physically concrete experience-based verbs are easily extended to function as mental verbs, an extension that motivates metaphors such as UNDERSTANDING IS GRASPING (Lakoff & Johnson [1980] 2003, 1999; Gibbs 1999), IDEAS ARE OBJECTS (Lakoff & Johnson [1980] 2003; Sweetser 1987) and UNDERSTANDING AN IDEA IS ESTABLISHING PHYSICAL CLOSENESS (Jäkel 1995). However, the importance of these kind of metaphors in structuring the way language users conceptualise the world has been questioned in recent years (Glucksberg & McGlone 1999; McGlone 2001; Haser 2005). Nevertheless, conceptual mappings from physical to mental domains are common in language and linguistic evidence from a wide range of languages (see, e.g., Sweetser 1984; Fortescue 2001; Traugott & Dasher 2002) both inside and outside the Indo-European language family suggests that language users perceive some kind of similarity between physical and mental usages of the verbs.

It has been demonstrated that the extension of *gather* from physical to mental usages can be motivated by the way in which the physical action is performed. To gather something is to be engaged in a process of bringing entities together, to amass and accumulate. The same applies for mental gathering where pieces of information are stored and put together in order to form a mental picture of something (cf. THE MIND IS A CONTAINER metaphor in Gibbs 1994). Mental gathering is logically derived from the concrete GATHERING UP frame. *Gather* as a mental verb is usually interpreted as ‘understand’, but also, although to a much lesser extent, as ‘learn’. Even though both understanding and learning can be the result of a sudden flash of insight, they are generally the outcome of a process, a sequence of connected events. It is thus the similarities perceived between physical and mental gathering that motivate the extension. It has also been shown that in sentences expressing mental gathering, the source of the information leading to the understanding is often overtly mentioned. Since none of the other five verbs show the

same tendencies, it is, again, possible that the explanation can be found in the processual character of *gather*. Whereas an understanding acquired through, for example, mental grasping or seizing does not seem to require any kind of explanation, it appears to be more important to state the reasons behind an understanding acquired through mental gathering. To put it another way, in the case of mental gathering, the data seems to suggest that it is essential to present the logical steps that have led to the state of having understood. Since gathering is a process, mental *gather* has a narrower field of application compared to mental *grasp* and can only be used in certain situations of understanding. It can be concluded that the verb's character (frame) sets a limit to possible extensions into the mental domain.

It has been established in this work that the most common usage of *grasp* is as a mental verb where it is typically interpreted as 'understand', but also 'learn', 'accept' and a number of other less frequent interpretations are possible. However, it is often difficult to decide on a definite interpretation since the various usages of mental grasping frequently seem to overlap. As such, mental usages of *grasp* are examples of the fuzziness that is inherent in most words and word categories (cf. Lehrer 1990). This is, additionally, also the case for mental usages of the other five verbs that are part of the study. The extension from the physical to the mental action is again motivated by similarities perceived between the two. The IDEAS ARE OBJECTS metaphor, among others, entails that ideas and facts are entities that can be held and manipulated just like any concrete entity, the difference being that the instrument is the brain instead of the hand(s), as can be inferred from the metaphor THE MIND IS A BODY (Sweetser 1990; Lakoff & Johnson 1999). Hence, there are basic parallels between the MANIPULATION frame and the mental GRASP frame. These parallels, which seem to be a universal feature of language (Jäkel 1995; Evans & Wilkins 2000; Fortescue 2001; Viberg 2005), demonstrate how conceptual mappings from the physical action onto the mental action are possible.

Contrary to what was expected, the analysis of *seize*, the third verb among the physically concrete verbs, revealed that it does not conform to the pattern postulated for these kind of verbs. Unlike *gather* and *grasp*, the most frequent usages of *seize* are concerned with the physical action, accounting for approximately two-thirds of the data. From this, it follows that non-physical usages constitute a minority group in the material on *seize*. Furthermore, whereas *gather* and *grasp* are often used as mental verbs, instances of mental seizing appear in less than one per cent of the data. In FrameNet, *seize* is linked to two different frames of varying complexity depending on what usage of

the verb is focused: the MANIPULATION frame and the TAKING frame. The latter in turn is linked to the GETTING SCENARIO, which involves a larger contextual framework with more necessary participants. In addition to the indispensable Subject and Object, the TAKING frame further requires a third participant – a Source, that is, the original holder of the Object. Moreover, it is implied by the TAKING frame that the Subject is the instigator of the action and that the Source may not have approved of the removal of the Object. As established in the analysis, most usages of *seize*, whether physical or non-physical, can be tied to the more complex and elaborate TAKING frame, the activation of which may have a restraining effect on the use of *seize* as a mental verb. It is also possible that the fact that *grasp* and *seize* can often be used in the same or similar contexts has had a negative influence on the extent to which *seize* is used within the mental domain. In addition, *grasp* is much more frequent as a mental verb and has also been used as such for much longer than *seize*. When *seize* entered English as a French loan-word in the thirteenth century, it was probably borrowed for specific contexts, or perhaps to fill a semantic gap. As such, *seize* lacks a universal applicability that would facilitate extended usages.

The other three verbs that are part of the study (*acquire*, *buy* and *receive* analysed in chapters 6-8) are here regarded as linked to more formal and elaborate frames than *gather*, *grasp* and *seize*. It is thus assumed in this work that it is less likely that they are extended into the mental domain to any greater extent. The one verb analysed here that is associated with the most detailed contextual framework is *buy*. The verb belongs to the COMMERCE BUY frame, which is one aspect of the larger COMMERCIAL EVENT frame seen from the buyer's point of view. The COMMERCIAL EVENT frame is the textbook example of a frame and has been used in introductions to frame semantics since it was first presented by Fillmore (1976a). It contains much information about the contexts in which *buy* commonly occurs and constitutes the background knowledge that language users have of words from this semantic domain, knowledge that includes the institutionalised rules and regulations sanctioned by society which surround a regular commercial event.³⁶ As can be expected from a verb linked to this sort of frame, the analysis has shown that the majority of usages of *buy* are concerned with physical buying. No more than 5% of the examples in the data express non-physical buying, usually in the form of idiomatic expressions. Extensions of *buy* into the mental domain are almost negligible: mental buying accounts for less than half a per cent of the material. Hence, the low frequency of *buy*

³⁶ Besides *buy* a multitude of various words belong to the COMMERCIAL EVENT frame, for example, the nouns *buyer*, *goods*, *seller*, *money* and the verbs *sell*, *purchase*, *pay*.

used as a mental verb confirms the hypothesis put forward here and may be taken as evidence that a complex frame indeed restricts extended mental usages of a verb. Sarah Breedin, Eleanor Saffran and Myrna Schwartz have made similar observations. They state that “more complex verbs appear to be less flexible with respect to the contexts in which they can appear” (1998: 21). It should further be noted that using another corpus than the *BNC* or analysing some other kind of material would possibly show a somewhat higher percentage for mental usages of *buy*. Roland and Jurafsky (1998, 2002) suggest that frequencies of verb usages as well as which usages are found differ significantly between corpora. According to the *OED*, the use of mental *buy* is mainly an American English mode of expression and it is also more common in spoken language. However, a cursory search of the *TIME Corpus of American English* for instances of *buy* as a mental verb did not yield a conclusive answer as to whether this usage is actually more common in American than in British English. An enlarged search of the corpus and a more comprehensive analysis of the data are needed in order to settle this particular issue. It must thus be concluded that the current situation is that mental buying seems to have only a very limited field of application. So, although metaphors such as IDEAS ARE OBJECTS (Lakoff & Johnson [1980] 2003) appear to be well entrenched in English, the material retrieved from the *BNC* suggests that *buy* is not compatible with other related metaphors. Put differently, regardless of the suggestion that information, facts, etc. are conceptualised as concrete entities that can be grasped or gathered, it does not seem to be the case that they are, to any greater extent, thought of as buyable.

It has also been established that although neither *acquire* nor *receive* is linked to quite as elaborate frames as *buy*, both the GETTING and the RECEIVING frames specify a more complex framework of necessary participants than any of the frames for *gather*, *grasp* or *seize* do.³⁷ In comparison to *buy*, definitions and frames for *acquire* as well as for *receive* are much less specific as regards, for example, the nature of the Object. The GETTING frame, as well as the RECEIVING frame, further presupposes a Source from whom the Object is obtained. The Object is an important factor for how to interpret a verb’s usages (see Ide & Véronis 1998; Pickering & Frisson 2001). The nature of the Object is, for example, decisive for distinguishing between physical and non-physical usages of a verb. The data on *acquire* and *gather* mirrors the unspecified nature of the Object in the GETTING and the RECEIVING frames, as can be seen from the figures in Table 9.1 above:

³⁷ An exception is the TAKING frame, one of the frames to which *seize* is linked (cf. the discussion above). This frame resembles the GETTING and the RECEIVING frames in complexity.

the difference in frequency between physical and non-physical usages of the two verbs is not very great. This is especially true for *receive* where non-physical usages only surpass their physical counterparts with less than two percentage units. Thus, the material on *receive* is almost evenly divided between the verb's physical and non-physical usages, leaving only a little more than one-quarter of a per cent to mental receiving. The frame requirement of a Source from whom the Object is received is part of the explanation regarding why there are so few examples related to *receive* as a mental verb. Newman (1996: 138-140), who views *receive* as a different perspective of *give*, states that it is not always the case that the whole frame of a verb is carried over in extended usages. One aspect of literal *give*, and consequently also of literal *receive*, is the transfer of control from the Source to the Subject. However, when knowledge, information or ideas are given and received there is no transfer of control (cf. Miller & Johnson-Laird 1976: 571). Rather, the knowledge and, hence, the "control" of that knowledge may be seen as shared by the Source and the Subject. Furthermore, as is evident from the analysis, there is also a feature of passivity associated with *receive* that is incompatible with mental activities (cf. Classen 1993) since they usually involve a more or less conscious effort on the part of the Subject. So, given that both transfer of control and passivity are parts of the semantics of *receive*, the present study demonstrates that the structure of the verb's frame is indeed an impediment to extensions of the verb into the mental domain.

The analyses of *buy*, *receive* and *seize* have confirmed the hypothesis that a verb's frame has an influence on how easily the verb is extended to mental usages. The data indicates that this is also the case for *acquire* even though the frequency of mental acquiring is not as low as mental buying, receiving and seizing. Mental acquiring accounts for less than 9% of the data and although *acquire* as a mental verb can be interpreted in a number of ways, 'learn' is the predominant usage. Most commonly, mental *acquire* is found in the collocations *acquire (a) language(s)* and *acquire knowledge*.

The analyses suggest that even if the metaphor IDEAS ARE OBJECTS (Lakoff & Johnson [1980] 2003) is important in structuring the way people think about mental processes, it appears that other metaphors, for example, the related UNDERSTANDING IS GRASPING (Lakoff & Johnson [1980] 2003), THINKING IS OBJECT MANIPULATION (Lakoff & Johnson 1999) and UNDERSTANDING AN IDEA IS ESTABLISHING PHYSICAL CLOSENESS (Jäkel 1995) have a more far-reaching impact. Admittedly, ideas are conceived of as objects in the latter three metaphors as well, but the way people interact with them is described in a more detailed and specific manner. In other words, whereas the former metaphor gives a

general picture of how ideas are conceptualised, the latter three imply a direct and close interaction between the Subject and the Object, that is, between a person and the idea that is mentally processed. When something is acquired or bought, physical closeness between the Subject and the Object is not a prerequisite for bringing the action to a conclusion. When something is received, the Subject is often a passive recipient of the Object. This being so, it has been demonstrated that the semantics of *acquire*, *buy* and *receive*, that is, their frames, may be seen as incompatible with the “physical” directness of the latter three metaphors and as such the verbs are not very well suited for a vocabulary of mental processes. In contrast, the semantics of *gather* and *grasp*, which are physically concrete and simple verbs that imply a direct contact between Subjects and Objects, make these two verbs much more suitable in that respect.

The results of the analyses also suggest that there are some interpretations of the mental usages that are common to several of the verbs (see Table 9.1 above). An interpretation that is possible for all the verbs except *buy* is ‘understand’. The usage ‘learn’ appears in the data for four of the verbs (*gather*, *grasp*, *acquire* and *receive*), whereas ‘accept/believe’ is present in the material on *grasp*, *buy* and *receive*. Besides these more widespread usages, *grasp*, *seize* and *acquire* display a range of less frequent usages that are generally not encountered in the data on other verbs. The most varied as regards possible interpretations of mental usages is *grasp*. Given that *grasp* is also the verb that most frequently extends into the mental domain, this is perhaps to be expected. The fact that there are a few mental usages – ‘understand’, ‘learn’ and ‘accept/believe’ – that are repeated throughout the data on all the verbs raises the question of why these particular usages are more common than others. A plausible explanation is that these usages represent cognitive activities that humans engage in on a daily basis. This suggestion is substantiated by the data in the *BNC*, where *believe*, *understand*, *accept* and *learn* together with *know*, *think* and *remember* make up the seven most frequent mental verbs (see also Leech, Ryson & Wilson 2001). It can thus be concluded that, if nothing else, these cognitive abilities are at least considered important enough to be quite extensively written and talked about. Accordingly, it looks as if the extensions of the verbs into the mental domain, or more precisely, what mental usages the verbs can be extended to are influenced by the commonness of a few general mental processes.

As is discussed in 4.3.1.3, mental usages of *grasp* often appear in contexts where it is either expressed that the action of the verb has not been successfully carried out or that it is uncertain whether it will be successful. Almost every fourth instance of *grasp* as a

mental verb displays such features. The only other verb that shows a similar tendency is mental *buy*, for which every third instance is a negated proposition. In the case of mental grasping, it is suggested that the reason for the high frequency of negated/uncertain propositions is related to the process of understanding in a general way. In other words, cognitive processes often require an effort on the part of the Subject and even so it is not always certain that the objective is reached. However, the high frequency of negated examples of mental buying cannot be explained in the same way. Put differently, it does not seem to be the case that the high occurrence of negated propositions is related to the process of understanding as such. Rather, the analysis has pointed out that negated mental buying is connected to the credibility of the statement about which the Subject has to make up her or his mind and, as a consequence, also to the willingness of the Subject to accept the statement as true.

One interesting detail revealed in the analyses is how the six verbs differ from each other as regards what kinds of Subjects are likely to appear when the verbs are used within the mental domain and with what frequency these different Subjects occur (see Table 9.2).

Table 9.2. Percentage for Subjects with mental *gather, grasp, seize, acquire, buy* and *receive*

Type of Subject	Gather %	Grasp %	Seize %	Acquire %	Buy %	Receive %
Human	100.00	99.80	100.00	99.93	100.00	100.00
- individual or group	100.00	98.54	100.00	99.93	99.98	100.00
- organisation	---	1.26	---	---	0.02	---
Non-human	---	0.20	---	0.07	---	---
Total	100.00	100.00	100.00	100.00	100.00	100.00

As is evident from the data, mental processes are clearly most commonly regarded as a human activity. All the verbs display an overwhelming predominance of human Subjects in their mental usages. Four of the six verbs only appear together with human as Subjects when used within the mental domain. Thus, it seems as if the humanness of the Subject is a prerequisite if *gather, seize, buy* and *receive* are to be used as mental verbs. Of these four verbs, *buy* is the only one appearing with an organisation as the Subject when used to express mental activities, whereas the other three are found only in combination with an individual person or a group of people as the Subject. This also applies to *acquire*: the data contains no instances of mental acquiring done by an organisation. The reasons why this is so may differ between the verbs, but it should be remembered that absence in the

corpus is only an indication that a specific usage is rare in actual language production and it cannot be taken as proof that it does not exist (cf. Hanks 1996). In the case of *acquire*, the majority of examples of mental acquiring can be interpreted as ‘learn’, in particular in the collocations *acquire (a) language(s)* and *acquire knowledge*. As such, the verb is generally employed within the field of language acquisition. Obviously, organisations cannot appear in such a context: organisations cannot acquire languages, only people can. For *gather*, it is suggested in chapter 3 that the processual character of the verb is an impediment for using the verb within the mental domain together with an organisation as the Subject. Although the people constituting the organisation are capable of gathering facts and of drawing conclusions from the information at hand, the material retrieved from the *BNC* suggests that it might not be possible to transfer this human ability to a metonymic substitute. The situation seems to be the reverse if *buy* is considered. Even though it is usually an individual who believes or accepts, for example, an argument, that is, appears as the Subject of mental buying, this capacity can to a limited degree be transferred to an organisation. The examples in the data make it clear, however, that the organisation is to be regarded as an entity composed of individual people and that these individuals are collectively responsible for mentally buying the argument, that is, believing or accepting it. As regards *seize*, the lack of organisations as Subjects might be explained in the same way as for *gather*, but another possible reason is the very low frequency of mental seizing in general. A similar explanation can be found for *receive*. It is probable that the absence of organisations as Subjects in instances where *receive* is used as a mental verb, is a reflection of the scarcity of mental receiving combined with the relatively low number of organisation Subjects in general. This explanation becomes all the more plausible if a comparison with *grasp* is made. The latter has a much higher frequency as a mental verb but, on the whole, even fewer organisations as Subjects than *receive*. Despite this, organisations are frequent as Subjects of mental grasping.

Notwithstanding the fact that both *grasp* and *acquire* demonstrate a majority of human Subjects in their mental usages, it can be concluded that the humanness of the Subject does not seem to be an unconditional requirement for the two verbs to express mental activities: mental *grasp* as well as mental *acquire* appear with animals as Subjects. Admittedly, they are not very common, but they nevertheless exist. In the case of *acquire*, it is in contexts where the verb is interpreted as ‘learn’ that animal Subjects occur. It appears therefore as if a necessary requirement is that the animal must be considered to have some kind of capacity for learning. This capacity is applied in one of

two contexts: (i) learning mediated by other members of a community, a socialisation process, or (ii) learning based on direct experience. Hence, mental acquiring by animals seems to be related to the acquisition – learning – of species-specific behaviour. It has also been suggested that for mental grasping to be extended into the animal realm the mental level of the animal in question appears to be more important. In other words, the results of the analysis of *grasp* suggest that a certain grade of intelligence must be ascribed to the animal.

9.2 Subjects

Considering the descriptions of the frames in FrameNet, no matter which verb is considered, the typical Subject should be human. An exception to this is, however, the frame for *acquire* in which no such information is provided. The figures for different Subjects for each verb are summarised for comparison in Table 9.3.

Table 9.3. Percentage for Subjects with *gather*, *grasp*, *seize*, *acquire*, *buy* and *receive*

Type of Subject	Gather %	Grasp %	Seize %	Acquire %	Buy %	Receive %
Human	80.82	94.82	89.46	85.47	97.15	82.79
- individual or group	71.44	85.38	54.83	55.06	85.58	70.32
- organisation	8.89	4.65	33.80	30.12	11.57	11.93
- body part/feature	0.49	4.79	0.83	0.29	---	0.54
Non-human (anim.)	2.68	2.99	2.73	2.83	0.02	1.34
Inanimate	5.68	0.40	0.60	4.93	1.34	8.51
Abstract	10.82	1.79	7.21	6.77	1.48	7.36
Total	100.00	100.00	100.00	100.00	100.00	100.00

In agreement with the frame specifications in FrameNet, the analyses have displayed that all the verbs have a very high percentage of human Subjects, as no verb shows a frequency of less than 80%. The highest values are found for *grasp* and *buy* with 95% and 97% respectively. Because *grasp* is closely associated with the use of one's hands or fingers and *buy* is linked to a very institutionalised and complex frame, this is not surprising. When the figures for the various subgroups of human Subjects are considered a more diversified picture emerges. For all six verbs, individuals or groups of people have the highest occurrence among human Subjects, so the main difference can be found

among organisations and body parts. As is evident from the analyses, *seize* and *acquire* are the two verbs that appear most frequently with organisations as Subjects. They both have a frequency of more than 30% for this Subject group. These figures are, of course, a sign of how the verbs are used and as such they refer back to the verbs' frames. That *seize* has a high frequency of organisations as Subjects is a reflection of the fact that one of its most common usages is 'confiscate'. Likewise, *acquire* occurs frequently in the context of takeovers, that is, in situations where companies buy other companies. When body parts appear as Subjects, *grasp* and *buy* differ from the other verbs, which show a similar rate of occurrence for this Subject group. As regards *grasp*, almost 5% of the instances have a body part as the Subject, which is more than twice the figure for the other five verbs taken together, whereas *buy* seems to be incompatible with this kind of Subject: no examples have been found in the corpus. Again, as mentioned above, the figures for *grasp* and *buy* are influenced by the verbs' semantics and by the frames to which the two verbs are linked.

The analyses have also demonstrated that non-human but otherwise animate Subjects show an even distribution among the six verbs with the exception of *buy* where this Subject group is almost negligible. Like *grasp* and *seize*, *buy* also has a rather low occurrence of inanimate Subjects compared to *gather*, *acquire* and *receive*. This can be explained by the fact that the former three verbs are the ones with the highest proportion of human Subjects. The figures for abstract Subjects do not vary much among the verbs, again with the exception of *grasp* and *buy*, both of which diverge considerably from the other four with a much lower rate of occurrence. From the analyses of the data the conclusion can be drawn that even though all six verbs exhibit similar patterns of distribution when the Subjects are concerned, the patterns are nevertheless influenced by and reflect the frame of the individual verb.

9.3 Objects

As has been shown in this study, Objects are an especially important factor for the analysis of verb meaning. This is so because, more than any other verb argument, they affect how the verb should be interpreted (Ide & Véronis 1998; Pickering & Frisson 2001). In other words, the presence of a certain kind of Object may rule out one or more possible

interpretation of a verb (cf. Atkins' (1987) notion of 'ID tags'). With the exception of *buy*, the frame definitions listed in FrameNet do not give any conclusive information as to the nature of a typical Object: concrete as well as abstract entities are equally valid choices. When it comes to *buy*, it is stated in FrameNet that the Object should be a concrete entity. In Table 9.4, the distribution of Objects for each verb is presented.

Table 9.4. Percentage for Objects with *gather*, *grasp*, *seize*, *acquire*, *buy* and *receive*

Type of Object	Gather %	Grasp %	Seize %	Acquire %	Buy %	Receive %
Concrete	26.63	36.94	71.20	50.33	88.91	48.85
- concrete entity	25.11	16.88	46.51	46.08	87.27	48.02
- human/body part	1.52	20.06	24.69	1.88	1.64	0.83
- physical property	---	---	---	2.37	---	---
Abstract	73.29	62.53	28.71	49.49	5.43	50.78
No Object	0.08	0.53	0.09	0.18	5.66	0.37
Total	100.00	100.00	100.00	100.00	100.00	100.00

The inconclusiveness of the frames as regards the nature of a typical Object has been verified in the analyses. It is most clearly displayed in the figures for *acquire* and *receive*, which reveal that concrete and abstract Objects occur with approximately the same frequency. The number of concrete Objects in sentences with *gather* and *grasp* hovers in the vicinity of one-quarter and one-third of the material respectively, whereas the equivalent figure for *seize* is approximately double. Confirming the indications in FrameNet, *buy* has the highest occurrence of concrete Objects, not far off 90%. As is the case with the high number of human Subjects appearing in combination with *buy*, this is a reflection of the COMMERCE BUY frame to which the verb is linked: what is bought (Goods in the frame) is typically a concrete entity. The group of concrete Objects comprises concrete entities but also humans (or human body parts). The occurrence of the latter category is markedly higher for *grasp* and *seize* than it is for *gather*, *acquire*, *buy* and *receive*. Hence, the results indicate that people (and human body parts) are much more often grasped or seized than they are acquired or bought. The reverse is true for physical properties, that is, characteristic physical features, which only appear as Objects of *acquire*.

The figures for abstract Objects are, of course, the opposite of those for concrete ones: low numbers of concrete Objects equal high numbers of abstract Objects. That the "physical" verbs *gather* and *grasp* have a very high number of abstract Objects is perhaps

somewhat unexpected. As far as *gather* is concerned, this is due to the fact that the verb commonly figures in collocations with abstract nouns such as *information* and *evidence*, to mention just two, but also with a number of “physical” nouns used in an extended abstract way, for example, *momentum* and *strength*. Furthermore, in close to one-quarter of the examples *gather* is used as a mental verb, which quite naturally calls for an abstract entity as the Object. Use within the mental domain is also the main reason behind the high number of abstract Objects for *grasp*. The fact that abstract Objects occur in such high numbers is in part a confirmation that the hypothesis put forward in this work holds true.

It has been demonstrated that sentences without an explicitly expressed Object are not very common for any of the verbs, but *buy* is an exception with almost 6% of the sentences lacking an Object. This comparatively high figure is mainly explained by the frequent use of *buy* in contracted and imperative sentences. However, the missing Object, or clues to it, can often be found in the surrounding context and the explicit mention of it may therefore be seen as redundant (cf. Rudzka-Ostyn’s (1988b) discussion of the missing landmark in the sentence *John threw it out*). Other studies have observed that an increase in the degree of context leads to a decrease in the need to explicitly express all the arguments of a verb (Roland & Jurafsky 1998: 1124). Furthermore, the frames to which the verbs are linked provide background knowledge which is used in the interpretation of linguistically incomplete utterances. Mary Hare, Ken McRae and Jeffrey Elman (2003: 298) find that verbs activate information about typical Subjects and Objects at the same time as they function as access points (cf. Langacker 1987; Croft 2000) to the structure of the described event. Similar findings are also made by Mauner, Koenig, Melinger and Bienvenue (2002). It should be noted that for all six verbs the want of an Object is not to be confused with intransitivity: even when it is not expressed overtly the analyses have shown that there is always an Object conceptually present in sentences with *gather*, *grasp*, *seize*, *acquire*, *buy* and *receive*.

CHAPTER 10

CONCLUDING REMARKS

The results of this study demonstrate that physically concrete verbs linked to simple frames are more frequently used as the source for a vocabulary expressing mental processes and cognition than less physical verbs tied to more complex frames. The analyses of the six verbs presented in this work have shown that the hypothesis put forward in the introductory chapter (see 1.3) is valid: frames exert a considerable influence on the circumstances, contextual or otherwise, under which the verb can be appropriately put to use. In other words, the complexity of the frame to which a verb is linked has a determining effect on how easily the verb is extended to mental usages. Thus, semantically and conceptually simple and experience-based verbs such as *gather* and *grasp*, which are tied to minimalist unspecified frames, are used as mental verbs to a much greater extent than *acquire*, *buy*, *receive* and *seize*, which are associated with more complex and institutionalised frames. The simplicity of the frames for *gather* and *grasp* is manifested in the minimal number of participants needed – only a Subject and an Object – and in the lack of formal and cultural requirements for how, where and when; that is, under what circumstances the action of the two verbs may be carried out. Hence, it seems to be the case that the physical actions of grasping and gathering, which directly involve bodily movement, are perceived as more similar to, for example, understanding than the less physical *buy* and *acquire*. This may be taken as a confirmation of the close relations between language, body and mind that have been, and continue to be, the focus of much research within cognitive linguistics. Conceptual mappings from physical/concrete domains to mental/abstract ones are ubiquitous in language, as is also evidenced here. The results further suggest that although English is full of expressions pointing towards a conceptualisation of ideas and other mental entities as concrete objects – the IDEAS ARE OBJECTS metaphor – it might be the case that this metaphor is too schematic and therefore subordinate to other metaphors such as UNDERSTANDING IS GRASPING, UNDERSTANDING AN IDEA IS ESTABLISHING PHYSICAL CLOSENESS and THINKING IS OBJECT MANIPULATION. In other words, ideas may well be conceptualised as concrete entities but as entities that are close enough to be grasped or gathered rather than bought or acquired. On the whole,

grasp is the one verb that more than any of the others lends itself to mental usages: almost every second instance of *grasp* found in the corpus expresses mental grasping.

Prospects for future research

- Since the analyses in this work are based solely on corpus data, informant testing could be carried out in order to follow up some of the suggestions made. For example, psycholinguistic experiments could be used to decide what kinds of Subjects are acceptable when the verbs are used within the mental domain. Informant testing would also be a valuable tool for deciding whether the core senses suggested here are comprehended as such by language users and whether or not a verb usage should be considered a distinct sense in its own right. Experiments of this kind would provide supplementing information as regards the use of verbs of acquisition in general and these six verbs in particular, and, in that way, add to the already existing body of knowledge.
- The earliest attested record is sometimes used as a source for suggesting a possible core, or prototypical sense of a word. To investigate this more fully as regards the verbs part of this study, using the criteria developed by Tyler and Evans (2003) and by Evans (2004), would be potentially useful in two ways. Firstly, to test if the earliest attested record is indeed a reliable indicator of core sense and, secondly, to see if the criteria developed for prepositions and an abstract noun respectively can be successfully applied also to other parts of speech, for example, verbs. Because of their general implications, any results of such an investigation would be of interest to linguists working with word meaning and polysemy.
- Closely related to the previous two points is also a more extensive investigation of the interrelationship between the various usages of the verbs. That is, once a core, or prototypical sense of the verb has been established and it has been decided which usages are distinct senses, a study of how the various usages are derived

and connected could yield new insights that would give a fuller picture of the verbs.

- Since the scope of the thesis is limited to six verbs only, a more comprehensive study of verbs of acquisition in extended mental usages would show whether the results attained here can be generalised to other verbs as well. Such a study would add new information about the semantic domains of acquisition and possession.
- A comparison of *grasp* and *grip* – both as verbs and as nouns – would supplement the analyses presented in this work. As nouns they can both express understanding, but as verbs only *grasp* has developed that sense. Since both verbs are linked to the MANIPULATION frame it can be assumed that their semantics share many features. A corpus-based analysis could confirm whether this assumption is valid and would possibly provide an explanation for the difference in usage.
- Also, with the recent launch of two new corpora of American English freely available on-line, a more thorough analysis could reveal whether *buy* as a mental verb actually is used more frequently in American English compared to the search result yielded by the *BNC*. Hence, such an analysis would either substantiate or invalidate the claim made by the *OED*.

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