Metonymical object changes: a corpus-oriented study on Dutch and German
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Linguists have become aware that metonymy is not just a contiguity-based figure of speech but that it is a pervasive cognitive-linguistic mechanism which influences different linguistic levels. This linguistic insight is reflected in Dutch and German dictionaries, which use metonymy-tags, for many examples, for many senses and for many word combinations, such as verbs that can be combined with different types of direct objects. A specific label used for the last phenomenon is objectverwisseling or Objektsvertauschung, which could be translated as Metonymical Object Change (MOC).

MOCs are better known in linguistics as transitive locative alternations, material-product alternations and instances of logical metonymy. This dissertation analyses these three types of argument alternations as metonymy-based. The focus of the analysis is therefore on the contiguity relation between the different possible direct objects. In all cases, it is this relation which underlies and restricts the possibility of changing a direct object.

A qualitative analysis of corpus data is used to examine MOCs in Dutch and German. This makes this study corpus-oriented. The interpretation of MOCs is modelled in a frame semantic approach.

This dissertation not only examines and clarifies the concept of MOC by analysing a large number of data—which could be useful from a lexicographical perspective—but it also provides theoretical insights into the phenomenon of metonymy in general.
METONYMICAL OBJECT CHANGES
A corpus-oriented study on Dutch and German
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A corpus-oriented study on Dutch and German

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TYPOGRAPHICAL CONVENTIONS AND ABBREVIATIONS

**typographical conventions:**

*italics* linguistic example (object language)

‘concept’ reference to a concept

(lit.: “translation”) literal translation in English

(‘to verb’) equivalent in English

SMALL CAPS contiguity relation

“Name_{x}” frame the name of a frame from FrameNet

‘Agent’ frame element from FrameNet

superscript D / E / G Dutch / English / German

**important abbreviations in the text:**

MOC Metonymical Object Change

(= objectsverwisseling / Objektvertauschung)

LM Logical Metonymy

DO direct object

PO prepositional object

NP noun phrase

PP prepositional phrase

VP verb phrase

**abbreviations in the glosses:**

ACC accusative

ART article

DAT dative

DIM diminutive

F feminine

M masculine

N neuter

NOM nominative

PL plural

PRON pronoun

SG singular
I. AIM OF RESEARCH AND STRUCTURE OF THE BOOK

1. Topic of the dissertation

A classical linguistic problem is answering the question how a verb can be combined with other words into a sentence. Often, a single verb occurs in comparable sentences with different syntactic-semantic patterns. The examples under (1)-(10) illustrate this. Every number shows how a single verb can be combined with two different types of direct objects by means of an a- and a b-sentence.

(1)  a. The dockworker loaded goods (into the ship)
     b. The dockworker loaded the ship (with goods)

(2)  a. Mary planted roses (in a garden)
     b. Mary planted a garden (with roses)

(3)  a. The old lady cleared snow (off / from the pavement)
     b. The old lady cleared the pavement (of snow)

(4)  a. John emptied the stuff (from the drawer)
     b. John emptied the drawer (of the stuff)

(5)  a. John swept the sand (off the floor)
     b. John swept the floor

(6)  a. The farmer plucked feathers (off / from a duck)
     b. The farmer plucked a duck

(7)  a. The girl spun yarn (out of / from wool)
     b. The girl spun wool (into yarn)

(8)  a. The baker baked a loaf of bread (out of / from the dough)
     b. The baker baked dough (into a loaf of bread)

(9)  a. The author continued writing (the book)
     b. The author continued the book

(10) a. Mary enjoyed reading (the book)
     b. Mary enjoyed the book

Every number shows a minimal pair. Each time, the a-sentences and the b-sentences can refer to the same, or at least a very similar, situation in reality, even though the verb is used with a different type of direct object.

These combinations of a single verb with different arguments have raised a lot of linguistic questions. For instance, what triggers the alternative patterns? Why and
when are they allowed? Are there semantic differences between the a-sentences and the b-sentences? What do the syntactic structures tell us about the meaning of the verb? This dissertation aims to clarify such questions, with a focus on Dutch and German data.

2. Different theoretical approaches

According to many linguists, the alternative a-phrases and b-phrases under (1)-(10) are solely triggered by the verb. The idea is that the syntactic behaviour of a verb is determined by its meaning, and that alternative syntactic patterns are associated with different verb senses (Levin 1993: 1ff). In other words, the argument realisations are projected by the verb. The continental tradition of valency research has put forward comparable ideas (cf. Wb. zur Valenz; VALBU; Herbst & Götz-Votteler 2007). However, this dissertation will show that the claim that alternations are fully determined by a verb cannot be true in the strongest sense: In many cases a verb only allows an object change for some specific direct objects.

According to other linguists, underlying syntactic patterns could be regarded as meaningful in and of themselves. Some of the sentences above demonstrate comparable behaviour; compare the use of in (1) and (2), from and of in (3) and (4), off or no possible preposition in (5) and (6), out of/from or into in (7) and (8) and (9) and (10) with or without a VP. In construction grammar, patterns such as “DOlocation + intolocation” in (1)a or “DOlocation + oflocatum” in (4)b are therefore considered to be meaningful linguistic constructions (Goldberg 1995). Using a different type of direct object with a verb is considered equal to combining a different meaningful construction to the verb. The constructions are held responsible for possible differences in meaning between the a-sentences and the b-sentences. An analysis of alternations boils down to the question of when and why a verb can be used with two different constructions (cf. Iwata 2008).

Although some modern valency analyses are compatible with constructional accounts (cf. Herbst 2010), the two types of linguistic theories, i.e. verb projections versus construction grammar, have opposite starting points. Whereas most valency theories and the projection theories of generative grammar reason from the verb to its argument realisations, construction grammar considers which constructions can be combined with a certain verb. The former theories could be classified as verb-based or lexeme-based (cf. Welke 2009: 83, 97).

The analysis in this dissertation has yet another slightly different perspective: The focus is not directly upon a verb and its valency patterns or upon possible constructions for a certain verb; instead the relation between both possible direct objects is the starting point of my analysis.

It is important to note that this approach is not directly in conflict with construction grammar. The analysis advocated in this dissertation, which focuses on the relation between the two direct objects, could be considered as an inquiry into under what conditions both types of construction are allowed in Dutch and German
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(cf. also Iwata 2005), and, more importantly, how these constructions are related to each other. But if the meaning of the verb, the meaning of the direct object and the contiguity relation with another possible direct object could explain the behaviour and meaning of examples (1)-(10), one might ask whether one still requires the stipulation of a meaningful construction (cf. also Foolen 2008: 6).

On the basis of the examples above it immediately becomes clear why this dissertation primarily takes the relation between the two possible objects into account: In all examples the two possible direct objects are conceptually closely related within the context evoked by the verb. They display a location and parts of that location or the things in that location, as in (1)-(6), some material and a product made of this material, as in (7) and (8), or an activity and an object involved in this activity, as in (9) and (10). These patterns are traditional contiguity patterns, usually used within research on metonymy.

The idea that metonymy could play a role in licensing the a-alternatives and b-alternatives is not entirely new: Dictionaries with a tradition dating back to the beginning of the nineteenth or even the end of the eighteenth century have described the above phenomena as involving metonymy. The German dictionary by Adelung, which dates from the end of the eighteenth century, structurally classifies shifts similar to the ones illustrated above as instances of metonymy (virtually always within a single verb meaning). The same label can be found in the traditional Dutch WNT or in the modern Van Dale’s dictionary.

Besides the qualification of metonymy, the latter two dictionaries also use the label “objectverwisselung” (lit.: ‘object change”). Metonymy appears to play a role in object changes: Moerdijk (1994: 86, 139) discusses the relevance of the metonymical relation (i.e. contiguity) between the two objects in cases of “objectverwisselung” and Van Dale defines “objectverwisselung” as a specific type of metonymy in the direct object (cf. Van Dale 2005). In German, the same term, i.e. “Objektsvertauschung” or “Objektsverschiebung”, is used (cf. Carlberg 1948; Reichmann 1989: 110 or the Grimm brothers’ dictionary DWB), which has also explicitly been analysed as a specific type of metonymy (Goebel 1997: 185, 187).

Metonymy has not only been used to account for examples like (1)-(10) in traditional lexicography, it is also discussed in some linguistic studies of the last few decades. Since the nineties examples which display eventive contiguity shifts, such as (9) and (10), have been analysed as instances of “logical metonymy” (Pustejovsky 1989; 1991; 1995; Verspoor 1997a; 1997b). The idea that metonymy could be a factor involved in sentences like (1)-(6) has been touched upon in Cappelle 2005 (p. 339) and Dowty 2000 (p. 126). In a detailed analysis, Waltereit (Waltereit 1998; 1999) has shown how different argument realisations, like those in (1)-(8), can be analysed as metonymy-driven. He considers them to be diachronically based on prototypically metonymical shifts. Although I will demonstrate that this part of his analysis is problematic, Waltereit’s explanation of such syntactic shifts as figure/ground effects within a frame will be adhered to within this dissertation.
3. The need for Dutch and German corpus data

Waltereit’s research is not only important because he takes into account the contiguity relation between the two possible objects in examples such as (1)-(8) but his work is also valuable because it focusses on French. It is an exception in this respect: Research on patterns as in (1)-(8) in languages other than English or German is rare. Studies on logical metonymy, as illustrated in (9) and (10), also focus mainly on English. There are a very limited number of studies comparing English and French (Godard & Jayez 1993; Pustejovsky & Bouillon 1996), while analyses of this phenomenon in other languages are hardly ever made (Horacek 1996 and a recent paper by Rüd and Zarcone (2011) being notable exceptions).

Given that English data for alternative syntactic patterns (as in (1)-(10)) has been discussed extensively in the literature, an analysis of this phenomenon in Dutch and German, two languages which are different but closely related to English, will be interesting. These two languages will therefore be the primary languages of interest in this study.

The present analysis tries to go beyond introspection. Introspection is problematic, because judgements on sentences such as the ones above differ greatly. Among the few studies on structures like (1)-(6) in Dutch and German, linguists have offered up their differing and even conflicting intuitions as simple facts. The German verb *laden* (‘to load’), for instance, is sometimes discussed as being different from English in that it does not occur with a location as a direct object, as in (1)b (cf. Frense & Bennet 1996: 313-314; Sauerland 1994: 54-55). Other linguists regard the German verb *laden* as very similar to the English verb ‘to load’, in that it allows the two types of direct objects (Brinkmann 1995: 50; Dewell 2004: 23). Similarly, opposing judgements can be found for Dutch: De Groot, for instance, explicitly denies that a simplex verb such as *smeren* (‘to spread’/ ‘to butter’) can be used with locations as a direct object (De Groot 1998), whereas Laffut discusses such examples, illustrated by real data (Laffut 1998: 158). Linguists sometimes also reject more complicated examples, which do in fact occur in corpora. The problem is that context is often necessary to make such sentences possible.

The use of real examples is therefore of crucial importance: Corpus data can be used to avoid personal judgements and unnecessary rejections. Making use of corpus data can therefore be considered a “major improvement” and “a major step in the science of language” (Sinclair 2007: 202, 203). Because this study aims at analysing examples in depth, the corpus analyses are of a qualitative nature. The fact that corpus data are used to examine and “support reasonable claims about the language” makes the present analysis in Sinclair’s terms ‘corpus-assisted’ or ‘corpus-oriented’ (cf. Sinclair 2007: 202).

4. Dissertation outline

In order to analyse to what extent metonymy and object contiguity could be the underlying mechanism of the alternatives in, (1)-(10) several topics have to be
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5

tackled. First of all, the way metonymy has been analysed by (mainly cognitive) linguists should be clarified (cf. e.g. Barcelona 2000; Benczes et al. 2011; Croft 1993; Koch 2001; Kövecses & Radden 1998). Also its definition should be considered. This will the subject of chapter II. It will turn out that metonymy in linguistics should be regarded as a highlighting effect within a frame, which has its effects upon semantic content and linguistic form.

Subsequently, chapter III will discuss how metonymy influences language. These influences range from prototypical examples to rather peripheral metonymies. The end of the chapter will examine to what extent metonymy can influence the argument structure within a sentence. Such effects will be called “predicative metonymies”. The term “Metonymical Object Changes” (MOCs) will be used for predicative metonymies that affect the direct object slot, which are the primary focus of this dissertation. Taken together, chapters II and III will reveal important characteristics of metonymy. They form the theoretical basis of this dissertation.

Chapter IV will adduce supporting evidence of the classification of metonymical influences made in chapter III, by taking dictionary data into account. Dutch and German dictionaries incorporate almost all types of metonymy effects as distinguished by linguistic research. Especially some Dutch and German dictionaries classify effects upon argument structure as metonymy-driven. Given that dictionaries describe meanings, it will also be discussed how dictionaries analyse the meaning of verbs as in (1)-(10). I will argue that the verb does not have to be considered polysemous. This is not only in line with the fact that dictionaries treat the majority of these verbs as non-polysemous, but this conclusion can be supported by a number of linguistic tests and is also reflected in some new linguistic studies. Chapter IV illustrates that dictionaries reflect linguistic insights before their time.

Therefore, practical lexicography and linguistics can benefit from each other. Chapter V illustrates this by searching for metonymical object changes (MOCs) in dictionaries. The examples that are found will be critically analysed and compared with existing sets of similar verb-object pairs (such as examples in Apresjan 1992 or Levin 1993). Given that the relationship between the possible direct objects will be analysed, the contiguity types involved will be classified (cf. Peirsman & Geeraerts 2006).

Chapters VI-VIII present the core analysis of MOCs. Chapters VI and VII will analyse some object-verb combinations in full detail on the basis of corpus samples. Chapter VI will discuss data of MOCs which shift between concrete entities, as in (1)-(8). This chapter will reveal how complex some of the examples are and why one object can be chosen over another. Furthermore, I will show that the contiguity relation between the possible direct objects must be taken into account for a full understanding of examples such as (1)-(10).

Chapter VII will examine Dutch and German corpus data of MOCs which shift between an event and a concrete object, as in (9) and (10). The fact that some concrete objects and preferred interpretations of the activity occur more frequently than others will again support the assumption that contiguity relations and their relevance with respect to the verb should be taken into account.
The definition of predicative metonymies in chapter III will be worked out in chapter VIII. This chapter will show that examples such as (1)-(10) can indeed be analysed as highlighting effects within a frame. With the help of the frames as developed by the English FrameNet (cf. framenet.icsi.berkeley.edu), all of the above argument shifts can be explained in a similar way. This analysis will also be able to account for some subtleties in language.

The advantages of the metonymy analysis advocated in this dissertation will be summarised in the concluding chapter. This study not only examines and clarifies MOCs by analysing a lot of data (which could be useful from a practical perspective in lexicography), but it also provides theoretical insights into the phenomenon of metonymy in general.
II. DEFINING METONYMY IN LINGUISTICS

1. Metonymy: Merely a literary phenomenon?

The word metonymy literally means “change of name” (from the Greek metonymia). Stylistic textbooks and literary lexicons usually define metonymy as involving the use of one term for another on the basis of a real world connection between the two underlying concepts (see e.g. Van Gorp 1980: 253). This real world relation is called a relation of contiguity (or proximity). A metonymical word is therefore said to be contiguous with another word and the meaning of the latter is actually interpreted in the text. Consider the following prototypical examples:

(1) a fleet of a hundred sails
(2) The power of the crown was mortally weakened (cf. www.britannica.com)
(3) I am reading Goethe.
(4) The red shirts won the match. (cf. Paradis 2004: 246)
(5) The ham sandwich is waiting for his check. (cf. Fauconnier 1985: 143)

These examples show how pervasive metonymy is. They are normal linguistic expressions occurring in everyday texts and conversations rather than in literary language. It is therefore surprising that it took such a long time for linguists to begin to show an interest in metonymy.

Research on metonymy has been carried out for a very long time, but this cannot be said of linguistic research on this phenomenon. From the ancient Greeks onwards metonymy has been viewed as one of the principal figures of speech (cf. Arata 2005), therefore belonging to the realm of rhetoric and literature. Although some traditional grammars and dictionaries use the label ‘metonymy’ to explain certain constructions and meaning configurations, there are not many linguistic studies on metonymy predating the 1970s.²

The first publications in which the notion of metonymy was applied not just to literary but also to non-literary language were studies on semantic change and dictionaries (cf. e.g. Adelung; DWB; WNT). Dictionaries with a tradition dating back to the end of the eighteenth or the beginning of the nineteenth century already make use of the notion ‘metonymy’ to explain relations between meanings or to account for certain specific syntagmatic combinations. The influence of metonymy on grammar is a rather modern, recently examined, idea (cf. Brdar 2007; Dowty

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¹ A modified version of this chapter was published as Sweep (2012).
2000: 126; Panther & Thornburg 2000; Ruiz de Mendoza & Pérez 2001; Waltereit 1998). By recognising that metonymy does not only influence meaning but also linguistic structure and grammar, dictionaries were way ahead of their time (cf. Sweep 2009a).

Early linguistic studies were almost exclusively concerned with metonymy as a mechanism underlying semantic change and polysemy (cf. e.g. Bréal 1897; Roudet 1921; Ullmann 1967: 80, 89, 231ff; studies discussed by Moerdijk 1989; Nunberg 1979: 144-145). In the next chapter, I will discuss these conventionalised instances of metonymy in more detail under the name ‘lexicalised metonymies’ (§2.1). For the moment, it is only relevant to note that these first linguistic studies define metonymy in line with the literary tradition. Metonymy is seen as a mechanism involving a shift in interpretation on the basis of contiguous concepts corresponding to entities which are related in the real world. Especially the notion of contiguity remains crucial in later linguistic definitions of metonymy (cf. among many others Nunberg 1996; Peirsman & Geeraerts 2006), which will be discussed in the following sections.

2. Metonymy as a conceptual mechanism

Although it is astonishing that the research tradition on metonymy as a linguistic device is relatively young, fortunately a lot of relevant studies have been published in the past few decades. The growing interest in metonymy has no doubt been inspired by Lakoff & Johnson’s (1980) Metaphors We Live By. This book is primarily devoted to metaphor, which has aroused more interest than metonymy, but it contains one chapter on metonymy (Lakoff & Johnson 1980: 35-40). This chapter gave rise to a new research tradition of metonymy in the field of cognitive linguistics. Lakoff and Johnson define metonymy in this chapter as “using one entity to refer to another related to it” (1980: 35). With this definition Lakoff and Johnson also essentially follow the literary tradition, where metonymy is seen as involving the use of one term for another, with the underlying concepts being contiguous.

Although the growing number of cognitive linguistic studies following this publication (cf. e.g. Barcelona 2000; Croft 1993; Dirven & Pörings 2002; Langacker 1993; Panther & Radden 1999; Steen 2005) have considerably contributed to a better understanding of what metonymy actually is, it still seems hard to provide an exact definition of it. Most definitions seem to be mere working definitions, used to contrast metonymy with metaphor (cf. also Ruiz de Mendoza & Pérez 2001: 323). The most important difference between metaphor and metonymy is that the former is based on a conceptual comparison between two things belonging to two different semantic domains, whereas the latter establishes a link between two concepts based

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3 Strangely enough, studies on semantic changes and metonymical polysemy often cited the philosophical-literal work of Bredin (cf. Moerdijk 1989; Blank 1999; Koch 2001), which, however, explicitly rejects the idea that metonymy can lead to changes in meaning (Bredin 1984: 46).
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on a relation in the real world. This difference is in line with traditional accounts which define metaphor as a relation based on similarity or analogy and metonymy as an association based on contiguity (cf. Panther & Thornburg 2007: 237).

The idea of metonymy as an association or inference based on contiguity is also reflected in one of the most famous definitions of metonymy, given by Kövecses and Radden. They write:

“Metonymy is a cognitive process in which one conceptual entity, the vehicle, provides mental access to another conceptual entity, the target, within the domain or ICM [idealized cognitive model]” (Kövecses & Radden 1998: 39).

With this definition Kövecses and Radden essentially follow Langacker (cf. also Panther & Thornburg 2007: 241), who analyses metonymy as a reference point phenomenon (Langacker 1993: 30). According to Langacker, the metonymical expression (often called the source or vehicle) serves as a “cognitive reference point” which establishes mental access to the interpreted object (the target) within a conceptual structure (or, in Langacker’s terms, “dominion”). In (3), for example, the expression Goethe is the reference point that gives access to ‘a book by Goethe’ within the context of reading. Similarly in, for instance, (5) the customer’s order is used to give mental access to the customer himself within a restaurant context.

Not all accounts make use of the terms ‘mental access’ or ‘cognitive reference point’. Because an inference has to be made from one concept to another, related concept (i.e. from source to target) other scholars speak of a conceptual mapping within a semantic domain or conceptual structure (Barcelona 2005; Ruiz de Mendoza 2000: 130, cf. also Lakoff & Turner 1989: 103; Lakoff 1987: 288; Taylor 1989: 123-124).

In essence, all accounts are the same or at least very similar. They all consider metonymy to be a process or mechanism that establishes an association between two concepts and which has its reflections on language. The only difference between them is that they originate at different starting points: A definition in terms of conceptual mapping focuses directly on the link between concepts (the literally expressed source concept and the intended target concept), whereas a definition which uses concepts such as ‘mental access’ or even ‘reference points’ concentrates on language users and the inferences they have to make from one concept to another.

Croft analyses in detail how conceptual mappings within a domain actually work. He explains that this domain-internal mapping can be understood as “domain highlighting” or, in the case of several embedded domains, highlighting within a domain matrix (Croft 1993: 348, 350; Croft 2006: 320-323). The term

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4 As we will see in detail in the next chapter, scholars also have different opinions on which linguistic phenomena they consider to be influenced by metonymy.

5 Although domain highlighting is often cited as a definition for metonymy given by Croft, according to Croft himself domain highlighting cannot be a sufficient characteristic for
‘highlighting’ is used in the sense of Cruse, meaning that certain semantic traits of a concept receive a greater than normal emphasis (cf. Cruse 1986: 53). Croft illustrates domain highlighting with the various meanings of Time magazine, which, depending on the highlighting, can denote the newspaper itself, its publishing company, and so on. Another of Croft’s examples is the use of Proust to refer to Proust’s books (where the author himself is less prominent than his work). These definitions of metonymy in terms of shifts within conceptual structures are compatible with earlier linguistic accounts, especially with those in which the focus lies on metonymy as a mechanism for explaining certain instances of polysemy (cf. the studies discussed in Moerdijk 1989). More recent studies on semantic change and polysemy analyse metonymy in a comparable way by defining the metonymical process of highlighting as a figure/ground effect within a frame (cf. Blank 1997: 242-243; Koch 1999: 152; Koch 2001: 203, 208; Koch 2004: 8; Waltereit 1998: 25).

Contrary to most earlier accounts, definitions in terms of highlighting parts of conceptual structures do not follow the classical rhetorical-literary tradition in all respects. Since metonymy is analysed as involving more than the use of one word instead of another, it is no longer considered as just a way of name-giving or a ‘deviant’ way of referring. Croft explicitly breaks with the idea that metonymy necessarily has to induce a referential shift. Whereas Lakoff and Johnson’s definition, cited at the beginning of this section, hinges on the word “refer”, Croft notes that a referential shift is something that occurs “in the most prototypical examples [of metonymy]” only (1993: 349).

Prototypical cases of metonymy do indeed involve a referential shift. This is the case, for instance, in all examples in (1)-(5), where the italicised expressions do not refer to the entity which they denote literally, but to some other related entity. It would, however, be an oversimplification to state that in these examples one expression ‘stands for’, or ‘is used instead of’, another expression, despite the fact that they all involve referential shifts. In (1) sails does not just refer to ‘boats’, but to ‘sailing boats’, (3) does not refer to just a ‘book’, but to ‘a book by Goethe’. In (2) and (4), crown and red shirts refer to the people who wear them and in (5) ham sandwich refers to the customer who has ordered this specific sandwich. There is no simple ‘stand for’ relation (cf. Warren 1999: 128); rather, the meaning of the metonymical expression is a complex combination of the literally expressed concept and a related one (cf. Radden & Kövecses 1999: 19; Panther 2006: 147).

Ruiz de Mendoza (2000) also claims that a ‘stand for’ relation and a referential shift are not essential ingredients for the definition of metonymy. The only truly
definitional property is that metonymy establishes a link between concepts within the same conceptual structure or domain (cf. Ruiz de Mendoza 2000: 113). This contrasts sharply with the definition of metaphors. Since metaphors are used to structure an abstract concept in terms of a concrete one, there are always two entirely different semantic domains involved. For example, abstract concepts such as ‘time’ or ‘relationships’ can be structured with the help of ‘moving objects’ (e.g. *time flies*) and ‘journeys’ (e.g. *our relationship was at a crossroads*) respectively (cf. Lakoff & Johnson 1980: 42, 44). Metaphorical linking is based on similarity, not on contiguity. The metonymical domain-internal linking is an automatic result of contiguity: Since metonymy establishes a link between two concepts that are related in the real world, these automatically have to belong to the same conceptual structure.

Many cognitive linguists base their theories on the idea that metonymy is a conceptual mechanism which establishes an association or mapping within one semantic-conceptual structure (domains, frames, ICMs, etc.). Such analyses are, however, not without problems. First of all, it is unclear what the status of ‘one domain’ actually is (cf. Panther & Thornburg 2007: 240). Metonymical relations and mappings also seem to exist within domain matrices, i.e. simultaneously evoked domains, since a concept can be “simultaneously profiled against multiple domains” (Croft 2006: 321). Metonymy as a domain-internal mapping is thus actually a mapping within a domain or a mapping within a domain matrix. The latter, however, blurs the distinction between a metonymical, domain-internal mapping and a metaphorical mapping across several different domains.

Furthermore, how concepts are profiled against a domain or which conceptual structures are actually evoked by a specific expression usually remains implicit. In order to understand mapping or a highlighting within a conceptual structure, these structures should be defined precisely. The fact that notions such as conceptual structure, domain or domain matrix remain vague has often been criticised and is problematic, since all the above definitions of metonymy heavily rely on these notions (cf. e.g. Peirsman & Geeraerts 2006: 270-271).

According to Peirsman and Geeraerts, there are two different strategies in defining metonymy that avoid these problems (2006: 272ff). First of all, one could try to identify the conceptual structures involved. One could, for instance, replace the vague notion domain by more concrete notions, such as frame or ICM (2006: 273), and try to specify these. A second strategy is giving up the notion of a domain-internal mapping and defining metonymy by focussing on the nature of the conceptual relationships. If metonymy is an association based on contiguity, it must be possible to deduce definitional aspects of metonymy on the basis of various contiguity relations. Peirsman and Geeraerts opt for the latter approach. In the next section, I will have a closer look at both strategies and their compatibility.
3. Contiguity relations and frames

Traditional pre-structuralistic accounts specify instances of metonymy by distinguishing different patterns of contiguity (cf. Brdar 2007: 26). Illustrative examples of metonymy as given in examples (1)-(5) (page 7), for instance, follow the metonymical patterns PART FOR WHOLE, AUTHOR FOR WORK and ATTRIBUTE FOR PERSON (such as PIECE OF CLOTH, HEADDRESS or even ORDER FOR PERSON).⁶ There are, however, some problems with such patterns, which have led linguists to abandon such characterisations of metonymy.

First of all, recent studies of metonymy have made clear that metonymy involves a more specific association than just a contiguous one. Contiguity is not precise enough. Hyponymy, entailment and synonymy, for example, also evoke contiguous concepts, but it would be wrong and incompatible with the above discussion to claim that use of, for instance, synonyms provides examples of metonymy. One can only speak of metonymy, when the contiguity relation is not a necessary kind of contiguity (an ontological one). Rather, a filled in contiguity relation must be relevant in a context, meaning that the two specifically filled in concepts could also have been non-contiguous (Panther & Thornburg 2007: 240-241). In other words, the contiguity relation between the used concept (source) and the associated one (target) should be of an accidental or “contingent” nature, meaning that the “metonymic links do not exist by conceptual necessity” (Panther & Thornburg 2007: 240; cf. also Panther & Thornburg 2003a: 3). This requirement excludes the use of the expression steed instead of horse (i.e. synonymy) or using horse to denote a 'mare’ (i.e. hypernymy) from the realm of metonymy.⁷

Secondly, it remains unclear to what extent one should specify contiguity patterns. Different generalisations or levels of abstraction of the contiguity relation are often possible for one and the same type of metonymy. The patterns PRODUCER FOR PRODUCT as well as AUTHOR FOR WORK, for instance, are both generally known and used, although the latter can be seen as a specific instance of the former. The same goes for the well-known CONTAINER FOR CONTENT, which could also be labelled more generally as LOCATION FOR LOCATUM,⁸ even though there are obvious conceptual differences between containers and locations in general. The same issue has already implicitly been illustrated above by mentioning the contiguity pattern

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⁶ Fauconnier’s pragmatic connectors roughly correspond to contiguity patterns (cf. Fauconnier 1985: 143-144).
⁷ This does not, however, mean that every contingent contiguity relation can actually lead to a metonymical expression. Using metonymies is only possible if the contiguity relation is relevant. In other words, a metonymy must be salient in context before it can be used as such, since it is awkward to use metonymical expressions without a reason. In this section, I will only analyse some properties of the nature of the contiguity relation as such and not discuss when contiguity between two concepts can actually lead to linguistic metonymies. In §6, I will discuss some pragmatic reasons which can lead to the actual use of metonymical expressions (cf. also chapter VI §4).
⁸ The connection between locations and what is in the location, i.e. the locatum, has been analysed in detail in connection with argument structures by Levin (Levin 1993). She writes, however, that the term ‘locatum’ originates form Clark and Clark 1979 (cf. Levin 1993: 81).
ATTRIBUTE FOR PERSON, which can be split up in more specific patterns. However, it remains impossible to decide to which level of abstraction the contiguity pattern of a metonymical expression should be analysed. In addition to this, the level of abstraction between different contiguity patterns varies strongly. Whereas the contiguity between an author and his work or a container and its content refers to rather concrete concepts, a metonymy of the type EFFECT FOR CAUSE is described in terms of much more abstract notions. Metonymical patterns can therefore said to be hierarchically structured from abstract ‘high-level’ metonymies to more concrete patterns or ‘low-level’ metonymies (cf. Panther & Thornburg 2007: 257; Ruiz de Mendoza & Diez 2001: §2; Ruiz de Mendoza 2007: 18).

A third problem that follows from the previous one is the fact that it turns out to be impossible to give an exhaustive list of metonymical patterns. The traditional solution to this is to try to classify all metonymies under the three types SPATIAL, TEMPORAL and CAUSAL CONTIGUITY. Unfortunately, this solution does not work, since these three categories do not cover all instances of metonymy and there is always a large rest-group which needs to be accounted for (cf. Blank 1999: 177).

What seems to be more important is the fact that all metonymically related concepts are conceived as one “experiental ‘togetherness’” (Waltereit 1999: 234) or as one ‘gestalt’, i.e. an experienced complex whole that cannot be perceived in exactly the same way by experiencing its parts.9 Hilpert similarly claims that “[t]he different ways of ‘belonging together’ are called contiguity relations” (2006: 127).

Along these lines, it has been suggested that PART-WHOLE and WHOLE-PART (and sometimes also PART-FOR-PART) are the only relevant metonymical mappings (cf. Kleiber 2007: 180ff; Kövecses & Radden 1998: 49). Two concepts seem to be contiguous only if they can be conceived as a whole in a given context (cf. Kleiber 2007/Kleiber 1995), i.e. if they form one gestalt. Ruiz de Mendoza and his collaborators distinguish two types of metonymical mappings in this respect, that is source-in-target and target-in-source (cf. e.g. Ruiz de Mendoza & Pérez 2001: 325).10 In the first type of metonymy, the metonymical expression is a sub-domain of the intended concept. An example of such a source-in-target metonymy is she tied her shoes (the target ‘shoelaces’ is a sub-domain of the shoes). In target-in-source metonymies it is the other way around, such as in the ham sandwich is waiting for his check, where the target ‘customer’ includes the sub-domain ‘order’.11

Blank provides an alternative approach for a reduction of contiguity patterns. He does not trim down contiguity relations solely to PART-WHOLE or WHOLE-PART mappings, but instead explains contiguity in terms of co-presence or succession

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9 The similarity between being cognitively contiguous and forming one gestalt has already been described within the context of grammar by Talmy in 1988 (cf. Talmy 2006: 98).
11 It has sometimes been claimed that the ham sandwich is a metonymical mapping within the restaurant domain (cf. e.g. Kövecses & Radden 1998: 58), but I fully agree with Ruiz de Mendoza that this is actually not true: The ORDER FOR CUSTOMER metonymy is a mapping within the customer-domain that is often used within a restaurant-context (Ruiz de Mendoza 2000: 115; cf. also Kleiber 2007: 169, Nunberg 1996: 116).
(Blank 1999). In fact, the same idea had also been presented some years previously by Ullmann, who distinguishes between “simultaneous” and “successive contiguity” (Ullmann 1967: 232-233). Instead of making a descriptive list of contiguity relations which can never be complete and will show an enormous variation in abstraction, Blank pleads for a more cognitive explanation of how we derive these contiguity relations. Concepts can generally be contiguous in two different ways, depending on the kind of conceptualisation of a certain gestalt. In the case of stative conceptualisations, concepts are contiguous if they are co-present. However, if something can only be conceptualised dynamically, as is often the case for certain sequences of events (scenarios), concepts turn out to be contiguous in a successive way. Co-present relations exist, for instance, between the actors and the action they perform (such as between AGENTS and INSTRUMENTS), between PLACES and PEOPLE, or between a WHOLE and its PARTS (cf. Blank 1999: 179-180). Successive relations on the other hand exist between, for example, an ACTIVITY and its AIM/GOAL, a CAUSE and its RESULT or between a MATERIAL and its PRODUCT (Blank 1999: 181-182). Such classifications, which make a distinction between these two fundamental types of contiguity, avoid an analysis of metonymy through innumerable contiguity patterns with great variety in the level of abstraction. According to Blank, every metonymy should be analysed according to three distinct layers of abstraction (Blank 1999: 182). In the first place, metonymies are based on dynamic or static conceptualisations of gestalts and therefore their type of contiguity-pattern can be classified as co-present or successive. Secondly, this contiguity pattern can be described in a more specific way. This is the level where the traditional contiguity patterns come in. The last level of analysis concerns the concrete source and target of the metonymy itself, i.e. the specific instance of the general contiguity pattern.13

Because relations such as co-presence or succession are connected to human modes of conceptualisation of gestalts (dynamic or static), they are reflected in

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12 Although the latter can sometimes also be co-present, that is if the product is finished and the material has not undergone a direct change. This can be illustrated by the difference between the material-product pairs ‘dough-cake’ and ‘reed-basket’. Of course, some action has to be performed before the product comes into existence and in this sense both examples are successive. But when the product has been finished both pairs show a difference. If a cake has been baked, there is no dough present anymore (at least not in the strictest sense of the word). This shows that their relationship is always temporally distinct, and therefore successive. But if a basket has been made out of reeds, the reeds and the basket are present at the same time, which makes the relation between the finished product and the material (but not the other way around) co-present.

13 It should be noted that Blank’s approach only gives a more systematic analysis of different metonymies on the basis of their contiguity-patterns, and that in the end it does not totally solve the problem of the level of abstraction. This can be illustrated by the simple example as in (4) (page 7), where the red shirts is used for ‘the team with the red shirts’. On the lowest level we are dealing with a metonymy according to the pattern ‘red-shirts’ for ‘team playing in the red-shirts’, which can be analysed on the highest level as a co-present contiguity. It still remains possible, however, to describe this metonymy on the middle level as an ATTRIBUTE FOR (GROUP OF) PERSON(S) or as a PIECE OF CLOTHING FOR (GROUP OF) PERSON(S).
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semantic-conceptual structures (Blank 1999: 178). In other words, all contiguity relations can be found reflected in frames (or scenarios). Contiguity is more often defined as the relation between elements of one frame (cf. e.g. Koch 2001: 202). Therefore, Blank’s account and comparable approaches automatically fit the view on metonymy as a conceptual link within one internal structure. Starting with a structured analysis of contiguity, Blank ends up in line with the above cognitive definitions, since metonymy is considered as a device that establishes links between concepts within a frame, or even between frames (Blank 1999: 182). Unfortunately, this also brings in problems discussed above: Links between different frames blur the distinction between metaphor and metonymy and in order to explain the mapping exactly, one needs to know what these frames look like.

As already mentioned in the previous section, Peirsman and Geeraerts criticise scholars who use frames in the definition of metonymy without specifying them. In the spirit of cognitive linguistics, they draw the conclusion that contiguity, and therefore also metonymy, should be seen as a prototypical category (Peirsman & Geeraerts 2006). Metonymy should be accounted for by revealing the crucial aspects of this prototypically structured concept. This analysis makes it possible to define metonymy in a cognitive linguistic way without the need to use the vague notion of a domain or frame and therefore without the problems attached to such definitions of metonymy.

On the basis of an analysis of various contiguity patterns found in pre-structuralistic literature, Peirsman and Geeraerts find that crucial dimensions for metonymical concepts appear to be ‘strength of contact’ and ‘boundedness’ (Peirsman & Geeraerts 2006: 279, 284). These notions play a fundamental role for spatial objects as well as assemblies and collections that are perceived as wholes (2006: 301ff). These more or less spatial notions, especially ‘strength of contact’, can even be extended to the temporal domain (2006: 286ff).

Although their analysis of metonymy as a prototypically structured category beautifully avoids vagueness and is an important contribution to the field of metonymical research, it is unfortunately solely based on lexical contiguity patterns, i.e. semantic changes or polysemy caused by metonymy (Peirsman & Geeraerts 2006: 309, 310). Peirsman & Geeraerts are aware of this problem and they stress the fact that their study neglects types of metonymy that influence grammar, which in their opinion deserve further investigation (2006: 292, 310). One can doubt, however, whether their prototypically structured category is useful for this purpose, precisely because it is designed solely on the basis of lexicalised metonymies (cf. also Croft 2006: 324). For the present research this question is of crucial importance, since this study analyses how metonymy affects the choice of the direct object type.

Interestingly, Peirsman and Geeraerts describe their own approach as “quite similar” to Blank’s study (Peirsman & Geeraerts 2006: 274), because Blank also tries to give a more exact definition of metonymy by specifying contiguity relations.

14 Actually, Blank does not directly use the notion gestalt. He only speaks about conceptualisations and frames. A frame can, however, be seen as the representation of a gestalt (cf. Koch 1999: 151).
This quote is surprising in some respects, since Blank directly connects contiguity to frames through the notions ‘co-presence’ and ‘succession’, which is exactly what Peirsman and Geeraerts try to avoid. Apparently, the strategy of analysing metonymy as a prototypical category and the solution of specifying frames involved in metonymical mappings do not exclude each other. I will therefore not only take into account the important dimensions of Peirsman’s and Geeraerts’ prototypically structured category in the analysis of metonymical influences on the type of direct object, but in addition elaborate upon the other solution, i.e. making the contiguity explicit by specifying the conceptual structures or frames.

Peirsman and Geeraerts, however, are justified in their criticism that most, if not all, cognitive linguistic studies leave implicit what conceptual structures or frames look like. This is remarkable, since there is a databank on the internet with developed frames by the research project FrameNet (https://framenet.icsi.berkeley.edu/). Based on Frame Semantics, i.e. on Fillmore’s concept of a frame, scholars have developed semantic-conceptual structures as precisely as possible on the basis of real linguistic data. These frames in FrameNet are designed independently of theoretical research on metonymy, but strangely enough they are never taken into account in examining metonymy. However, if metonymy is a cognitive process that highlights parts of a conceptual structure, it must be possible to analyse it with the help of existing frames as they are developed by the frame semantics-based FrameNet, since a frame in FrameNet is defined as “a script-like conceptual structure that describes a particular type of situation, object or event” (Ruppenhofer et al. 2006: 5). The fact that the conceptual structures of FrameNet are designed on the basis of linguistic data makes them especially useful. Metonymy is, after all, a mechanism that establishes connections between contiguous concepts and which has its reflection upon language. Therefore, metonymy operates on the underlying concepts as well as on linguistic form. I will discuss this twofold effect in more detail in the next section.

4. Linguistic effects of metonymy on content and on form

It is not without reason that Ruiz de Mendoza and Pérez observe that most definitions of metonymy are working definitions (Ruiz de Mendoza & Pérez 2001: 323). Apparently, it is difficult to characterise metonymy in a specific way. This is probably caused by the fact that metonymy concerns different levels. Concepts are contiguous on the basis of how things are related in reality and this influences our way of expressing ourselves. In order to understand what metonymy is, one should look at the relation between concepts, reality and language, i.e. the classical semiotic

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15 Cf. also Blank’s comprehensive definition of metonymy “die Metonymie [ist] eine sprachliche Realisierung der Kontiguitätsassoziation” [JS: Metonymy is a linguistic realisation of the contiguity-based association] (Blank 1997: 235).
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The three different levels of the semiotic triad (thinking, reality and language) should not be overlooked or mixed up in a definition, but in practice they cause a great deal of confusion. The interaction between the three levels leads to disagreements on very basic notions. Even cognitive linguists do not agree when it comes to the question of whether metonymy is primarily conceptual in nature or merely a linguistic device. Whereas Kövecses and Radden define metonymy as “a cognitive process” (1998: 39), Koch describes metonymy purely as “a linguistic effect” or “a dynamic linguistic process” (Koch 2001: 205, 231, cf. also his discussion on 230-233).

However, even if one considers metonymy primarily as a linguistic phenomenon, it is still possible to approach metonymy from two different perspectives. A first way of examining metonymy linguistically is to analyse whether a given linguistic sign is used metonymically or not. This is the approach which most linguists employ. This perspective could be called semasiological, because one starts with a linguistic sign and analyses its meaning. It is therefore analogous to the perspective of the hearer, who has to interpret a given metonymical expression.17 Because of the fact that the focus lies on one specific linguistic sign, metonymy can be defined from this point of view as “a linguistic effect upon the content of a given form” (Koch 2001: 205).

Another way of thinking about metonymy as a linguistic effect, however, is by analysing how we can linguistically express the same state of affairs in a metonymical and in a non-metonymical way. In this line of approach, one does not start from some linguistic sign that can be used metonymically or not, but one compares a metonymical expression in its context with non-metonymical possibilities of saying the same thing. As a consequence, the effect of the cognitive metonymy process should not be described as an effect on the content or the meaning of an expression, but instead as the use of the metonymical expression, that is the choice of the speaker for the metonymical way of expressing something. Seen from this perspective, metonymy can be described as the use of one phrase instead of another (cf. Verspoor 1997a: 166). Because one starts with the meaning and analyses corresponding ways of expressing the same state of affairs, this perspective on metonymy is of an onomasiological nature (cf. Sweep 2010a: 12; Sweep 2010b: 1430; Sweep 2011: 8, 24; Sweep 2012).

Onomasiological approaches analyse what the relations between alternative expressions are and which pragmatic factors determine the choice of an alternative expression (Grondelaers & Geeraerts 2003: 70; cf. also Geeraerts 2010: 23-24). An answer to such questions is of course fundamental to our understanding of

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16 This triangle was first proposed by Ogden and Richards (1923) and can be found in all subsequent philosophical and linguistic semantic textbooks.
17 I want to thank Wim Honselaar for pointing this out to me.
metonymical effects on language and communication. Although this approach sometimes turns out to be even more fruitful for understanding metonymical phenomena than a semasiological analysis (which we will see in full detail below), it is often neglected or overlooked. A reason for this could be the fact that the notions semasiology and onomasiology are uncommon terms in Anglo-Saxon linguistics (cf. Grondelaers, Speelman & Geeraerts 2007: 988).

But even linguists from a continental tradition do not directly incorporate this side of metonymy in their research. If the connection between metonymy and onomasiology is discussed, an onomasiological perspective is often explicitly not taken into account. Illustrative in this respect is the sophisticated work of Koch. He is definitely not blind to the onomasiological side of contiguity and of figure/ground effects (Koch 1999: 159; Koch 2001: 203; cf. also Koch 2008), but in his view figure/ground effects are only semasiologically related to metonymy (Koch 2001: 203). Indeed Koch’s definition of metonymy as a “frame-based figure/ground effect with respect to an invariant linguistic form” (Koch 2004: 8) or as a “linguistic effect upon the content of a given form” (Koch 2001: 205) only applies to the semasiological side of metonymy. This poses no real problem for his research, since it is primarily focused on semantic changes and metonymical polysemy, where there is only one form to deal with (i.e. the polysemous word). However, a purely semasiological approach to metonymy totally neglects or even has to deny the fact that other instances of metonymy, especially metonymies affecting grammar (cf. below chapter III, §5), do not only cause a shift in semantic features, but also and, in fact, primarily cause a shift in the expressions used (the linguistic structure).

In the next sections, I will illustrate the semasiological and onomasiological perspective with several examples of metonymy and clarify why the traditional semasiological as well as the onomasiological perspective are in fact both crucial for our understanding of metonymy.

5. The onomasiological side of metonymical shifts

A close examination of real instances of metonymy easily illustrates why the onomasiological point of view is of crucial importance. An example of a general metonymical pattern that is often exploited is AUTHOR FOR WORK. A linguistic sign, such as Goethe, can be interpreted as the famous writer with the name Goethe or metonymically stand for ‘(some) work written by Goethe’. If we start with the

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18 This perspective is primarily connected to the speaker, since it is the speaker that chooses the metonymical expression instead of the non-metonymical one. However, hearers also have to analyse the fact that a metonymical way of expression has been chosen (cf. the discussion of example 13 below).

19 However, compare below.

20 The AUTHOR FOR WORK metonymy is sometimes considered as the basis for AUTHOR FOR A CERTAIN BOOK (OR POEM) WRITTEN BY THAT AUTHOR. The latter contiguity pattern is thus derived in two steps, the first mapping is AUTHOR FOR WORK and the second mapping follows the route from the work in general to a specific part of this work (cf. Ruiz de Mendoza &
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analysis of an invariant linguistic sign, i.e. Goethe, we can thus indeed state, in line with Koch, that metonymy has the linguistic effect of modifying the content of the expression by metonymy. Instead of standing for a person, the expression metonymically refers to some specific works.

This semasiological linguistic effect of metonymy can be illustrated very well by sentence (6), which has two different interpretations. If Goethe heard Charlotte von Stein say this, he probably would have thought of the non-metonymical option (interpretation a), whereas if I utter this sentence, it will be interpreted as me loving Goethe’s oeuvre (interpretation b).

(6) I love Goethe.
   (a) ‘I love that man with the name Goethe’
   (b) ‘I love books by Goethe’

The metonymical b-interpretation can, however, be expressed more explicitly, as in (7).

(7) I love books by Goethe / I love Goethe’s oeuvre.

Instead of contrasting a metonymical and a non-metonymical interpretation of one and the same linguistic sign (e.g. comparing (6)a with (6)b), it is also possible to compare a metonymical and a non-metonymical expression with the same content (comparing (6) with (7)). Seen from this latter, onomasiological perspective the linguistic effect of metonymy is not primarily a modification of content but a modification of form, i.e. the choice of (6) instead of (7) (which could in turn be based upon a shifted conceptualisation by the speaker). In other words, metonymy does not only cause the interpretational shift (interpretation (6)b instead of (6)a), but also shifts the expressions themselves (expressing (6) instead of (7)). An onomasiological perspective has to be taken into account in order to explain metonymy fully. Defining metonymy merely as ‘an effect upon the content of a given form’ neglects the fact that metonymy, as a cognitive-linguistic process, determines this form at the same time.

In addition, an onomasiological perspective is necessary, even without directly analysing changes in linguistic form. The onomasiological point of view has to be taken into account in order to understand why metonymical expressions are available (the speaker’s perspective) and how they can be interpreted (the hearer’s

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Pérez 2001: 338f). For the moment, I will disregard this difference and discuss an example such as I am reading Goethe (meaning ‘some work by Goethe’) as a similar type of metonymy as I love Goethe (meaning ‘his oeuvre’), even though this is not, strictly speaking, the case.
CHAPTER II

perspective).\textsuperscript{21} Sentence (8) can be used to illustrate this. In this example the same contiguity pattern as in (6) has been exploited, with the difference that the metonymical interpretation is the only available interpretation, simply because the other option does not make any sense.

(8) I am reading Goethe.
   (a) ‘I am reading that man with the name Goethe’
   (b) ‘I am reading books by Goethe’

In this sentence, Goethe has to be interpreted as a book or poem by Goethe. This is not only so because a hearer knows that Goethe is a famous author, but also because one knows that it is only possible to read texts (in its literal sense). The context of the verb can thus be of crucial importance (cf. also Croft 1993: 354). In a sentence such as (8) it is clearly contextual information that triggers the metonymical interpretation of the word Goethe. Interestingly, in such sentences, a hearer can even understand the metonymy without having ever heard of the author, as in (9).

(9) I am reading Jones.

If a hearer does not know Jones, he/she cannot know that Jones is a writer and therefore a domain highlighting in Croft’s or Cruse’s sense, which makes the text-domain of the Jones-author-concept more prominent, is not very plausible as a first interpretational step. Rather the inference seems to function the other way around: The hearer realises that Jones must be used to refer to some text and therefore understands that the author-domain of the text-concept is explicitly expressed.\textsuperscript{22}

Figure 1 shows this bilateral effect. Because of the close relationship between texts and authors, metonymy allows speakers to use the name Goethe instead of the words Goethe’s oeuvre (= arrow 1: the use of one phrase instead of another) with the result that in a given context a hearer interprets Goethe not in its literal sense as ‘the

\textsuperscript{21} Koch also discusses the connection between metonymy and the hearer perspective versus the speaker perspective (Koch 2004: 12, 19, 42-45; 2001: 227-228), but he uses these notions in a different way than I do. Since Koch primarily takes the semasiological side into account, he addresses the question of who creates the metonymy. Normally speakers produce metonymies, but hearers can also create metonymies by reanalysing or interpreting a non-metonymically used expression as metonymical. Koch’s hearer-induced metonymies thus only correspond to the creation of (ad hoc) metonymies on the basis of expressions that were meant by the speaker as non-metonymical. What I call hearer perspective has to do with the way in which a hearer should deal with an, in Koch’s terms, ‘speaker induced metonymy’. More concretely, my use of the hearer’s perspective concerns the way in which a hearer understands that the expression Goethe should not be interpreted as the author but as his works or how a hearer knows that ham sandwich can be used to name a customer.

\textsuperscript{22} The metonymy is automatically inferred under the assumption that the hearer understands reading literally and does not interpret Jones as the title of a book.
famous author’ but instead as ‘work(s) by the specific author (= arrow 2: a shift in interpretation).

Figure 1: Metonymical effect on content (2) as well as on linguistic form (1)

This demonstrates that the connection between authors and texts or books is, just as all kinds of metonymical connections, a very tight one. In the first place, one understands that the name of an author can be used to refer to his works, since one knows that authors write books, i.e. the concept of an author includes a ‘text’-aspect. However, the connection also works the other way around: The concept of a book or text includes an ‘author’-aspect, since it is known that texts have to be written by someone. This may sound redundant, but both directions are crucial in order to explain the metonymy AUTHOR FOR WORK fully. The first direction from author-concept to book-interpretation is necessary in order to explain why it is possible to interpret Goethe as ‘work by Goethe’. This direction corresponds to the semasiological side; it explains the linguistic effect of metonymy upon content of a given form. The other direction, the fact that the book-concept includes an author-element, explains why a speaker does not have to make the book explicit for the hearer. Furthermore, it explains how it is possible to understand a sentence such as (9) without knowing who Jones is.

For a full understanding of what metonymy is and what it does, both a semasiological and an onomasiological perspective should be taken into account. In some metonymies the semasiological effect will be more relevant, as in case of (lexicalised) metonymical polysemy, whereas in others the onomasiological effect will be stronger. An analysis of a semasiological effects can for some metonymical expressions be complicated, because metonymies often simultaneously denote target and source as an integrated whole, without a clear referential shift (cf. Radden & Kövecses 1999: 19; Panther 2006: 147; Warren 1999: 128). In addition to this, the onomasiological side of metonymy is necessary to understand why people actually use metonymical expressions. I will discuss this pragmatic side of metonymy in the next section.
6. Reasons for using metonymical expressions

Analysing metonymy from an onomasiological perspective is also necessary to identify the reasons why speakers use metonymical expressions (Grondelaers & Geeraerts 2003: 70). There are not many studies that address the question of why metonymies are actually used. Only occasionally tentative reasons for the choice of a metonymical expression are mentioned. Although it goes beyond the present dissertation to analyse pragmatics reasons of metonymy in full detail, I will discuss some of these reasons in order to show that an onomasiological stance is taken in identifying those reasons.

The most frequently mentioned reason for the use of a metonymical expression is linguistic economy (cf. e.g. Dölling 1999: 33, 47; Ruiz de Mendoza & Pérez 2001: 325; Schifko 1979: 242; Warren 1999: 128). A comparison of (6) and (7), for instance, suggests that the metonymy could indeed be used to express oneself more economically.

However, not all metonymies are simply shorter expressions. This becomes directly clear if the metonymical expression is compared with its non-metonymical counterpart. In (10) and (11), for instance, the metonymical expressions in the b-sentences are not shorter than the non-metonymical ways of expressing the same content in the a-sentences.

(10)    a. I have a fever
        b. I have a temperature    (cf. Seto 1999: 114)

(11)    a. The author began writing
        b. The author began the book (cf. Pustejovsky 1991)

Rather than being an economic way of referring to reality, these sentences highlight a relevantly involved concept, thereby simultaneously evoking the target-concept.

Rather than purely for reasons of linguistic economy (i.e. shorter expressions), Nunberg has suggested that metonymical expressions can only be used if the literal concept corresponding to the expression used is ‘noteworthy’ (cf. Nunberg 1996: 114). In other words, there must be relevant reasons to use a metonymical expression.

Noteworthiness could lead to linguistic economy (cf. also Blank 1999: 176). This can be illustrated by an example such as (5). The order *ham sandwich* is noteworthy for denoting a customer because “customers acquire their most usefully distinctive properties in virtue of their relations to the dishes they order” (Nunberg 1996: 115). It is therefore the easiest and shortest way for waiters in a restaurant to refer to a specific customer; if one did not use the order for the customer, one would have to provide a very precise, long nominal description to refer to the specific customer (cf. Ruiz de Mendoza & Pérez 2001: 325).
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Such analyses are onomasiological in the sense that reasons with respect to the specific situation in reality are examined to analyse why a metonymical expression has been used.

Kövecses and Radden provide some other reasons why metonymical expressions are used instead of literal ones (i.e. why sources are noteworthy). One principle is, for example that humans are cognitively salient to such a large extent that expressions referring to humans are often selected over the literally interpreted words. Kövecses and Radden illustrate this with metonyms following PRODUCER-PRODUCT, as in the Goethe-examples; following POSSESSOR-POSESSED as in I am parked out back or following CONTROLLER-CONTROLLED23 as in Schwarzkopf defeated Iraq (cf. Kövecses and Radden 1998: 64). Other patterns revealed by Kövecses and Radden are, for instance, the use of words literally corresponding to concrete concepts to denote abstract ones (1998: 64), immediate visual things for immediate concepts (1998: 65), or the use of words denoting typical things and actions to refer to a category as a whole (1998: 69). Such patterns are onomasiological principles, in the sense that they reveal how meaning can be expressed in a metonymical way and why this is done.

Highlighting a relevant concept can also have a humorous (Honselaar p.c.) or euphemistic (cf. Blank 1999: 175-176) effect. The Dutch examples (12)b and (13)b illustrate this: Compared to (12)a, the expression in (12)b is more colloquial and has some joking flavour and the metonymical meaning of klateren in (13)b avoids the use of a word such as plassen ‘to urinate’.

(12) a. Even de leerlingen tellen...
   just the pupils count
   ‘Just counting pupils (/heads)’

   b. Even de neuzen tellen...
   just the noses count

(13) a. Hij plaste tegen de kerk
   he urinated against the church

   b. Hij klaterde tegen de kerk
   he splashed against the church
   ‘He urinated against the church’

Although this section has only tentatively touched upon the pragmatics of metonymical expressions, all metonymical expressions seem to have a specific pragmatic effect, such as referring in the most economic and relevant way, causing differences in focus, evoking a certain conceptualisation, expressing things in a euphemistic or funny way, and so on. Such effects can only be analysed by comparing the metonymical expression with its non-metonymical counterpart (i.e. a-sentences with b-sentences). In other words, an onomasiological point of view has to

23 Cf. also the example The gardener mows the lawn, which is discussed in the next section.
be taken into account if one analyses which effect the metonymy has and why the metonymical expression has been used.

7. Defining metonymy as a twofold highlighting effect

The previous sections have touched upon different aspects of metonymy. Crucial notions, such as contiguity-relations, metonymy as a domain-internal mapping and the linguistic effect of metonymy have all been discussed. In this section, I will combine these aspects and the role they play into a fully fledged definition of metonymy.

First of all, it has repeatedly been explained that metonymy is the linguistic reflection of a contiguity-based association between two concepts (cf. Blank 1997: 235). The contiguity relation, i.e. a tight, conceptual connection based on reality, can be analysed on several levels of abstraction. The contiguity relation is furthermore reflected within frames. Unsurprisingly, several scholars use the notion ‘frame’ in their definition of metonymy. They do this either directly, for instance by defining metonymy as a “frame-based figure/ground effect” (Koch 2004: 8) or indirectly by considering metonymy as a way of highlighting domains (cf. Croft 1993). A domain-internal highlighting could also be described as highlighting certain elements of a frame.

Furthermore, I have explained above (§4) that metonymy as a cognitive process causes not only an effect upon content (from given form to meaning), but also an effect upon linguistic form (from intended or expected meaning to form). I have argued that research on metonymy should take into account both perspectives, i.e. a semasiological as well as an onomasiological point of view (cf. Sweep 2010a: 12; Sweep 2010b: 1430). This has crucial consequences, however, for the notion of metonymy as a highlighting effect (Croft 1993). The highlighting should not only be defined as ‘making a certain domain (of the expressed concept) primary for the interpretation’, but also as ‘making a certain domain (of the intended concept) explicitly primary in the sentence’.

Although the metonymical effect in terms of ‘highlighting’ is never explicitly defined in an onomasiological way, i.e. as a shift in or choice of the expression used, this idea is often implicitly reflected in some linguistic studies. Kövecses and Radden, for instance, write about the sentence *The gardener mows the lawn*: “The metonymy involved here is controller for controlled, and this wording appears to be a natural way of expression because it *highlights* the human participant.” (1998: 39, emphasis mine). Here the word *highlights* does not denote the semasiological highlighting of the instrument aspect within the gardener-concept, but in fact refers to the explicit highlighting in the sentence of the human participant connected to the mowing-machine. Leaving aside the question of whether metonymy is really involved in the subject of this sentence, the description of the metonymical highlighting-effect clearly does not describe an effect upon the content of the words used, but analyses the explicit choice of the metonymical expression.
A similar use of the word *highlight* in an onomasiological sense can be found in Panther and Thornburg, illustrated by the sentence *She is just a pretty face*. According to Panther and Thornburg, this metonymical expression “is not just a substitute expression for a *pretty person* but also *highlights* the prettiness of the person’s face” (2007: 238, emphasis mine). Again, this use of *highlights* is not the standard semasiological highlighting in terms of Croft and Cruse. In that sense, the highlighting effect should be explained as the interpretational shift of ‘pretty face’ to ‘person with a pretty face’ (24) This word *highlights* refers, however, to a simultaneously occurring but opposite effect, i.e. an explicit focus on the person’s face within the intended whole person interpretation. Implicitly, this is an onomasiological view on highlighting, because it reasons from intended interpretation to form.

In addition, I have argued in line with Peirsman and Geeraerts that, if one sees metonymy as a highlighting effect within a frame, the frames involved need to be specified. I will use existing frames from the on-line database of FrameNet for this purpose (http://framenet.icsi.berkeley.edu/). Interestingly, an analysis with the help of the frames found in FrameNet makes the twofold highlighting (i.e. the shifted interpretation as well as the explicit focus) clear directly.

The traditional AUTHOR FOR WORK metonymy as in *I am reading Goethe* can be used to illustrate the issue. According to FrameNet the main verb of this sentence evokes a “Reading” frame. This frame has two Core Elements, which are “conceptually necessary components of a frame” (Ruppenhofer et al. 2006: 26). The Core Elements of the “Reading” frame are a ‘Reader’ and a ‘Text’ (cf. http://framenet.icsi.berkeley.edu/). The reader-element is directly expressed by the word *I*. The text-element is not directly presented in the sentence, but expressed by means of *Goethe* (illustrated by the thin arrow in Figure 2). This shows that metonymy causes a content-shift from author to book, as well as an explicit highlighting of the author within the needed book/text-element evoked by the verb (cf. Figure 2).

24 I will discuss this sentence in more detail in chapter III, §4.2, cf. especially footnote 63.
Figure 2: Metonymy explained in terms of Frame Semantics

The Goethe-example illustrates that Croft’s semasiological “domain highlighting” (that is making the book-element primary in the interpretation of the expressed author) is paired with an onomasiological highlighting (that is expressing the author connected to the book frame instead of the book itself). The onomasiological perspective on metonymy has similar consequences for a definition of metonymy as a figure/ground effect within a frame (Koch 2001). Koch’s figure/ground effect occurs within the frame that is literally expressed (interpreting an author as a book) as well as within the frame of interpretation (expressing a book by means of its author). In other words, the figure/ground effect can be explained from the point of view of the source-frame (the author) as well as from the target-frame (the book).

In fact, Koch himself also sometimes locates the contiguity relation or the figure/ground effect in the frame corresponding to the expression used (the semasiologically evoked frame), and sometimes in the intended frame (the target-frame). In his discussion of German im Griechen, he explains that the Greek-concept establishes a conceptual connection to the Greek restaurant (Koch 2004: 11-12). The inference is thus made within the frame corresponding to the literally used expression, i.e. the source-frame. The metonymy-induced polysemy of garage, on the other hand, is explained in a different way. The contiguity relation between the garages and service stations which is reflected in the two senses of French garage is located within the service station frame, since “service stations prototypically have [...] garages” (Koch 2004: 12). The figure/ground effect thus occurs within the concept of the shifted meaning, i.e. the target-frame. Koch’s analysis of im Griechen is thus of a semasiological nature starting with the literal meaning of the expression.
used, whereas the analysis of garage could be seen as onomasiologically oriented, since it relates the intended concept to the literal expression.²⁵

The same confusion is reflected in the explanation of the different senses of French vitesse (i.e. ‘speed’ or ‘gear’). In Koch’s illustration of the metonymical figure/ground effect (Koch 2004: 8), the highlighting of the figure/ground is located not only within ‘speed’ but also within ‘gear’. The former describes the figure/ground effect with respect to the literal or original concept. It could therefore be considered as semasiologically oriented. The latter figure/ground effect, on the other hand, takes the shifted meaning as the basic point of view.²⁶ Both analyses are true in each case, however, and both perspectives (semasiological or source-oriented as well as onomasiological or target-oriented) are essential. Since metonymy is a cognitive device anchored in our way of perceiving things and reflected in the way in which we express ourselves, the onomasiological perspective is crucial.

In a way, the present definition of metonymy combines insights from the rhetorical-literary tradition, which focuses upon changed expressions, as well as insights from the cognitive linguistic tradition that correctly analyses the conceptual side of metonymy. Metonymy should be seen as a cognitive process of contingent contiguity associations with the linguistic effect that a closely related concept is expressed instead of the concept that makes most sense literally. In this way, metonymy can lead to a reinterpretation. The expression used plays a crucial role without necessarily being interpreted literally. Metonymy should not simply be considered as an effect upon content, since it also causes a shift in linguistic form.

²⁵ Ruiz de Mendoza is the only scholar who explicitly notes that metonymical mappings are sometimes located within the frame or domain corresponding to the source and in other cases within the frame or domain corresponding to the target (cf. Ruiz de Mendoza 2000: 116; cf. also Geeraerts 2010: 216). His theory of source-in-target metonymies and target-in-source metonymies can be used to explain this difference: The mapping always occurs within the highest domain. This would mean that garage must be a source-in-target type of metonymy (a ‘garage’ is included in a ‘service station’) and im Griechen should be an example of target-in-source. Unfortunately, as also illustrated by the latter example, it is not always clear whether we are dealing with source-in-target or target-in-source metonymy. I will discuss this issue in detail in the next chapter. Another problem with this explanation for the different frames is that it cannot account for the fact that metonymy causes two types of shift, viz. a shift in meaning as well as a shift in the expression used, as illustrated above by the Goethe-example.²⁶ In addition to this double highlighting, the semantic change or polysemy is explicitly said to be “due to a figure/ground effect within a frame, say MOTOR CAR” (Koch 2004: 8). This frame is, however, not at all reflected within the visualisation of the figure/ground effect (Koch 2004: 8, table 1). The mentioning of the ‘motor car’ can be compared with the misconception that the ham sandwich is a metonymical mapping within the restaurant frame (cf. footnote 11).
III. TYPES OF METONYMY UNRAVELLED

1. Reflections of metonymy and the direct object

In the previous chapter, I defined metonymy as a cognitive mechanism which highlights elements within a semantic-conceptual frame. In this way, metonymy has its reflections on language. Traditionally, the metonymical process of highlighting is analysed from a semasiological perspective, in that certain semantic traits of an expressed concept are made more important than they normally are. As I have argued, the semasiological effect mirrors an onomasiological highlighting, i.e. an intended interpretation is communicated by the expression of a related concept. Both simultaneously occurring effects can be illustrated by the example Goethe used for ‘works by Goethe’: Semasiologically, Goethe is interpreted as ‘Goethe’s oeuvre’ by semantically foregrounding the fact that authors write books, whereas onomasiologically the word Goethe is actually used because of an explicit focus on the author-element of the intended oeuvre-concept.

However, a full analysis of the metonymical mapping involved presupposes that one does not only know how the mapping takes place, but also which expressions or linguistic structures are actually affected by metonymy. To put it in more general terms, one must know which types of metonymical reflections on language actually exist. Although this may sound rather trivial, it turns out that there is no consensus on this topic in the literature. Scholars do not only disagree on which linguistic structures and phenomena should be accounted for by an underlying metonymical motivation, but they also have different analyses of which linguistic phrase is actually metonymical or where metonymy comes into play.

The goal of the present chapter is therefore to disentangle the different ways in which metonymy appears in language and to answer the question of how and on which linguistic levels the metonymical mechanism works. On this basis, it will become clear that metonymy does not only cause shifts in the interpretation of lexical items, but also plays a crucial role in determining predicative argument structures. The latter is especially important for the topic of this work. An analysis of how metonymy determines the direct object does not only have to discuss how the interpretation of the object can be influenced by metonymy, but primarily needs to take into account how metonymy determines the choice of a particular type of direct object.

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27 A shorter, modified version of this chapter was published as Sweep (2011) “Metonymical transfers: The complex relation of metonymy and grammar.” Linguistics in Amsterdam, 4.1, 1-36.
2. Lexical, semantic or pragmatic interpretational effects

2.1 Lexicalised metonymies and occasional referent-oriented ones

Early linguistic studies on metonymy either use examples from the rhetoric-literary tradition or focus primarily on the relation between metonymy and meaning change. As a result, two different types of metonymy have been analysed, which are not always explicitly distinguished from each other.

In the more classical sense of the rhetoric-literary tradition, metonymy is considered as an *ad hoc* way of naming things. Such metonymies are primarily used to refer to concrete objects. Sentences (1)-(3) illustrate this.

(1) You can find the *ulcer* in room 103.
(2) I saw the *plume* climbing up the tree.
(3) He drank a whole *bottle*!

In (1) the patient is indicated by his disease, in (2) a squirrel is referred to by the mention of its tail and in (3) a liquid has to be interpreted on the basis of its container which is conceptually present.

However, linguists recognised early on that metonymy does not only cause occasional shifts where one expression is used instead of another, as in (1)-(3), but that it may also induce shifts in the lexical meaning of an expression. Therefore, a second type of metonymy, which has been analysed from the early semantic studies onwards, is metonymy as a motivation or underlying principle for the meaning variation of a certain specific linguistic sign (cf. e.g. Ullmann 1967; Taylor 1989). Metonymy as an underlying semantic principle can operate synchronically, leading to related senses or polysemy, as well as diachronically, leading to semantic change (cf. Koch 2001; Koch 2004; or Hilpert 2006: 129). Metonymy-induced polysemy and semantic change occur on a lexical-semantic level and they can be labelled ‘lexicalised metonymies’.

This distinction between occasional and lexicalised metonymies is not always explicitly made (cf. however Koch 2004: 12; Koch 2001: 206-207). The reason probably is that the onomasiological level has not properly been taken into account (cf. chapter II, especially §4-5). If one analyses metonymy primarily from a semasiological perspective, metonymy merely leads to a shift in interpretation, as is the case in both types of metonymies. However, if it is in addition considered onomasiologically, it becomes clear that in occasional metonymies with a referential shift one word is used instead of another (two ways of referring to one entity), whereas in cases of metonymy as an underlying semantic principle, there is a meaning shift within one lexical expression (one word to refer to several meanings). Of course, lexicalised metonymies and occasional referential metonymies cannot
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always be clearly distinguished from each other. Since both metonymy types interact, they instead form a continuum of cases (cf. also Barcelona 2005: 315).

Scholars disagree on which of the two types should be regarded as the most prototypical type of metonymy. Barcelona, for instance, states that the term metonymy is used for a variety of phenomena “including ‘classical’ or ‘prototypical’ examples of linguistic referential metonyms for individuals” (Barcelona 2005: 313). Linguists from a more lexical-semantic tradition, however, usually consider metonyms which affect the lexicon as the most traditional instances of metonymy (cf. the use of metonymy by historical-philologists, as discussed in Geeraerts 2010: 6, 25-27, 33, 92-93). Occasional metonyms used for naming objects or persons, exemplified in (1)-(3), are seen as “less central” (cf. Koch 2001: 209, 221).

Koch also makes a slightly different distinction: He divides metonyms into two categories: referent-oriented and concept-oriented (Koch 2001; Koch 2004). Referent-oriented metonyms are defined as “metonyms whose primary task is to create an expedient solution for reference assignment” (Koch 2004: 25). Sentences (1)-(3) illustrate such referent-oriented metonyms. Concept-oriented metonyms are used to express “a new conceptualization that could theoretically be integrated into the lexicon of a given language” (Koch 2004: 25). Lexicalised metonyms cannot be considered the same as concept-oriented metonyms, because concept-oriented metonyms “do not have to be habitualized” (Koch 2004: 28, emphasis in original) and “referent-oriented metonyms may undergo habitualization” as well (Koch 2004: 27).

The difference between referent-oriented metonyms and concept-oriented metonyms must therefore be gradual. First of all, all metonyms are by definition conceptual. In addition to this, it cannot be denied that a metonymical expression which is clearly used to refer to some entity in a contextually appropriate way can at the same time evoke a new conceptualization, even if this is not its primary goal. Example (2) illustrates this very well. Similarly, the fact that concept-oriented metonyms may convey new conceptualizations does, as explicitly explained by Koch, not imply that concept-oriented metonyms never bring referential shifts into play (cf. Koch 2004: 25).

Koch therefore divides concept-oriented metonyms into referent-sensitive and non-referent-sensitive ones. Koch illustrates a “non-referent-sensitive concept-oriented metonymy” by means of the example child, which could denote a ‘young person’ and contiguously a ‘descendent’. These two interpretations can coincide, meaning that the word can denote an overlapping class of referents (Koch 2001: 223; Koch 2004: 23-25). Concept-oriented metonyms are said to be referent-sensitive if they can be used to refer to two concepts which provide conceptual access to each other without denoting an overlapping set of referents (Koch 2004: 30). Referent-oriented metonyms, on the other hand, are said to be “always necessarily referent-sensitive” (Koch 2004: 29). Although this claim seems plausible at first sight, section 4 will show that it does in fact turn out to be problematic. The fact that metonymy is conceptual by nature obscures the distinction between referent-oriented and concept-oriented metonyms.
In the rest of this section, I will discuss different types of interpretational shifts that have to some extent been lexicalised. In section 2.2, I will discuss different types of metonymies, which are clearly of a lexical nature. These metonymies all underlie lexical shifts, synchronic as well as diachronic. In section 2.3 I will analyse how metonymy can be involved in concept-oriented metonymies that are based on the lexical content of a word but do not have a direct effect on the lexicon. In both sections the gradual nature of language in general and of metonymy in particular will be discussed. In the closing subsection 2.4, I will briefly discuss the role of metonymy in more or less standard interpretational shifts on a higher, pragmatic level of interpretation.

2.2 Metonymy: Semantic change, polysemy or other lexicalisations

Metonymy as a principle underlying semantic change can be illustrated by the meaning of the Dutch word *winkel*, which has changed its meaning from ‘corner’ to ‘store’ or ‘shop’, owing to the fact that most visible shops were located at street corners (cf. Geeraerts 1986: 42). The original meaning is only visible in Dutch expressions or word formations (such as *winkelhaak*, meaning ‘right-angled tear’ or ‘carpenter’s square’) and it is reflected in the German word *Winkel*, which only means ‘corner’ or ‘angle’.

Metonymy as a synchronic semantic principle may cause polysemy, i.e. lead to related senses belonging to the lexical content of a linguistic sign. This is in fact one of the first metonymical effects that linguists became interested in. As well as *metonymy-induced polysemy* or *metonymical polysemy* this type of polysemy is also called *logical*, *systematic*, or *regular polysemy* (cf. e.g. Apresjan 1992: 240ff; Brdar 2009: 260, 263; Geeraerts 2010: 148; Koch 1999: 140; Moerdijk 1993; Nunberg 1996; Peters 2003; Schifko 1979: 244).

The prototypical way of illustrating metonymical polysemy is by the word *school*, which can, depending on its context, have the meaning of an educational institution, a concrete building, the people involved, the time spent at school and so on (cf. Moerdijk 2003: 282, 284, 287). Sentences (4)-(7) illustrate each of these possible meanings.

(4) The school has run out of money [institution]
(5) They repainted the school [building]
(6) The whole school had a day off [people]
(7) I will meet you after school [time / classes]

It is often said that all these meanings belong to one general conceptual structure corresponding to the word *school* (cf. Moerdijk 1989). All meanings can be seen as belonging to one general frame or to one gestalt. As a consequence, the meaning of
the word does not really change by metonymy; rather a different part of the concept is activated or highlighted (cf. Moerdijk 1989).

Such multiple polysemy is not restricted to this specific word (cf. also Brdar 2007: 77). Words that are similar to school show partly overlapping metonymical patterns, cf. ‘The university / bank has run out of money’ or ‘They repainted the university / bank’. The fact that a similar metonymical polysemy-pattern occurs with different words clearly indicates that metonymy operates on a conceptual level and cannot be reduced to a purely lexical or semantic level (cf. Moerdijk 1990: 119-120). It also casts doubt on the assumption that semantics can be considered independently of conceptual knowledge.

In the above instances of metonymical polysemy, it remains unclear what the basic meaning of the word should be. The meanings are so closely related that they rather form a solid network or the general conceptual structure, i.e. a gestalt, which as such represents the meaning of the word. Nunberg calls such instances of polysemy “densely metonymous”, since “[i]ts various denotations are interdefined” (Nunberg 1996: 126). Nunberg himself illustrates dense metonymy with the example newspaper, denoting the concrete object that can be read, the type of publication, the company and so on. He claims that it is a “problem with truly dense metonymies [...] that we may not be able to assign one or the other use a priori place in the lexicon” (Nunberg 1996: 126). This description also applies to the interdefined meanings of school.29

In other cases of metonymical polysemy the word in question clearly has a basic meaning. Some lexicalised meanings or senses have been metonymically inferred on the basis of this primary meaning. Consider, for instance, the dictionary description of the Dutch numeral tien (‘ten’), which includes the meaning of a playing card with the number ten (cf. WNT). This example shows that lexical shifts induced by metonymy are not limited to nouns (cf. also Koch 2001: 220; Koch 2004: 29-30). Metonymical polysemy can occur in all kinds of parts of speech, just as lexical change induced by metonymy can. Rather complex concepts, as denoted by numerals or verbs, can also be shifted metonymically. An illustrative example of a verb that exhibits metonymical polysemy is, for instance, the Dutch verb klateren,

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28 Cf. below chapter IV (§1) for the same metonymical pattern with klooster (‘convent’) or abdij (‘abbey’). For other patterns of metonymy occurring within several nomina actionis cf. Moerdijk 1990, Hüning 1996 and for cross-linguistic differences and overlaps cf. Peters 2003.

29 Cf. also the discussion in Moerdijk 1989: 128ff, who suggests (after an analysis of school and related words such as museum and bank) that if there is a primary meaning, the ‘organisation/institution’-meaning could be basic within this network. This meaning is the basic part of the lexical network or the frame in which the metonymical highlighting effect occurs. Note that an onomasiological perspective is necessary for the insight that the metonymical shift or highlighting occurs within the frame ‘organisation/institution’, because this frame cannot be deduced solely on the basis of the word school. Instead the frame corresponds to the primary meaning (also evoking the metonymically related meanings) of school, therefore reasoning from meaning to form.
which literally means ‘to splash’ or ‘to make splashing sounds’ and therefore also has the metonymically related meaning of ‘to urinate’ (cf. Van Dale 14).

Another well-known example of a metonymical meaning extension on the basis of a primary meaning is the phenomenon “grinding”, i.e. making a mass noun out of a count noun (cf. e.g. Brdar 2007: 82-84; Brdar 2009: 263-268; Copestake & Briscoe 1996: 37ff; Ruiz de Mendoza & Pérez 2001: 336ff; Ziegeler 2007: 111). Grinding can be illustrated by the word rabbit. Rabbit basically denotes an animal, but by highlighting aspects within the rabbit-frame the word can be used for the meat (*we had rabbit for dinner*) or even its fur (*she is wearing rabbit*). Although these meanings are not basic meanings, they are also not occasional. This is supported by the fact that they are often incorporated in dictionaries. The Dutch dictionary *Woordenboek der Nederlandsche Taal* (WNT), for example, explicitly classifies the second meaning of *konijn* (‘rabbit’) as metonymical. This metonymical meaning is split up, denoting the fur (meaning 2.a) or the meat (meaning 2.b).

It can be difficult to establish, however, to what extent a conventionalised meaning is actually part of the lexical content of a word. Consider, for instance, sentences (8) and (9).

(8) I am reading Goethe.
(9) Picasso is in the Louvre.

On the one hand, one may doubt whether the ‘work by’-interpretation is an actual part of the lexical content of the proper names Goethe or Picasso. On the other hand, examples (8) and (9) also clearly differ from examples (1)-(3). The tight connection between artists and their work causes a conventionally established metonymical interpretation of the proper name. This is definitely not the case in sentences (1)-(3). In these examples, no one would argue that one of the conventionalised interpretations of *ulcer* is ‘patient with ulcer’ or that ‘squirrel’ is one of the default interpretations of *plume*.

Examples (8) and (9) represent a conventionalised way of interpreting rather than a lexicalised meaning. Instead of a lexicalised meaning of the proper name, the ‘work by X’-interpretation is a general convention of use (cf. also Nunberg 1996: 118-119). This particular convention of use is connected to a lexicalised metonymical pattern (viz. MAKER FOR PRODUCT). Waltereit explains this as follows:

30 Note that the connection between ‘making splashing sounds’ and ‘urinating’ cannot be fully accounted for by analysing the example as highlighting an element (the causal action) of the splashing-frame only. The connection is clearer within the urinating-frame, since urinating automatically leads to splashing sounds. This again shows the fruitfulness of the combination of a semasiological (from form to literal meaning) as well as an onomasiological (from intended meaning to form) analysis. Often a semasiological account is not sufficient, since one should also take into account the interpreted frame and analyse the different ways to communicate this, i.e. literally or by highlighting elements of it (cf. also footnote 61).
I fully agree that the metonymical interpretation of proper names such as *Shakespeare*, *Goethe* or *George Sand* should not be regarded as a sense of these words, which belongs directly to the lexicon, but rather as a generalisation about the lexicon. In other words, one is not dealing with a lexicalised metonymical meaning but with a conventionalised use of a metonymical pattern. A similar claim could be maintained for metonymies based on the contiguity relation LOCATION-PEOPLE, as illustrated by, for example, Maastricht is proud of its dialect or London was in a state of uproar.

If the metonymical meaning has become part of the lexical content of the word, as in school, there are reasons to assume that the contiguity pattern is conventionalised as well. Moerdijk (1989) explains this very clearly. The fact that a similar kind of polysemy as with school occurs with all kinds of words that denote institutions (such as bank or museum) shows not only that the different meanings have become part of the lexical content of these words, but also that the metonymical pattern (from INSTITUTION to BUILDING or to PEOPLE, etc.) is conventionalised as such. The systematic metonymical shifts of words such as school, bank, museum, etc. can only be explained by recognising the contiguity pattern as a convention of use, given that the re-interpretation occurs independently of the individual words (Moerdijk 1989: 129ff).

The same point can be illustrated by means of “grinding”. Even though linguists and lexicographers regard ‘meat’ or ‘fur’ as conventionalised meanings of a word that denotes an animal, such as *rabbit* (cf. Brdar 2009: 263ff; WNT), grinding itself could be considered a kind of lexical rule (cf. Nunberg 1996: 119). The metonymical pattern turns out to be conventionalised independently of the individual words.32

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31 The difference between generalisations in the lexicon and generalisations about the lexicon (which correspond to conventional meaning or conventional usage) originates from studies on speech acts and scalar implicatures (cf. Recanati 2003: 304; Russell 2006: 373; Searle 1975: 76). Interestingly, speech acts and (generalised) conversational implicatures have also been analysed as metonymical, cf. below.

32 The only difference between, for instance, MAKER FOR PRODUCT (and more specifically AUTHOR FOR WORK) and OBJECT FOR MATERIAL is that the latter is much more restricted.
2.3 Metonymy and the spectrum of lexical ambiguities

The problem of whether one is dealing with different meanings, senses or simply with vagueness, or in other words the question of whether one should split up and specify senses or group them under a more general description, is generally known and discussed by linguists and lexicographers (cf. e.g. Geeraerts 1993; Moerdijk 2003; Tuggy 1993). Lexical ambiguities do not necessarily lead to lexicalised senses, as already demonstrated by the examples discussed at the end of the previous section (examples (8) and (9)). In addition to this, semantic metonymical effects that do not directly affect the lexicon (in that they do not result in conventionalisations) do not have to refer to concrete objects. They can also be of a more abstract nature (cf. also Koch 2004: 28).

Koch provides two very clear examples of this. The first is an example taken from his family life. Koch and his wife used to reserve a day for family activities, such as short trips or sightseeing, which they called a *jour fixe*. His son, who as he got older found these days rather boring, reinterpreted the concept of a *jour fixe* as a ‘day with boring activities’ instead of a ‘day reserved (for family)’ (Koch 2001: 206). Another interesting example is the occasional transitive use in a German newspaper of the verb *verstummen* (literally: ‘to grow silent’) (cf. Koch 2001: 210; Koch 2004: 28).

It is only abstract, occasional shifts that can occur without being conventionalised: some non-occasional, referent-oriented words could also lead to an interpretational shift without a lexicalisation effect. Sometimes a certain aspect of the meaning of a lexical item is activated without a real change of the interpreted concept or referent (cf. Kleiber 1995: 123ff or Kleiber 2007: 180ff). This type of lexical ambiguity is illustrated in the following examples.

(10)  
\[
\begin{align*}
\text{(a)} & \quad \text{The dog bit the cat.} \quad (\text{Langacker 1993: 31}) \\
\text{(b)} & \quad \text{John petted the dog.}
\end{align*}
\]

(11)  
\[
\begin{align*}
\text{(a)} & \quad \text{Arthur washed and polished the car.} \quad (\text{Cruse 1986: 58}) \\
\text{(b)} & \quad \text{I filled up the car.} \quad (\text{Croft 1993: 351/Geeraerts 2010: 217})
\end{align*}
\]

In sentences (10)\text{a} and (10)\text{b}, the word *dog* gets slightly different interpretations, since in (10)\text{a} strictly speaking the dog’s teeth bit a part of the cat, whereas in (10)\text{b} John did certainly not pet its teeth. Similarly, in (11)\text{a} and (11)\text{b} different parts of the car are washed, polished or filled up. However, no one would claim that the a-sentences and b-sentences exploit different senses of the word *dog* or *car*. Within these sentences these words each have only one meaning. Each word refers to exactly the same referent, viz. ‘dog’ or ‘car’, even though different aspects of this referent are directly involved in the actions. All aspects are automatically available with the presence of the evoked referent, but, depending on the context, some of them, such as the teeth or the fur, the varnish or the tank, can be more important than others.
Such examples have therefore been dubbed “active zone phenomena” (Langacker 1993) or “contextual modulations” (Cruse 1986). Cruse describes this activation of different aspects of a concept as caused by “the relative highlighting or backgrounding of semantic traits” (Cruse 1986: 53). Fully in line with Cruse’s definition, such examples are often directly connected to metonymy (cf. Croft 1993: 350-351; Kleiber 1995 or Kleiber 2007; Langacker 1993: 31; Langacker 2009: 51, 52; cf. also Waltereit 1998: 31-33; Taylor 2000: 121). Kleiber calls these zone activations instances of métonymie intégrée, i.e. integrated metonymy.

In addition to metonymical polysemy and zone activation, one might distinguish a third way of selecting a different sense within a context. This type of lexical ambiguity is illustrated in (12) and (13).

(12) a. This book is heavy
b. This book is a history of Iraq

(13) a. She put her head through the window.
b. I painted the window (while she was standing in it)
c. I saw her through the window

In (12)a the word book is interpreted as a concrete object (the physical tome) and in (12)b as the content or the text. Similarly, in (13)a the window is interpreted as the opening, in (13)b as the frame of this opening and in (13)c as the sheet of glass. Cruse describes such lexical ambiguities as different semantic facets of the lexical content of a word (Cruse 2000: 115). Although facets can be interpreted separately (compare (12)a and (12)b), they can also often be present simultaneously, as in I gave him a book. They do not have to cause zeugmas (cf. also (13)b).

These examples therefore behave differently as compared to cases of real polysemy, where the different senses are not evoked at the same time. Semantic facets also differ from active zone phenomena, because both facets do not have to be present simultaneously. The meaning of facet-words is a complex product of the related but different senses. For this reason, Pustejovksy calls these examples “dotted objects” (Pustejovsky 1995: 93, cf. also Cruse 2006: 52-53, 61).

Lexical generality because of zone activation (as in (10) and (11)), lexical ambiguity caused by different relevant facets (as in (12) and (13)), and metonymical polysemy have to be distinguished from each other, even though they have the character of a gliding scale. Taylor explains this spectrum of lexical ambiguities by
saying that examples of contextual modulation or zone activation are “the seeds of polysemy”, whereas different facets are already “beginning to acquire an independent status” (Taylor 1989: 124). Koch makes a similar claim (2001: 222) by noting that “differentiations in terms of facets are “deeper” than mere contextual variation [i.e. zone activation or contextual modulation], but “shallower” than real (metonymic) polysemy”.

Although lexical ambiguities caused by different relevant facets or zone activation are certainly not the most prototypical reflections of metonymy (cf. also Barcelona 2005: 314; Waltereit 1998: 33), both types are often directly connected to metonymy (cf. e.g. Langacker 1993: 31-33; Radden & Kövecses 1999: 31, 48; Ruiz de Mendoza & Pérez 2001: 235; Taylor 1989: 124). Some scholars, however, explicitly reject the idea that metonymy underlies all these lexical ambiguities.

Paradis, for instance, does not regard lexical ambiguities or polysemy as metonymical, since it does not involve a “process of concept-to-concept mapping, but one of conceptual highlighting within the envelope concept only” (Paradis 2004: 260). This is a fairly radical claim, since it breaks with the traditional analysis of metonymical polysemy as well as with recent ideas on this topic.

In his analysis of the phrase Time Magazine, Croft in contrast to Paradis argues that the polysemous meanings of this phrase are metonymical (1993: 348) and he describes example (11)b as “[a]nother example of metonymy” (1993: 350). However, he considers the facets illustrated in (12) and (13) to be different from prototypical instances of metonymy, because “the elements profiled in each domain are highly intrinsic” and “no reference is made to external entities” (1993: 349).

Geeraerts and Peirsman’s analysis is once again slightly different: They argue that the most prototypical instances of zone activations, as displayed in (10), should not be analysed as metonymical, whereas examples such as (11) and (12) do involve metonymy (2011: 91).

Koch’s analysis takes an intermediate position between Paradis’ and Croft’s or Geeraerts and Peirsman’s: Although Koch regards the polysemy of a word such as tongue as a prototypical case of metonymy (2001: 209), he denies that different facets of, for instance, book or active zone phenomena belong to the realm of metonymy. According to Koch these two types of lexical ambiguity do not involve a real shift in reference; neither is there a lexical problem as in most cases of metonymical polysemy. This means that these lexical ambiguities cannot shift the referent or the concept literally connected to the word. Therefore, these examples do not imply “different perspectives on the same cognitive ‘material’” (2004: 47) and examples very similar to (11) and (12) or (13) (cf. Langacker 1993: 33ff), which, in his view, have to be distinguished from real polysemy. Geeraerts and Peirsman, however, distinguish between (10) and (11) (cf. 2011: 91, 93). Paradis, on the other hand, speaks about “facetization” to cover examples (12) and (13) as well as metonymical polysemy, even though her notion is based on Cruse’s term “facet”, while Cruse himself does make an explicit distinction between facets and polysemy (cf. Paradis 2004: 252, especially her footnote 4). In a certain way Pustejovsky does the opposite to Paradis, by treating the lexical ambiguity of (12) and (13) as instances of polysemy (cf. e.g. Pustejovsky 1995: 90-104).
according to Koch they do “not involve a real figure/ground effect” (2001: 222; cf. also Koch 1999: 150).

These latter quotations, however, contradict Koch’s own, very plausible analysis, since he does agree that these lexical ambiguities are contiguity-based, i.e. based on the relation between elements connected within a frame. The difference in interpretation of, for instance, a window as the opening or as the frame, therefore, is a prototypical figure/ground effect and an excellent example of different perspectives on the same cognitive material (cf. also Pustejovsky 1995: 31). Although there are obviously more and less prototypical examples of metonymy, no principled distinctions can be made within the continuum of lexical ambiguities. So even though it is felt that “one does not want to extend the term metonymy to the book and window examples” (Croft 1993: 350), one should in fact analyse all above examples as metonymical, only as more or less prototypical instances of the phenomenon. A similar conclusion is given by Langacker, who argues that all these lexical ambiguities are “metonymic or very much akin to metonymy” (Langacker 1993: 31). The differences between the different types of lexical ambiguities simply confirm that the category of metonymy is a continuum without clear-cut boundaries.

2.4 Metonymical re-interpretations on a pragmatic level

As discussed in the previous subsections, metonymically shifted interpretations do not have to affect truth conditions. The phenomenon of semantic facets and active zones or integrated metonymies illustrate this. In addition, there also appear to be pragmatically based interpretational shifts of larger phrases, which do not alter truth conditions. Examples (14) and (15) are said to illustrate how pragmatic meaning (i.e. implicatures) can be based on metonymical inferences.

(14) She was able to finish her dissertation. (Cf. Panther/Thornburg 1999: 334)
(15) General Motors had to stop the production. (Cf. Panther/Thornburg 2004: 103)

If it is said that someone was able to finish her dissertation, the natural inference will be that this person has finished it. Similarly, if a company had to stop the production, this implies pragmatically that the company has actually stopped it. Example (14) is explained as based on the POTENTIALITY FOR ACTUALITY contiguity and example (15) on the OBLIGATION TO ACT FOR ACTION pattern (Panther & Thornburg 1999: 335; Panther & Thornburg 2004: 103; Panther & Thornburg 2003a: 4ff; cf. also Stefanowitsch 2003: 114; Ziegeler 2003: 177). The metonymical patterns make clear how pragmatic meanings of sentences can be inferred. Panther and Thornburg call these types of metonymies predicational metonymies (based on Gibbs 1994, cf. e.g. Panther & Thornburg 2009: 22).

Example (15) not only contains a predicational metonymy, but also has a metonymical subject (following the COMPANY FOR EXECUTIVE OFFICERS pattern) (cf. Panther & Thornburg 2004: 103). The combination of a referential and a
predicational metonymy makes the whole proposition metonymical. According to Panther and Thornburg, this combination of metonymies, therefore, leads to a propositional metonymy (cf. 2003a: 5; 2004: 103; 2007: 246).

The term propositional metonymy has been introduced by Warren (Warren 1999; Warren 2002). She uses the term in a slightly broader sense, viz. for all cases in which there are “concomitance relations” not just between entities but between propositions (Warren 1999: 130). Example (16) illustrates such a propositional metonymy.

(16) The shops are dark. (Warren 1999: 130)

Sentence (16) can be used to state that the shops are closed, based on the metonymical inference (VISIBLE) EFFECT FOR CAUSE.37 Interestingly, the metonymical and the literal interpretation do not exclude each other in this example. In contrast to more classical examples of metonymy, the literal interpretation does not violate truth conditions (cf. Warren 2002: 115). Although in these cases something is added to the interpretation (to “the conceptual point of view”, Warren 1999: 122), the metonymical interpretation is, as opposed to other types of metonymy, compatible with the literal meaning. This makes such propositional metonymies special.38

Propositional metonymies, as illustrated above, are not the only metonymical interpretations beyond sentence level. The following sentences illustrate other examples with pragmatic contiguity-effects that also apply to the interpretation of the sentence as such.

(17) I would like you to close the window (Panther/Thornburg 2004: 103)
(18) Enjoy your summer vacation (Panther/Thornburg 2004: 101)

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37 Warren herself speaks about an ANTECEDENT-CONSEQUENT relation (Warren 1999: 130), which could in my view be seen as a more general description of EFFECT FOR CAUSE (for a detailed account of other instances of EFFECT FOR CAUSE metonymies cf. Panther & Thornburg 2000).

38 It must be noted that metonymical interpretations should, as explained in chapter II (§3), be of an accidental or contingent nature (Panther & Thornburg 2007: 240-241). Some of Warren’s examples of propositional metonymies turn out to be just synonymous propositions, such as for instance It won’t happen as long as I breathe [i.e. live] (Warren 1999: 129). One may doubt whether this is still contingent, i.e. accidental. If not, it should be excluded from the realm of metonymy. Example (16) is clearly different in this respect: Even though a literal interpretation of this sentence does not directly violate truth conditions, the metonymical interpretation is a still cancellable or defeasible (cf. Panther & Thornburg 2003a: 8) and therefore contingent (cf. Panther & Thornburg 2007: 240).
In example (17) the wish expressed by the speaker “metonymically evokes the request to close the window”, since an “attribute of a speech act [i.e. of the speech act scenario, JS] can stand for the speech act itself” (Panther & Thornburg 2004: 103, 104). These pragmatic inferences via metonymical patterns are therefore called ‘speech act metonymies’ or ‘illocutionary metonymies’ (cf. Brdar-Szabó 2009; Koch 2001: 209; Panther & Thornburg 1997; Panther & Thornburg 1998; Panther & Thornburg 1999; Schiffo 1979: 259-261; Thornburg & Panther 1997). Such examples also show “that propositional forms can be linked metonymically” (Panther & Thornburg 2004: 104).

Example (18) illustrates a comparable phenomenon. Although the sentence has the form of a command and can thus be understood as a directive speech act, it can in addition be interpreted as a wish by the speaker. If sentence (18) is uttered as a directive speech act, meaning “do something so that you enjoy your summer vacation”, a RESULT FOR ACTION metonymy is exploited. The interpretation of (18) as a wish can be inferred if enjoying something is considered to be an experiential state. In that case interpreting (18) as a directive speech act is impossible and therefore the interpretation is metonymically shifted to a wish (Panther & Thornburg 2004: 101; cf. also Ruiz de Mendoza & Pérez 2001: 328ff). 39

A difference between metonymies on the semantic level and these metonymical effects working on pragmatic interpretation is the degree of abstraction. These metonymies are therefore often called high-level metonymies (cf. e.g. Panther & Thornburg 2004; Panther & Thornburg 2007: 257; Ruiz de Mendoza 2007; Ruiz de Mendoza & Díez 2001/2003). Furthermore, the metonymies in these examples clearly interact with the syntactic structure and form. Example (18), in which the directive speech act goes hand in hand with the imperative form, illustrates this particularly well. Therefore, metonymy does not only cause interpretational shifts on the semantic and pragmatic levels, but may also have an effect on the level of grammar (cf. Brdar 2007: 66). I will discuss this in more detail in the next section.

3. The complex relation of metonymy and grammar

3.1 Grammatical effects or grammatical metonymies?

Having acquired the insight that metonymical re-interpretations can apply to large structures and even affect the pragmatic interpretations beyond sentence level, linguists have recently become more and more interested in the relation between metonymy and grammar (cf. e.g. Barcelona 2004; Brdar 2007; Panther et al. 2009; Radden & Dirven 2007; Ruiz de Mendoza & Pérez 2001). Since metonymy plays a fundamental role on all kinds of meaning levels, it has to affect grammar (i.e. syntax

39 Such an analysis in terms of metonymical inferences presupposes that the primary function of imperatives is marking commands. Wim Honselaar suggested that if one believes in a one-to-one correspondence between form and function this is not by definition the case (cf. also footnote 43).
and morphology); after all meaning and linguistic form are two sides of the same coin. High-level metonymies in particular are said to show that “linguistic form is sensitive to conceptual, i.e. metonymic, structure” (Panther & Thornburg 2000: 215).

However, one does not necessarily have to look at more abstract pragmatic metonymies to understand that metonymy has its repercussions on grammar: Grammatical effects can also occur on the basis of interpretational shifts of single expressions, or even of smaller linguistic elements. The latter can, for instance, be illustrated by the meaning of certain morphological elements, such as affixes. Since affixes themselves contain meaning, metonymical polysemy is not limited to words. There are several studies of metonymically motivated polysemy of morphological elements (cf. among others Hüning 1996; Palmer et al. 2009; Panther & Thornburg 2001; Panther & Thornburg 2002; Diez & Pérez 2004/2005). Although the metonymical meaning shift or polysemy of an affix occurs within a cluster of morphologically related words and is reflected on a grammatical level, polysemous morphemes are of course not fundamentally different from lexicalised metonymies on the level of single words. A nice example to illustrate this is the German suffix -erei (cf. Hüning 1996). This suffix, which is attached to verbs, can, for instance, denote the action, the result of the action, or the company that performs this action. The word Druckerei, for example, denotes ‘printing’, but also ‘printing office’ and ‘print’. Similarly Weberei denotes ‘weaving’, but also ‘weaving mill’ or ‘woven textile’. This type of metonymy may be visible within grammatical elements (such as morphemes), but still occurs on a semantic-lexical level (cf. also Moerdijk 1990 for a similar polysemy in simplicia). These examples demonstrate how difficult it is to detect whether metonymy can directly affect grammar or whether this is only a secondary effect of its conceptual shifts.

In order to give a balanced picture of the different grammatical and semantic influences of metonymy Koch distinguishes seven types of metonymy, depending on the linguistic level which is influenced by the metonymy (Koch 2001: 109-112). His first three types of metonymy parallel the classification I gave above to a large extent; Koch also distinguishes between “purely lexical metonymies” (i.e. metonymical polysemy and meaning change without direct grammatical implications), contextually dependent metonymies, such as ham sandwich (“metonymies at the level of discourse semantics”), and metonymies on a real pragmatic level of interpretation (“speech act metonymies”) (Koch 2001: 209).

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40 Grammar should thus be seen as involving all levels which systematically affect linguistic form and structure, such as morphology, syntax and syntactically induced effects (such as e.g. pronoun binding). Of course, it would be an illusion to think that there are clear-cut boundaries between form and meaning and therefore between syntax and lexicon (cf. also footnote 42).

41 Lexical metonymies in the sense of Koch are different from what I have called lexicalised metonymies, because they can also be of an ad hoc nature. I classify such occasional metonymies as contextual-semantic. My notion of lexicalised metonymies is thus slightly narrower as compared to Koch’s lexical metonymies and my notion of semantic-contextually dependent ones is somewhat broader as compared to Koch’s notion.
Different linguistic levels can also interact: A fourth type of metonymy intervenes between speech acts and the lexicon.

In addition to these four types, Koch distinguishes three different types of metonymies with impact on grammar. These are “lexical metonymies with grammatical implications”, “metonymies as transitions between lexicon and grammar” and so-called “metonymies within grammar” (Koch 2001: 209).

The lexical metonymies with grammatical implications will be discussed in detail below as predicative metonymies. Metonymies as transitions are involved in grammaticalisation processes (Koch 2001: 211; cf. also Detges & Waltereit 2002: 164ff). Most interesting in light of the present discussion is Koch’s last category, i.e. “metonymies within grammar”, also called “intragrammatical metonymy” (Koch 2001: 112). Koch illustrates this type with the example of the development of the use of grammatical tenses, such as the use of the past tense for counterfactuals (Koch 2001: 212; cf. also Radden & Kövecses 1999: 33). In contrast to grammaticalisations, no lexical import is involved in such grammatical changes. Tense systems are clear examples of elements representing meaning purely through grammar. Therefore, according to Koch, interpretational shifts within the use of a certain tense morpheme to a contiguously related interpretation occur on a purely grammatical level.

However, one could also argue that the latter metonymies instead belong to a pragmatic level of re-interpretation. The metonymical interpretation of a past tense as a counterfactual could occur by linking propositions to one another (cf. also Panther & Thornburg 2003b). This analysis is perhaps even more plausible, since for some examples the lexical meaning of the verb plays a crucial role in such metonymies (cf. Panther & Thornburg 2009). The claim that no lexical import is involved is therefore problematic.43

42 This shows that the more one believes in the meaningfulness of grammar, the stronger the influence of metonymy must be. Langacker, whose model of Cognitive Grammar represents one of the most extreme positions on the meaningfulness of grammatical structures, therefore even speaks about “metonymic grammar” (Langacker 2009).

43 Wim Honselaar pointed out an additional problem: An analysis in terms of grammatical metonymy assumes that the counterfactual meaning of a past tense morpheme is secondary to the past tense meaning. If one believes, however, that the past tense meaning and the counterfactual meaning are both connected to the past tense morpheme and equally basic, the two meanings could be merely metonymically related while no metonymical inference from one to the other has taken place. This latter vision could be based on the idea of a one-to-one-correspondence of form and function (which make past tense and counterfactual interpretations belong to one general function of past tense morphemes). The same problem exists for the analysis of the imperative in example (18): The idea of the metonymical inference is only possible if one assumes that imperatives primarily mark commands (direct speech acts), but not if one believes that the function of the imperative-form directly includes all its possible uses (cf. footnote 39). The fact that the same problem exists for past tense morphemes and for imperative examples, such as (18), again indicates the close relation and the fuzzy boundary between phenomena tagged as grammatical metonymies or as pragmatic metonymies, which link (interdefined) propositions.
Thus, the distinction between grammatical and pragmatic metonymies is blurred for several reasons. However, this does not mean that pragmatic metonymies do not affect grammatical structures. Panther and Thornburg also underline the idea that figurative thought, such as metaphor and metonymy, “might influence grammar”, “have a potential influence on grammatical structure”, or that “grammatical patterns are motivated” by figurative thought (Panther & Thornburg 2009: 1, 4, 36, italics in the original). They write: “We view metonymy as a conceptual phenomenon, and ask ourselves how this phenomenon interacts with, or influences, grammatical structure.” (Panther & Thornburg 2009: 11, italics in the original). So-called “grammatical metonymies” could only be seen as metonymical influences on linguistic form (syntax and morphology), as an effect of a conceptual-interpretational shift (cf. Panther & Thornburg 2009: 11). In other words, a semasiological effect of metonymy is paired with an onomasiological effect, which is visible within grammar.

According to Ruiz de Mendoza and Pérez, however, it is necessary to distinguish between “cases where metonymy simply motivates a grammatical construction thus determining the nature of its meaning effects” and what they call “genuine cases of grammatical metonymy” (Ruiz de Mendoza & Pérez 2001: 334, cf. also Koch 2001: 209, 211-212). This difference is a very complicated one, especially since metonymy is of conceptual nature, a point which is also emphasized by Panther and Thornburg. Because meaning and form are necessarily paired, it remains unclear how one should exactly determine whether a metonymical effect on a linguistic structure is just the result of an interpretational shift or whether the metonymy primarily affects grammar. Ruiz de Mendoza and Pérez ignore how complicated this difference is. Their distinction between grammatical side-effects and purely grammatical metonymies sharply contrast with the definition of grammatical metonymies given by Panther and Thornburg, who primarily analyse them as additional effects caused by a metonymical shift (cf. 2009: 11, 24).

The fact that meaning and linguistic structure are so closely intertwined makes it difficult to analyse the exact role of metonymy in grammar: Even if it is obviously the case that metonymy is reflected within linguistic structures, it is still debatable whether this is only a side-effect, co-occurring with a conceptual-interpretational shift, or whether metonymy also primarily causes grammatical effects. Because meaning and form are necessarily paired, it remains under Ruiz de Mendoza and Pérez’s account unclear how one should determine whether a metonymical effect on a linguistic structure is just the result of an interpretational shift or whether the metonymy primarily affects grammar.

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I will illustrate this difficulty in section 3.2, where I will give an example of a contiguity effect that causes metonymical polysemy in one language, while it induces morphological changes and word formation processes in others. This example leads to the question of whether metonymy can be the driving force behind morphological processes themselves, affecting meaning as a co-occurring effect only. I will, however, reject this idea by demonstrating that in some examples no metonymy is involved at all, whereas in other examples it is implausible to claim that metonymy affects grammar and therefore meaning rather than the other way around. It could merely be claimed that both effects occur simultaneously (cf. also Seto 1999: 118), since metonymy always induces a parallel semasiological and onomasiological effect (cf. chapter II or Sweep 2012). In addition to this, it will turn out that some additional effects on the linguistic structure (i.e. on grammar) can help us to gain more insight into the nature of the particular mapping. I will briefly touch upon this idea in section 3.3, by discussing the use of determiners in combination with proper nouns. These considerations will bring me to section 4, where a more detailed analysis of metonymical re-interpretations in general will be discussed.

3.2 Metonymy and morphological conversions

Cross-linguistic comparison shows that the same contiguity effect can lead to metonymical polysemy in one language but to a morphological change in another. I will illustrate such cross-linguistic differences by the contiguity pattern FRUIT FOR TREE. In Dutch, the word appel (‘apple’) or peer (‘pear’) cannot only be used to denote the fruit, but has the additional meaning of the fruit tree, i.e. ‘apple tree’ or ‘pear tree’ (cf. Van Dale 14). This meaning can be illustrated with a sentence, such as de appel staat in bloei (‘the apple is in bloom’). Similar metonymical polysemy patterns can be found in other languages. Italian lemon, for instance, can also be used for both the fruit and the tree (Koch 1999: 158). In English this type of polysemy does not exist: The tree is denoted by a compound: lemon tree, apple tree, etc. Spanish also displays a morphological effect: The masculine word for lemon, i.e. limón, undergoes suffixation with a change in gender to denote the tree by the neuter derivate limonero (Koch 1999: 158).

If metonymy underlies this semantic constellation in Dutch, the idea that metonymy also underlies the grammatical-morphological process in Spanish or even in English emerges. Koch writes about this: “[w]e have to conclude that frames and contiguities not only account for metonymic change and polysemy, but also for other lexical processes” (Koch 1999: 158). This correct observation does of course not imply that Koch believes that the Spanish conversion or the English word formation are metonymical. On the contrary: He explicitly states that frames and contiguity relations can help to explain such processes “beyond the realm of metonymy” (Koch 1999: 159; cf. also Koch 2001: 232).

Following Koch, there are clear reasons to reject the idea that related but morphologically different words is motivated by metonymy. Apart from the polysemous words for kinds of fruit and their corresponding trees Dutch, for
example, also has compounds to refer to the trees, such as limoenboom, appelboom, etc. The lexicalised metonymical meaning of appel denoting ‘apple tree’ and the compound appelboom can be explained on the basis of contiguity-relations and frames. However, although metonymical relations (i.e. contiguity relations) between the two words can clearly be recognised in both cases, no metonymical highlighting of any kind is involved in the compound example. Dutch limoenboom, English lemon tree or Spanish limonero explicitly express their referent in a fully transparent way (cf. also Koch 2001: 232 examples 44, 45, 46).

Similarly, Brdar analyses “specialized affixes, conversion, or compounding” as instances of “a metonymy avoidance strategy” (Brdar 2009: 271, cf. also the discussion and examples on p. 263-268). The reason to speak of metonymy in the case of the Dutch appel or Italian lemon denoting the tree is exactly the fact that the meaning difference is not associated with a formal difference although there is a semantic shift.

Some English morphological processes, however, do not directly lead to visible formal differences. Examples are the nouns cut or supply, derived from a verb with the same form, or verbs such as to author or to shampoo derived from similar looking nouns. These examples are better comparable to the Dutch appel-example than to the Spanish limonero-example, since there is a contiguity-shift without any visible marking. Such conversions or zero-derivations have therefore been analysed as involving metonymy (cf. e.g. Dirven 1999; Kövecses & Radden 1998: 55ff; Ruiz de Mendoza & Pérez 2001: 331ff; Seto 1999: 109). Although the discussion whether zero-derivations are metonymical is very complicated, there are at least two problems with this claim.

First of all, I doubt as to whether we are actually dealing with two interpretations of one invariant linguistic form. The same objection has been made by Koch (2001: 232). Although the verb and the noun in a/the cut and to cut or a/the author and to author do indeed look the same, in fact they are not. The interpretational shift is accompanied by a shift in word class. They therefore have distinct forms in concrete examples, such as two cuts or he authors / authored / is authoring. In contrast to the Dutch appel-example, it could be claimed that concrete examples such as he authored the book or the country needed more supplies it cannot be maintained that the semantic shift has taken place without any visible effect. Again the fact that the verb and noun stand in a metonymical or contiguity relation to each other does not necessarily mean that metonymy must be involved.

45 It does, however, remain vague whether Brdar considers the tree examples as an instance of metonymy avoidance or metonymy marking (2009: 261-268), since although specialised affixes and conversions are given as examples of avoidance strategies Brdar also states that “[m]etonymy marking and metonymy avoidance strategies may occasionally become almost indistinguishable, or work in tandem, e.g., when conversion is accompanied by formal markers” (2009: 271).

46 However, as we will see in the next section (footnote 51) and on the basis of dictionary material in the next chapter (the Dutch example aubergine), there are all kinds of in-between cases in which it is not fully clear whether we are dealing with different morphological forms or, for instance, only with different determiners.
However, even if one does insist on the lack of visible marking in the basic conversion process (i.e. in the shift of word class) in English, there is a more fundamental problem with the claim that metonymy primarily affects grammar. Ruiz de Mendoza and Pérez claim that the conversions discussed above are clear examples of grammatical metonyms (2001: 334), since the mapping is said to operate “at a non-lexical level placing constraints on certain grammatical operations” (Ruiz de Mendoza & Pérez 2001: 332). The idea is therefore that most metonyms have meaning effects which could influence their syntactic environment, whereas conversions show metonymy operating directly on the morphological system.

Although it is true that conversion is a component of grammar (morphology), it does have a semantic effect as well. If one makes a contrast, as Ruiz de Mendoza and Pérez do, between examples of purely grammatical metonyms and those where a grammatical structure is only determined by conceptual meaning, it is implied that in grammatical metonyms the effect on morphology or syntax (i.e. the onomasiological effect) is more fundamental than the mere conceptual shift (the semasiological effect). In other words, the causal relation between effects on meaning and form should be reversed as compared to metonyms where grammatical changes are only side-effects based on a semantic shift (cf. Ruiz de Mendoza & Pérez 2001: 334). But it remains unclear where this claim about the causality comes from or, in other words, how one knows whether we are actually dealing with a genuine case of grammatical metonymy or merely with grammatical side-effects.

It can even be questioned whether it makes sense to claim that shifts in meaning without formal marking are caused by a conceptual device that primarily affects the formal marking rather than the shifted interpretation. I would claim that an effect on form caused by a conceptual mechanism can by definition only be an effect co-occurring on the basis of the conceptual highlighting process. In other words, the effect on grammatical form necessarily reflects the conceptual nature of metonymy. In the next section, I will provide a closer inspection of other additional grammatical effects.

### 3.3 Grammar reflecting meaning: Determiners with proper nouns

Classical examples of metonymy which affect the interpretation of a single word can also have grammatical effects. Sentence (20), in which a comparable metonymy is exploited as in (9) [repeated here as (19)], illustrates this.

(19) *Picasso* is in the Louvre

(20) In the Louvre hangs a *Picasso*

Normally, no indefinite articles are used with proper names, but since the meaning of *Picasso* is shifted from the individual to one of his works, the indefinite article is
unproblematic (cf. also Brdar 2007: 119, 98ff). The determiner only explicitly marks
or indicates the metonymy (cf. Brdar 2009). In this example the syntactic
construction with an indefinite article is therefore said to be motivated by the
metonymical meaning effect and not an instance of metonymy directly affecting

It has, however, been suggested to me that a verb-noun shift, such as the shift of
author as a noun to the verb to author, is not fundamentally different from the
Picasso-person to Picasso-painting shift, since in the latter case the indefinite article
is a grammatical marker of a metonymical kind of conversion, as is the verbal
inflexion in the case of the to author-shift. The problem with this line of reasoning
is, though, that the use of an indefinite article with a proper name in its literal sense
is very unusual, but certainly not impossible.47 This is illustrated by examples (21)
and (22) (taken from the BNC).

(21) when a John Piper and his wife Marjory were both charged with scolding.
(22) A Mary Malone who lived from 1663 to 1699 was the woman who became
Dublin’s favourite daughter.

Such examples show that the use of articles is, in contrast to verbal inflection, not
grammatically but rather semantically constrained; The use of an indefinite article
only makes sense if the referent is one of the persons with that particular name. The
same goes for other determiners and pluralisation, as illustrated by the Dutch
examples (23) and (24).48

(23) Zo werkten de beide Jannen in dit familie bedrijf49
so worked the both Jan-plur in this family company
‘Both Johns worked in this family company’

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47 These examples challenge the view that proper names do not have sense, i.e. refer to a
concept, but only reference (as expressly argued by Kripke). The proper names with an
indefinite article point toward the idea that the proper name could even refer to a set of
referents, which therefore directly conflicts with Kripke’s idea of rigid designators.
Furthermore, if metonymy applies to a proper name the possible referents and therefore its
intension are shifted. There are thus two options: Either these examples do not make use of
real proper names, but rather of a specific kind of descriptions (as in the way suggested in the
work of Russell), or proper names do in fact have in Frege’s terms Sinn (i.e. an intension) and
Bedeutung (i.e. an extension). Unfortunately, the issue is too complicated to fully discuss here
in full detail, but research on proper names should definitely take into account the above
examples.

48 Cross-linguistic differences (cf. also the footnote 51 below) could play a role in this. In
contrast to Dutch and English, for instance, it is fairly normal in German to use definite
articles in front of proper names.

49 Source: http://www.webregio.nl/eemland/eten-en-drinken/artikel/537541/jan-van-der-roest-
(24) Jan H., overigens niet de Jan H. van de ijsfabriek van vroeger,\(^50\)
Jan H., though not the Jan H. from the ice-factory from before,
‘Jan H., though not the Jan H. from the icecream factory from the old days,’

In (23) the proper name can be pluralised, since there are two persons with the name Jan. Example (24) shows similar behaviour: The definite article can be used with the proper name, since there are more people with the same name and the definite article denotes that it is not the Jan H. of the icecream factory who is referred to.

So, if, on the basis of (21)-(24), one agrees that there is no fundamental, morphological difference between the word denoting a person or a piece of work by this person, the different grammatical behaviour must be of a semantic-pragmatic nature.\(^51\) As a consequence, such changes in the syntactic environment of a metonymical word can be used to analyse the exact nature of the semantic effect induced by the metonymy.

This has, in fact, been done. On the basis of the effect on the determiner in (20) it has, for instance, been claimed that the metonymical shift involved actually is derived in two steps: In addition to a mapping of the form ARTIST FOR WORK a mapping from the artist’s work in general to a specific work is made (cf. Ruiz de Mendoza and Pérez 2001: 338ff). Metonymies that seem to be the same at first sight in fact turn out to be slightly different. Consider (25) and (26).

(25) I love reading Goethe

(26) I am reading a Goethe

According to Ruiz de Mendoza and Pérez the difference between (20) and (26) “lies in the conceptual nature of the target domain of the second metonymy” (Ruiz de

\(^50\) Source: Meppeler Courant, 30-03-1994 (ANW-corpus).
\(^51\) For French, one could question whether it is tenable that no morphological conversion has taken place, since this metonymical shift is paired with a shift in gender; the metonymical expression has to have masculine gender, even if the author is female (cf. Kleiber 1995: 130; Kleiber 2007: 177). On the basis of this, it could be suggested that the proper name has undergone morphological conversion in a similar way as the author-to author-example. Even if this is so, the similarity between the French author-book shift and the English noun-verb shifts again show the problem of claiming that metonymy primarily affects grammar: One does certainly not want to argue that French ARTIST FOR WORK metonymies work “at a non-lexical level placing constraints on certain grammatical operations” (Ruiz de Mendoza & Pérez 2001: 332). Therefore, if the derivation of the author-verb from the author-noun is considered as an instance of metonymy, I would suggest, as discussed in the previous section, that the conceptual shift from a person to a contiguous activity must be primary (or at least simultaneous) to the grammatical conversion, since metonymy is before all else a conceptual mechanism. In the next chapter the same point will be illustrated by means of a different Dutch example that also involves metonymy paired with conversion (cf. chapter IV, §2.1).
Mendoza & Pérez 2001: 339). They therefore conclude about the PAINTER-PAINTING and the WRITER-TEXT mappings:

“While a picture is the direct outcome of the painter’s activity, a book is but a vehicle of expression for the author’s ideas and not the direct result of the writer’s activity. So, it is quite appropriate to use the article as a modifier of the source of the ‘Picasso’ metonymy, where the target is a unique item, but not so in the other case [i.e. AUTHOR FOR TEXT] where the target is specific but not typically unique.” (Ruiz de Mendoza & Pérez 2001: 339)

This idea should be tested against more data. In the case of composers and pieces of music it is also true that the target is “specific but not typically unique”. This could explain why we cannot use ????listen to *a Mozart.? Following this line of reasoning, the relation between directors and movies should be different from composers and music or authors and books, since indefinite articles before names of film directors are quite possible, as illustrated in (27) and (28).

(27) I think it’s high time we watched a Hitchcock.
(28) I also recently watched a Hitchcock for the first time.

I do not, however, see a fundamental difference between books and movies and I doubt whether a movie is “a direct outcome” and “typically unique” in the same way as a painting is. Furthermore, some author-names can occur metonymically with an indefinite article. One does find, for instance, examples such as (29) or (30) on the internet.

(29) Having never read an Agatha Christie before, I wasn’t certain of what to expect.

52 I would like to thank my colleagues of the ACLC (especially Bart de Boer) for discussing all kinds of possible metonymical uses of proper names with me during lunch and coming up with some of the examples discussed in this section.
53 Although Mario Brdar provided me with some examples with definite articles, such as “The Beethoven G major isn’t too difficult. Whilst the F♯ one isn’t too bad either, I always feel one runs the risk of the odd wrong note playing in such a key. The two Mozarts, particularly the F Major K332 are a much easier option than both Beethovens.” (cf. (http://www.abrsm.org/forum/lofiversion/index.php/t18068.html) or “They performed two Haydns and two Mozarts. The Mozarts had the conductor playing piano as well” (http://www.anguswfinlay.com/AngusWFinlayOnline/My_Blog/Entries/2010/11/15_Symphonic_Sound.html)).
I haven’t read an *Agatha Christie* for years.  

This poses a serious problem for the theory above. There must be other reasons governing the use of indefinite articles. It could be the case that the connection between Goethe, and probably also Mozart, and their oeuvre is so strong that the metonymical use of their names simply does not allow indefinite articles, even if we are clearly reading one piece of Goethe’s work or listening to one particular piece of music by Mozart. Furthermore, Goethe’s work is highly diverse, consisting of novels, plays and poems. In the case of Agatha Christie, who is primarily known for writing a large number of mystery novels, this may be different. Her work is a homogeneous set of mystery novels and every part of it therefore refers to a single mystery novel.  

This is an intuitive explanation rather than a precise analysis and the present section therefore merely touches upon some questions rather than answering them. The discussion presented in this section does, however, show that it is possible to gain some insight into differences between metonymical mappings on the basis of analysing their syntactic-grammatical environment. Even if the use of articles in front of proper names is only constrained semantically or pragmatically, these differences in the use of articles can be used to gather insight in the semantic-pragmatic effects of metonymy.

Proper names are not the only words that show effects on their syntactic environment. The process of “universal packaging”, which changes mass nouns into countable nouns, exhibits similar effects. Such MATERIAL FOR OBJECT contiguities have exhaustively been discussed by Brdar (Brdar 2007: 79-82; cf. also Ziegeler 2007: 101ff). The phrase *three coffees please* illustrates universal packaging and its grammatical consequence (cf. Jackendoff 1992: 26ff): The word *coffee* as a mass noun cannot be combined with determiners, such as articles or numerals, but if *coffee* is metonymically interpreted as an object a determiner or numeral is felicitous.

The opposite effect can be found in cases of “grinding” as discussed above (cf. also Brdar 2009: 263). In Russian, for example, grinding does not only change the use of articles, but it also has consequences for case marking. Case marking on the direct object in Russian is dependent on animacy: Animate direct objects appear in the accusative case, whereas inanimates direct objects are marked by the genitive form. As a consequence, direct objects denoting animals normally get accusative case but appear in the genitive case, when they are metonymically interpreted as food or material (Mel'čuk 1988: 381, 386).

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58 Thanks to Wim Homselaar for the observation.
59 This phenomenon has been related to conversions, since it has also been labelled “partial conversion” (cf. Brdar 2009: 263) or “subcategorial conversion” (Ruiz de Mendoza Ibáñez & Hernández 2001: 336).
Although such grammatical effects are side-effects of the shift in interpretation and not directly caused by metonymy, the next section will demonstrate that the semantics of surrounding words (such as articles and numerals) can provide information about the nature of metonymical re-interpretations.

4. Metonymical re-interpretations revised

4.1 Referent transfers or sense transfers?
Shifts in the use of surrounding words such as determiners can be taken into account to analyse in detail how metonymical mappings work. In this section, I will analyse step-by-step how noun phrases can be used metonymically. Let us therefore start with a non-metonymical example, such as (31).

(31) The ham sandwich tasted delicious.

We can understand the subject-NP of this sentence by understanding the concept corresponding to the compound ham sandwich and by knowing how the word the is used. Our knowledge of the concept ham sandwich (its intension) gives us the set of entities that the concept could possibly refer to (its extension) and the determiner of the NP leads us to the interpretation of one specific (contextually obvious) entity of this set.

There is no reason to assume that NPs which are used metonymically, as in (32), are interpreted in a fundamentally different way. If one analyses the ham sandwich in (31) as a specific entity of the classes of ham sandwiches, one should propose that in (32) the correct referent is interpreted in a similar way, i.e. by interpreting ham sandwich and picking out one specific referent that fits this concept (i.e. that belongs to the relevant set).

(32) The ham sandwich is sitting at table 9.

This, however, has crucial consequences for an analysis of the metonymy involved. The referent of the ham sandwich is apparently not directly shifted, but only via a conceptual shift of ham sandwich (cf. Sag 1981; Nunberg 1996). According to Nunberg, we are therefore not dealing with indirect reference or a ‘reference transfer’ in examples of metonymy but rather with a ‘sense transfer’ of ham sandwich. Examples (33)-(35) illustrate the same interpretational process.

(33) Five ham sandwiches are sitting at table 9.  (cf. Sag 1981: 285)
(34) Every ham sandwich at that table is a woman.  (cf. Sag 1981: 285)
Rather than assuming that the phrases *five ham sandwiches* or *every ham sandwich* as wholes shift their referents, it is the case that numerals and existential quantifiers have their normal semantic functions. Therefore, it must be concluded that only the meaning of *ham sandwich* is conceptually shifted within this specific context (Sag 1982: 285). This analysis also explains why we can use metonymically shifted expressions in a generalised way, as in (35). Rather than denoting concrete referents in examples like (35), all possible referents of the set are referred to.

The correctness of analysing referential shifts as caused by sense transfers is also illustrated by (36).

(36) That (*Those) *french fries* is (*are*) getting impatient (Nunberg 1996: 115)

Nunberg argues that we use the singular demonstrative and singular verb form because of the fact that first the meaning of *french fries* is transferred from the general class of ‘french fries’ to the class of ‘customers of french fries’ and next a specific, singular entity of that metonymically inferred class is picked out. The singular would be unexpected, if one argued that the full noun phrase directly denotes another referent.

The straightforward explanation of the semantics of surrounding words and of grammatical phenomena, such as agreement, intuitively makes the sense transfer account the most attractive option. However, the idea of sense transfer instead of referent transfer or, in other words, the idea that the property or concept expressed by the noun is shifted rather than the interpretation of the entire noun phrase is not generally accepted by linguists. Koch, for instance, writes:

“In the case of referent-orientation, it is the whole phrase, as a referring expression, that is metonymic and not the lexical entity that is part of the phrase. [...] it is not *ham sandwich/sandwich au jambon* as such that undergoes metonymy, but the whole referring phrase (including the determiner) whose reference shifts via a metonymic figure/ground effect DISH–CUSTOMER.”  
(Koch 2004: 25-26)

This view does, however, have two undesirable consequences. First of all, it is problematic given the data presented above. If the determiner and lexical phrase are shifted together, it should assumed that different shifts apply to (32), (33) and (34). This is not very plausible, especially not since the contiguity-type is exactly the same. In addition it is left unexplained how we interpret a shifted *the, five or every* in these examples and how we are able to understand generalised uses of metonymical expressions as in (35).
Secondly, the quotation above directly contradicts Koch’s very precise account of metonymical meaning in an earlier paper (Koch 2001). He analyses that three semiotic elements should be taken into account in order to understand metonymy precisely. These are the linguistic meaning (signifié), the more general concept connected to this (designatum) and the actual referent (Koch 2001: 218; cf. also Blank 1997: 101; Koch 2004: 20). In contrast with the above quotation, Koch claims in his 2001 paper that metonymical processes can indeed have consequences for the actual referent, but only via the concept connected to it:

“metonymy [...] is clearly based on contiguity relations between conceptual designata. The third entity [JS: besides signifié and designatum] involved in semiosis, the actual, individual referent, seems to be included in the metonymic processes only insofar as it is subsumed under a concept in whose contiguity and frame properties it participates.” (Koch 2001: 218).

I fully agree with Koch’s above description. I share the opinion that even referent-oriented metonymies have to be of “a conceptual nature” and could best be described as “a shift from one (class of) referent(s) to a totally distinct (class of) referent(s)” (Koch 2001: 218). In other words, metonymy induces a shift in the interpretation of the actual referent because of a figure/ground effect in the concept corresponding to this referent. The analysis in Koch’s 2001 quotation is a perfect description of Nunberg’s correct sense transfer account of the metonymical ham sandwich example: The concept corresponding to the noun rather than the direct referent has been shifted. In the next section I will discuss additional evidence for the sense transfer account of nominal metonymies.

4.2 Solving the puzzle of predicatively used metonymies

Most cognitive linguists agree that metonymies do not necessarily have to induce a referential shift. This is an important point of discussion though (cf. Sweep 2009b), since it has often been thought that referring is the fundamental function or even the only function of metonymy (cf. e.g. Lakoff & Johnson 1980: 36). Metonymical interpretations that do not lead to a new referent are, for instance, examples of zone activation or facet-senses (cf. Kleiber 1995: 122, 125; Kleiber 2007: 180-182, cf. also Koch 2001: 219). Metonymical noun phrases in predicative positions have also been used to add support to the claim that a metonymically shifted interpretation

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60 One can doubt whether signifié and designatum should be distinguished or even whether it is possible to distinguish them from each other, cf. also Koch 2004: 20.

61 This again shows the need of an onomasiological account: The figure/ground effect does not only occur in the literal meaning of the expressed concept (i.e. interpreting ham sandwich as the customer who ordered this), but the metonymical expression also causes a figure/ground effect in the intended concept (i.e. denoting the customer by highlighting his/her order), since this is the reason why the metonymical expression is used.
types of metonymy unravelled

does not necessarily cause a shift from one referent to another (cf. e.g. Radden & Kövecses 1999; Ruiz de Mendoza 2000; Ruiz de Mendoza & Pérez 2001).

Such nominal metonymies used predicatively are illustrated in (37) and (38).

(37) John is a real brain.
(38) Jim is the fastest gun.

The metonymies in (37) and (38) are considered special, since brain or gun does not refer to the person as a whole (thereby shifting their referents), but instead say something about John’s or Jim’s characteristics (cf. Ruiz de Mendoza & Pérez 2001: 323). It is claimed (cf. e.g. Ruiz de Mendoza 2000) that each of the examples contains a metonymical noun phrase in predicative position signalling that the subject has an abstract property related to the noun phrase used, i.e. ‘being of the type of the contiguous referent’. These metonymies in predicative positions are therefore often described as non-referential uses of metonymies (cf. Ruiz de Mendoza 2000: 114).

Although these metonymies certainly do not directly shift their interpretation to some specific, concrete, contiguous referent, one can seriously question whether predicatively used metonymies are crucially different from normal referent-oriented metonymies.62 If (37), for instance, means that John is a smart person, then the phrase real brain has shifted its reference to ‘smart person’. Similarly, if (38) expresses that Jim is the fastest shooter, then gun has been shifted to ‘person with a gun’ (i.e. ‘shooter’). This is an important observation, because it shows that the semantics of the metonymical expression such as in, for example, John is our real brain is not different from the same expression in Our real brain entered the room.

The same point can be illustrated by sentence (39).

(39) She is (just) a pretty face.

This example is taken from Lakoff & Johnson themselves (1980: 37), who regard the sentence as a normal, referential PART FOR WHOLE metonymy. Radden and Kövecses, however, argue that face cannot stand for the whole person, given that (39) does not mean ‘she is pretty all over’ (1999: 18-19).63 The reason for this is probably just that the metonymy involved does not follow the pattern PART FOR WHOLE but rather something like ATTRIBUTE/PART FOR PERSON WITH THIS

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62 I also raised this question in Sweep 2009b (p. 106), though without discussing this within the context of a sense transfer account.

63 In addition, this example is complicated because it is a little idiomatic: The use of the word just almost seems to be necessary and is almost always used in the example. This word furthermore implies something negative, i.e. that she is not very smart. Therefore, the sentence is a rather complex example of a predicatively used metonymy.
ATTRIBUTE/PART, meaning that the sentence should be interpreted as ‘she is (just) a person with a pretty face’. Because the metonymy is used in predicative position, no shift of a concrete referent has taken place. However, this example does once again illustrate that there is no fundamental difference with a referential use of the same metonymy, as in Our pretty face comes in.

On the basis of these observations it can be concluded that a predicatively used metonymy is nothing but a normal metonymy in predicative position. In consequence, it becomes obvious that all normal referent-oriented metonymies do not directly shift their referent, but instead shift their meaning, and thereby their referent. Metonymy always induces a sense transfer: Under the sense transfer account, the referential shift in Our real brain entered the room only occurs on the basis of a re-interpretation of the corresponding concept (real brain), which occurs in exactly the same way in the metonymy predicatively used in John is our real brain. In other words, the parallel between predicatively used metonymies and referential ones clearly pleads for a sense transfer account.

These metonymies show that the opting for a referent transfer or a sense transfer of nouns in fact depends on how one analyses NPs in general. It could claimed that NPs directly refer to concrete entities or that they pick out an entity of a denoted set of entities (that can be subsumed under some concept). The latter analysis turns out to be much more precise (cf. also Blank 1997 or Koch 2001) and is even necessary for explaining predicatively used phrases as well as referential ones. As a consequence, however, it remains untenable to assume that a conceptual mechanism such as metonymy directly applies to intended referents, skipping shifts at the level of concepts. The obvious similarities between metonymical nominal phrases and referential metonymies show that if the former demand a sense transfer account, the same must be true for the latter.

Additional support for a meaning or sense rather than a referent transfer is provided by the fact that it is not only occasional referent-oriented metonymies that can be used predicatively, as in examples (37) and (38), but also lexicalised ones. An example of this is: He is a fine bass. Although this example is analysed fully in line with the examples discussed above (cf. Ruiz de Mendoza 2000: 114), it is in fact slightly different, since one of the lexicalised metonymical meanings of bass is ‘a man with a very deep singing voice’ (cf. also Sweep 2009b: 112). The fact that there is no fundamental difference between referential metonymies and predicatively used ones can therefore also be illustrated with some lexicalised examples, such as bass. The word bass is metonymically interpreted in the same way in He is a fine bass and in Our finest bass is ill. Once again the need for a sense transfer emerges: In lexicalised metonymies (be it referentially or predicatively used) it is certain that a sense or meaning transfer has occurred, rather than a referent transfer. Lexicalised metonymies in various syntactic positions and the similarity between some occasional referential metonymies and predicatively used ones clearly plead for a sense transfer account.

64 Thanks to Fons Moerdijk for the observation.
4.3 Double possible analyses and strange cross-linguistic differences

If one ignores the advantages discussed above, the sense transfer account and the referent transfer account thus far only differ methodologically. For standard referent-oriented metonymy of the *ham sandwich*-type both accounts assume, for example, that one ends up with a shifted referent (directly or via a shift in concepts) and both accounts will analyse the nominal phrase as metonymical (although with or without determiner or quantifier). However, in other cases the analysis of which phrase has undergone a metonymical shift will differ under the two accounts, since a sense transfer induced by metonymy predicts that all parts of speech, and not only noun phrases can undergo metonymical shifts.

Although this prediction is correct (remember the metonymical polysemy of the Dutch verb *klateren*) and is reflected in the literature more frequently (cf. Koch 2001: 220; Koch 2004: 29), it does also have an unpleasant consequence: It is claimed to double the possible analyses of some sentences with a metonymical re-interpretation (cf. Nunberg 1996: 123). Example (40) can be used to illustrate this.

(40) Billy’s shoes were neatly tied. (cf. Nunberg 1996: 110)

Since it is only possible to tie shoe laces, some element in the sentence has to be re-interpreted. But how do we know which expression should be re-interpreted metonymically: The concept expressed by the subject or the concept expressed by the verb? If we assume that the senses of noun phrases as well as of predicates can be metonymically shifted, both analyses are possible. Nunberg therefore writes: “either *shoes* has a transferred reading where it refers to the shoe laces, or *tied* has a transferred reading, where it denotes the property that shoes acquire when their laces have been tied” (Nunberg 1996: 123). This problem was already discussed in Honselaar’s dissertation (Honselaar 1980: 64).

Two tests are supposed to make it possible to decide whether the noun or the predicate is metonymically shifted: Co-predication and anaphoric reference. The idea behind these tests is simple; they are both used to determine in which way the nominal phrase is actually interpreted. If the noun is interpreted metonymically, it should be possible to coordinate predicates that apply to the metonymical referent. It

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65 Kleiber argues that this is a clear disadvantage (“Le prix qu’a payé”) for Nunberg (Kleiber 1995: 119; cf. also Kleiber 2007: 177). It is, however, not fair to say that only Nunberg’s account has to pay this price: Every theory which correctly assumes that predicates can have metonymical meanings (cf. Koch 2001; Koch 2004) opens the possibility for the two analyses discussed in this section.

66 A similar problem applies to the so-called tough-construction, as in The book is easy to read. Such sentences are approached in two ways: Langacker (1995) claims that the predicative expression, such as *is easy*, is interpreted metonymically, while Brdar-Szabó and Brdar (2004) argue that it is the book that is metonymically interpreted. Recanati argues that both analyses are possible (Recanati 2004: 34).
should also be possible to refer anaphorically to this new referent. If, on the other hand, the noun is interpreted literally, the antecedent of the anaphor should be the literal referent and it should be possible to add predicates that can be combined with the literal referent. In that case the metonymical re-interpretation is said to apply to a different phrase than the nominal one.

Examples (41)-(43) illustrate these tests (cf. Nunberg 1996: 123).

(41) Billy’s shoes were neatly tied. They were blue.
(42) */? Billy’s shoes were neatly tied but frayed.
(43) Billy’s shoes were neatly tied but dirty.

The only available reading for sentence (41) is that the shoes were blue. It is not possible to interpret they as referring to the shoe laces. Sentences (42) and (43) show something similar: It is only possible to add a predicate that applies to the literally expressed subject (i.e. ‘the shoes’). Therefore Nunberg argues that it must be the predicate tied instead of Billy’s shoes that is metonymically transferred in example (40) (Nunberg 1996: 123). If the nominal phrase was interpreted metonymically, these tests would be expected to show the opposite outcome.67

This is exactly the outcome for an example such as (32) (repeated as (44)). Even though it is, in principle, also possible to analyse is sitting at as metonymically transferred, it is claimed that the two tests indicate that in this example the metonymy affects the noun phrase.

(44) The ham sandwich is sitting at table 9.
(45) The ham sandwich is waiting for his/*its check. He/*It is getting impatient.
(46) The ham sandwich is sitting at table 9 and is getting impatient.
(47) *The ham sandwich is sitting at table 9 and looks delicious.

Anaphors can only grammatically agree with the customer, as in (45), and it is impossible to add predicates that apply to the literal sandwich, as in (47).

According to Nunberg these tests demonstrate that it is sometimes even possible to have two analyses for one and the same sentence. Nunberg argues that an example such as (48) can be analysed as metonymically shifting the sense of the proper name but also of the predicate (Nunberg 1996: 124).

67 A similar argumentation can be found in Stallard 1993, who speaks about predicative metonymy as opposed to referential metonymy. I will discuss his account in more detail below (cf. section 5.1).
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(48) Yeats is still widely read  (Nunberg 1996: 124)

This idea is supported by the fact that sentence (48) could, according to Nunberg, be followed by (49) as well as by (50) (but not by (51), cf. Nunberg 1996: 131).

(49) ..., although he has been dead for more than 50 years.

(50) ..., although most of it is out of print.

(51) …*, although most of him is out of print.68

On the basis of this, Nunberg concludes that (48) “is in fact ambiguous”: If (48) is followed by (49), Yeats has to be interpreted literally and thus the predicate is metonymically interpreted, whereas if (48) is followed by (50) “yeats is a mass term referring to the poet’s work” (Nunberg 1996: 124).69

There are a few problems with this reasoning. First of all, one can question whether it is plausible that the ambiguous reading of (48) only becomes visible when another sentence is added without any directly noticeable change in the reading of the sentence as such. Secondly, Nunberg’s intuition that the author of (48) could be anaphorically picked up is not shared by everyone or certainly differs across languages. Since I am not a native speaker of English, I am not able to judge Nunberg’s English examples. In Dutch, it seems to me only possible to use the masculine pronoun in both cases. Sentences (52)-(55), which are the Dutch translations directly corresponding to (48)-(51), illustrate this.

(52) Yeats wordt nog altijd veel gelezen

Yeats is still always a lot read

(53) ..., alhoewel hij al meer dan 50 jaar dood is

..., although he already more than 50 year dead is

(54) ?…alhoewel het meeste ervan niet meer gedrukt wordt

?…although the most there-of [= of it] not more printed is

(55) ..., alhoewel het meeste van hem niet meer gedrukt wordt

..., although the most of him not more printed is

68 The phrase “But most of him is out of print” (referring to Daudet’s works) can be found on the internet as a quotation within an interview with an English translator, cf. http://www.randomhouse.ca/catalog/display.pperl?isbn=9780679312093&view=auqa [May 2010].

69 Note that in this case a similar thing as in (45) occurs, however with an opposite effect concerning animacy: In (45) an anaphor for animate beings (he) is used although the nominal phrase is literally inanimate, whereas in (50) an anaphor for inanimates is used, although the nominal phrase is literally animate.
Two conclusions are possible on the basis of these examples. Either sentences such as (48) and (52) display different kinds of metonymical mappings across languages, even though they have fully similar structures or it is only the rules for pronouns and anaphors which differ across languages.70

If it could be demonstrated that it is just the use of anaphors which differs across languages, grammatical agreement of anaphors could not be used as a test to decide between nominal or verbal metonymy in all languages. In the next section, I will therefore analyse the behaviour of anaphor agreement in Dutch, English and German.

4.4 Anaphor agreement in Dutch, English and German

Before comparing the behaviour of anaphors in Dutch, German and English, it will be useful to discuss a totally different explanation of why anaphors behave the way they do in connection with metonymical expressions. Ruiz de Mendoza and his collaborators account for the use of anaphors on the basis of the difference between source-in-target and target-in-source metonymies (cf. above chapter II, §3). They claim that the only antecedents available in the discourse are the ones in the highest domain. This principle is called the Domain Availability Principle (cf. Ruiz de Mendoza & Pérez 2001: 351, Ruiz de Mendoza & Diez 2004: 500).

The Domain Availability Principle perfectly explains the difference between (45) and (41): In the *ham sandwich*-example, we are dealing with a source-in-target metonymy (i.e. the target ‘customer’ includes the sub-domain ‘order’). Since the customer is the highest domain, he/she is available for anaphors and additional predicates. The *tied shoes*-example (sentence (41)), on the other hand, is a target-in-source metonymy (the source ‘shoes’ include the ‘laces’). Therefore, they can only be interpreted as referring to the literally expressed shoes and no transfer of predicates needs to be assumed; the metonymy is nominal in both cases, but the only antecedents available for anaphors and new predicates simply come from the highest domain.

Even though this theory is intuitively plausible and makes good predictions for (41) and (45), it is not flawless. First of all, it is not always easy to decide objectively whether the target domain is included in the source or the other way around. To me it is, for example, not entirely clear why the author-domain would include the oeuvre-domain rather than the other way around. I would assume that the oeuvre-domain includes the author, since an oeuvre implies the existence of an author whereas authors do not have to have written work (yet). Ruiz de Mendoza and Pérez assume, however, that the work is included in the author domain “since an author’s work is a salient part of our knowledge about him” (Ruiz de Mendoza & Pérez 2001: 338). Without objective criteria to decide whether the metonymy is

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70 It could be argued that in this sentence there is no metonymical expression at all, since the prepositions of the English phrases *most of something* or *most by someone* are both translated into Dutch with the preposition *van*. The phrase *het meeste van hem* could just be analysed as ‘most (works) by the author’.
source-in-target or target-in-source, the theory runs the risk of being circular (cf. also Sweep 2009b: 112-113).

In addition, the Domain Availability Principle does not always make correct predictions. For some specific English examples, the theory predicts the opposite of what is possible in the language (cf. Sweep 2010b, note 2; see also example (84) and footnote 84 below). For other examples it provides only half an explanation.

The AUTHOR FOR WORK metonymy can again be used to illustrate this. Since AUTHOR FOR WORK metonymies are said to be of the source-in-target type, it is predicted that it is only possible to use the pronoun he. Even though this may be true for Dutch (cf. examples (52)-(55)), Nunberg’s data contradict this idea for English (cf. examples (48)-(51)). Since all metonymies are either target-in-source or source-in-target, the Domain Availability Principle could by definition never explain why it is possible to use different types of anaphors, referring to the source or to the target, within one contiguity type. Nunberg’s data are not the only examples of this: Some German data will be discussed below that also support the idea that the use of both types of anaphors (i.e. source-corresponding and target-corresponding) is sometimes possible.

It has also been suggested that being animate is so essential that we automatically refer back to the human participant, independent of whether the source or the target is human (Stirling 1996: 84; cf. also Kövecses & Radden 1998: 64). However, this suggestion has the same problems: It cannot explain why different anaphoric agreements are sometimes possible, and it is incompatible with grammatical agreement in German data. German data thus turn out to be problematic for all accounts.

To demonstrate this, I will first compare the use of Dutch and English pronouns and anaphors. In contrast to the differences in the Yeats-examples discussed above, Dutch and English pronouns and anaphors behave similarly in sentences with metonymies of the ham sandwich-type. Consider first the English example (56) (= (45)) and the Dutch equivalent (57).

(56) The ham sandwich is waiting for his/*its check. He/*It is getting impatient.

(57) Het broodje beenham wacht op zijn rekening. Hij/*Het is ongeduldig aan het raken.

As explained before, it is claimed that the nominal phrase is metonymical, because the pronouns refer back to the customer. This is visible in the syntax of English since the pronouns for animates (his/he) must be used. Dutch shows comparable behaviour. The phrase broodje beenham is grammatically neuter and literally denotes an inanimate object. The choice of hij (‘he’) and the impossibility of using het (‘it’ [neuter, inanimate]) in the next sentence shows that it must be a shifted referent (i.e. the customer) that is picked up as the antecedent.

Just as for English and Dutch, it has been claimed that in German examples of the ham sandwich-type anaphors always have to refer to the customer and can never
refer back to the concrete object that the customer has ordered (Egg 2004). The choice of pronoun, however, seems to be different in German as compared to Dutch or English. Consider example (58) (cf. Egg 2004: 47 sentence (11) and 51 sentence (19b)).

(58) Das Schnitzel wollte zahlen. Es war verärgert.

The schnitzel wanted to pay. He was getting annoyed.

Even though, in contrast to English, the anaphor grammatically agrees with the neutral gender of the expressed order (i.e. Schnitzel), Egg argues on a purely semantic basis that the pronoun can only refer back to the customer of the schnitzel.71

At first sight, this directly contradicts Nunberg’s idea that the choice of the pronoun, i.e. it / es versus he / er, indicates the actual referent of the nominal phrase (cf. also examples (48)-(51)). However, the use of English it and German es differ in general. German has three grammatical genders (neuter, feminine and masculine) and if an animate nominal phrase is grammatically neuter, it can be referred to by es (‘it’) and not necessarily by er (‘he’) or sie (‘she’). As Köpcke, Panther and Zubin put it: “in German grammatical gender agreement often competes with conceptual gender agreement” (Köpcke et al. 2010: 171). Grammatical gender can thus, at least in written German, be stronger than natural gender. Example (59) (from Grimm)72 and (60) about Dionysus (from the DWDS-corpus) illustrate this.73

71 If this analysis is on the right track, example (58) casts doubt on Panther and Thornburg’s idea that metonymies influence grammar by their targets, whereas metaphors affect grammar on the basis of their source meanings (cf. Panther & Thornburg 2009: 17, 24). If their idea is true at all, it could be nothing more than a tendency, since Egg’s examples show the opposite effect. Interestingly Köpcke, Panther and Zubin also explicitly claim that metonymic sources can indeed directly influence grammatical elements (Köpcke et al. 2010: 167).

72 Several variants of the text exist. This example is based on a version from 1812 (cf. http://de.wikisource.org/wiki/Sneewittchen_%C3%9Chen%29_%281812%29 ) and the same pronominal reference can be found in a version of 1837. Very interesting is a version in which the feminine pronoun sie (‘she’) and es (‘it’) are both used within the same sentence: “Schneewittchen aber wuchs heran und wurde immer schöner und als sie sieben Jahre alt war, war es so schön,...” (cf. e.g. Heidreich Peter (2000): Weg wird Weg im Gehen: Beiträge zur Spiritualität, Religion und Märchendeutung, LIT Verlag Berlin-Münster, p. 115 or the audio version of www.vorleser.net).

73 Cf. also the examples discussed by Köpcke et al. (2010: 171, 178).
(59) Schneewittchen aber wuchs heran,
    Snowwhite but grew up,

    und als es sieben Jahr alt war
    and when it seven years old was

    ‘But Snowwhite was growing up and when she was seven years old...’

(60) aber Hermes rettete das Kind
    but Hermes saved the child.

    indem er es in Zeus’ Schenkel einnähte
    in that he it in Zeus’ thigh in-sew

    ‘but Hermes saved the child, in that he sewed him (/it) into Zeus’ thigh’

Without discussing these grammatical differences with English, Egg gives two arguments why it must be the case that the pronoun refers to the customer in (58) (despite its literal grammatical agreement with the order). The first argument is the so-called ‘uniqueness presupposition’-test. He explains this as follows: One can only felicitously use a definite nominal phrase, if there is exactly one referent that fits this phrase. This requirement for definite phrases is called the “uniqueness presupposition” (“Einzigartigkeitspräsupposition”, Egg 2004: 46). If a nominal phrase is interpreted metonymically, the unique referent must have changed. The “uniqueness presupposition fulfilment” shows that exactly this has happened in the case of example (58): A waiter can even utter this sentence including the definite noun phrase, when he is standing next to a pan full of schnitzels. The uniqueness presupposition can only be fulfilled in the described situation if the referent of “Schnitzel” has been metonymically shifted (Egg 2004: 47). It must thus be the nominal phrase and not the verb that is metonymically shifted.

The contrast between the masculine pronoun in English and Dutch ((56) and (57)) and the neuter in German ((58) or (62)) therefore only demonstrates that the rules for anaphors are slightly different in the two languages, exactly as suggested above and as supported by the non-metonymical examples (59) and (60). The ‘uniqueness presupposition’-test shows us that the metonymy in each language actually applies to the same phrase.

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74 It should be remarked that Egg himself does not explicitly discuss the fact that the pronoun in his German examples such as (58) grammatically agrees with the source and not with the target. In the discussion of other metonyms Egg claims, strangely enough, that the verb must be metonymical instead of the noun, given the observation that pronouns can only grammatically correspond with the nominal expression used and not with the alleged target (cf. Egg 2004: 51-52 sentence 20 versus sentence 19).
4.5 What does co-predication actually test?

In the previous section it has been made clear that even if anaphors behave differently in German as compared to English, the ‘uniqueness presupposition’-test can nevertheless reveal that the nominal phrase is metonymical (Egg 2004: 46ff). But the ‘uniqueness presupposition’-test cannot always be used.

First of all, in some examples it can be very difficult to come up with a scenario to test whether the uniqueness presupposition holds for the shifted concept. This is illustrated in (61), an example from the DWDS-corpus, in which the author (Kant) but also his oeuvre are by definition both unique.

(61) Sie sollten Kant lesen.
they should Kant read
‘They should read Kant.’

Secondly, the uniqueness presupposition does not have to be fulfilled at all in examples of metonymy with indefinite phrases, which makes it impossible to use this test. Consider for instance example (62).

a.N schnitzel wanted to pay. it.PRON N was irritated
‘a schnitzel wanted to pay. He was getting annoyed.’ (cf. Egg 2004: 51)

According to Egg, the argument of co-predication can, however, also be used to explain why the pronoun Es has to apply to the customer. The second part of example (58) (repeated below as (63)) is clearly about the customer and not about the literal schnitzel. If it is argued, in line with Nunberg, that the neuter pronoun in fact indicates that the schnitzel is literally interpreted, then not only does the predicate wollte zahlen but also the next predicate war verärgert have to be metonymically transferred.

Although Egg does not explicitly discuss this line of reasoning, his paper indicates that he does not regard this as very plausible, since it is, he claims, impossible to use predicates that do not apply to the customer. This is illustrated by contrast between (63) (= (58)) on the one hand, and (64) and (65) on the other.

(63) Das Schnitzel wollte zahlen. Es war verärgert.
the.ART N schnitzel wanted to pay. it.PRON N was irritated
‘The schnitzel wanted to pay. He was getting annoyed.’

(64) * Das Schnitzel wollte zahlen. Es sah sehr appetitlich aus.
the.ART N schnitzel wanted to pay. it.PRON N saw very delicious out
‘A schnitzel wanted to pay. It was looking very delicious.’
One might question, whether it is correct to compare these predicates. There could be many other reasons for the impossibility of the second part of the examples (64) and (65). For (64) it is, for instance, fairly evident why the pronoun cannot be used to refer to the literal schnitzel: If customers want to pay, they have generally finished their dishes. It does not make much sense from a pragmatic point of view to refer to a property of the now invisible schnitzel.

Sentence (65) also crucially differs from (63). In (63) the relation CUSTOMER-ORDER has become relevant because of the paying-predicate. Furthermore, a relation between the wish to pay and the irritation seems to be implied. None of this is true in (65). Independently of the literal use in the first half of the example, it can seriously be questioned whether the metonymy ORDER-CUSTOMER is important enough to refer to an irritated customer. A reason for the infelicity of the sentence could be the general context. i.e. the fact that there is no relation between the two predicates.

Kleiber and Waltereit have offered similar arguments against the co-predication test in general (cf. Kleiber 1995: 127ff or Kleiber 2007: 183ff; Waltereit 1998: 57-58): Predication of a metonymical phrase is only possible if the metonymical connection is relevant in its specific context. Nunberg calls this relevance for using metonymical expressions ‘noteworthiness’ (cf. Nunberg 1996: 114). The condition of noteworthiness casts doubt, however, on the usefulness of the co-predication test. The test may not offer any prove as to whether the nominal phrase is interpreted literally or metonymically but only shows whether the metonymical relation, such as the one between customers and orders, is of any relevance for the predicate used in its context.

Whereas Nunberg argues that I am parked out back must be an instance of predicate transfer, since ?I am parked out back and I need an oil change seems to be impossible, I agree with Waltereit and Kleiber that this example could be infelicitous for pragmatic reasons only (cf. especially Waltereit 1998: 57). The contiguity DRIVER-VEHICLE (or POSSESSOR-POSSESSED, cf. Kövecses & Radden 1998: 64) is probably not relevant in the same way for the oil change as it is for the parking predicate. This can be supported by an example such as (?)I am parked out back; you can find me in the last lane (said to a car-park attendant) which seems to me much better (cf. also Waltereit’s example 1998: 57).

If this is correct, co-predication cannot be used to test whether the metonymical transfer applies to the nominal subject or to the verb phrase, since it only tests to what extent the contiguity relation is relevant in a certain context. This idea also suggests that examples such as (64) and (65) are in fact probably possible in an appropriate context. Suppose, for instance, that a waiter has to bring a customer of a ham sandwich his check, but he does not exactly know how much the ham sandwich costs nor does he know the exact table number. Probably a colleague could felicitously direct this utterance to him: (?)The ham sandwich is sitting at table 9
and it costs 4 euro (= (64)). Nunberg would have to assume that the predicate is sitting at has to be metonymical in this example, whereas I would claim that there are pragmatic reasons to explain the use of the pronoun it. 

If this is correct, co-predication cannot be used to test whether the metonymical transfer applies to the nominal subject or to the verb phrase, since it only tests to what extent the contiguity relation is relevant within a certain context. Not only invented examples used in specific made-up scenario’s illustrate this. Although it is not very easy to find real examples of this kind, some corpus examples do indicate that sentences similar to (65) are in fact perfectly possible (cf. examples (66)-(68) below). In order to account for such examples, I will propose another type of metonymy involved. As I will explain, the possibility of a sense transfer of the verb for the above examples as proposed by Nunberg is rendered even less plausible by this analysis.

4.6 Metonymical transfers of anaphors

In the previous sections I have showed that Nunberg’s distinction between verbal and nominal sense transfer is problematic. Although Nunberg himself warned that counter-intuitive metonymies occurred in some examples, or even that double analyses were possible, I have shown that Nunberg’s tests can hardly ever decide whether nominal or verbal phrases are metonymical. Co-predication cannot be used as a decisive test, since this possibly only tests the relevance of the contiguity relation. Grammatical agreement of anaphors also does not always reflect which phrase is metonymical: In Egg’s German examples the use of anaphors contradicts other tests, such as the uniqueness presupposition-test. Unfortunately, this test is not always available (cf. (61) and (62)).

However, there is one argument left which still pleads for the nominal metonymy in the case of the German ham sandwich-examples. If co-predication is determined by pragmatic factors, and even if pronoun agreement cannot be used in German, a predicate transfer analysis still has to assume a double metonymy for the above Schnitzel-examples: It could only be claimed that wollte zahlen is metonymically transferred and Schnitzel is interpreted literally, if the next predicate war verärgert also gets a metonymical interpretation. This predicate semantically applies to the customer and not to the order (cf. example (62)/(63), page 64).

However, closer inspection shows that Egg’s nominal metonymy account has to deal with a similar problem. Egg’s explicit claim that the word Es in examples (58) or (62) is co-referential with the customer (Egg 2004: 51) conflicts with the grammatical agreement of Es. If Schnitzel is metonymically understood and the predicate war verärgert is interpreted literally as applying to the customer, it must

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75 Note the similarity with example (63).
76 Intuitions on this differ: I agree with Waltereit that the sentence ?I am parked out back and I need an oil change is really strange, whereas Wim Honselaar finds it acceptable. He finds my suggested example (?)?The ham sandwich is sitting at table 9 and it costs 4 euro highly zeumagric.
be concluded that the anaphor Es itself must be metonymically. The semantics of Es
has to be metonymically shifted in the sense that the anaphor does not directly pick
up the referent available in the text as its antecedent, but rather introduces a new
referent (‘the customer’) by its relation with a related expressed one (‘the order’).
Not only does predicate transfer have to account for two metonymies (i.e. wollte
zahlen and war verärgert), but the noun transfer-account leads to double
metonymical interpretations (of Schnitzel and of Es) in German as well.

I am not alone in being led to the conclusion that anaphors can be metonymical:
Langacker also noticed that anaphors can refer to entities that are “accessible only
via metonymy rather than being directly mentioned” (Langacker 2009: 66; cf. also
Langacker 1996; Langacker 1999: 280-281). Examples taken from corpora and the
internet do indeed illustrate the point that anaphors by themselves sometimes appear
to be interpreted metonymically. Consider, for instance, the German example (66).

(66) Ich holte die kleinen Flaschen mit
Gin, Rum und Scotch heraus [...].
In jed-er Flasche war ein ander-er Teufel,
and ich trank sie all-e
‘I took the little bottles with Gin, Rum and Scotch out [...]. In every bottle was
a different devil, and I drank them all – one after the other.’

The plural words sie alle (‘all of them’) must refer back to the one available plural in
the text, i.e. die kleinen Flaschen. This idea is confirmed by the phrase eine nach der
anderen, which has to refer back to a grammatically feminine antecedent. The only
feminine antecedent available is Flasche. The words eine and der anderen cannot
refer to the spirits (Gin, Rum, or Scotch) nor to the devil (Teufel), since these words
are all masculine. However, the word Flasche and die kleinen Flaschen are
interpreted literally. This makes two different analyses possible: In line with
Nunberg it could assumed that the predicate trank (‘drank’) gets a metonymical
interpretation since sie alle - eine nach der anderen refers to the bottles. However,
one could equally well claim that the anaphor *sie alle - eine nach der anderen* are metonymically interpreted.

Similar examples can also be found in English or Dutch. Sentence (67), from the British National Corpus, shows an example which is very similar to (66).

(67) Monty was supposed to be on the wagon and I certainly didn’t see him drinking, until I discovered that every time he passed the bar he’d pick up any bottle that was on the bar and drink it.

The word *it* seems to refer to the bottle, which is, however, the literal object that has been picked up. The semantics of *it* should therefore be analysed as metonymical: The anaphor does not pick up an antecedent directly available in the text; rather it introduces a new referent (‘an alcoholic drink’) on the basis of a conceptually related, available one (‘bottle’).

Similarly, example (68) of the ANW-corpus illustrates a Dutch metonymical pronoun connected to an AUTHOR-WORK contiguity.

(68) Tucholsky (1890-1935) was een van die schrijvers Tucholsky (1890-1935) was one of those authors die hun naam vaak veranderen.
that/who their name often change

Behalve als Kurt Tucholsky schreef hij ook als Ignaz Wrobel, except as Kurt Tucholsky wrote he also as Ignaz Wrobel

Theobald Tiger, Peter Panter en Kaspar Hauser. ([…])
Theobald Tiger, Peter Panter and Kaspar Hauser. ([…])

Ik weet nog hoe ik *hem* voor het eerst las.
I know still how I him for the first read

‘Tucholsky (1890-1935) was one of those authors who often change their names. Except as Kurt Tucholsky he also wrote as Ignaz Wrobel, Theobald Tiger, Peter Panter and Kaspar Hauser. ([…]) I still remember how I read him for the first time.’

The last phrase of example (68) *hoe ik hem voor het eerst las* (lit.: ‘how I him for the first read’) has to be interpreted as ‘how I read a book by Tucholsky for the first time’. In the first two sentences of example (68), however, the word Tucholsky has to be interpreted as the proper name of the author, since no re-interpretation is

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77 For a Japanese example see Langacker 2009: 67.
needed: It simply states about the author Tucholsky that he often changed his name and therefore wrote under different pseudonyms. We cannot plausibly assume any metonymy (either of the noun or of the predicate) here since all predicates fully apply to the literal author himself. The only re-interpretation necessary is in the last sentence in (68). One can preserve the intuition that las (‘read’) just refers to an activity involving books, if it is the anaphor that is metonymically interpreted, i.e. picking up an antecedent (‘book’) which is related to an available one (‘Tucholsky’) in the discourse. An anaphors with a metonymically transferred sense does not refer to a referent interpreted earlier, but instead it is applied to a new, contiguous referent on the basis of an available one that was interpreted earlier.

In addition to these examples, there is a second argument for the metonymy of Es in the Schnitzel-examples of (58) or (62): I seriously doubt whether grammatical agreement always has to occur in German. Suppose that examples (69) and (70) are used to refer to a male customer. 78

\[\text{(69) Die } \text{Bratwurst} \text{ wolle zahlen. } \text{?? Sie [male customer] war verärgert.}\]

\[\text{The sausage wanted to pay. She [male customer] was irritated}\]

\[\text{(70) Die } \text{Bratwurst} \text{ wolle zahlen. Er war verärgert.}\]

\[\text{The sausage wanted to pay. He was irritated}\]

Although the gender of Bratwurst is feminine, it would be very confusing to use the pronoun sie, which agrees grammatically with its antecedent Bratwurst, to refer to a male customer. I would suppose that, if these sentences are ever used, only (70) could be used felicitously in the situation described. Similar examples are provided by Köpcke et al. (2010: 177) on the basis of a MUSICIAN-INSTRUMENT contiguity. If these examples with a pronoun agreeing with the gender of the customer are possible as well, the logical conclusion is that the pronoun of (58) which refers to the order must have been interpreted metonymically. This view is supported by Egg’s uniqueness presupposition: Since it must be the nominal phrase that is metonymical, the same should be true for the anaphor.

Anaphors that are metonymically interpreted have intuitively explanatory power in an intuitive way (cf. examples (66)-(68)), but they undo the usefulness of both the anaphor and co-predication tests. How should we analyse, for instance, examples (41) (here repeated as (71)), if anaphors can also be metonymical?

\[\text{(71) Billy’s shoes were neatly tied. They were blue.}\]

78 I have to thank Mara van Schaik-Radulescu for discussing the Schnitzel-examples with me, since I thought of this example on the basis of our discussion.
One does not have to assume, as Nunberg does, that the second sentence shows that
the predicate of the first is metonymically transferred. One could also argue that
Billy’s shoes and also They in (71) are metonymically used, thereby preserving the
nominal transfer. Co-predication does not help, because the same alternative
reasoning exists for sentence (42) as well as for (43) (here repeated as (72)-(73)).

(72) */? Billy’s shoes were neatly tied but frayed. (Nunberg 1996: 123)
(73) Billy’s shoes were neatly tied but dirty. (Nunberg 1996: 123)

The reason that co-predication in (72) is not possible could be the fact that the PART-WHOLE relation between shoes and their laces is not relevant enough for frayed laces, while it is relevant for tying and even for being dirty. Frayed laces do not cause the shoes to be frayed, whereas dirty shoes can easily imply dirty laces (cf. Kleiber 1995: 124 or Kleiber 2007: 180). In conclusion, we should say that in these cases tests such as anaphoric pick-up and co-predication cannot help to conclude whether the metonymy applies to the verb or to the nominal phrase.

For some examples it becomes even more difficult to decide where the metonymy comes into play. We could, for instance, assume that in (74) Kant and he are metonymical, but we could equally think that the two predicates are transferred (as would be done by Nunberg).

(74) Kant is still popular, although he is difficult to read.

Sentence (75) suggests that the nominal-metonymy analysis is correct, but the parallel with (76) on the other hand pleads for a transferred predicate.

(75) Kant is still popular, although some of it is out of print.
(76) Kant is still popular, although he died two centuries ago.

In examples like these predicate transfer is often rejected solely on the ground that it is not intuitively satisfying (cf. Panther & Radden 1999: 10). Although one can question whether “intuition is a sure guide” (Nunberg 1996: 123) for scientific analyses, the option that anaphors can be metonymical provides an equally explanatory analysis for the above examples (as for (74)) while better preserving intuitions. Of course, this does not mean that predicate transfer by metonymy is in principal impossible, but it simply shows that neither co-predication nor “divergent anaphora” (Kleiber 2007: 174) are reason enough to completely abandon the possibility that the noun is metonymical in some of the above examples.
4.7 Metonymical nouns, anaphors and real verbal sense transfers

In general, a sense transfer account is a better explanation for metonymically shifted interpretations. First of all, a sense transfer account in the sense of Nunberg is compatible with the stability of the semantics of surrounding words (such as the, five or every). Secondly, it explains the fact that referential metonymies do not crucially differ from predicatively used metonymies, even though the latter do not denote a shifted referent. This shows that even examples in which the metonymy is used for referential purposes need to be analysed as sense transfers, since referring to entities always takes place via corresponding concepts (cf. Koch 2001: 218).

In addition to these advantages, the sense transfer account provides a unified explanation for all kinds of metonymical shifts, independent of which part of speech is used metonymically. If metonymy could only be used for referential shifts, it remains unexplained how pragmatic metonymies could exist (cf. §4.2 above) or why abstract lexicalised metonymies, such as the metonymical meaning of the Dutch verb klateren, are possible.

A comparison of metonymically transferred verbs of the latter kind with Nunberg’s examples of predicate transfer shows an even more fundamental problem for Nunberg. As for all metonymical shifts, the correspondence between the basic and metonymical meaning of Nunberg’s transferred predicates should be noteworthy (cf. Nunberg 1996: 114). However, it remains vague what the meaning of the literal sense and the shifted sense of the predicate should be in Nunberg’s examples (cf. also Kleiber 1995: 120 or Kleiber 2007: 175). Nunberg only explicitly states that “the property denoted by the derived predicate has to correspond in a certain way to the property denoted by the original predicate” (Nunberg 1996: 112). Kleiber correctly criticizes the correspondence relation in Nunberg’s predicate transfers:

Elle [i.e. cette correspondance] n’existe pas non plus en dehors de relation qui unit les deux types de référents mis en avant par la thèse du changement de référent. (Kleiber 1995: 120)

≈

Nor does it [i.e. the correspondence] exist outside the relation which unites the two types of referent according to the thesis of referent change. (Kleiber 2007: 176)

The only relation that allows the predicates in Nunberg’s examples to correspond in a noteworthy way is the relation between the nominal phrase and a contiguous concept. The fact that the contiguity should somehow be located in the nominal phrase itself fundamentally weakens the idea of a metonymically transferred verb in a very fundamental way.

It is of course quite possible that the meaning of a verb is metonymically transferred. Nunberg’s instances of predicate transfer can be directly contrasted with verbal lexicalised metonymies. As discussed above, lexicalised metonymy or metonymy-induced polysemy is not limited to noun phrases (cf. also Nunberg 1996:
Verbs, for instance, could as well get contiguously related meanings, which directly correspond in a ‘noteworthy way’ with their basic meaning. I have illustrated this above by the Dutch verb *klateren* which literally means ‘to splash’ and on the basis of this also has the lexicalised, metonymically related meaning of ‘to urinate’. Although examples of verbs with a metonymical meaning do not seem to be very frequent (cf. however Stoeva-Holm 2010), the Dutch verb *klateren* is not the only example of a verb that has a metonymically transferred sense. Another Dutch example is *kuipen*, which denotes the old craft of making barrels (cf. WNT meaning 1). This verb is also used in the meaning putting herrings in barrels by closing these by hand (cf. WNT meaning 2). Another example is the Dutch verb *tikken*. This could literally be translated as ‘tap’ or ‘touch’ and it has acquired the metonymical meaning of ‘tapping someone while playing touch’ (cf. WNT meaning 5). In all these examples the contiguously related meanings of the verb correspond with their basic meaning in a ‘noteworthy way’.

These metonymical predicate transfers crucially differ from the examples analysed by Nunberg as a sense transfer of the predicate. The problems discussed above for Nunberg’s examples of predicate transfers do not play a role for these polysemous verbs. Also, the correspondence relation between the transferred sense and the basic meaning clearly differs from Nunberg’s examples. In the case of *klateren*, *kuipen* and *tikken* the noteworthy condition is easily fulfilled, since the transferred activity implies the literal one.

In sum, although I have demonstrated on the basis of several arguments that a sense transfer account is necessary for nominal phrases, as well as for verbs and even for some pronouns, I have also shown that we do not have to assume transferred predicates for Nunberg’s examples. First of all, the predicate appears to be interpreted literally in these cases. Secondly, I have shown that Nunberg’s tests for distinguishing between predicate transfer and nominal transfer are misleading. In addition, I have explained that, although the relation between grammar and the conceptual metonymy-mechanism is very complex (cf. section 3), grammatical functional words, such as anaphoric pronouns, can also acquire shifted interpretations due to the same metonymical mechanism (cf. also Waltereit 2004). This shows that metonymy is able to affect the syntax-semantics interface.

In the next section I will take a closer look at other metonymical effects on grammar-semantics interface by looking at other examples that closely resemble Nunberg’s idea of a seemingly literal predicate with a metonymical shift.

5. Syntax-semantics interface: Predicative metonymy

5.1 Metonymical transfers of predicates’ argument slots

Just before the publication of Nunberg’s paper (1996) on predicate transfers, Stallard made a comparable proposal: He contrasts “referential metonymies”, illustrated by the *ham sandwich*-example, with so-called “predicative metonymies” (Stallard
Since it is Stallard’s primary goal to automatically extract correct readings of metonymy, his arguments for the existence of predicative metonymies are fairly sketchy. He only gives three arguments for their existence, each illustrated by only one example. This also makes it difficult to analyse to what extent Stallard’s predicative metonymies differ from Nunberg’s predicate transfers. His explanation of predicative metonymies, however, is slightly different from Nunberg’s.

His first argument is also used by Nunberg, viz. the doubtful anaphoric pick-up and co-predication. According to Stallard, the fact that in some cases an anaphor or a predicate in a sentence following a sentence with a metonymical expression can only refer to the literal sense of the metonymical phrase in the first sentence, demonstrates that the nominal phrase cannot be metonymical. As demonstrated in detail above, this conclusion is not as straightforward as Stallard claims it to be.

His second argument for the existence of predicative metonymy is based on question-answer pairs. He explains that the answers to certain questions show that a seemingly referential metonymy cannot apply to the noun. This is illustrated by the question Which airlines fly from Boston to Denver? (Stallard 1993: 88), a metonymical mapping between airlines and ‘flights’ could be assumed. The word airlines seems to be used literally however, since it would be absurd “to respond to this question with the sets of flights from Boston to Denver” (Stallard 1993: 88).

Predicative metonymies are thus similar to Nunberg’s transferred predicates, in the sense that, although the contiguity relation applies to the entities corresponding to the nouns, these nominal phrases appear to be interpreted literally. However, Stallard’s description of predicative metonymies is slightly different from Nunberg’s. Although Stallard claims that in the case of predicative metonymies it is “more accurate to say that the predicate is coerced” instead of the noun phrase (Stallard 1993: 89; cf. also Nunberg 1996: 115), he immediately adds that this claim is in fact “a simplification”. Predicative metonymies should be more precisely analysed “as a coercion of a predicate argument place, rather than of the argument NP itself” (Stallard 1993: 89).79 In other words, this type of metonymy occurs on the level of the VP, rather than changing the verb (V) or the direct object (NP) (cf. also Iwata 2005). The quotation from Stallard’s article is interesting, because it clarifies how it is possible that it is not the argument itself that is shifted, although the predicate also seems to preserve its literal meaning.

Figure 3 graphically illustrates the idea of a predicative metonymy.

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79 Within the context of metonymy, the word ‘place’ can easily be misunderstood as literally referring to a location. In the rest of this dissertation, I will therefore prefer the phrase “argument slot” instead of “argument place”.
In this illustration words are represented as puzzle pieces that can be combined into phrases and sentences. Suppose the right-hand slot of the verb piece represents the direct object slot of the verb. Both participants (x and y) fit this slot. None of the puzzle pieces need to be changed, i.e. they could all be interpreted literally. They only should be inserted correctly, which can be seen as that the perspective of the combination will be slightly different. The two different argument realisations represent different VPs with a single verb.

The idea that metonymy cannot only affect the interpretation directly but can also affect the type of argument of a predicate, as described by Stallard’s predicative metonymy, is also reflected elsewhere in the literature. It links up with the traditional question to what extent the syntactically realised arguments of a verb correspond with its arguments that are necessary from a semantic point of view (cf. e.g. Cappelle 2005: 291ff). Whatever one’s exact standpoint may be in this discussion, it cannot be denied that there must be some correspondence between semantic participants and syntactic arguments.

Traditionally this correspondence between syntax and semantics is directly reflected by the idea of semantic or thematic roles, also called case roles in older literature (cf. Fillmore 1986). A semantic role specifies the relation between a verb and each of its syntactic arguments (cf. Rappaport & Levin 1988: 9). One would expect that mechanisms working upon conceptual structures (therefore affecting semantics) would also be able to influence syntax, via the mediating level of semantic roles. A transfer of a semantic role automatically leads to a different syntactically realised argument.

Unfortunately, the apparatus of semantic roles is a fuzzy one. The clearest dichotomy in the relation of a syntactic argument and a verb is the difference between being subject and object. In simple active sentences the subject generally
corresponds with the do-er, the agent, and the direct object corresponds with an undergoer, the patient. But not all verbs are that simple. Some verbs do not express an action that can be carried out by some person. Although such verbs do have a syntactic subject, this cannot, due to the semantics of the verb, be an agent. Problems such as these have led to an expansion of labels for semantic roles (cf. Dowty 1991), making them difficult to specify and problematic to use.

It is not necessary, however, to use specific role labels in order to demonstrate that metonymy can influence a verb’s argument structure. In a recent series of papers, Mario Brdar and Rita Brdar-Szabó have demonstrated at length how metonymic processes can determine the argument structures of several predicates and adjectives (Brdar 2007; Brdar 2000; Brdar-Szabó 2009; Brdar-Szabó & Brdar 2004; cf. also Koch 2001: 210-211). The changes they describe are similar to Stallard’s predicative metonymy, in the sense that the metonymical influence affects the predicate’s argument slot only, since also according to Brdar and Brdar-Szabó these metonymical “relational-grammatical” transfers do not have “to correlate with lexical polysemy proper” (Brdar 2007: 183; Brdar-Szabó/Brdar 2004: 330).

In the present dissertation, I will discuss this type of metonymy, which operates on the syntax-semantics interface of verbs, in full detail. Although these phenomena are no prototypical instances of metonymy, I will demonstrate that they are clearly driven by contiguity and that they exist in a continuum with all kinds of metonymical shifts (cf. below chapter IV, §3.3; chapter V, §4.4). In chapter IV (§3) I will discuss how dictionaries describe the metonymy involved in these examples and chapter VIII will work out the concept of a predicative metonymy as a frame-internal highlighting effect. In the rest of this section (section 5), I will first consider existing literature on two types of possible predicative metonymies, i.e. so-called logical metonymy and contiguity shifts based on semantic roles (cf. Stallard 1993: 93).

5.2 Logical metonymy (LM)

A very interesting type of metonymy in English which directly affects syntactic structure is illustrated in (77) and (78).

(77) Mary began the book
(78) Mary finished the book

Strictly speaking, it is only possible to begin or finish activities. One cannot begin or finish an object as such. Therefore, an activity in which the book plays a crucial role has to be inferred. Sentences (77) and (78) are thus interpreted by default as meaning that Mary began or finished reading or writing the book.

Sentence (79) is said to work in a similar fashion. Because enjoying an object presupposes some time interval of exposure to the object or some experience with
we understand that if John enjoyed a sandwich, he probably enjoyed eating it.

(79) John enjoyed the sandwich

The metonymical shift is said to be directly visible in the syntactic structure, in that the shift from a concrete object to an activity co-occurs with a shift between a nominal direct object (the sandwich) and a verb phrase (e.g. eating) in English (cf. Egg 2003: 163; Lapata & Lascarides 2003: 1; Verspoor 1997a: 166). The non-metonymical expressions corresponding to interpretations of (77)-(79) illustrate this. Consider (80)-(82).

(80) Mary began reading / to read (the book)
(81) Mary finished reading (the book)
(82) John enjoyed eating (the sandwich)

Logical metonymy is said to be different from other instances of metonymy. Pustejovsky describes the difference between metonymy proper and logical metonymy by stating that in the former “a subpart or a related part of an object stands for the object itself” (Pustejovsky 1991: 424), whereas in cases of logical metonymy “a logical argument of a semantic type (selected by a function) denotes the semantic type itself” (Pustejovsky 1991: 425, cf. also Pustejovsky 1989: xxii). Phrased differently, the quotation states that in cases of logical metonymy a specific part of the interpreted argument structure has been realised (viz. the argument of the activity demanded by the matrix verb) denoting the activity as such. Although the metonymy in examples (77)-(79) is occasionally referred to by the metonymical pattern on which it is based, i.e. OBJECT FOR ACTION IN WHICH THE OBJECT IS INVOLVED (cf. Ruiz de Mendoza & Pérez 2001), most studies use the term ‘logical metonymy’ (e.g. Godard & Jayez 1993; Pustejovsky 1991; Pustejovsky 1995; Verspoor 1997a; Verspoor 1997b).

There are several given reasons why this type of metonymy is called logical. In line with Pustejovsky, some studies argue that this metonymy is logical, because apart from the metonymical shift, an additional shift in the interpretation takes place, viz. a shift from a concrete object to an additionally interpreted abstract event in

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80 Cf. also Sweep 2010a: 19-23 or chapter VIII, §4.3 below and Sweep 2011: 33.
81 I will only take into account examples of concrete direct objects combined with verbs that semantically require an event. However, the same type of semantic shift occurs in the combination of nouns with some prepositions and even with adjectives (cf. e.g. Godard & Jayez 1993: 170). In addition, it is sometimes said that a comparable metonymy arises in combining some verbs with specific subjects (Horacek 1996: 121, 125; Pustejovsky 1995: 53ff). I will not take such examples into account.
which the concrete object functions as an argument. This additional shift is formally a type shift, also called a logical shift (Verspoor 1997a: 166; cf. also Lapata & Lascarides 2003: 306).

Pustejovksy himself explicitly describes the above examples as logical because “there is an interesting systematicity” in these examples of metonymy (Pustejovsky 1995: 54, cf. also Horacek 1996: 120). He is probably referring to the fact that the metonymically interpreted activity is inferred on the basis of the direct object, but is also triggered by type requirements of the matrix verb (cf. also Verspoor 1997b). The problem is that most metonymies are structural in one way or another, and that very often the predicate plays a crucial role in interpreting a noun phrase as metonymical.82

Logical metonymy is interesting because the activity has to be inferred on the basis of the expressed concrete object in combination with the matrix verb. The matrix verb requires an event, which is inferred on the basis of the concrete direct object. The question then emerges where exactly the metonymy should be located: In the verb or in the nominal phrase?

Although the matrix verb is of crucial importance for inferring the metonymical interpretation, the semantics of the NP-argument plays an even more crucial role. Although the matrix verb requires an event, it turns out to be extremely awkward to locate the metonymical interpretation, i.e. the specific event, fully in the semantics of the matrix verb. Apart from the fact that this is intuitively less plausible, the account of a metonymical predicate has clear theoretical drawbacks.83

First of all, it will become impossible to make a list of all the different senses of begin (cf. also Jackendoff 1997: 60). In fact, it must be assumed that a verb such as begin can have an infinite number of senses, such as begin reading, begin writing (in combination with a book), begin eating (in combination with a sandwich), begin smoking (in combination with a cigarette), etc. The same will be true for all verbs that allow these constructions, such as finish, enjoy, and others. This does not only make the lexicon very inefficient (cf. Verspoor 1997a: 168) or even close to infinite, but it also makes it impossible for crucial generalisations to be incorporated (cf. Pustejovsky 1995: 48). Such an approach can never account for the fact that finish or enjoy has the same set of meanings in combinations with the same set of direct objects.

82 Sometimes the term logical metonymy has been used for examples of polysemy that are motivated by metonymy, as discussed in section 2.2 (cf. Brdar 2009: 263; Kleiber 2007: 169; Nunberg 1995: 116). Although there is an obvious relation between logical metonymy and systematic meaning shifts that could be described as instances of regular polysemy (cf. Horacek 1996: 120-122), examples (77)-(79) do not, however, necessarily need to be analysed as instances of polysemy. Probably the term logical metonymy has also been used for instances of polysemy by confusing the terms logical polysemy and metonymical polysemy. I will use logical metonymy only in the way explained in this section, i.e. applying to examples similar to (77)-(79).

83 Most of these drawbacks are very clearly summarised in Verspoor’s dissertation (Verspoor 1997a: 167-169).
In addition, the idea that the verb is metonymical in the above examples also generates an endless number of interpretations for concrete sentences, of which many will even turn out to be impossible: If *begin* has many metonymically transferred senses, the possible interpretations for a sentence such as (77) are also endless, since the verb could mean ‘begin reading’, ‘begin eating’, ‘begin smoking’, etc. It would thus dramatically increase the amount of work carried out by pragmatics (cf. Verspoor 1997a: 168-169), because one must choose the correct *begin*-meaning out of all these options.

Furthermore, it remains unclear how ‘begin reading’ or ‘begin eating’ are metonymically related senses of *begin* as such. What kind of highlighting processes could account for all these senses? It may be evident that the problems for the transferred predicates are very similar to the problems for Nunberg’s predicate transfers: The above problems all occur when the connection between the verb and the nominal complement has not been made. It can simply not be denied that the noun plays an essential role in causing the metonymical highlighting effect. Triggered by the semantics of the matrix verb (which asks for an event), it is the concrete direct object that leads to the intended, contiguously related event.

One may wonder, however, whether the direct object is interpreted metonymically or literally. Again, the problematic diagnostic tests that were discussed above have been used to support the view that the interpretation of the direct object cannot be metonymically shifted (cf. Godard & Jayez 1993: 168). These tests, such as the use of anaphors and relative clauses and co-predication (coordination of predicates), are illustrated for the above logical metonymies in (83)-(87).

(83) John began his book at ten and put it away at eleven.

(84) *John began his book at ten and didn’t stop it till eleven.

(85) John began a book that was very thick.

(86) *John began a book that took two hours.

(87) He ate and enjoyed the salmon. (cf. Godard & Jayez 1993: 169)

The anaphor can only be used to refer to a concrete thing, not to an event associated with the object. This makes (83) possible, since it is the concrete book that is put away84 and it also rules out example (84) (cf. Godard and Jayez 1993: 169). Similarly, the use of a relative clause referring to a property of the concrete noun is clearly possible, as in example (85), while (86) with the relative clause referring to

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84 Note that example (83) is in conflict with Ruiz de Mendoza’s Domain Availability Principle. Since the examples of *OBJECT FOR ACTION IN WHICH THE OBJECT IS INVOLVED*-metonymies are of the type source-in-target (cf. Ruiz de Mendoza & Pérez 2001: 340), it should be possible to refer to the matrix domain ‘read’ instead of to the concrete book, whereas according to the above data it turns out to be the other way around.
the reading event is infelicitous. The fact that it is only possible to refer to a property of a concrete object, such as the thickness of the book, and not to a property of the interpreted event, such as duration, suggests that the noun *book* is interpreted literally, as a concrete thing. In the last test, the coordination test, one concrete noun is combined with two predicates, one that needs a concrete object and one that requires an eventive phrase as a direct object, as in (87). Since it is quite possible to combine the two predicates with only one NP, it is claimed that it is not very likely that the noun has fully changed its interpretation and type to an event-entity. Otherwise the examples would be zeugmatic.

According to Godard and Jayez these tests show that the coercion process is internal to the semantics of the matrix verb (cf. also Verspoor 1997a: 171). Although I have demonstrated above that the outcome of these tests are not fully decisive, they could be used to support the intuition that the noun acquires a literal interpretation. There may be some doubt as to whether the interpretation of the noun is really transferred; its literal interpretation appears to be more or less intact, since it is directly involved in the process that is started, finished or enjoyed. Rather than assuming a transfer of the predicate or of the noun, the metonymical interpretation only arises when predicate and direct object are combined (i.e. at VP-level). This would mean that we are only dealing with a metonymical shift of the type of argument, i.e. with the predicate’s argument slot (Stallard 1993: 89), rather than with the meaning of the verb or NP as such.

Summarising, it turns out to be most precise to assume that the contiguity effect of logical metonymy leads to a transfer of the argument slot of the verb (cf. Stallard 1993: 89). Logical metonymy should therefore be analysed as an instance of predicative metonymy: The argument slot of the verb is coerced, based on a contiguity relation between the two possible arguments, i.e. the activity and the object involved. In chapters VII and VIII, I will come back to this in more detail.

As with all the anaphors discussed above, intuitions probably differ. I would like to thank an anonymous reviewer (cf. Sweep 2010a: 5 note 2) who has pointed out to me that he/she doubted whether referring to the event is actually impossible. As an illustration he/she gave the example (’)*At ten, John began his new book, which he did for two hours; at noon he had a light lunch, after which he prepared his courses for the next day.* A reason for this difference could be the fact that in this example *which* instead of the pronoun *it* has been used. This is in line with ideas discussed in Köpcke et al. (2010). They analyse differences in grammatical versus conceptual agreement on the basis of Corbett’s Agreement Hierarchy and pragmatic functions corresponding with these elements (Köpcke et al. 2010: 179ff). Although they only discuss which gender must be used under the same interpreted antecedent, it is possible that these scales also interact with the possibility to refer to metonymical targets or sources. More research on this would be useful.

Within their formalism, Godard and Jayez therefore require different semantic representations for predicates such as *begin, finish* or *enjoy* depending on the type of complement (cf. Godard and Jayez 1993: 174). However, they do not conclude that it must be the verb as such that is metonymically re-interpreted: Although the predicate can have different types of arguments, it is still the noun that is contingously connected to the interpreted event.
5.3 Metonymy and semantic roles

Stallard suggests that, besides examples of logical metonymy, another type of predicate transfer or of transferred argument slots is probably reflected in the research by Fass, which analyses the relation between metonymy and semantic roles (cf. Stallard 1993: 93). The idea that a conceptual mechanism such as metonymy can affect semantic roles was in fact already touched upon by Schifko in 1979: Within his rather broad notion of metonymy, Schifko discusses metonymical relations between agens and actio, or between actio and affected or effected object (Schifko 1979: 246).87

Fass has analysed the relationship between metonymy and semantic roles in a computational framework (cf. e.g. Fass 1991a; Fass 1991b).88 Fass suggests that “every metonymic concept appears to specify a relationship between two case roles” (Fass 1991b: 41), meaning that they work in tandem with contiguity relations. A PRODUCER FOR PRODUCT metonymy, for instance, relates an agent (the producer) with a patient (the product). Similarly, the metonymical association between a container and its content could be seen as an instrument-patient relationship (Fass 1991b: 43). In addition to arguing that contiguity relations or metonymical associations could be explained by semantic roles, i.e. “as case role substitutions”, Fass claims that “perhaps metonymy can be used to explain observations in the case grammar literature” (Fass 1991b: 44).

A detailed account of how this can be done can be found in Waltereit’s work (Waltereit 1998; Waltereit 1999). Waltereit contrasts classical-referential metonymies, which are often detected on the basis of violations of selection restrictions, from metonymy-based effects that do not lead to a shift in reference. Sentences (88)-(91) illustrate the difference (cf. Waltereit 1999: 234-235; Waltereit 1998: 55-56):

(88) a. The customer (who ordered a ham sandwich) is waiting for his check  
   b. The *ham sandwich* is waiting for his check
(89) a. The patient (with the ulcer) is waiting for the doctor  
   b. The *ulcer* is waiting for the doctor
(90) a. The waiter finally served the *customer* (of the ham sandwich)  
   b. The waiter finally served the *ham sandwich* (to the customer)

87 Moerdijk also mentions the relation between contiguity relations and semantic roles (1990: 121).
88 Stallard himself refers to Fass 1991a, especially to his discussion on source and target substitutions (Fass 1991a: 62). The problem with this reference is firstly that this paper describes an algorithm (met*) for recognizing figurative from literal language, rather than exhaustively discussing metonymy and semantic roles. Secondly, Fass uses the terms source and target in this paper in a very different way than is usual nowadays in cognitive linguistic research on metonymy (cf. Fass 1991a: 60, 90). Fass knows these uses as well (cf. Fass 1991a: 52), which makes his discussion a little confusing.
(91)  a. This type of antibiotics can cure the patient (with an/of ulcer)
b. This type of antibiotics can cure the ulcer (of the patient)

Sentences (88) and (90) are based on a CUSTOMER-ORDER contiguity and (89) and (91) both exploit a metonymy based on the PATIENT-DISEASE relationship. Despite this similarity in contiguity relations, the examples (88) and (89) on the one hand and (90) and (91) on the other differ crucially.

The metonymies in (88)b and (89)b are classical instances of metonymy. We understand that the subjects of the b-sentences must be humans on the basis of the context (in these examples the selection restrictions of is waiting). Therefore, we interpret ham sandwich as ‘the customer of the ham sandwich’ and ulcer as ‘the patient with an ulcer’ (as literally expressed in (88)a and (89)a). Examples (90) and (91) are different in this respect. Although the fact that a customer as well as a ham sandwich can be served and the fact that a patient as well as an ulcer can be cured are caused by the same contiguity-types as exploited in (88) and (89), the noun phrases of the latter examples are all interpreted literally.

According to Waltereit therefore, though the contiguity types in the two sets of examples are the same, they work on different levels. He argues that the metonymies ((88)b and (89)b) are said to be based on contiguity relations on an insertional level (“Besetzungsebene”), since a contiguous concept is inserted for the original and therefore reinterpreted. The shifts illustrated by (90) and (91), in contrast, are analysed to occur on the level of semantic roles (“Rollenebene”) (Waltereit 1998: 56; Waltereit 1999: 235).

Waltereit states that the semantic roles stand in a contiguous relation in examples such as (90) and (91), but he assumes that metonymy is involved from a diachronic point of view rather than from a synchronic one (Waltereit 1998: 56; cf. also 1999: 235; cf. also chapter VIII, §1). Waltereit considers the above shifts to be caused by a diachronic development based on classical metonymy. As he puts it: “The occasional metonymic use is likely to be fixed later as a new meaning of the verb, when a metonymic shift is no longer involved.” (1999: 235). Apart from the complicated question to what extent we are dealing with polysemous verbs (cf. also chapter IV, §4; Iwata 2005; Iwata 2008; Sweep 2010b), there are some other fundamental problems with this claim (cf. also Ch. VIII, §1).

First of all, the consequence of Waltereit’s analysis is that examples (90) and (91) must originate from an occasional use of ham sandwich in the meaning of ‘customer’ or ulcer referring to ‘patient’ (or the other way around?) (cf. Waltereit 1998: 56; 1999: 235). One might question whether this is really plausible.

Secondly, the contiguity relations between the two possible direct objects, such as a customer and an order or a patient and a disease, is no longer supposed to play a role. From a synchronic perspective, Waltereit only explicitly considers the two possible direct objects as standing in a metonymical relation on a semantic role level. He writes: “die beiden Rollen sind kontig zu einander” [‘both roles are contiguous to each other’] (Waltereit 1998: 56, cf. also 1999: 235). However, his actual analysis of specific instances of these alternations casts doubt upon this claim,
since he explains object changes with reference to relations such as CUSTOMER-ORDER (Waltereit 1999: 235) or, in so-called locative alternations (cf. examples (92)-(94) below), to CONTAINER-CONTENT (Waltereit 1998: 26).\footnote{In a similar way, Waltereit is not totally consistent in his idea of polysemy of the verb. I will discuss this in chapter IV, §4 and once again in chapter VII, §1.}

In line with this, one could suppose that even synchronically a metonymical transfer applies, since the contiguity associations are still evident. This would mean that the metonymy does not induce a transfer of the concept corresponding to the lexical noun phrase, but rather a transfer of the verbal argument, i.e. of the type of argument or argument slot. In line with this, there are a few other studies that also touch upon the idea that even from a synchronic point of view metonymy could play a crucial role in alternating syntactic realisations of semantic participants (cf. Dowty 2000: 126; Cappelle 2005: 339).

Waltereit’s idea that semantic roles are contiguous to each other is also problematic, since it is not exactly clear what these semantic roles are. This can best be illustrated by examples of so-called locative alternations, which are also discussed by Waltereit as a role level metonymy (Waltereit 1998: 66ff; Waltereit 1999: 239). They are exemplified in (92)-(94).

(92) a. Mary spread butter (on the bread)  
   b. Mary spread the bread (with butter)

(93) a. John emptied the stuff (from the drawer)  
   b. John emptied the drawer (of the stuff)

(94) a. The waiter wiped the crumbs (off the counter)  
   b. The waiter wiped the counter

Different semantic roles are suggested for examples such as (92)-(94). Some scholars speak about locatum and location or about theme and goal, but others consider all above direct objects as ‘themes’ (cf. the discussion in Rappaport & Levin 1988 or in Dewell 2004: 22ff) or as ‘patients’ (cf. Jackendoff 1990: 172; Jackendoff 2002: 181; Laftüt 1998: 129), irrespective of whether they refer to locations, things in a location, material or products. This causes a problem for the claim that the semantic roles are contiguous to each other, since it does not make sense to claim that a contiguity relation between ‘theme and theme’ or ‘patient and patient’ causes a shift in the type of direct object. This again shows that the contiguity applies to the concepts expressed by the direct objects. I will come back to this in chapter VIII.

Of course, Waltereit is right in stating that the metonymy involved in the above sentences must be of a specific kind, as has also been observed by lexicographers (cf. especially the next chapter). The direct object is not, as in classical metonymies, metonymically re-interpreted. Rather, the metonymy occurs on the level on which
verb and direct object are combined. I therefore follow Waltereit’s analysis that the shifts as illustrated in (90) and (91) show a metonymical figure/ground effect (a highlighting of elements) within the conceptual-semantic frame evoked by the verb (Waltereit 1998: 25-26, 56; Waltereit 1999: 238, cf. also Koch 2001).

In the context of the verb, both direct objects form one conceptual unity or gestalt. The gestalt character or contiguity relation between both possible direct objects plays an essential role in the process of combining verb and direct object. Hence, the interpretation of the direct object slot is metonymically changed, rather than the direct object as such. Based on contiguity relations between both possible direct objects, the argument slot can be occupied by the location or by what is in the location (i.e. locatum), by the customer or the order, or by the patient or the disease and so on. In other words, neither the meaning of the verb nor the noun that is expressed as the direct object is metonymically shifted, but only the combination of the two, i.e. the class (cf. Waltereit 1999: 235) or type of argument connected to the verb.

If metonymy could indeed be the underlying mechanism of argument slot transfers as in sentences (90)-(94), we are dealing with examples of predicative metonymies par excellence. I will examine this issue in detail in the following chapters.

6. An overview of different types of metonymical transfers

In this chapter I have discussed the different ways in which metonymy influences language and which linguistic levels are affected by metonymy. Table 1 gives an overview of all types of metonymical influences, arranged by the relevant interpretational level. It should be noted that this overview is by definition a simplification, since linguistic levels interact closely, making it very difficult to see where one level ends and another begins.
Within the different layers of interpretation, I have disentangled several types of metonymical influences, ranging from highly prototypical to less prototypical metonymies. These different types of metonymy exist in a continuum, just as the interpretational layers do. The dotted lines are used to mark some of the fuzzy boundaries (cf. rabbit, Picasso, ham sandwich). These can be found between predicational or pragmatic metonymies and metonymies affecting grammar. Similarly, there are unclear boundaries between some occasional referent-oriented metonymies, certain conventionalised contiguity patterns and real polysemy.

On the lexical layer of interpretation all sub-types form a continuum. Polysemy, for instance, normally develops on the basis of semantic change (cf. Koch 2004: 17). From a diachronic perspective, there can be a period in time in which the difference between a semantic change and an established polysemy is unclear. But there are also overlaps within the synchronic lexical sub-types. It is, for instance, not always easy to draw the boundary line between facets of a word and polysemous meanings. The same fuzzy boundary exists between instances of polysemy and conventions of use. This can be illustrated by grinding: Sometimes grinding is regarded as a

<table>
<thead>
<tr>
<th>Interpretational layer of transfer</th>
<th>Sub-type</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lexical</strong></td>
<td>semantic change</td>
<td>Dutch: <em>winkel</em> (§2.2)</td>
</tr>
<tr>
<td></td>
<td>facet</td>
<td><em>book; window</em> (§2.3)</td>
</tr>
<tr>
<td></td>
<td>polysemy</td>
<td><em>school</em> (§2.2); <em>child</em> (cf. Koch 2001:223); <em>klateren</em> (§2.2 &amp; 4.7); <em>-erei</em> (§3.1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>rabbit</em> (§2.2 &amp; §3.3); <em>coffee</em> (§3.3)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>lexicalised convention of use</td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>Picasso; Goethe; London</em> (§2.2)</td>
</tr>
<tr>
<td><strong>Contextual-semantic (discourse)</strong></td>
<td>referent-oriented</td>
<td><em>ham sandwich; ulcer; plume</em> (§2.1)</td>
</tr>
<tr>
<td></td>
<td>zone activation</td>
<td><em>wash the car</em> (§2.3); <em>the dog bit</em> (§2.3); <em>tying shoes</em> (cf. §4.3)</td>
</tr>
<tr>
<td></td>
<td>sense-oriented</td>
<td><em>jour fixe</em> (§2.3, Koch 2001: 206); <em>X verstummt Y</em> (§2.3, Koch 2001: 210)</td>
</tr>
<tr>
<td><strong>Pragmatic-propositional</strong></td>
<td>speech act</td>
<td><em>could you close the window</em> (§2.4)</td>
</tr>
<tr>
<td></td>
<td>propositional</td>
<td><em>the shops are dark</em> (§2.4)</td>
</tr>
<tr>
<td></td>
<td>predicational</td>
<td><em>being able to finish; had to stop</em> (§2.4)</td>
</tr>
<tr>
<td><strong>Grammatical-semantic</strong></td>
<td>metonymically used anaphors/pronouns</td>
<td>he’d pick up any bottle that was on the bar and drink <em>it</em> (§4.6)</td>
</tr>
<tr>
<td></td>
<td>predicative m./argument slot</td>
<td>begin/enjoy <em>a book</em> (§5.2)</td>
</tr>
<tr>
<td></td>
<td>LM DO-roles</td>
<td>heal <em>a patient/a disease; serve a person/an order</em> (§5.3)</td>
</tr>
</tbody>
</table>

Table 1: Types of metonymical transfers
polysemy pattern (as in this classification), while others see it as a mere convention of use leading to interpretational shifts in a context.

An example for standardised conventions of use in Table 1 is the metonymical use of names of artists and cities. Such metonymical interpretations do not directly belong to the lexical content of the proper name. Rather, they should be considered conventions of use stored on a lexical level. Since most conventions of use are habitualised referring patterns, it will not be at all surprising that they exist in a continuum with contextual-semantic metonymies, as is indicated by dotted lines in Table 1.

Contextual-semantic metonymies depend on the discourse or direct context. They can, for instance, be occasional, referent-oriented metonymies. Apart from a shift in reference, context can also focus upon a particular aspect of a referent (as in the case of zone activation) or even shift an abstract concept (the sense-oriented contextually shifted metonymies). Although context naturally also plays a crucial role in finding the right interpretation of lexicalised metonymies, the contextual-semantic metonymies only exist within context. This is caused by their ad hoc nature or by their lexical stability, as for zone activations.

The context and situation is also important for pragmatic metonymies. Pragmatic metonymies could affect the interpretation on speech act level or more generally lead to a re-interpretation of a proposition itself. Propositional metonymies can also occur on the basis of a re-interpretation of a predication. This illustrates that these high-level metonymies interact with the grammatical level.

The grammatical level of interpretation concerns the linguistic structure of words and sentences. This is the most complicated level of metonymical conceptual shifts, because grammar (i.e. linguistic form) and semantics meet here. Effects on the syntax-semantics interface show by definition that linguistic levels interact with each other.

Examples of metonymy operating on the syntax-semantics interface are sentences in which grammatical elements such as pronouns or anaphors are used to refer to antecedents that can only be picked up in a discourse metonymically. In order to be able to do this, one has to have semantic-lexical as well as grammatical knowledge. Semantic and syntactic knowledge is also necessary for metonymical transfers which Stallard has labelled predicative metonymies (Stallard 1993). Predicative metonymies are metonymical transfers of a predicate’s argument slot. These metonymical shifts belong to a grammatical-semantic level, given that argument structure is in general somewhere in between syntax and the lexicon.

Nunberg describes a similar phenomenon as Stallard’s predicative metonymy. However, I have rejected the idea that his examples should be analysed in this way. In general, there are two problems with Nunberg’s analysis. First of all, the tests that he uses to detect this type of metonymy, such as anaphors and co-predication, are highly problematic. Nunberg’s argument based on these tests that the predicate rather than the nominal phrase is metonymical runs contrary to our intuitions in

90 These are therefore also called generalisation about the lexicon instead of in the lexicon (cf. footnote 31).
some cases. I have shown that a predicate transfer is therefore not particularly plausible for these examples. The results of the tests are not only counter-intuitive, but different tests also turned out to contradict each other. Furthermore, Nunberg believes that there are even cases in which both analyses, i.e. sense transfer of verb or noun, are possible.

Although these claims have been correctly criticised (cf. Kleiber 1999; Kleiber 2007; Waltereit 1998), we must make sure we do not throw the baby out with the bathwater: For most examples, a sense transfer account reflects a much more precise semantic analysis (cf. also Blank 1997: 101; Koch 2001: 218; Koch 2004: 20) than the semantically implausible direct referent transfer. Because metonymy is a conceptual phenomenon, it can never lead to a direct referential shift but only to interpretational shifts, i.e. transfers in corresponding concepts. Apart from the fact that a sense transfer account gives a much better explanation for verbal inflection phenomena and the semantics of surrounding words with referential metonymies (cf. Sag 1981; Nunberg 1996), a sense transfer account of metonymy is needed in order to explain how different linguistic levels can be affected by metonymy. Metonymical transfers explain how interpretational shifts can not only occur on a semantic level (be it contextual or lexical) but also on a pragmatic level and even on the linguistic layer in which grammar and semantics meet. The general mechanism is the same in each case. But even within this plea for a sense transfer account, Nunberg’s examples of predicate transfers could simply be treated as nominal sense transfers (on a lexical or contextual level).

A second problem is that Nunberg’s description of predicate transfers differs slightly from Stallard’s predicative metonymies. Nunberg’s description applies to metonymically interpreted verbs. Verbs which have a metonymical interpretation could be metonymical polysemous ones or they could get a context-dependent reinterpretation, but both types are different from real predicative metonymies. Predicative metonymies should neither be described as transfers of the property expressed by the predicate nor as metonymical re-interpretations of a specific argument itself, but rather they should be considered metonymical transfers of the predicate’s argument slot, which is based on the contiguity relation between its possible fillers (i.e. its the possible direct objects). The predicate and the nominal phrase appear to be interpreted literally, but only the combination of the two could be called metonymical.

Basing myself on Stallard’s suggestions, I have discussed two specific instances of metonymies of this types, which really affect the predicate’s argument slot. These are instances of so-called logical metonymy (LM) and examples of metonymy affecting semantic roles. These two types of predicative metonymy both affect the qualitative type of an argument. Predicative metonymies could therefore also be characterized as metonymy-induced argument shifts of a qualitative nature (cf. Brdar-Szabó & Brdar 2004: 329, 332).

Interestingly, these types of argument slot transfers primarily occur in direct objects. Although Pustejovsky almost solely discusses LM in direct objects, he
indicates that comparable shifts occur in subjects (Pustejovsky 1995: 53ff). Other subject-examples similar to Pustejovsky’s direct object LM are discussed by Horacek (1996: 121, 125). Similarly, non-eventive contiguity shifts, i.e. metonymies affecting semantic roles, also occur in subjects, i.e. as non-eventive metonymical subject changes (cf. Carlberg 1948; Waltereit 1998: 70ff; Waltereit 1999: 240-241). However, the largest amount of work by far in the field of logical metonymy and semantic role metonymy discusses combinations of verbs and direct objects. I will label these two types of predicative metonymies, which are the main topic of this dissertation, “metonymical object changes” (MOCs). This term is based on tags used in Dutch and German dictionaries, which I will discuss in detail in the next chapter.

91 As indicated before (cf. footnote 81), sometimes nouns combined with certain prepositions or even adjectives have also been linked to logical metonymy (cf. e.g. Godard & Jayez 1993: 170; Horacek 1996: 122; Pustejovsky 1995: 127ff). I will not discuss such phenomena in this dissertation.
IV. METONYMY AND DUTCH AND GERMAN LEXICOGRAPHY

1. Metonymy and lexicography

Chapter II opened with the remark that traditional grammarians and lexicographers were the first to recognize the non-literary nature of metonymy. This shows that their linguistic insights were ahead of their time. In this chapter I will show that dictionaries support some of the theoretical insights I discussed in chapter III. Therefore, insights exhibited in dictionaries deserve to be taken into account in metonymy research.

The present chapter is structured as follows. Section 2 will show that dictionaries can be used to support the disentanglement of the different types of metonymies set out in chapter III. This previous chapter, which discussed the different ways in which metonymy affects language, in fact made use of examples taken from dictionaries. I will demonstrate that some traditional Dutch dictionaries in particular incorporate almost every type of metonymy (as set out in the classification in the previous chapter), i.e. every conventional metonymy on word or phrase level. Section 3 will show in more detail how dictionaries explain complex metonymies, such as predicative metonymies. This section will show that the labels used for predicative metonymies is in line with linguistic studies. Section 4 will discuss the complicated relationship between predicative metonymies and verb meaning. Again, it will be demonstrated that dictionaries parallel theoretical studies. Section 5 will discuss the reasons why direct objects are extremely sensitive for metonymy. This section clarifies the motivation for the focus of this study on predicative metonymies in direct object position. Section 6 will present some conclusions.

2. Metonymy in Dutch and German dictionaries

2.1 Metonymically tagged examples in Dutch and German dictionaries

The Dutch and German lexicographical tradition has used metonymy for a long time. Even the first attempts to compile a complete monolingual dictionary already make use of the notion “metonymisch” (‘metonymical’) to explain certain linguistic phenomena. Examples are the nineteenth-century dictionary of the Grimm brothers, das Wörterbuch der deutschen Sprache (DWB), or Adelung’s Versuch eines vollständigen grammatisch-kritischen Wörterbuchs der hochdeutschen Mundart, with a tradition dating back to the end of the 18\textsuperscript{th} century (Adelung et al. 1811; first
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version 1774-1786). Dutch dictionaries, such as the historical Woordenboek der Nederlandsche Taal (WNT) (1882-2001) or the contemporary Van Dale 2005 are even richer resources for metonymical material. In this section it will become clear that linguistic phenomena tagged as metonymical are highly diverse and support the classification of metonymical influences on language set out in the previous chapter.

First of all, the label “metonymisch” (‘metonymical’) is frequently used as a label to classify metonymical polysemy. Examples can be found in the DWB-entries Tisch (‘table’), Traube (‘grape’) or Goldschmiedwerk (‘work of a goldsmith’). Tisch metonymically denotes ‘dinner’ or ‘food’ and Traube metonymically refers to wine. In a similar way, Goldschmiedwerk does not only refer to the craft of a goldsmith, but can also refer metonymically to the product of this craft, such as a piece of jewellery.

An example of labelled metonymical polysemy in the Dutch WNT is the word kroon (‘crown’). This word can metonymically denote the wearer of the crown (i.e. the king) or refer to the royal power on a more abstract level (cf. WNT entry kroon under meaning 2 and 3 respectively). Both meanings are classified as metonymically related to the primary ‘headdress’-meaning. Van Dale gives the same description for kroon as the WNT with explicit metonymy tags. Another example is klooster (‘monastery’). According to the WNT, this word metonymically refers to the monastery administration or to the people living in the monastery (both meaning 4). The entry abdij (‘abbey’) in Van Dale shows a similar metonymical polysemy. Abdij not only refers to the abbey itself as a foundation or an organisation, but also metonymically to the buildings. Van Dale even provides an example that Nunberg considered to be dense metonymy: The word krant (‘newspaper’) not only denotes the magazine but also metonymically refers to the producing company.

The label “metonymisch” is not only used for metonymical meanings of a word: Certain fixed expressions can also be considered metonymical. In Van Dale’s entry boterham (‘slice of bread’), the idiomatic expression een dikke boterham verdienen is classified as metonymical. The expression literally means ‘earning a large slice of bread’ and can be translated as ‘earning a very good salary’. The expression thus exhibits a RESULT-SOURCE metonymy (and additionally a pars-pro-toto metonymy, because one buys more than just slices of bread). This metonymical interpretation is inherent to the combination with verdienen (‘to earn’): It turns out to be difficult to find another appropriate context to use een dikke boterham for ‘a good salary’ (cf.

92 Adelung’s dictionary is often considered to be the oldest German dictionary, although this is not strictly speaking true: In 1691 a dictionary by Kaspar von Stieler had already been published under the title Der Teutschen Sprache Stammbaum und Fortwachs oder Teutscher Sprachschatz. One of the first lexicographical works of Dutch are the Dutch-Latin dictionaries compiled by Cornelius Kiliaan in the 16th century.
93 Cf. example 2 in chapter II.
94 It is generally known that Van Dale often follows the WNT, since a lot of Van Dale’s material and entries are based on the WNT (cf. Geeraerts & Jonkers 2007 or Moerdijk & Tempelaars 1992).
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also Sweep 2009a: 88 footnote 8). In a comparable way, the WNT describes the fixed combination kerk en kluis (‘church and hermitage’) as metonymically referring to religion (cf. WNT entry kluis under meaning 1).

It is also possible that only specific uses of a word in a certain context can be considered metonymical. Consider in this respect the third meaning in the entry deur (‘door’) in Van Dale.

**deur** 3. (in ‘t bijzonder) deur die toegang tot de woning verleent

synoniem: huisdeur

(metonymisch) in de deur staan op de drempel van het deurkozijn staan

[‘*door* 3. (specifically) door which provides access to a house; synonym: front door [lit.: “house-door”]; (metonymical) standing in the door standing on the doorstep of the door frame’] (Van Dale 2005 [CD-ROM]: entry deur; my translation)

In the interpretation of **deur** (‘door’) as a ‘front door’, the word can be used metonymically as the opening. This is not a different meaning but rather a metonymical interpretation. It could even be regarded as a facet of the word **deur**, similar to examples of a window as a sheet of glass and an opening (cf. above chapter III, §2.3; Cruse 2000: 115; cf. also Taylor 1989: 125).

Instances of metonymies that are used to denote concrete persons are sometimes also incorporated in a dictionary. Clear examples are entries of music instruments in Van Dale. In the dictionary entry *viool* (‘violin’) or *fagot* (‘bassoon’) we find the contiguity pattern **INSTRUMENT-PLAYER OF THE INSTRUMENT**. The first meaning is the instrument itself. The second meaning describes that the words *viool* and *fagot* can also be used to denote a player of those instruments. Illustrations of comparable interpretational shifts, which follow slightly different contiguity patterns, can be illustrated by Dutch words in Van Dale, such as *babyface* (a loan word from English) for a person with a babyface, *bajonet* (‘bayonet’) for a soldier or *vetkuif* (‘greased quiff’) for a person with a greased quiff.96

A subtle difference between these referent-oriented metonymies and concept-oriented metonymical polysemy can be illustrated by comparing *bajonet* and *vetkuif* with *kroon*. Although *kroon*, just as *bajonet* and *vetkuif*, is based on an **ATTRIBUTE FOR PERSON-contiguity**, it is not just referent-oriented: *Kroon* is not only used to refer to a specific king, but metonymically denotes the concept of a king in

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95 The same metonymy can only be found in related sayings, such as *brood op de plank* (lit.: “bread on the shelf”, meaning ‘having enough money for buying food’) or *zijn boterham verdienen met...* (‘to earn one’s daily bread with ...’). This fact is interesting, since normally only metaphors lead to a cluster of similar expressions, because a metaphor causes that “a whole schematic structure [...] is mapped onto another whole schematic structure” (Lakoff & Turner 1989: 103, cf. also Lakoff & Johnson 1980).

96 The WNT incorporates similar but rather old-fashioned examples, such as *knevelbaard* (‘type of moustache’) or *kornet* (‘traditional type of hat for females and housemaids’), which also metonymically refer to persons with these attributes.
In addition to this, *kroon* can even refer to royal power in a metonymical way. This example shows that the boundaries between referent-oriented and concept-oriented metonymies are fuzzy.

These examples also illustrate that comparable metonymical shifts occur with different lexical items: *viool* and *fagot* may both denote musicians by mentioning their instruments, *vetkuijf* and *babyface* both denote persons with reference to their appearance. Similarly *school* and *klooster* both include contiguous meanings of persons and buildings. Contiguity-based meaning conventionalisations apparently occur independently of individual lexical items. Although dictionaries do not incorporate, for instance, the ‘musician’-meaning in the entries of all instruments (cf. Moerdijk 1993), it is always possible to refer to a musician by mentioning the instrument in a discourse (cf. Koch 2004: 27). For some instruments referring to the musicians is simply more common than for others. Metonymical connections, such as ATTRIBUTE FOR PERSON, can therefore be seen as a habitualised pattern or a lexical rule (cf. above chapter III, §2.2). Only the common conventionalised metonymical senses must be given in a dictionary.

Lexicalisation patterns can be restricted, as is the case with grinding. Lexicalised meanings which are based on the process of grinding have likewise been incorporated in Dutch dictionaries. The Dutch WNT, for instance, describes the meaning of *konijn* (‘rabbit’) as metonymically referring to the meat or the fur (cf. chapter III). Van Dale also provides examples of grinding, such as in the entry *zilvervos* (‘silver fox’). Apart from the animal or the breed of fox, the second metonymical meaning is the fur of this animal. As I discussed in the previous chapter, these conceptual shifts can be accompanied by grammatical effects. The shift in meaning from an animal or breed to the meat or the fur, for instance, is accompanied by differences in the use of determiners and plurals.

These grammatical effects can be even stronger for other metonymical meaning transfers. An example of metonymical polysemy which is accompanied by a grammatical effect can be found in the dictionary entry of the numeral *tien* (‘ten’) in the WNT. The numeral has a metonymical meaning referring to some token of the number (i.e. ‘X’ or ‘10’) or to ‘a domino or a playing card with the number ten’ (meaning B). In these two meanings, the word *tien* is a noun referring to an object instead of a numeral. In contrast to the examples of grinding, this results in a grammatical change. In its metonymical sense the numeral *tien* can occur with a determiner and it can, as explicitly described by the WNT, be pluralized (*viz. tien*, ‘tens’).

The same issue can be illustrated with the old-fashioned word *kornet* in the WNT (cf. previous footnote). This word is said not only to refer metonymically to a specific woman wearing it, but also to women in general.

The opposite metonymy following a MATERIAL FOR OBJECT-contiguity is also reflected within dictionaries. Illustrative are Van Dale’s *fluweel* (‘velvet’) for velvet pillows and *blik* (‘metal’) for cars, and in the WNT *carbon* (‘carbon, pressed coal dust’) for carbon paper and *celluloid* (‘celluloid’) for a reel of film (which has in a similar way been incorporated in Van Dale).
Grammatical effects caused by metonymical polysemy can even better be illustrated by the word *aubergine* (‘aubergine / egg plant’). The dictionary entry in Van Dale describes this word as metonymically denoting the colour of the egg plant, that is ‘aubergine purple’ (meaning II.1). The vegetable is grammatically feminine (*de aubergine*), but the colour is either an adjective or a noun and has, as a nominalised adjective, neuter gender in Dutch. The colour name should therefore be referred to as *het aubergine*.

It could be argued that these grammatical effects are caused by a morphological conversion. For *tien* this is a conversion from numeral to noun. For *aubergine* the morphological conversion is even more obvious, since colour names do not only have neuter gender, but are even primarily used as adjectives. Therefore the metonymical shift from the number to the playing card or from the vegetable to the colour does not only seem to be accompanied by a shift in determiner but also by a shift in word class. These possible conversions are, however, clearly side-effects of the conceptual shifts: Even though these metonymies are paired with grammatical effects, they do not crucially differ from metonymical polysemy or other sense transfers within a grammatical word category.99

The example of polysemy occurring in the numeral *tien* furthermore supports the view that metonymical sense transfers are not limited to nouns only, but that words belonging to all parts of speech can in fact be metonymically transferred (cf. Koch 2001: 220; Koch 2004: 29). Metonymically polysemous verbs were discussed in chapter III, §4.7. Examples are *klateren* under meaning 1.b in Van Dale or *kuipen* (I) under meaning 2 and *tikken* under meaning 5 in the WNT, which are all marked as metonymical meanings (cf. above chapter III, §4.7).

However, in many verb entries the label “metonymisch” (‘metonymical’) does not denote a metonymical meaning of the verb, but applies to a metonymically interpreted argument that often occurs with that verb. Consider the dictionary entry of the verb *lesen* (‘to read’) in the DWB under meaning 4.i):

„häufig wird bei lesen metonymisch der Verfasser statt seines Werkes genannt“
[‘with *lesen* (‘to read’) the author is often metonymically used instead of his work’]

(DWB: entry lesen, meaning 4.i), cf. http://germazope.uni-trier.de/Projects/WBB/woerterbuecher/dwb/wbgui?lemid=GA00001; my translation)

In the historical WNT, exactly the same description can be found: With respect to *lezen* (‘to read’) the WNT tells us in its dictionary entry (published in 1916):

99 These examples thus again clearly illustrate the issue of whether metonymy can cause conversions, as discussed in chapter III, §3.1-3.2: Even if metonymy could lead to a conversion, as seems to be the case for *aubergine*, this is by definition a side effect of the conceptual shift or sense transfer.
“Metonymisch met den naam van den schrijver als object”
[‘Metonymically with the name of the author as [direct] object’]
(WNT: entry lezen, meaning 4,
http://www.wnt.inl.nl/iWDB/search?actie=article&wdb=WNT&id=M037033&lemmodern=lezen; my translation)

These dictionary entries refer to a habitualised use of the contiguity pattern AUTHOR FOR WORK (cf. Waltereit 1998: 27). Interestingly, by incorporating these examples in the verb entries, the dictionary implicitly stresses the important role of the verb in metonymical interpretations of a noun: The verb determines the context, and selection restrictions of the verb directly help to interpret the metonymical argument (cf. Waltereit 1999: 235).

In Adelung’s dictionary the label “metonymisch” occurs almost exclusively in verb entries. No less then 101 out of the 104 dictionary entries in which the word metonymisch occurs as a lexicographical tag are verbs. In the three other entries, i.e. ab (‘off’), aus (‘out’) and die Ader (‘the vein’), a verb is still involved in the metonymy, because the label “metonymisch” is applied to combinations of these lexical items with verbs. Furthermore, Adelung applies the notion of metonymy to highly specific examples. An illustration is the following example:

[‘mow (lit.: “off-mow”), verb. reg. act. cut off with the scythe. To mow the corn, the grass. Metonymic, to mow the pastures, the field’]
(Adelung: entry abmähen cf.
http://lexika.digitale-sammlungen.de/adelung/lemma/bsb00009131_3_0_551; my translation)

The notion of metonymy in Adelung’s dictionary differs from the use in other dictionaries. In contrast to Grimm’s lesen-example, the direct object, the ‘pastures’ or the ‘field’, can be literally conceptualised in combination with to mow (lit.: “off-mow”). In fact, this literal conceptualisation of the direct object is possible in all of Adelung’s examples. The tag “metonymisch” does therefore not seem to refer to a direct object that has to be interpreted in a non-literal way, according to a lexicalised contiguity pattern. It is, however, also implausible that the label “metonymisch” is intended to denote a second, metonymical meaning of the verb, since Adelung incorporates it in a single meaning description of one specific action expressed by the verb (cf. Sweep 2010b or §4 below). Rather it is the case that the type of the direct object in combination with the verb has been shifted. In other words, the

100 Sometimes the same contiguity pattern can also be regarded by lexicographers as a lexicalised meaning of a nominal entry, cf. Van Dale’s entry auteur (‘author’), which in its plural form metonymically can mean ‘literature’ (illustrated by the example reading French authors).
metonymical transfer affects the direct object slot. Adelung’s metonymical verbs therefore fit the idea of predicative metonymies perfectly (cf. chapter III, §5).

This example of *abmähen* is often connected to the term “Objektsvertauschung” (‘object change’) or “Objektsverschiebung” (‘object shift’) by German linguists and German lexicographers (Reichmann 1989: 110; Carlberg 1948: 27, 39; DWB; Oksaar 1984). This notion in Dutch, i.e. “objectsverwisseling”, is also used in dictionaries, as can be seen in the entries for the Dutch equivalent of *abmähen*, i.e. *afmaaien*, in Van Dale and in the WNT.

**afmaaien**

1. (mbt. gras, koren enz.) met zeis of sikkels langs de grond afsnijden (met objectverwisseling) een akker, een stuk hoiland afmaaien het daarop groeiende koren, gras maaien

[‘mow (lit.: “off-mow”)’] 1. (with respect to grass, wheat, etc.) cut off with a scythe or sickle close to the ground; (with object change) to mow a field, a hayfield; to mow the wheat, the grass growing on it’

(Van Dale 2005 [CD-ROM]: entry *afmaaien*; my translation)

Van Dale speaks of “objectsverwisseling” (‘object change’) and the WNT similarly describes the shift as “verwisseling van object” (‘change of object’). The dictionary entries tagged as “metonymisch” by Adelung consistently correspond to examples of “objectsverwisseling” in Van Dale and in the WNT. Prototypical examples marked as cases of object change are the Dutch and German equivalents of English *pack* and *unpack* [Dutch: *pakken, inpakken, ompakken, afpakken, uitpakken*; German: *packen*], which can be combined with the luggage as well as with the location;
unload [Dutch: afladen, ontladen, lossen; German: ausladen, lösen], which can be combined with the goods or with the ship, lorry or truck carrying the goods; clear (up) [Dutch: afruimen, opruimen, uitruimen; German: aufräumen, ausräumen], which can apply to a location or the things in that location; beat out [Dutch: uitkloppen; German: ausklopfen], which can combine with dust or the dusty object; press / squeeze (out) [Dutch: persen, uitpersen, uitdrukken; German: ausdrücken, auskeltern, auspressen], which can take fruit or fruit juice as its direct object or sweep (out) [Dutch: vegen, afvegen, uitvegen; German: kehren, abkehren, auskehren ausfegen], which can be combined with dirt or the location in which the dirt is found. All these examples are illustrations of verbs whose possible direct objects, such as the locations and what is in the locations (the so-called locatum), seem both to be conceptualised and interpreted literally.

Comparable shifts are possible with subjects. In the entry for German ausschlagen (lit: “out-hit/out-strike”), Adelung applies the tag “metonymisch” to subjects three times. First of all, Adelung uses “metonymisch” when the subject of the verb is a person (with a rash) instead of the rash itself (i.e. “Er ist am ganzen Leib ausgeschlagen”). Secondly, the use of ausschlagen in the meaning of ‘to point’ is called metonymical in combination with a balance instead of the pointer of the balance as its subject (i.e. “Die Wage schlägt aus. Die Wage ausschlagen lassen.”). Thirdly, the verb ausschlagen can, in the meaning of ‘to sprout’, be metonymically combined with trees instead of the ir buds or branches as its subject. The last example is also incorporated in the WNT and Van Dale as an instance of “subjectsverwisselung”. For instance, the WNT tags uitlopen (lit. “out-walk”, ‘to sprout’) as allowing “subjectsverwisselung”. Van Dale uses the same label for a comparable shift between trees, buds and flowers under uitkomen (‘come out’).

Fully in line with Adelung, Van Dale defines objectsverwisselung and also subjectsverwisselung as specific instances of metonymy (Van Dale 2005: entries objectsverwisselung and subjectsverwisselung). I will therefore use the term Metonymical Subject Changes (MSCs) and Metonymical Object Changes (MOCs) for this type of examples. In section 3 of this chapter, I will analyse this in more detail and demonstrate why the descriptions of these object changes in the dictionary are perfect examples of predicative metonymies.

2.2 The spectrum of metonymies reflected in dictionaries

The previous subsection showed that Dutch and German dictionaries contain a lot of linguistically tagged material, often supported by authentic language examples. These examples can therefore be used for research on metonymy. Interestingly, all the different dictionary examples discussed in the previous subsection directly reflect the types of metonymy that were disentangled on a theoretical basis in chapter III. Theoretically distinguished types of metonymy are therefore also recognised as metonymical in the longstanding lexicographical tradition of the last three centuries. Table 2 provides an overview.
Layer | Type of metonymy | Tagged dictionary examples
--- | --- | ---
**Lexical** | sense/facet | **Tagged dictionary examples**
 | polysemy (sense-oriented) | *kroon*, *klooster*; *tien*, *tikken*; etc. (WNT) | *konijn* (WNT); *Goldschmiedwerk*; *Traube*, *Tisch*; *vetkuif* (Van Dale) | *konijn* (WNT); *Goldschmiedwerk*; *Traube*, *Tisch*; *vetkuif* (Van Dale)

**Discourse-semantic (habitualised)** | convention of use | AUTHOR FOR WORK: *lezen* (WNT) & *lesen* (DWB)
 | referent-oriented | *viool*, *fagot*, *babyface*, *bajonet*, *vetkuif* (Van Dale)

**Propositional** | idioms & sayings (fixed metonymies) | *een dikke boterham verdienen* (Van Dale); *kerk en kluis* (WNT)

**Grammatical-semantic** | predicative metonymy / argument place | labels used: ‘subjectverwisseling’; ‘objectverwisseling’; ‘metonymisch’ (WNT & Van Dale), ‘metonymisch’ (Adelung); ‘Subjectverschiebung’; ‘Objectverschiebung’; ‘metonymisch’ (DWB)

*Table 2: Types of tagged metonymies in Van Dale , WNT, DWB & Adelung*

This table includes almost all the types of metonymy as discussed in chapter III (cf. Table 1, p. 84). In fact, the only metonymical transfers that cannot be found in dictionaries are excluded for clear reasons.

A first type of metonymy that is not included in dictionaries are metonymies beyond word level, such as speech act metonymies (cf. above chapter III, §2.4). These are not incorporated because a dictionary gives the metonymical meaning of words, not of sentences. The only exception to this rule is idiomatic expressions and sayings. They can be found in dictionaries and are tagged as metonymical (cf. *een dikke boterham verdienen* in Van Dale or the fixed combination *kerk en kluis* in the WNT).

A second type that is not incorporated in a dictionary are discourse-dependent metonymies without lexical effects. This can be illustrated by the *ham sandwich* for ‘customer ordering a ham sandwich’ (cf. also Koch 2004: 27). However, some comparable referent-oriented metonymies are very common and they are therefore incorporated in nominal entries (cf. also García Velasco 2009: 5ff). The entries for *viool* (‘violin’), *fagot* (‘bassoon’), *babyface*, *bajonet* (‘bayonet’), or *vetkuif* (‘greased quiff’) in Van Dale illustrate this. These ways of referring to persons by their
attributes or properties are explicitly classified as metonymical meanings in the dictionaries. Other conventionalised contiguity patterns with default interpretational effects can be found in verb entries. I have shown, for instance, that in the German entry lesen in DWB, as well as in the Dutch entry lezen in the WNT (both meaning ‘to read’), the contiguity pattern AUTHOR FOR WORK, which often occurs in the direct object, has been incorporated.

These examples of metonymical sense or meaning shifts form a continuum from clear instances of nominal polysemy (such as kroon) to conventionally used contiguity patterns (as illustrated by lesen/lezen for AUTHOR FOR WORK), with examples such as fagot or babyface as in-between cases. Dictionaries even use metonymy tags for instances of a metonymical perspective within a meaning, as in the case of deur (‘door’). Examples such as these can be considered stepping stones to real polysemy (Taylor 1989: 124; cf. also chapter III example (13) on page 37).

Dictionaries thus clearly reflect theoretical linguistic insights. First of all, they show that some discourse-semantic or grammatical-semantic information cannot completely be excluded from the lexicon. The dashed lines between these linguistic layers in Table 2 illustrate this. Secondly, the metonymy tags are used for all kinds of lexical effects (ranging across real polysemy, referent-oriented contiguities leading to new senses, word facets and lexicalised contiguity patterns).

I have also demonstrated that dictionaries acknowledge that metonymical highlighting effects can be paired with grammatical effects, such as shifts in determiner or possibly even word class. The word aubergine is a clear example. At the end of section 1.2, I have demonstrated that traditional Dutch and German dictionaries even recognise fairly complex metonymies, classified as “metonymisch” or more specifically as “objectsverwisseling” / “Objektsverschiebung” or “subjectsverwisseling” / “Subjektsverschiebung”. The next section will investigate in detail how predicative metonymies are analysed by lexicographers.

3. A dictionary-based description of MOCs as predicative metonymies

3.1 Object changes and subject changes as instances of metonymy

It is fascinating that lexicographers as far back as the eighteenth century understood that, from a theoretical point of view, object changes could be metonymy-driven. As I showed above, this idea is fully in line with the insights of modern studies on alternations (cf. not only Koch 2001; Waltereit 1998; 1999, but also Capelle 2005: 339 or Dowty 2000: 126) and with studies on logical metonymy (cf. e.g. Pustejovský 1995; Verspoor 1997a). The labelling and explanation of these

101 The DWB uses the orthography Objektsverschiebung and Subjektsverschiebung.
argument alternations in dictionaries can therefore probably help us to gain some insight into the exact nature of the metonymy involved.

In the previous section, we saw that the label “metonymisch” could appear in an entry of a verb for three different reasons. First of all, the notion is sometimes applied to a metonymically shifted argument that often occurs in a non-literal interpretation with the verb in question (cf. lezen / lezen). Secondly, the tag “metonymisch” is used to indicate that the meaning of the verb itself is metonymical, i.e. interpreted differently based on a contiguity-relation with another possibly more basic meaning (cf. the Dutch verbs klateren, tikken, kuipen). Last but not least, the type of argument of a verb could be metonymically shifted (cf. abmühlen).

In examples of the last type, the verb and the argument could be regarded as being interpreted literally. Although this possibility sounds paradoxical, it is the type of metonymy that was referred to as predicative metonymy in chapter III, in line with the more recent work of Pustejovsky, Waltereit and especially Stallard. Predicative metonymy could best be defined as a shift in the type of argument, i.e. a shift of the direct object slot. In other words, the metonymy affects the combination of verb and direct object rather than the verb or object itself. This means that the metonymy affects the VP, rather than V or NP (cf. also Iwata 2005).

Adelung’s dictionary uses the label “metonymisch” very consistently, viz. almost exclusively for examples of this kind in which the argument can be interpreted literally and the verb does not have a metonymical meaning either. Virtually all instances of Adelung’s examples that he considers metonymical correspond to examples that are classified as “subjectsverwisseling” or “objectsverwisseling” in Van Dale and the WNT.

As also indicated in section 2 (subsection 2.1), similar terms exist in German, i.e. “Subjektsvertauschung” / “Objektsvertauschung” and “Subjektsverschiebung” / “Objektsverschiebung”. These terms should be literally translated as ‘subject / object change’ or ‘subject / object shift’. These notions are sometimes implicitly connected to metonymy, for instance by the description of relevant contiguity patterns (cf. Oksaar 1972: 146; Oksaar 1984: 178), and sometimes even explicitly (cf. Carlberg 1948: 24ff; Goebel 1997; Hundsnurscher 1986: 124-125). As I stated earlier, the connection between metonymy and subject or object change is also reflected in dictionaries: It is not only the case that many of Adelung’s metonymy-examples correspond with ‘subject changes’ or ‘object changes’, but Van Dale even defines subjectsverwisseling and objectsverwisseling as specific types of metonymy. Consider the following dictionary definitions:

subjectsverwisseling 1. (taalkunde) vorm van metonymie waarbij het bij een ww. verwacht onderwerp vervangen is door een aan de handeling in een andere functie gerelateerde constituent

‘subject change 1. (linguistics) type of metonymy in which the expected subject of a verb has been replaced by a participant that is related to the action in another function’ (Van Dale 2005 [CD-ROM]: entry subjectsverwisseling; my translation)
objectsverwisseling 1. (taalkunde) bepaalde vorm van metonymie: verwisseling van het oorspronkelijke object bij een werkwoord door een ander object (dat, naar de betekenis, lokaal, causaal of temporeel met het oorspronkelijke is verbonden)

['object change 1. (linguistics) specific type of metonymy: change of the original object of a verb by another object (which is, in meaning, locally, causally or temporally connected with the original object)'] (Van Dale 2005 [CD-ROM]: entry objectsverwisseling; my translation)

The brief definitions in Van Dale describe precisely that we are dealing with predicative metonymies: Only the type of argument has been changed on a metonymical basis. The Dutch and German labels “objectsverwisseling”, “verwisseling van object” and “Objektsvertauschung” or “Objektsverschiebung” thus refer to predicative metonymy concerning the direct object (MOCs).

Apart from the definition of the notion of objectsverwisseling as a specific type of metonymy, some predicative metonymies are directly marked as metonymical. The DWB for instance, classifies some predicative metonymies as instances of “Objektsverschiebung” but others as “metonymisch”. This can be illustrated by comparing lösen (‘to fire’) with träufen (variant of träufeln, ‘to drip’).

lösen b) einen schuss lösen, aus dem rohre abfeuern; und metonymisch ein geschütz lösen, kanonen lösen; ich löse das pistol auf einen.

['fire b) fire a shot, let off from the barrel; and metonymical fire artillery, fire cannons; I fired a gun at someone.’] (DWB: entry lösen; my translation)

träufen A. transitiv. 1) flüssigkeiten in tropfen fallen machen [...] 2) ‘beträufeln, mit tropfender flüssigkeit bedecken’; diese objectsverschiebung, durch die das ursprüngliche object zur instrumentalen bestimmung wird, erscheint seit dem 15. jh.

['to drip A. transitive 1) make liquids fall in drops [...] 2) ‘to sprinkle, to cover with dripping liquid’; this object change, which makes the original object an instrumental destination, appears from the 15th century on.’] (DWB: entry träufen; my translation)

Van Dale also sometimes uses the notions of “metonymisch” and “objectsverwisseling” for exactly the same shifts. This can be illustrated by the Dutch synonyms or near-synonyms afkauwen, afkluiven, afknabbelen, afknagen, afpeuzelen, afpluizen and afvreten. All these verbs denote variants of “to gnaw on / off (/to eat away)”. They can be combined with words referring to the objects that

are eaten away as well as with words referring to the objects that are gnawed on. In the cases of *afkauwen*, *afkluiven*, *afknabbelen*, *afknagen*, *afpeuzelen*, *afpluizen* Van Dale labels the latter possibility as “objectsverwisseling”, but in the case of *afvreten* the same shift with the same object-example is tagged as “metonymisch”. Adelung tags the equivalent shift in German with the verb *abnagen* as “metonymisch”, a tag he uses solely for object change. The WNT is also very consistent: Although the WNT does not include any shift for *afkauwen*, entries for the verbs *afkluiven*, *afknabbelen*, *afknagen*, *afpeuzelen*, *afpluizen* and *afvreten* include the term “verwisseling van object”.

In sum, the implicit and explicit connection between these shifts and metonymy illustrates that subject and object changes are regarded as metonymy-based. The examples given and the definition in Van Dale reflect the view that subject and object changes are predicative metonymies. In the next subsection, I will demonstrate the difference between predicative metonymies and other metonymies by analysing differences between the use of “objectsverwisseling” and of “metonymisch” in the WNT.

### 3.2 The difference between nominal metonymy and object change

The WNT is generally fairly consistent in its use of “objectsverwisseling” or “verwisseling van object”, but also uses the lexicological tag “metonymisch”. This points to a difference between the two, implying that “objectsverwisseling” must be a specific type of contiguity-based shift. Interestingly, the WNT sometimes uses both tags in one verb entry or for a single contiguity type. The use of these different terms can be compared in order to see why “objectsverwisseling” is a specific type of metonymy, i.e. an instance of predicative metonymy (cf. also Sweep 2009a).

In the verb entry for *villen* in the WNT, both labels, i.e. “metonymisch” as well as “objectsverwisseling”, are used (cf. also Sweep 2009a: 89ff). The label “objectsverwisseling” is used in the first meaning, which is defined as “van het vel ontdoen” (‘to take the skin off’). In this interpretation the verb is normally combined with a word denoting an animal, for example a hare: *een haas villen*. The verb can, however, also be combined with a noun denoting the skin of an animal: *de huid van de haas / de hazenhuid villen* (‘to strip the hare’s skin’). This combination is labelled “objectsverwisseling”.

The verb *villen* can also be used in the meaning described as “iemand te veel laten betalen of uitplunderen” (‘to let someone pay too much or to plunder someone’), just like the English expression *to skin someone*. Under this interpretation the verb can be combined with a location, such as a country or a city, instead of a person in direct object position. This locative object, which should actually be interpreted as the inhabitants of the country of the city, is classified as “metonymisch”.

The fact that within a verb entry one object shift is classified as metonymical, whereas the other is seen as an instance of metonymical object change, points to a difference between normal metonymies and MOCs. This difference can easily be
found: In the first example both elements, i.e. the hare as well as its skin, play a crucial role within the meaning of the verb, since one strips the skin from the hare (cf. also *abmähen* / *afmaaien*). The same is not true for the second example, because someone is fleeced of his money and the location does not play a direct role in this event. This is also reflected in the fact that the location in the latter example is really interpreted as the people living there. In the former example, the hare as well as the skin seem to be interpreted literally, which is possible exactly because they are both fundamental for the verbal meaning.

A comparable contrastive use of metonymy and MOC is sometimes applied to a single contiguity type. This can be illustrated with CONTAINER-CONTENT shifts. The use of “metonymisch” with the CONTAINER FOR CONTENT pattern is used in the WNT in *toedrinken* (lit.: “to-drink”, i.e. ‘to drink to someone / to toast’). Under meaning 1, the verb is combined with two arguments, a person and a drink, as in *iemand een wijnjje toedrinken* (lit.: “someone a wine to-drink”, i.e. ‘to raise a glass of wine [lit.: “a wine”] and drink someone’s health’). Very often, however, the drink is metonymically expressed by the container, as in *iemand een glaasje toedrinken* (lit.: “someone a glass to-drink”). The metonymy in the last example causes a very common re-interpretation of the direct object (*glaasje* for ‘drink’).

However, the same CONTAINER FOR CONTENT contiguity type is described as “objectsverwisseling” in a different verb entry in the WNT. This is the case with *omschenken* (lit.: “over/around-pour” for ‘to decant’ / ‘to pour something into something else’). The WNT dictionary entry tells us that in these cases the verb cannot only be applied to a liquid, but also to its container. The latter is classified as a case of “objectsverwisseling”.

The explicit WNT-descriptions of the objects with *toedrinken* on the one hand and with *omschenken* on the other clearly differ. In the case of *toedrinken*, it literally states that the direct object can be metonymically expressed by the container: “Ook metonymisch met den beker enz. als object” (‘Also metonymical with the cup, etc. as direct object’). In the case of *omschenken*, the entry only states that the verb is able to apply to the container. In this verb entry, an opposition is made between the verb applied ‘to something that is poured, viz. different drinks’ (“van iets dat geschenken wordt, t.w. verschillende dranken”) and the verb applied ‘to the vessels, in which the drinks that are poured are located’ (“van het vaatwerk, waarin zich de drank bevindt, die geschenken wordt”). In other words, the verb *omschenken* can be applied to drinks, but also to vessels.

This difference between the CONTAINER-CONTENT contiguity of *toedrinken* and *omschenken* parallels the difference between “metonymisch” and “objectsverwisseling” in the case of *villen*. In the context of *toedrinken* the container is conceptually implied with its content, but it is not directly involved in the activity expressed by the verb. In the case of *omschenken* on the other hand, the container is necessary for the activity of decanting liquid. Both the content and the container are crucial for the action expressed by the verb.

The question of whether a shifted direct object plays an independent role within the general meaning of the verb has crucial consequences for the interpretation of the direct object: The shifted direct object will only be interpreted literally, if it is...
directly involved in the verbal action. Therefore, rather than the direct object itself, it is the argument slot of the verb that has been metonymically transferred. For these cases, the label “objectsverwisseling” as opposed to “metonymisch” has been used by Dutch lexicographers.

It is possible to explain both types of metonymy as highlighting effects within a conceptual structure. In normal metonymies, the verb only has a supporting role, defining the context in which the metonymical re-interpretation occurs (cf. chapter II). In the example of *toedrinken*, for instance, the verb needs to be combined with a liquid. This verb supports the metonymical highlighting effect, i.e. the onomasiological expression of the container rather than the content, and therefore the semasiological re-interpretation of the container as liquid. For predicative metonymies, however, the verb crucially determines the conceptual structure in which the highlighting effect occurs (cf. Waltereit 1998; Waltereit 1999). The contiguity relation is of fundamental importance within this structure. Because the contiguity of the objects is based on the action expressed by the verb, only the combination of verb and object should be regarded as shifted. I will work this dictionary-based view out in detail in chapter VIII.

3.3 The continuum between nominal metonymy and object change

It is not easy to distinguish between MOCs and other types of metonymy. It is often difficult to identify whether an object is interpreted literally or not. Well-known diagnostic tests, such as co-predication or anaphoric reference, are problematic, as I showed in chapter III, §4.3-4.6. The idea that the object is not re-interpreted if it is crucially involved in the verbal action (the frame evoked by the verb) only helps to a certain extent, since we have to answer the question, how we know whether both possible direct objects are crucially involved in the action expressed by the verb.

The German verb *ausblasen* and the Dutch verb *uitblazen* (lit.: “out-blow”, ‘to blow (out)’) can be used to illustrate the fuzzy border between a metonymically re-interpreted argument and a real transfer of the predicate argument’s place. Adelung, who consistently uses the lexicological tag “metonymisch” for predicative object metonymies, such as MOCs, analyses *ausblasen* as follows:

*ausblasen* 1) Durch Blasen hinaus schaffen. Das Inwendige eines Eies ausblasen. Ingleichen metonymisch, ein Ee ausblasen.

[‘*to blow out* 1) Remove to the outside by blowing. To blow [lit.: “out-blow”] the inside of an egg. Likewise metonymically, to blow [lit.: “out-blow”] an egg.’] (Adelung; entry *ausblasen*, http://lexika.digitale-sammlungen.de/adelung/lemma/bsb00009131_3_3_3969; my translation)\(^{103}\)

\(^{103}\) In modern German “Ingleichen metonymisch” would be “desgleichen metonymisch” or “ebenso metonymisch”, i.e. ‘like wise metonymical’ or ‘in a similar way metonymical’.
The WNT, however, has a more complicated description for *uitblazen* (lit.: “out-blow”).

**uitblazen** 4. Door blazen (uit iets) verwijderen, wegblozen; uit deze bet. ontstaat met objectverwisseling de bet. 6). [...] 6. Door blazen leegmaken, leegblazen; door blazen zuiveren (van stof, kruit, e.d.), schoonblazen, doorblazen. [...] — Een ei (of meton. eierschalen) uitblazen.

['*to blow out* 4. Remove (out of something) by blowing, blow away; meaning 6) comes into existence on the basis of this meaning with object change [...] 6. Empty by blowing, to blow [lit.: “empty-blow”]; clear (of dust, powder, etc.) by blowing, to clean [lit.: “clean-blow”], blow through [...] — Blow [lit.: “out-blow”] an egg (or meton. eggshells)’] (WNT entry *uitblazen*; my translation)

Because this dictionary entry correctly reflects the linguistic complexity of the related senses of this verb, the description is a little confusing at first sight. It says that meaning 6 (‘empty by blowing’) is similar to meaning 4 (‘remove by blowing’). The description under 6 equals meaning 4 with MOC: In 6 the direct object slot is shifted, because the verb is applied to containers interpreted literally instead of to their contents. The relatedness of 4 and 6 is illustrated in 6 by the example *to blow* an egg (lit.: “to out-blow an egg”) and its metonymical connection with *to blow* an eggshell. Because it is ambiguous whether the word egg refers to the content or the shell, the difference between MOC (“objectverwisseling”) and metonymy (“metonymisch”) is blurred in these examples.

The study by Carlberg makes a similar observation with respect to the German equivalent of *to blow (out) an egg / eggshell* (Carlberg 1948: 23). Carlberg divides “Objektsvertauschungen” (‘object changes’) into “Objektsverschiebungen” (‘object shifts’) on the one hand and “Objektsverwechslungen” (‘object swaps’) on the other. Carlberg’s explanation of an ‘object shift’ (“Objektsverschiebung”) corresponds to a predicative metonymy. An object swap (“Objektsverwechslung”) would be a more common instance of metonymy, in which the interpretation of the noun is swapped (Carlberg 1948: 23).

Two different observations make it difficult to decide whether ein Ei ausblasen (‘to out-blow an egg’) is a predicative metonymy or not. First of all, a noun such as egg can denote the yolk and white, but also the shell. As I explained in chapter III (§2.3), this could be defined as a zone activation type of metonymy. Secondly, a verb such as ausblasen (‘to out-blow’) can be applied to contents as well as to containers. This can be illustrated by the phrase Wasserleitungen ausblasen (‘to blow out water pipes’), in which, strictly speaking, it is what is in the water pipes and not the water pipes themselves that is blown out. In other words, ausblasen allows MOC.

The combination of these two facts makes the analysis of a phrase such as ein Ei ausblasen very complicated. If the word Ei (‘egg’) in this phrase refers to the yolk, we are dealing with an object swap, i.e. a metonymy-based interpretation of the
noun. If, on the other hand, *Ei* (‘egg’) refers to the shell, the combination with *aussblasen* (i.e. *to blow* (out)) is an example of object shift. Thus, this example shows that in practice, as was also suggested by Carlberg (1948: 23, 88), the difference between object shifts (i.e. MOCs) and swaps (i.e. nominal metonymy) cannot always be determined. This example also shows how closely MOCs and nominal metonymies are related.

Interestingly, Dowty addresses the same problem almost half a century after Carlberg. Dowty labels sentences with a metonymical subject change in which a location occurs as a shifted subject “LS-sentences”, and he observes that for some CONTAINER-CONTENT examples “it is impossible to draw any well-motivated boundary between ‘container metonymies’ [...] and LS-sentences” (Dowty 2000: 126). This quote shows that Dowty has re-discovered the insights of Carlberg and of lexicographers of the early 19th century, in that it touches upon the idea that instances of “subjectsverwisselung”, and therefore in all probability also instances of “objectverwisselung”, should be seen in line with metonymy. Linguistic studies on this subject written in English hardly ever mention this idea (cf. e.g. Levin 1993). Dowty even explicitly discusses the option of regarding these direct object alternations as Nunberg-like predicate transfers (Dowty 2000: 26), i.e. more precisely as similar to Stallard’s predicative metonymies (cf. chapter III, §5).

It is important to note that Dowty does not claim that no boundary at all can be drawn between standard metonymical shifts and MOCs or MSCs. He only says, as does Carlberg, that in some examples no motivated boundary can be made. Dowty’s quotation and the example *een ei uitblazen / ein Ei ausblasen* show that the boundary between standard metonymical shifts and MOCs or MSCs is fuzzy by nature. The fact that object changes seem to form a continuum with more prototypical instances of metonymy fits their conceptual character. We have seen before that all types of metonymies seem to form one large spectrum of related semantic-conceptual shifts without clear-cut boundaries between them.

### 4. MOC, verb meaning and dictionaries

#### 4.1 MOCs and verb meaning: P-meaning vs. L-meaning

Another complicated issue is the question of exactly how predicative metonymies are interpreted. According to Carlberg, there are two possible analyses for MOCs: Either the direct object is interpreted metonymically, or the verb meaning must be shifted (Carlberg 1948: 26-27, 90). However, in concrete cases it is not always easy to decide which analysis applies, as was illustrated in the previous section by

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104 In the rest of his work, Carlberg therefore simply neglects the difference between the two (1948: 23 and seems to discuss “Objektsvertauschungen” as if they all are “Objektsverschiebungen”, i.e. MOCs (cf. Carlberg 1948: 28).

105 Dowty refers to a forthcoming article, which will discuss this topic in more detail, though unfortunately it does not seem to have been published.
Carlberg’s discussion of *ein Ei ausblasen*. Contrary to Carlberg’s explicit claim that either the verb or the noun must be reinterpreted, he does leave space for some kind of intermediate analysis. In fact, he explicitly states that MOCs have a double influence on the semantics of verb and noun: The meaning of the verb can be shifted by some multi-faceted interpretation of the noun, and as a consequence of this interpretational shift the noun is interpreted in one of its specific facets (cf. e.g. Carlberg 1948: 60, 79-80, 80-81). This sounds fairly enigmatic, but a concrete example will make clear what he means:

“[…] werden bei der Umdeutung z.B. des Ausdrucks *ein Glas eingießen* nicht ein, sondern zwei Elemente der Totalanschauung ausgewechselt, der Inhalt gegen das Gefäß, das Gießen gegen das Füllen.” (Carlberg 1948: 92)

[‘not one but two elements of the overall picture are swapped in the meaning reconstruction of, for example, the expression *ein Glas eingießen* (‘to in-pour a glass’), the content with the container and the pouring with the filling’ (my translation)]

This quotation shows that in the case of MOCs it cannot be said that either the meaning of the verb or the meaning of the noun has been reinterpreted but rather the combination of the two (cf. also Croft 1993). In other words, the combination of words or phrases can have a richer interpretation than the individual words themselves, because they are reciprocally dependent on one another. This is an old insight, which linguists often forget (or rediscover), as is also noted by Carlberg:

“Daß die Bedeutungen der einzelnen Wörter eines Gefüges bis zu einem gewissen Grade in gegenseitigem Abhängigkeitsverhältnis zueinander stehen, wußten bereits Paul und Stöcklein. Diese Tatsache wird wohl allgemein anerkannt, aber von den Bedeutungsforschern in der Praxis nicht immer genügend beachtet.” (Carlberg 1948: 91)

[‘Paul and Stöcklein were already aware of the fact that the meanings of single words in a phrase are to a certain extent in a reciprocally dependent relationship. This fact is generally known, but in practice not always sufficiently taken into account by semanticists.’] (Carlberg 1948: 91, my translation)

Carlberg furthermore suggests that with MOCs the phrases as such, i.e. the combination of verb and a certain type of direct object, refer to the same event (cf. also Moerdijk 1994: 139). Consider:

“In beiden Fällen deutet der Ausdruck nach wie vor auf einem im ganzen unveränderten Vorstellungskomplex hin, indessen die Betontheit der einzelnen Teilvorstellungen variiert.” (Carlberg 1948: 92)
In both cases [i.e. in combination with both types of objects] the expression refers, as before, to a single, complex construct of concepts. This complex whole is not changed itself, rather the single conceptual parts of it receive a different emphasis.} (Carlberg 1948: 92, my translation)

I agree with the view that in cases of MOC (and also in cases of MSC), the phrases as a whole (i.e. the VPs) generally refers to an unchanged, complex unity of concepts, however with a different perspective or focus on its parts (cf. also Iwata 2005).

However, most scholars claim that these verbs reflect two different meanings, when they are combined with different types of direct objects. In Russian linguistics, for instance, arguments shifts including cases of MOC are analysed as instances of regular polysemy (“reguljarnaja mnogoznačnost’”) (cf. Apresjan 1992: 240-249). Similar opinions are expressed in Anglo-Saxon linguistics by scholars who analyse instances of locative alternations, i.e. CONTAINER-CONTENT/LOCATION-LOCATUM MOCs (cf. e.g. Levin 1993; Pinker 1989; Rappaport & Levin 1988). There are two different reasons why polysemy is assumed in such shifts.

First of all, it is claimed that the combination of a verb with a certain direct object is interpreted in a holistic or completative way. This means that the DO must be wholly involved in the action expressed by the verb. Some scholars claim that whereas to load the car with boxes, for instance, implies that the car ends up totally filled with the boxes, the phrase to load boxes into the car only implies that boxes are loaded. In other words, it is assumed that alternations have different semantic implications (cf. Rappaport & Levin 1988: 19, 24). However, other scholars have shown that the holistic effect does not have to be connected with the meaning of the verb itself, because the holistic meaning is determined by many factors (such as definiteness of the direct object, cf. Schwartz-Norman 1976; Brinkmann 1995; Laffut 1998). In fact, the holistic interpretation occurs as a pragmatic effect: If a certain entity is used as a direct object, it must be totally affected by the verbal action. The pragmatic character is in line with the fact that not everyone (myself included for Dutch) has the intuition that a direct object always has to be affected totally (cf. Jackendoff 1990: 172ff for English and Olsen 1994: 217ff for German; cf. also the discussion on to pack a suitcase in chapter VI, §4.3).

In addition to this, scholars claim that a verb has two different meanings, depending on the type of direct object. The verb to load, for instance, is said to express something like ‘to put by means of loading’ if combined with some content, but it is said to mean something like ‘to fill’ when combined with a container.

However, even Apresjan discusses the possibility of considering these examples as instances of monosemy (cf. also Willems 2006: 591): According to Apresjan “there are linguistic facts which can be described fully and without contradiction in two ways - as facts of lexical polysemy and as facts of monosemy.” (1974b: 15). Thus, for examples of regular polysemy, including MOCs, there are “two theoretically conceivable descriptions”, of which a polysemous description is said to be preferred (Apresjan 1974: 16). In this section, ponderous arguments for the monosemic solution will be presented.
However, is not the shift made possible precisely by the fact that the semantic properties of *to load* include both meaning aspects simultaneously?

In line with this rhetorical question, Iwata explicitly rejects the view that the only two possible options are polysemy of either the verb or the noun (Iwata 2005; Iwata 2008). He distinguishes L-meaning and P-meaning. L-meaning is an abbreviation for lexical head level meaning. It refers to the general lexical meaning of the verb, i.e. the general frame or scene which the verb evokes. P-meaning, i.e. phrase level meaning, is the meaning of the combination of verb and direct object (the meaning on VP level). The difference between L-meaning and P-meaning provides a very precise account of what verb meaning actually is.

It is difficult to explain what the meaning of a verb refers to. From a conceptual point of view, all verbs that allow MOCs denote actions. Actions cannot, however, be conceptualised without their participants. A verb that denotes a specific action therefore also expresses a certain relation between objects, which are the participants of the action, and which correspond to the arguments of the verb.

If MOC is claimed to change verb meaning, this assumed polysemy must be connected to the relation between a verb and its participants. Waltereit therefore speaks of verbal polysemy concerning semantic roles; cf. “Verbale Polysemien, die sich auf Aktantenrollen beziehen” (Waltereit 1998: 56). Although he claims that the semantic roles of a verb are considered to be a “part of the verb’s lexical content” (Waltereit 1999: 235), he speaks at the same time about a contiguity effect within “the frame embodied by the respective verb” (Waltereit 1999: 238-239). However, if a verb evokes a particular frame, this could be considered its lexical meaning (cf. Sweep 2010b).

The question can therefore be asked what Waltereit actually means, when he says that MOCs lead to verbal polysemy. Especially, since it remains vague what the semantic roles of both possible objects actually are. As I explained in the chapter III (§5.3), both types of direct object are often considered patients or themes. When Waltereit speaks about “the respective verb’s frame” (Waltereit 1999: 238) or “the frame activated by the verb” (Waltereit 1999: 238), he implicitly refers to the single L-meaning of the verb. His polysemy rather seems to apply to the combination of verb and direct object, i.e. to the level of P-meaning.

In a similar way, Brdar-Szabó and Brdar make a distinction between lexical polysemy and grammatical-relational polysemy. The last term is defined as “the occurrence of several different argument-structures linked with a single predicative expression and presenting basically the same state of affairs from different points of view” (Brdar-Szabó/Brdar 2004: 324; Brdar 2007: 181). In my view, the term ‘polysemy’ is somewhat confusing in this respect, since it does not directly apply to several meanings but only to different grammatical-relational structures. Metonymical processes often induce changes in the grammatical-relational structures, which “may” but do not have to “correlate with lexical polysemy proper” (Brdar 2007: 183; Brdar-Szabó/Brdar 2004: 330). In the rest of this section, I will demonstrate that it is problematic for several reasons to claim that in cases of MOCs the lexical meaning of the verb changes.
First of all, the most fundamental meaning component, which is the action expressed by the verb (its L-meaning), does not change in most cases of MOC. The factual action performed by an agent and expressed by MOC-verbs such as den Tisch / die Teller aufräumen; de tafel / de borden opruimen (‘to clear the table / the plates’), den Zelt / das Sand auskehren; de tent / het zand uitvegen (‘to sweep the tent / the sand (out)’), den Text / das Papier abdrucken; de tekst / het vel afdrukken (‘to print the text / the page’), das Holz / den Feuer anzünden; het hout / het vuur aansteken (‘to light the wood / the fire’), Trauben / Wein keltern; druiven / wijn persen (‘to press grapes / wine’), Eier / Küken ausbrüten; eieren / kuikens uitbroeden (‘to hatch eggs / chicks (out)’), Rohr / Körbe flechten; riet / manden vlechten (‘to weave reeds / baskets’), Löcher / Socken stopfen; gaten / sokken stoppen (‘to darn holes / socks’), de spreker / de presentatie onderbreken (‘to interrupt the speaker / the presentation’) or het schrijven / het boek continueren (‘to continue writing / the book’) and so on is independent of the kind of object it is combined with.

Seem from this perspective, the verb clearly has only one lexical meaning. The verb meaning combined with the conceptually close connection between both relevant objects makes the MOC possible. The metonymical relationship, or the link based on reality, between ‘plates’ and a ‘table’, ‘wood’ and a ‘fire’ or ‘reeds’ and ‘baskets’, for instance, is endorsed by actions expressed by afruimen / abräumen / to clear, aansteken / anzünden / to light and vlechten / flechten / to weave respectively. Both possible direct objects are clearly related in reality, because of the fact that they are both crucial participants in the verbal action and because they form a conceptual unity or gestalt (such as a set table, a wood fire or wicker baskets).

Secondly, both possible direct objects (both thematic roles) are necessary for the action expressed by the verb. This poses, apart from the classification of both direct objects as patients or themes, a problem for the view that the thematic roles of the verb are actually changed by MOC, as claimed by Waltereit. With MOC allowing verbs, the semantic roles are the same in all direct object combinations. Only the expression of these roles (the argument realisation) is different.107

This could be compared with passive constructions, where the patient is expressed as a subject and the agent can be expressed in a by-phrase. In spite of the different syntactic forms the underlying thematic roles of the verb remain the same. Another parallel is transitive verbs that are used intransitively, such as in he is reading. Although no object is expressed in this example, it is conceptually implied and neither the ‘reading action’ nor the necessary participants are changed from a conceptual point of view. The same goes for MOCs.108 Since both possible direct objects are necessarily involved in the verbal action, it is doubtful whether the

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107 I would like to thank Wim Honselaar for exhaustively discussing this idea and possible parallel examples (cf. the next paragraph) with me.
108 Interestingly, the same parallel has been observed by Levin and Sells for object changes with particle verbs (Levin & Sells 2007: 4).
thematic roles are actually changed. Only the actual expression of the specific roles seems to be modified.\footnote{Therefore, even if one considers verbs to express relations (i.e. refer to sets of entities), still no real change applies. If two objects are contiguous to each other, the relation of the MOC allowing verb to one of them, implies that this verb also stands in a relation to the other. I will illustrate this below by means of the so-called logical test.}

On the other hand, it is indeed true that when a speaker shifts the direct object, the perspective on the event as a whole changes. However, this raises the question of whether this affects the meaning of the verb (L-meaning) or only the meaning of the combination of verb and direct object (P-meaning). In each case the agent performs the same action, in which both possible direct objects play a crucial role. The analysis that the use of a location-object leads to a locative meaning of the verb or that a verb combined with a created direct object leads to a creation sense of the verb, is wrong, because it projects the meaning of the object onto the verb where it need not (cf. also Willems 2006: 591).

The MOC and the new perspective can actually be seen as evidence of the fact that the verb has only one general lexical meaning. The verb meaning provides the necessary context or, in other words, the verb evokes the frame in which the MOC and the perspectivisation (cf. Koch 2001: 203; Koch 2004: 8) are possible. Interestingly, Waltereit’s and Koch’s analyses seem to be perfectly compatible with this view. Koch gives the French example 
\textit{chasser} as having two different ways of highlighting, i.e. two senses (‘chase’ or ‘chase away’), within one frame (Koch 2001: 203-204, cf. also Taylor 1989: 126-127). These interrelated senses must therefore belong to one general meaning (cf. Janssen 2003: 96). Waltereit defines some of the above examples of MOCs explicitly as frame-based alternations within “the frame embodied by the respective verb” (Waltereit 1999: 238-239). This shows that if metonymy can be treated as giving a different perspective on the same cognitive material or as a perspectivisation within a frame, the verb seems to evoke this particular frame. This frame therefore represents the single lexical meaning of the verb (i.e. its L-meaning). In the next sections, I will show that some well-known diagnostic tests and also dictionaries support this idea.

\subsection*{4.2 Polysemy tests}

There are various diagnostic tests we can make use of when we want to know whether a word is used in a single sense or whether it is polysemous. Three types of tests are generally used for this purpose: definitional, linguistic, and logical tests (Geeraerts 1993; Tuggy 1993). These tests are not watertight in any way: Sometimes different tests give different results and a single test sometimes reveals conflicting results across different speakers (cf. Geeraerts 1993, cf. also Wojciechowska-Bartkiewicz 2007). The tests can only be used in combination with each other and they can only be used as supporting evidence for polysemy or monosemy.\footnote{Cf. in this respect also Tuggy (1993: 277ff) who discusses these tests for the combinatorial possibilities in the direct object slot of \textit{to paint}.}
A linguistic test simply indicates whether an item is polysemous or not on the basis of its linguistic behaviour. Many linguistic tests make use of the semantic restrictions on the occurrences of a lexical item. So reduction is, for instance, well-known in this respect (cf. Geeraerts 1993: 229). If one could use and so is or and so did a lexical item is not polysemous. The problem with this test is that these paraphrases replace the VP as a whole. Given that they cannot be applied to a transitive verb without its object, this test cannot be used effectively for MOCs.

Tests that make use of anaphoric reference or coordination of predicates could also be regarded as linguistic tests. They can be used to test the interpretation of NPs. These tests and their limitations were already discussed in the previous chapter (III, §4.3-4.6). The use of anaphoric reference is problematic, since in cases of metonymy anaphors can be used to refer to related entities. In cases of MOC, coordination of different types of direct objects could be used to test whether the verb is polysemous or not. But as with all kinds of coordinations, this often does not make sense from a pragmatic point of view in cases of MOC (cf. chapter III, §4.6). Since there are pragmatic reasons to choose one object over another, it is difficult to find a single context in which both can simultaneously be used. This is, however, not impossible. Sporadically, coordination does occur, as illustrated in examples (1)-(3) (taken form the DWDS-corpus, from the ANW-corpus and from internet).

(1) Die Argentinier mußten es
the argentineans must it
mit einem Riesenarsenal an Raketen und Kanonen aufnehmen,
with a giant-arsenal on rockets and cannons on-take
die von Schiffen -[...]- gegen sie abgefeuert wurden
which from ships against them off-fired were

‘The Argentineans had to fight a huge arsenal of rockets and cannons, which were fired at them from ships.’

(2) Alle gaten, loszittende bepleistering, barsten en scheuren
all holes loose-sitting plaster cracks and gaps
worden voorafgaandelijk uitgekrabd
are in advance out-scratched

‘All holes, loose plaster, cracks and gaps should be scratched out in advance’

111 In fact, this is also the case for nominal metonyms. Consider, for instance, ??John and the ham sandwich are waiting for their checks; ?He read Langacker and some papers by Slobin; or ??a fleet of 100 sails and 20 rowboats. It should be remarked that I could not find internet or corpus examples of this kind.

(3) Als de kinderen iets willen doen wat ze leuk vinden, if the children something want do what they nice find
dan moeten ze eerst hun kamer en eigen spullen opruimen
than must they first their room and own stuff up-clear
‘If the children want to do something which they enjoy, then they should first tidy up their room and their own stuff’

In example (1) the German verb *abfeuern* (‘to shoot off’) is combined with an anaphoric expression (*die*), which is plural and must refer back to *Raketen und Kanonen* (‘rockets and cannons’). This is interesting, given that the cannons are used to shoot fire ammunition out of them, while the rockets themselves are really fired at the Argentineans. The anaphor therefore combines both types of direct objects with a single verb. In example (2), the verb *uitkrabben* (lit.: ‘out-scrape’) is simultaneously connected with the plaster that is actually scraped out as well as with the holes and cracks, which are the locations from which substances are scraped away. In a comparable way, the Dutch verb *opruimen* in example (3) is simultaneously combined with a location and with the things in a certain location. These are natural sentences and clear examples of coordination. Examples like these therefore support the idea that no real polysemy of the verb need to occur with MOCs (cf. also chapter VIII, §3, examples (10) and (11), p. 286).

The logical test also illustrates that we do not have to regard an MOC as causing polysemy. The logical test says that if a lexical item is polysemous, it must be possible to use “p but not p”. If a lexical item is not polysemous, this is impossible. In the case of MOCs, we can never use “p but not p”. If two objects are contiguously related, we cannot say that ‘someone baked a loaf of bread, but didn’t bake bread dough’, that ‘someone cleared the tableware, but didn’t clear the table’, that ‘someone loaded a car, but didn’t load things into the car’, or that ‘someone wiped the crumbs (off the counter), but didn’t wipe that counter’ nor the other way around. In general, not one verb allowing MOC with two contiguous objects allows the phrase “V-object₁ but not V-object₂” or “V-object₂ but not V-object₁”. In other words, the combination of a particular verb allowing MOC and a direct object always entails that this verb also applies to the other type of object. Therefore, if the verb expresses a relation with one object, it simultaneously denotes the relation with the contiguous one.

Linguistic tests and logical tests are purely diagnostic. A definitional test on the other hand is claimed to go beyond mere diagnostics (cf. Geeraerts 1993: 237). A definitional test simply claims that for a lexical item to be non-polysemous it should be possible to define it with a single paraphrase. There are, however, a few problems with this test.

First of all, when one paraphrases the meaning of a word, the object language is often described with the same or similar meta-language, which are both natural languages. Therefore, if two synonymous verbs allow the same MOC, one of them could always be used as a meaning description for the other. Suppose, for instance, that we could substitute one verb allowing MOC with another one that allows the same MOC. According to the test, this would indicate that both verbs are non-polysemous. But this would be a clear case of circular reasoning. The same polysemy can simply apply to both verbs (cf. also Geeraerts 1993: 252ff).

A second problem is that it is not always easy to give synonym paraphrases. So, although I do agree with Geeraerts that it is a pity that the definitional test is not taken into account more often (cf. 1993: 237), I also acknowledge that it is a complicated test to use. In order to avoid this problem, we could turn to the work done by lexicographers. If a dictionary incorporates an MOC within one single meaning description, it seems possible to describe the verb meaning by using a single paraphrase. This will support a monosemic analysis. If, however, a tendency can be found among lexicographers to describe MOCs with different descriptions as belonging to different meanings, this tendency clearly supports polysemy of the verb. In the next section I will therefore analyse how dictionaries incorporate MOCs (cf. also Sweep 2010b).

4.3 Meaning descriptions in dictionaries

MOCs, which are labelled in dictionaries, can be described and incorporated in different ways. We have already seen, for instance, that an object that is metonymically combined with lösen (‘to fire’) is considered to belong to one meaning description by the DWB, while the MOC with träufeln (‘to drip’) is incorporated as a new meaning in the same dictionary. These differences can also be found for the same verb-object combination across dictionaries; Whereas the entry for afmaaien (lit.: “off-mow”) in Van Dale gives a single meaning description independently of the type of direct object (just as Adelung’s abmähen), the WNT gives two different meaning descriptions for afmaaien.

The same can be observed in the definitions of afhalen (lit.: “off-take”, i.e. ‘to strip’), afharken (lit.: “off-rake”, i.e. ‘to clear by raking’), afgruizelen (lit.: “off-shatter”, i.e. ‘to break pieces off’) or afkammen (lit.: “off-comb”, i.e. ‘to comb’). The WNT states that the concept of separating one part changes to breaking up the entire object (cf. entry afgruizelen) or that the concept of taking away changes into the concept of disposal (cf. entries afhalen, afharken) or into the concept of cleaning (cf. entry afkammen). All these descriptions are connected to a difference that is made in the dictionary entry af.

af [...] e. Het verwijderen van iets kan beschouwd worden als eene wegneming, waardoor een voorwerp wordt ontdaan of gereinigd van hetgeen er van weggenomen wordt. Af duidt in een aantal ww. zulk eene wegneming
aan, welk begrip in dat van ontdoening of reiniging overgaat, wanneer […] verwisseling van object plaats heeft.

['off […]' e. The removal of something can be considered to be taking away, by which action an object is disposed or cleaned of whatever is taken away. In a number of verbs off refers to such a taking away, a concept which changes into disposal or cleaning, when MOC takes place.'] (WNT: entry af http://www.wnt.inl.nl/iWDB/search?actie=article&wdb=WNT&id=M002374&l Emmmodern=afmaaien; my translation)

This description of af (‘off’) as a particle seems to indicate polysemy. However, this description is in clear contrast with Adelung’s entry for ab (‘off’).

ab […] 3) der Begriff der Trennung oder Absonderung […], wie in abbeißen, abblasen, abpfücken, abbürsten, abstreifen, abschneiden u. s. f. wobey sich die Partikel ab so wohl auf diejenige Sache beziehet, welche angesondert wird, als auch metonymisch auf die, von welcher die Absonderung geschieht.

['off […] 3] the concept of separation or exclusion […], as in to bite off, to blow off, to pluck, to brush, to strip, to cut off [lit.: “off-bite”, “off-blow”, “off-pluck”, “off-brush”, “off-strip”, “off-cut”], etc., in which the particle off can be applied to the object that is separated, but it can also be metonymically applied to the object, from which something is separated.’] (Adelung: entry ab, my translation)

Rather than assuming a changed concept, Adelung states that the same concept is metonymically applied to an object (‘bezieht sich metonymisch auf’). This idea is even more clearly expressed in the case of aus (‘out’).

aus […] a) In dem ersten Falle stehet es für heraus […] wo es auch oft metonymisch derjenigen Sache begefügert wird, auf welcher die Handlung vorgehet, mit Verschweigung derjenigen, welche eigentlich in Bewegung gesetzet wird; z. B. den Hut ausbürsten, das Kleid ausklopfen, die ganze Schüssel ausessen, sich ausziehen, ein Ey ausblasen […]

['out […] a] In the first case, it signifies outside […], in which it is also often metonymically combined with the entity, which is actually put in motion; e.g. to brush a hat off (lit.: “the hat out-brush”), to shake a rug out (lit.: “the rug out-beat”), to eat up/to empty the whole bowl (lit.: “the whole bowl out-eat”), to undress oneself (lit.: “oneself out-pull”), to blow an egg (lit.: “an egg out-blow”)] (Adelung: entry aus, my translation)
Again, these meaning descriptions directly illustrate the concept of a predicative metonymy, in which the metonymical shift applies to the combination of the two elements.

Most examples of MOCs are not explained in the entry of the preposition corresponding to a particle, but are directly incorporated within the entry for the verb. In those verb entries, there are three possible ways in which an example of a direct object that is explicitly labelled as an MOC can be represented. Firstly, it can just be given as an example (labelled MOC) under the heading of a general meaning description among other examples with the other type of object. Secondly, the MOC can be added as a sub-meaning (marked by a Latin or Greek letter) related to a more basic meaning without object shift. A third way of incorporating the MOC in dictionary entries is by putting it into a separate verb meaning with a new number and an own separate meaning description.

In this section, I will show that in practice dictionaries, such as Van Dale, the WNT and Adelung’s, incorporate MOCs within one meaning description in the vast majority of the cases (cf. also Sweep 2010b). As I suggested in the previous section, this can be seen as a clear indication of monosemic nature of the verb in question, in line with the so-called definitional test.

Before discussing in detail how examples of MOC are incorporated in an entry of a verb, three preliminary remarks must be made. First of all, it should be noted that a single meaning description does not always have to correspond to a single paraphrase. We will see that this is especially the case in some WNT-entries. For these examples, however, it will become clear that this is not a real problem: We will see that even if different paraphrases are used, the general meaning in these entries is presented as a single one.

Secondly, only tagged examples will be considered in this comparison. It is of course possible that MOCs are explicitly tagged because they are incorporated in a single description. In other words, it could be expected that verbs which allowing MOCs which were split up into two different meanings were not tagged as cases of metonymy. A third problem is that, although the number of meaning descriptions in a dictionary entry is a good indication of monosemy or polysemy, it is not conclusive in deciding how many meanings or senses a lexical item has. There can be practical rather than theoretical reasons why a lexicographer chooses to split or group certain uses and combinatorial possibilities.114

On the one hand, therefore, one should always bear in mind that there is not necessarily a one-to-one-correspondence between the number of meanings in a dictionary and verbal polysemy (cf. also Tuggy 1993: 277-278), given the fact that dictionaries are intended for practical use. On the other hand, dictionary entries clearly give information on different senses of the verb. Therefore, if Adelung as well as Van Dale and the WNT all give two types of direct object in a single meaning description, it can be assumed that the verb need not necessarily be considered polysemous.

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114 I would like to thank Fons Moerdijk for pointing these last two objections out to me.
Although modern German dictionaries do not make use of metonymy tags and systematically incorporate the two different objects under two different meaning descriptions with their own numbers (cf. e.g. DWDS or Duden, cf., however, Goebel 1997: 187-188), Adelung’s dictionary incorporates almost all tagged MOCs in single meaning descriptions. Out of his 101 verbs with an explicitly labelled MOC, he only gives the MOC within a separate meaning in four cases (abseihen ‘to sieve’, absprülen ‘to rinse off’, abwetzen ‘to wear off’, abwischen ‘to wipe off’). In other words, in 96% of the cases Adelung’s meaning descriptions indicate that MOC does not cause polysemy.

When we look at the Dutch dictionaries Van Dale and the WNT, some interesting differences emerge. Of the 137 instances labelled “objectsverwisseling” in Van Dale only eighteen cases of MOC (13%) are represented as autonomous meanings of the verb. Fourteen examples (10%) are described as sub-meanings and 105 instances (over 75%) are given as an example within one general meaning which also includes non-shifted objects. Clearly, there is a very strong tendency in Van Dale to describe the meaning of the verb as non-polysemous, independently of the shifted or non-shifted direct object it is combined with.

At first sight, the WNT shows a different picture, since only 123 instances of the 279 MOC-labels in Van Dale only 123 instances of the (44%) are treated under one general meaning. However, the number of MOCs treated under autonomous meanings, marked by Arabic numerals, is even lower at sixty-four (22%). In the remaining ninety-two instances, the MOC is considered to be a sub-meaning, marked by a letter (Greek or Latin) as subordinate to a higher general meaning.

This is not the whole story though, since in fifty-eight of these sub-meanings the WNT follows a very interesting strategy: The MOC belongs to a sub-meaning of one general meaning description that covers examples with unchanged objects, as well as with MOCs. So, in each of these cases the combination of the verb with an unchanged direct object is considered to be one sub-meaning, and the MOC another, both belonging to one general meaning description. An example of this is uitpakken (‘to unpack’), which has the general meaning described under 1 as “uit een [...] verpakking nemen resp. [...] die van goederen ontdoen; ontpakken” (‘to take out of packaging or to empty the packaging of goods; unpack’). The use of the verb without MOC, e.g. ‘unpack goods’, can be found under 1.b and the MOC itself, e.g. ‘unpack a suitcase’ (literally: “to pack a suitcase out”), is incorporated in 1.c. Therefore, the verb is analysed as having one general meaning in these fifty-eight cases, leading to several syntagmatic combinations.

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115 Which includes, more precisely, 130 examples tagged with objectsverwisseling and 7 examples tagged with objectsverw. Note that these numbers do not refer to dictionary entries, but to actual MOCs, which can occur more than one time within one verb entry.
116 For this specific study done for XIV Euralex conference (cf. Sweep 2010b), I took into account shifts tagged with obj.-verwisseling, objectsverw, objectverwiss., objectsverwisseling, objectverwisseling, objectverwisseling, objectverwisseling, verwisseling van obj., verwisseling van object.
117 1.a. describes a less relevant and more specific meaning, i.e. the use of uitpakken in combination with herring packers and ships.
We may therefore conclude that Adelung, Van Dale and WNT treat the vast majority of MOCs as if they fall under one general meaning description, which also includes examples with unchanged objects. In the previous sections, I have shown that theoretical considerations support this strategy.

The way the WNT incorporates MOCs, in one general meaning description to which all combinatorial possibilities of the verb belong, is a very elegant one. From a theoretical point of view the dictionary correctly treats the verb as monosemous on a general level. The general meaning description reflects the fact that the verb denotes one action or frame which includes both objects as necessary conceptual participants. From a practical point of view, the verb entry provides dictionary users with all necessary grammatical-relational information, which is that both participants can be given the status of the direct object. In this way, the WNT is fully in line with the theoretical distinction between L-meaning and P-meaning: The general meaning description incorporates the L-meaning, while the two sub-meanings correspond to the P-meanings (including the different perspectives on the event).

5. The metonymy-sensitivity of the direct object

5.1 Theoretical exploration of the significance of the DO

This dissertation attempts to shed light on the nature of metonymy by answering the question of how the choice of a particular type of direct object can be influenced by metonymy. In other words, the primary interest of this work is predicative metonymy concerning the direct object. In this section, I will discuss why the direct object (DO) is so important with respect to metonymy.

It has more often been claimed that the direct object is of special importance in relation to metonymy (Waltereit 1998; Waltereit 1999). One reason for this is the fact that the direct object in languages such as Dutch and German is a semantically opaque argument, as is the subject (cf. also Carlberg 1948: 58). This also makes them special from a more semantic point of view: In contrast to, for instance, the indirect object which is generally interpreted as a beneficiary, and in contrast to prepositional phrases, which usually denote locative, temporal or other adjuncts, subjects and direct objects can have a variety of interpretations. Therefore, they facilitate all kinds of contiguity-based shifts more easily than indirect objects or prepositional phrases (cf. Waltereit 1999: 248).

This effect is stronger for direct objects than for subjects (cf. Waltereit 1998: 106-107; Waltereit 1999: 248-249). This can be explained by the fact that subjects are often interpreted fairly specifically. Subjects can be interpreted as agents, instruments or experiencers, especially in transitive sentences.

Direct objects only occur in transitive sentences. The direct object, on the other hand, is the general theme or patient of the action expressed by the verb. A general theme or patient can be interpreted fairly freely and direct objects can therefore
easily accommodate metonymical shifts.\footnote{Fass also stresses the importance of the patient role for metonymies (cf. also Fass 1991b: 43), without however analysing the reasons why this is so.} The same cannot be said for subjects in transitive sentences, since agents, instruments or experiencers are fairly specific semantic roles. The agent, for instance, is specified as the doer of the action denoted by the verb and is therefore semantically less flexible.

A further reason why objects are sensitive to metonymical shifts is the fact that metonymies are only used if they can be easily understood. Since a concrete instance of metonymy is not only contiguity-based but also of a contingent or accidental nature (cf. chapter II, §3), a contiguity-based shift can only be understood in a certain context. This context is determined by world knowledge and by the general non-linguistic situation, but it is often also partly made explicit by the linguistic context (co-text). The explicit linguistic context strongly hinges on the verb of the sentence. The direct object is the argument that is most closely connected with the verb in standard transitive sentences (it is its internal argument) and therefore again most sensitive to metonymy.

In sum, the sensitivity of the direct object to metonymy is caused by the interplay between its syntactic position, its connection with the verbal action and its possible thematic roles. Because of these factors, the direct object is semantically flexible. Existing studies on specific instances of metonymy reflect the sensitivity of the direct object to metonymy: Almost all the examples of metonymy discussed so far can occur in direct object position. Except for diachronic changes and metonymies above phrase level that cannot be connected with any specific syntactic position, all other metonymy types can easily occur in the direct object. Lexicalised metonymies that are connected to a specific word or morpheme can occur in all syntactic positions, including the direct object slot. On a discourse-semantic level metonymies often occur as direct objects, because of the reasons discussed above. The two types of metonymical transfers on argument structure discussed in chapter III, viz. logical metonymy and Waltereit’s shifts based on contiguity on semantic role level (i.e. predicative metonymies), primarily affect the direct object slot. These types of predicative metonymy will therefore be analysed in detail in this study.

5.2 Corroboration by dictionaries for the primacy of the DO

The significance of the direct object for metonymy is not only reflected in modern studies (Waltereit 1998; 1999) but can also be supported by data extracted from traditional dictionaries. Except for the metonymical shifts that occur in all kinds of arguments, metonymical conventions of use incorporated in dictionary entries for verbs (cf. Table 2, p. 97) almost exclusively concern the direct object. The same is true for predicative metonymies, i.e. shifts of the argument place (cf. Stallard 1993: 89) or of the argument slot. Although it also seems to be possible to shift the subject position, according to dictionaries predicative metonymies occur in the direct object on a much larger basis. The sensitivity to metonymy of the direct object can be
illustrated by the exact numbers of metonymical subject and object changes, as shown in Table 3. The proportion of object changes as compared to subject changes is striking. As Table 3 shows, the DWB is an exception to the rule. However, the number of tagged predicative metonymies is generally very low in the DWB. The other dictionaries support the direct object’s sensitivity to metonymy. In the WNT, for instance, the number of verbs that allow object change is no less than four times as great as the number of verbs that allow subject change. The same is reflected to an even greater degree in Adelung’s dictionary, although this is not directly visible in Table 3: Out of the 104 dictionary entries in which Adelung uses the lexicographical tag “metonymisch”, 102 entries show MOCs (109 of 114 tokens, i.e. actual uses of the lexicological label). The word “metonymisch” is used twice for a different meaning of a verb, and three instances of the term “metonymisch” are used to denote metonymical subject changes in only one verbal entry (i.e. ausschlagen) (as discussed in section 2.1).

<table>
<thead>
<tr>
<th>dictionary</th>
<th>metonymisch</th>
<th>abbreviations (meton.)</th>
<th>objectverwisselung/Objektsverschiebung</th>
<th>abbreviations/varants</th>
<th>‘object change’</th>
<th>subjektsverwisselung/Subjektsverschiebung</th>
<th>abbreviations/varants</th>
<th>‘subject change’</th>
</tr>
</thead>
<tbody>
<tr>
<td>DWB (1854-1960)</td>
<td>67</td>
<td>23</td>
<td>3</td>
<td>2</td>
<td>8</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adelung et al. (1811)</td>
<td>104</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WNT (1882-2001)</td>
<td>180</td>
<td>1747</td>
<td>171</td>
<td>180</td>
<td>62</td>
<td>18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Van Dale (2005)</td>
<td>1405</td>
<td>8</td>
<td>124</td>
<td>7</td>
<td>78</td>
<td>3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3: Metonymy tag(s) in DWB, Adelung, WNT, Van Dale

Table 3 also shows that the examples discussed so far are a mere handful of the total number of examples tagged as metonymical in dictionaries. In the traditional,
historical Dutch WNT, over 1500 dictionary entries have one or more meanings or ways of use which are explicitly classified as instances of metonymy. In the contemporary Dutch Van Dale, over 400 predicative metonymies are explicitly tagged as metonymical. On the basis of these numbers, another advantage of using dictionaries in linguistic metonymy research emerges: Apart from support for theoretical insights into metonymy and for the different levels affected by metonymy, dictionaries also provide a set of basic material for further quantitative and qualitative corpus analyses. This is especially true for metonymies in direct object position, as I argued in this section and illustrated in Table 3.

Examples extracted from dictionaries will therefore form the basis of this study. I have analysed corpus examples on the basis of predicative metonymies concerning the direct object found in dictionaries. I will discuss this analysis in detail in the rest of this dissertation.

**6. Dictionaries reflecting linguistic insights**

This chapter has shown that in the study of metonymy lexicography and linguistic research can benefit from each other. Whereas linguistic research is useful in creating a theoretical basis for lexicography, dictionaries at the same time contain much analysed data and corroborate linguistic insights.

This chapter has discussed the following issues: Section 2 illustrated that Dutch and German lexicographers recognise all types of metonymies that were distinguished on a theoretical basis in the previous chapter. Their work acknowledges that metonymy is involved in complex metonymies affecting grammar. Section 3 demonstrated that information in dictionaries on specific grammatical metonymies is in line with the idea of predicative metonymies, which can be defined as a shift of a verb’s argument slot rather than the interpretation of the argument itself or of the verb meaning. Specific labels used for metonymies of this type in dictionaries are “subjectsverwisseling” or “Subjektsverschiebung” and “objectsverwisseling” or “Objektsverschiebung”. The last type of predicative metonymy, Metonymical Object Changes (MOCs), will be analysed in the rest of this dissertation.

On the basis of entries in Dutch and German dictionaries we have been able to analyse some properties of MOCs. Section 3 showed, for instance, that Dutch dictionaries use specific tags for MOCs and other, more prototypical, examples of metonymy, while acknowledging the continuum between them. The description in the entry for *uitblazen* in the WNT clearly shows this continuum, which has also been discussed in theoretical studies.

In section 4, I discussed in greater detail the question of whether a verb allowing MOC evokes some general action or scene, independently of the kind of object it is combined with. I argued that it cannot be denied that the same action, scene or frame is evoked by the verb, independently of its type of direct object. In addition to the general action, the relationship between the objects and the verb can be considered stable, given that the relation with one of the objects expressed by the verb implies a
relation with the other. This is confirmed by the so-called logical test (Geeraerts 1993). The linguistic behaviour of verbs that allow MOC also supports monosemy, as was illustrated by some examples of coordination of different types of direct objects. For the definitional test, dictionaries can be used once again. The fact that the large majority of tagged examples of MOC are subsumed under a single meaning supports the view of a general lexical meaning. Some dictionary entries in the WNT even directly reflect Iwata’s distinction between L-meaning and P-meanings. I will come back to this point in chapter VIII.

Apart from incorporating different types of metonymy, acknowledging predicative metonymies, and showing in their definitions that these alternations do not have to correspond to lexical polysemy, dictionaries also show that the direct object is sensitive to predicative metonymy. Section 5 showed that among the many examples that are tagged as instances of metonymy or predicative metonymy, a large number could occur, or could only occur, in the direct object. Dutch and German dictionaries therefore do not only reflect many linguistic insights, but can also be used for data extraction. Data extracted from dictionaries will be presented and discussed in the following chapters.
V. METONYMICAL OBJECT CHANGES (MOCS)

1. Finding data on Metonymical Object Changes (MOCs)

As insights into metonymy increased, linguists recognised the huge influence metonymy has on language. As I pointed out in chapter III, more and more phenomena are analysed as involving metonymy. This simultaneously caused linguists to become aware of the problem of finding real metonymical data (cf. e.g. Stefanowitsch & Gries 2006).

Mostly, dictionaries are not taken into account as sources for instances of metonymy. In the previous chapter I clarified that the use of dictionaries in metonymy research can be fruitful: I showed that some Dutch and German dictionaries reflect linguistic insights on metonymy and are useful resources, in which a lot of linguistic material has explicitly been tagged as metonymical.\footnote{Of course linguists make use of dictionaries for their metonymy research (cf. e.g. Waltereit 1998; Stoeva-Holm 2010), but, as far as I know, not on the basis of lexicographic metonymy-tags.}

Dictionaries can therefore be used as a kind of linguistically tagged collection of data, i.e. a kind of corpus tagged with lexicographic labels (cf. Hoeksema 2011; Moerdijk 2008a: 151). On the basis of their explicit metonymy tags, a basic material set for further linguistic research can be extracted from them. This set can be extended and used for further quantitative and qualitative corpus analyses.

In this chapter, I will discuss how a set of Dutch and German examples of predicative metonymy in the direct object (MOCs) can be collected on the basis of information found in dictionaries. The chapter is organised as follows. Section 2 will explain how verbs were extracted from Adelung, the DWB, Van Dale 2005 and the WNT. Sections 3 and 4 will discuss which verbs should be dropped from this dictionary set and which verbs can be added to it.

Sections 5-7 will present the examples of MOC in more detail. Section 5 will show that MOCs can be presented in two different ways: On the basis of the types of verbs, as will be illustrated in further detail in section 6, and on the basis of the relevant contiguity types, as will be set out in section 7. In these two sections, the relationship of these data classifications with linguistic literature will also be discussed: The types of verbs found will be compared with Levin’s alternations (1993) and the classification of contiguity types will be discussed in relation to existing studies on contiguity, especially in relation to studies by Blank (1999) and by Peirsman and Geeraerts (2006). In addition, I will discuss some studies on logical metonymy, on the basis of which more verbs that allow shifts between concrete objects and events can be found. This will bring me to my conclusions in section 8.
2. Searching for MOCs in dictionaries

Adelung’s dictionary is a good starting point for gathering data, because of the consistent use of the tag “metonymisch” for Metonymical Object Changes (MOCs) (cf. previous chapter). A search with the term “metonymisch” results in a collection 101 verbs (109 different shifts) which allow MOC (cf. the appendix). In addition, there is one fixed shifted combination (Ader lassen, ‘to let blood’, lit.: “to let vein”). Four more verbs are incorporated in the entry for the particle ab (cf. chapter IV, §4.3). During this search, I discovered that Adelung uses the phrase “auf solche Art” (‘in a similar way’/’in such a way’) for highly similar cases. Therefore, verbs with this tag in their meaning description (106 in total) were also analysed, which resulted in 32 more MOCs.

Carlberg states that Adelung uses “metonymisch” as well as “figürlich” (‘figurative(ly)’) to label MOCs (Carlberg 1948: 12). Carlberg illustrates this with the verb packen (‘to pack’), which cannot only be used with objects such as clothing, books, goods, etc., but also ‘figuratively’ with containers, such as boxes or suitcases (cf. http://lexika.digitale-sammlungen.de/adelung/lemma/bsb00009133_4_0_38, May 2010). A search for the word figürlich, however, gives more than 3300 hits. The new online search interface prevents one from extracting all the dictionary entries. A search in each separate volume of the dictionary still gives too many hits in all parts of speech to display them all (Band 1: >1000; Band 2: 896; Band 3: 700; Band 4: 746).

In addition to this practical search problem, it turned out that “figürlich” is only sporadically used for MOCs: An analysis of a sample of more than 300 verbs only revealed 9 instances of MOCs (i.e. abschalten ‘to flay / to decorticate’, drehen ‘to turn / to create by turning’, einschenken ‘to pour out’, fischen ‘to fish’, gießen ‘to cast / to mould’, graben ‘to dig’, heilen ‘to heal’, lesen ‘to gather / to pick’, lodern ‘to set alight’). Some of these examples are obsolete and furthermore, these examples, or very similar ones, had already been found in other Dutch and German material or on the basis of other queries. The verbs gießen (‘to pour’), lesen (‘to gather’ / ‘to pick’) and packen (‘to pack’) are, for instance, also tagged with “auf solche Art”. For all these reasons, I have not considered Adelung’s entries labelled “figürlich” any further.

The verbs found in Adelung’s dictionary were supplemented by a number of verbs from the DWB. Only eleven relevant MOCs were found. Ten of these were not found in Adelung’s dictionary. Three examples (gichten, in the meaning of ‘to heal’, träufen ‘to drip’, treiben, in the meaning of ‘to drive’ and of ‘to let pay’) are

121 The same consistent use of the label meton. can be found in Sanders’ dictionary (cf. also Carlberg 1948: 15-16). Unfortunately, this dictionary is not available in a digital version. Only the first half of the second volume is accessible for a digital search (via Google-books), which reveals examples, such as einlegen (‘inlay’/’encrust’), löschen (in the meaning ‘wipe’), mischen (‘mix’).
122 These are all 196 verbs from Band 2 and 120 verbs from Band 1. The examples from the first volume were extracted by means of the old search interface.
123 The CD-ROM published by Zweitausendeins allows a full text search.
tagged by Grimm as object change (“Objektsverschiebung”). Four relevant MOCs were labelled metonymical (“meton.”); *impfen* (‘to inject’), *lösen* (‘to discharge / fire off’), *mähen* (‘to mow’) and *pflanzen* (‘to plant’). In four other relevant cases ( *gießen* ‘to pour’, *schleifen* ‘to flay / to decorticate’, *verschwatzen* ‘to waste by chatting / to talk away’, *versichern* ‘to warrant / to guarantee’) the DWB states that there is a change (lit.: “jump”) of the predicative concept (“der Verbalbegriff springt über”, cf. also Carlberg 1948: 14). Only the verbs *gießen* (‘to pour’) and *pflanzen* (‘to plant’) overlap with Adelung’s set (tagged by Adelung as “auf solche Art”).

Van Dale’s dictionary of Dutch (2005) and the WNT provide even larger sets of verbs allowing MOCs (cf. also Table 3 in chapter IV, p. 119). Out of 127 verbs tagged as MOC in Van Dale (cf. the appendix), only 76 exactly overlap with the around 400 verbs in the WNT. Furthermore, very similar shifts are sometimes labelled differently, for instance “metonymisch” (‘metonymical’). Six more verbs allowing MOC can be identified using the material collected by Moerdijk, who extracted all occurrences of *metonymisch* and *meton* from the tome “aanvullingen” of the WNT (cf. Moerdijk 2006: 57ff). These verbs are *afvlaggen* (‘to flag down’), *betegelen* (‘to tile’), *continueren* (‘to continue’), *evacueren* (‘to evacuate’), *ontzilten* (‘to desalinate’) and *onduleren* (‘to crimp/perm’). The verb *toedammen* (‘to dam up’), which is also labelled “metonymisch”, can also be added to this set. In Van Dale, I found 26 relevant MOC-verbs with the label “metonymisch”. In the WNT, MOCs are sometimes described in a verb entry as “vervolgens met” or “vervolgens van” (‘further with’ / ‘further (said) of’ / further (applied) to); examples are *lossen* (lit.: “release”, i.e. ‘to fire (off)’) or *toesluiten* (lit.: “to(wards)-close”, i.e. ‘to close/lock’).

Although the Dutch and German dictionaries provide a large and wide-ranging set of verbs, this data set (given in the appendix) can be improved in two ways. Some examples should be taken out, since they do not show real MOC, while at the same time other, new examples should be added. I will discuss this in more detail in the following sections.

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124 In the previous chapter, it was argued that MOCs do not have to be analysed as causing a shift in the predicative concept (cf. especially chapter IV, §4).

125 For several reasons, these numbers of verbs differ from expectations raised by the previous chapter. First of all, only verbs have been taken into account. Van Dale also uses the label MOC with the preposition *af* and the adjectives *uitgeput* and the WNT with the preposition *af* (‘off’), the adjectives *afhandig* (*iemand iets afhandig maken* = ‘to snatch something from someone’), *uitgeput* (‘exhausted’) and the nouns *afkorting* (‘reduction’), *rente* (‘interest’), *uitspraak* (‘pronouncement’), *verzetting* (‘resetting’) , and *zuivering* (‘purge’). Secondly, in some dictionary entries several tags (for instance “objectverwisseling” as well as “objectsterver.”) have been used. They are counted only once in the numbers mentioned in this section. Thirdly, the WNT-search engine on the internet seems to have a bug: selecting the hits based on *verwisseling* by hand resulted in 55 more verbs that were not directly found under “verwisseling van object”. The final result of the WNT consists of 388 verb entries. They can be found in the appendix. Some other examples with verbs are given under *af* (which is also the case in Van Dale). Several shifts can occur within one entry: The 122 Van Dale verbs tagged with “objectverwisseling”, for instance, correspond with 165 different shifts. Five additional verbs are only tagged with the abbreviation “objectverw.” in Van Dale.
3. Demarcating the data: MOC, verb polysemy, valency reduction

Not all examples tagged as MOC in dictionaries are equally interesting. There are two reasons for this. First of all, some German or Dutch examples are not really relevant. Some examples are clearly archaic, while others are so specific or belong to such a specific jargon that it will be of no use describing them in this dissertation. Also, some verbs are synonyms or near-synonyms, displaying the same behaviour. These verbs are irrelevant or redundant and will not be considered any further.

Secondly, it is doubtful whether all examples marked as MOCs are in fact instances of MOC. Two general conditions need to be fulfilled in the case of MOC. First of all, it only makes sense to speak of a shift concerning the direct object, if the action or activity expressed by the verb remains the same, at least on a general level. This is in line with the fact that in most instances of MOC both possible objects are incorporated in a single general verb meaning (cf. above chapter IV, §4). In this respect, MOC clearly differs from metonymical polysemy of the verb, as discussed in chapter III (cf. also examples discussed by Stoeva-Holm 2010). The transitive metonymically polysemous Dutch verb *kuipen* illustrates this difference. Obviously, the metonymical meaning shift from ‘to make barrels’ to ‘to put something into barrels’ (cf. above chapter III, §4.7) also causes the combination to different direct objects: The WNT points out that in its first meaning this verb can be used with ‘barrels’ as a direct object, while in its second meaning it is combined with objects or substances that can be put in barrels, such as herrings. In contrast to MOCs, the two meanings refer to two different actions with, of course, different types of direct objects. In a similar way, some tagged MOCs in Dutch dictionaries should be considered verbal sense shifts, i.e. as instances of polysemy.

This can be illustrated by the Dutch verb *aanslaan* (lit.: “at-hit/strike”). One meaning of *aanslaan* is its use in combination with a direct object denoting signs or announcements. Used in this way, the verb expresses an action of hanging up signs somewhere (a “posting-activity”). Posting signs is often done on cars or houses which are for sale. In this context, the verb *aanslaan* can also be collocated with cars or houses as a direct object rather than with the sign. However, in this combination the posting-activity itself no longer plays a direct role and in most cases no posting-activity will be involved at all. The verb then simply expresses that the house is for sale and the original meaning is lost. In such cases the supposed object change is accompanied by a different verbal action and therefore is not an example of MOC.\(^{126}\)

A second condition for MOC is that there must be a shift from one type of direct object to another from a synchronic point of view. The fact that the object slot has to be affected is a specific requirement of MOCs: If the type of direct object required remains the same and only the noun used is reinterpreted (as in *I am reading*...)

\[^{126}\text{Cf. the only example of this verb in this meaning in the ANW-corpus: “Later vluchten ze met diens inboedel. Het huis en de Mercedes worden aangeslagen.” (“After some time they take refugee with his home contents. The house and the Mercedes are for sale [lit.: “at-hit”].”) This sentence does not entail the placing of a sign to indicate that the house and the Mercedes are for sale. The sentence simply tells us that the house and the Mercedes are for sale.}^{
Goethe), the example only involves a common nominal metonymy, not a predicative metonymy. This requirement does not only demarcate MOCs from general nominal metonymies, but also clarifies the difference between MOCs and other, more general valency shifts.

The term *valency* (or *valence*), which originates from chemistry, was introduced in linguistics by Tesnière (Tesnière 1959; cf. also Herbst & Götz-Votteler 2007: v). In its most basic sense, the term valency is used for the number of obligatory arguments of a predicate (cf. Cappelle 2005: 291-292). Since there are different degrees of obligatoriness, the term *valency* can also refer to the possible number of arguments which are combined with the predicate.

The difference between valency referring to obligatory arguments and valency referring to all verb-dependent arguments can be illustrated by the contrast between *name* and *give*: The former verb always requires three arguments to be realised (‘someone names someone something’), while for the latter the third argument is syntactically optional (‘someone gives (someone) something’). Therefore, both verbs could be analysed as being three-place predicates, although only *to name* is syntactically a three-place predicate in the strict sense. However, many linguists also consider the verb *to give* to be a three-place predicate.

According to Honselaar, for instance, verb valencies are specified variables in the meaning of the verb (1980: 11). This applies to all three arguments of *to name* as well as of to the three arguments of *to give*. Although in the case of *to give* the argument of the receiver can be left out in actual utterances and the receiver can be realised in a different way, viz. as *to give something to someone* (cf. Honselaar 1980: 11-12), it is semantically directly involved in the verbal action (cf. 1980: 11). The action of giving something can only be performed if there is someone to receive it. This necessary role in the verb meaning is different for, for instance, the Dutch verb *bijschenken* (‘to fill up’) (cf. Honselaar 1980: 12). Although an optional person argument can also be used with this verb (*voor iemand / iemand iets bijschenken*, ‘to fill something up (for someone)’), this person is not essential to the verbal action. Hence, whereas *to name* is a three-place valency predicate in the strict sense and *to give* should also be regarded as a three-place verb, *bijschenken* should be considered a two-place predicate.

Besides the difference between valency in a strict and more general sense, there is also a distinction between quantitative and qualitative valency. The former only refers to the number of arguments (cf. Dik & Hengeveld 1997: 8), whereas the latter also takes into account the type of argument, i.e. its morphosyntactic form (cf. Brdar 2007: 140) or its semantic function (cf. Dik & Hengeveld 1997: 15).

Changes in quantitative valency may lead to a reduction or an extension. An example of valency reduction is the intransitive use of a transitive verb. Valency extension can be illustrated by examples such as *John walked the dog*. Although it has been suggested that metonymy could be a motivating factor for changes in quantitative valency (cf. Ruiz de Mendoza & Pérez 2001: 334-336; Ruiz de Mendoza & Diez 2001(2003): §3.3), MOC affects the qualitative valency (cf. also Cappelle 2005: 301).
The fact that there must be a qualitative shift of the direct object slot distinguishes MOC from a number of other changes in valency. It clarifies, for instance, why grammarians and lexicographers never consider German examples of verbs with double accusatives (i.e. two direct objects) to be MOCs. Examples of verbs with two direct objects are jemanden etwas angehen (lit.: “someone [accusative] something [accusative] on-go”, i.e. ‘be of someone’s concern’); jemanden etwas bitten (‘to request something from someone’); jemanden etwas fragen (‘to ask someone something’); jemanden etwas kosten (‘to cost someone something’); or jemanden etwas lehren (‘to teach someone something’). Since both direct objects can be realised simultaneously, the realisation of one of them cannot be considered a metonymical shift. The realisation of one of the accusative objects is merely a reduction of the number of expressed arguments without a real change in the structure of the verb phrase.

These double accusative constructions could be compared with verbs that have a valency pattern of a subject, an accusative object and a dative argument (or free dative, if this dative is not considered to be a valency realisation). Consider, for instance, the German verb auf­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­&
cannot always be applied, because it only functions in a negative direction: If an argument cannot appear as the subject of the passive voice, it cannot be a direct object in the active equivalent of the sentence, but if it can appear as the passive subject, there is no certainty that it is a direct object. In Dutch, indirect objects can sometimes also be used as subjects of passive constructions (cf. ANS 22·2·1 number 2b). Secondly, there is a prepositional alternative for the phrase, i.e. voor je tante (soep) opscheppen. Rather than a direct object, je tante is a benefactive phrase, just as in German. Again, this shows that no shift of the direct object slot has taken place.128

On the basis of these arguments, some tagged examples in Dutch dictionaries are excluded from the realm of MOCs. They are in fact not real shifts between two direct objects, but provide examples of different realisations of a direct object and an indirect object or a benefactive constituent. In examples of this type, the benefactive argument is not semantically necessary for the verbal action and it can be left out or realised in a different way.

A further example is de deur / iemand opendoen (lit.: “the door / someone open-do”, meaning ‘to open the door’ / ‘to open (the door) for someone’). Van Dale tags this example as an example of MOC. It is, however, far from certain that the word iemand is a real direct object. It is not a real verb valency, given that it is not necessary for the verbal action. It can also be left out or realised as a prepositional phrase: (voor iemand) de deur opendoen (“to open the door (for someone)”). Furthermore, it is doubtful whether it can appear as the subject in a passive construction (*ik werd al opengedaan, ‘I was already opened’ / ?Jan werd al door

exhausted body is scooped by a train.’ or the internet example taken from the Belgian newspaper Het Nieuwsblad (16-11-2010) “Ze werd opgeschept, belandde met haar hoofd tegen de voorruit en daarna tegen de straatstenen.”, ‘She was scooped, landed with her head against the windscreen and thereafter against the paving stones’). In the variety of Dutch spoken in the Netherlands, the simplex verb scheppen would be preferred in such contexts. If a passive voice is used with opscheppen in the serving-meaning, the benefactive phrase voor is used, as in internet examples, such as “dus als u niet veel eet, maak dat dan ook duidelijk voordat er voor u wordt opgeschept.” (‘so if you do not eat much, please indicate this before you are served’, [lit.: ‘so if you not much eat, make that than also clear before there for you is up-scooped’]), source: http://www.sunandforestatours.com/omgang.html [May 2011]) or “De kinderen krijgen 1 x per dag eten en staan keurig in de rij te wachten tot er voor ze wordt opgeschept.” (‘The children receive food once a day and stand patiently in line waiting till they are served’ [lit: ‘till there for them is up-scooped’]), source: http://www.stichtinghulp.nl/default.asp?articleid=140 [May 2011]).

128 In French, the comparable verb servir has been considered to display MOC (cf. Waltereit 1998: 64; Waltereit 1999: 234) (cf. also chapter III, §5.3). In French, however, the verb can occur in passive sentences with the person as the subject. The French verb is also different, in that both the served object and the person being served can be realised as prepositional phrases (‘servir quelqu’un de quelque chose’ or ‘servir quelque chose à quelqu’un’). The former is impossible in Dutch and German. In French, the shift is therefore similar to shifts such as to load the ship with carbon / to load carbon onto the ship.
The parallel with German can also be used to support the view that *iemand in iemand open doen* is no real direct object: The German equivalent of *iemand open doen* is always realised in the dative case, *jemandem die Tür aufmachen* (lit.: “someone [dative] the door [acc] open-do”). If only one object is expressed, the cases remain the same, i.e. *die Tür aufmachen* and *jemandem aufmachen*.

To summarise, the term metonymical object change (MOC) should not be used for syntactic patterns in which only one of two direct objects is realised or where one of them is no real direct object. Such sentences only show a reduction in the number of arguments realised and there is no qualitative shift concerning the direct object slot. Therefore, I have not included these general argument shifts in either Dutch or German.

However, this does not mean that all German examples in which both arguments can be realised simultaneously in the dative and the accusative should be excluded from the realm of MOC: Some verbs occur with a qualitative shift of the direct object slot, while at the same time allowing the realisation of the other argument as an additional dative. This can be illustrated with the German verb *abziehen*, which is considered to be a classic instance of MOC (cf. Adelung; Carlberg 1948; Havers 1931: 166; Oksaar 1984). The verb *abziehen* (lit.: “off-pull”, i.e. ‘to skin’) can be combined with an animal as well as with its skin as a direct object in the accusative case. When it collocates with the animal’s skin, the verb and direct object can optionally be accompanied by a dative representing the animal: *dem Hasen die Haut abziehen*. In contrast to the valency reductions with verbs allowing a dative and an accusative argument, this example really shifts its direct object, given that the hare (*der Hase*) can only acquire accusative case if it is the only argument occurring with the verb (*dem / den Hasen abziehen*). The dative in *dem Hasen die Haut abziehen*, termed a “Pertinenzdativ”, possessive dative (cf. Zeller 2001) or free dative, must always be animate. The verb *abziehen* also shows MOC with inanimate arguments, such as *das Bettzeug abziehen* (‘to change sheets’) or *das Bett abziehen* (‘to change the bed’). These cases therefore do not allow the realisation of both arguments (*dem Bett das Bettzeug abziehen*). These observations show that the verb *abziehen* in fact allows a shift of the direct object slot (i.e. MOC): If one of the arguments is realised, the location-argument always has accusative case; the arguments cannot be realised simultaneously as direct objects; and only with animate location arguments is it possible to add an optional possessive dative.

The border between instances of MOC and other shifts in argument structure is, however, artificial to some extent. There is a large area of in-between cases. A
problematic group of verbs, which are tagged in Dutch dictionaries as instances of metonymy or MOC, are, for instance, the verbs *afbetalen* (’to pay off’) and *uitbetalen* (’to pay (out)’). These verbs can be combined with a noun denoting a sum of money (a concrete sum, a debt, a salary, etc.) or one denoting a person. Given that both objects can be realised simultaneously without one of them having to be a prepositional phrase (*iemand iets uitbetalen / afbetalen, ’to pay someone something’), it is doubtful whether the direct object slot is shifted, if only one of them is used. It is also doubtful whether the noun phrase denoting a person is a real direct object. It can appear as a subject in the passive voice, but, as I pointed out before, this does not exclude the possibility that it is an indirect object (cf. ANS 22·2·1 number 2b). The fact that the person can also be expressed in a prepositional phrase, viz. *(aan) iemand een schuld afbetalen* (to pay a debt to someone’) and *(aan) werknemers loon uitbetalen* (’to pay wages out to employees’) indicates that they are in all probability indirect objects, given that the preposition *aan* is a marker for indirect objects.

In German, similar examples also display slightly ambivalent behaviour. With the verbs *bezahlen* (’to pay’) or *ausbezahlen* (’to pay out’), the dative is not always used for nouns denoting persons as it is with, for instance, *auftun*. The dative only occurs if the accusative is also realised. Therefore, German exhibits shifts which are comparable to those in Dutch: The person in the dative (*jemandem* etwas bezahlen (’to pay (someone [dat]) something [acc]’)) can be changed into an accusative object *jemand bezahlen*. Similarly (*Arbeitnehmern*) *Lohn ausbezahlen* (’to pay wages [acc] out (to the employees [dat])’) can shift to the accusative *Arbeitnehmer ausbezahlen*. Because the persons shift between a single accusative or a simultaneously realised dative, these cases are similar at first sight to *dem Hasen die Haut abziehen*. A crucial difference is that we cannot regard the dative as a possessive dative. Another indicator for the fact that *abziehen* is different from *bezahlen and ausbezahlen* is that we can add the preposition *an* (’to’) to the persons that are paid. The verbs *ausbezahlen* and *bezahlen* therefore show complex shifts, which should be considered shifts of the dative argument and not just of the direct object slot. I will therefore not analyse such paying-examples any further.

A comparable but again different example is the Dutch verb *aanspelen* (lit.: “at-play”, i.e. ’to pass (a ball in soccer)’). This verb can be combined with a player and with the ball that is passed to the player, both of which are necessarily involved in the verbal action. Both noun phrases can also be realised simultaneously in Dutch, cf. *iemand de bal aanspelen* (’to pass someone the ball’). Both arguments can also occur as the subjects of corresponding passive sentences. This example is different form the paying-examples, however, in that the person seems to be the default direct object while the ball is shifted. Furthermore, the player does not seem to be an indirect object or a benefactive constituent, since it cannot be part of a prepositional phrase (*voor / *aan iemand de bal aanspelen*). German again only uses a dative when both arguments are realised: *jemanden anspielen* can occasionally be shifted

133 The archaic example ??*iemand / de huur opslaan* (’to raise ??someone / the rent’) is probably of the same kind.
to (jemandem) einen Ball anspielen. These examples could therefore be taken into account as MOCs.

In sum, an analysis of the metonymical object shifts found in dictionaries reveals two general characteristics of MOCs. First of all, the action expressed by the verb must remain the same. Secondly, the shift must really apply to the direct object slot. These two conditions show that some examples which are tagged as MOCs are actually not real instances of MOC. Examples in which the original verbal action no longer applies to the situation described are no examples of MOC. Shifts that do not concern the direct object slot should also not be included as MOCs. An example is the realisation of one particular accusative object if a verb allows two accusative objects. Another example are shifts between a direct object and an indirect object. The Dutch tagged examples opendoen, afbetalen and uitbetalen should therefore also be excluded, because the persons that can be used as direct objects can also be realised in a prepositional phrase with aan / voor, which indicates that they are not real direct objects but rather benefactive constituents. These changes in argument pattern are of a different nature than real MOCs. On the other hand, German examples to which a possessive dative can sometimes be added (such as abziehen) are clear MOCs. These examples do not show a shift between a dative and accusative, because additional datives only occur with animate arguments.

4. Improving the set of examples of MOC

Although some tagged MOCs in dictionaries are too archaic, too specific, redundant or are in fact other valency shifts, the opposite problem also exists: Not all MOCs can be extracted on the basis of dictionary data. There are several reasons why not all possible MOCs can be found by searching dictionaries.

First of all, the lexicographical labels used are very diverse and numerous. We have seen that it is not only Dutch “metonymisch” and “objectsverwisseling” or German “metonymisch” and “Objektsvertauschung” that indicate possible MOCs, but also more general terms (such as Adelung’s “auf solche Art” or in the WNT “vervolgens met/van”). However, the number of tags used is so large that this makes it almost impossible to find all relevant lexicographically tagged examples.

Besides this practical problem, it turns out that it is not necessary or even very useful to keep searching for new lexicographical tags. First of all, the examples identified as MOCs but tagged differently either have already been identified as MOCs or provide examples of archaic, specific or synonymous shifts (cf. §3 above). Secondly, it turns out that dictionaries do not tag all examples of MOC or do not tag MOCs as MOCs.

134 Cf. e.g. the examples from the DeWac-corpus: “Dabei ist es allgemein üblich, dem aufschlagenden Spieler die Bälle übers Netz anzuspielen.” (‘With that, it is common practice, to play the balls over the net to the serving player [dative case]’) or “Vor einem Hütchen wird der Ball schräg angespielt und vor einer Torschusslinie auf das Tor mit TW geschossen.” (‘In front of a marker on the field (lit.: “a little hat”) the ball should be played crosswise and in front of a goal line it should be shot towards the goal with the keeper’). In German, this shift is not as frequent as in Dutch.
always incorporate the possibility. So even repeated searches of the various dictionaries do not capture all MOCs. This becomes clear, for instance, when we compare the Dutch set of verbs with the German one: Some German verbs are not reflected in the Dutch set and vice versa, although equivalent verbs allow MOC in both languages.135

In addition, other German verbs discussed as allowing “Objektsvertauschung” can be found in the literature, cf. Carlberg 1948, Wellander 1911, Hundsmurscher 1986 or McIntyre 2001. Other, very similar examples are discussed by Apresjan. Apresjan (1992: 240ff) does not only discuss many equivalents of Dutch and German verbs that are tagged as allowing MOC in dictionaries, such as the Dutch verbs uitkloppen (‘to beat out’), uitkammen (‘to comb’), uitsnijden (‘to cut out’), wieden (‘to weed’), planten (‘to plant’), vegen (‘to sweep’), persen (‘to press’), tatoeëren (‘to tattoo’), toesluiten (‘to close’), ontknopen (‘to unravel / to disentangle’), ontsteken (‘to open/to tap’ applied to casks or liquids), aansteken (‘to light’) or the tagged German ones such as abwischen (‘to wipe off’), ausklopfen (‘to beat out’), auschneiden (‘to cut out’), pflanzen (‘to plant’), (aus)pressen (‘to press (out)’), aufflechten (‘to braid’), lodern (‘to set alight’), löschen (‘to wipe’/‘to extinguish’), but he also gives some new examples. These verbs in particular belong to the area of producing, repairing, adding images and of opening and closing. Production verbs include to cook, to bake, to thread, to milk. Verbs denoting reparations include to repair, to mend, to heal, to correct, to patch, to solder, to stuff, to stop, to caulk. Examples of verbs denoting the addition to images are to etch, to engrave/to inscribe, to embroider, to paint and of the last category include to open and to close.

Last but not least, many new MOCs can be found on the basis of introspection.136

To conclude, the set of verbs found in Dutch and German dictionaries turns out to be very useful and extensive, but it is by no means exhaustive. In fact, the number of possible MOCs turns out to be almost infinite. In order to analyse the different types of relevant shifts in a representative way without getting lost in too much and too detailed data, a relevant set of verbs and contiguity shifts could be made on the basis of these three resources (i.e. the dictionary data, examples found in the literature and additional verbs thought of). Some of these examples of MOCs will be analysed in detail in the following chapters, but I will first examine some general properties of the dictionary examples.

135 On the basis of the 150 relevant German verbs (taken from dictionaries and linguistic literature), 36 new Dutch ones can be found. Out of the almost 500 Dutch verbs, only 80 translations into German did not allow MOCs (or had no direct German equivalent).

136 Cf. Honselaar & Sweep forthcoming 2012, where we discuss additional verbs, such as behandelen (‘to treat’) or prikken (‘to prick’/‘to sting’).
5. Presenting the data: Verbs and contiguity types

Data on MOCs can be presented in two different ways. One option is to cluster them according to the type of verbs involved in the object changes. Another option is to group them on the basis of the contiguity relation between both possible direct objects.

Although most accounts of these argument shifts do not analyse the phenomenon as involving metonymy and therefore do not explicitly recognise the contiguity types (cf. e.g. Iwata 2008; Levin 1993; Pinker 1989; Rappaport & Levin 1988, etc.), both ways of classifying MOC data are implicitly reflected in the existing literature: The alternations are referred to by prototypical verbs, such as, for instance, the ‘spray/load alternation’, as well as after their contiguity pattern, viz. ‘location-locatum shift’ or ‘locative alternation’. Famous in this respect is Levin’s work (Levin 1993), which discusses more and also different alternations than just MOCs (cf. §6 below). Her book systematically gives a two-fold classification of alternations: In the first part of her book she names some alternations, which are classified as MOCs by lexicographers, after properties of the object, whereas in the second part she classifies several instances of MOCs on the basis of verb classes.

In fact, the strategy of clustering verbs and the strategy of clustering contiguity relations both make sense. Since MOCs are instances of predicative metonymy, the metonymy affects the type of argument needed rather than the argument itself. Properties of the verb and the relation between possible objects are therefore dependent on one another: The argument shift becomes possible, because the contiguity relation between both objects dovetails with the meaning of the verb. Nonetheless, only the importance of the verb meaning seems to be acknowledged in most studies. The crucial significance of the relation between the objects only appears to be implicitly recognised. Before I discuss why the contiguity relation and the metonymy involved are crucial for a satisfactory explanation of MOCs in the following chapters, I will first present the examples: The relevant set of verbs and the shifts involved.

I will do this in the two ways suggested in this section: Section 6 will describe the types of verbs that allow MOCs and section 7 will present the types of objects that are involved in these shifts. Both are dependent on each other. Some specific contiguity relations between objects will lead to more instances of verbs that allow a certain type of predicative metonymies (viz. logical metonymies), which will be discussed at the end of section 7 (subsection 7.4).

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137 Cf. also McIntyre who uses the term Objektsverschiebung in his analysis of particle verbs (cf. §6.3 and §6.4 below) and connects them to locative alternations in general (McIntyre 2001: 296). Instead of Objektsverschiebung, he also uses the term “landmark flexibility”.
6. Verbs allowing MOCs

6.1 Types of verbs

Although the set of verbs that allow MOC turns out to be fairly large and heterogeneous, the verbs involved nevertheless share certain characteristics. A first observation is that almost all of them describe everyday daily, practical actions (“tägliche Verrichtungen”, cf. Carlberg 1948: 29). For instance, they often denote household activities, such as cleaning (cf. e.g. beat a carpet / dust (out of a carpet); clear the table / the dishes; iron clothes / creases; rinse or wash clothes / dirt (out); sweep out the tent / the sand), actions for producing food (e.g. pluck feathers / a chicken; sieve flour / lumps (out); squeeze orange juice / oranges (out); tap beer / a cask) or other practical tasks (e.g. light wood / a fire; darn holes / stockings; pack a suitcase / stuff; scrape the windshield / ice off, etc.). Another large group of verbs denotes actions relating to agriculture (e.g. cultivate land / crops; dig a ditch / sand out; plough the land / the ground (up); sow the land / seed). Yet another set denotes medical treatments and similar activities (e.g. heal a patient / a disease; inject a child / a medicine; wipe the blood / the wound).

Apart from classifying the verbs into semantic domains based on their conceptual content, most verbs allowing MOC can be divided into larger semantic classes.

For instance, many verbs allowing MOCs refer to an action of removing something or taking away something from something else. Some of these verbs denote the removal of objects or substances from a location, other verbs denote the removal of objects or substances from something else.

A prototypical example of the first type is to clear or to clear up, which can be combined with the things removed from a location (e.g. tableware or mess / objects) as well as with the location itself (e.g. the table or the room). The same goes for to unload a truck / boxes. An example of the second type is to sieve / sift (out). This verb is different from to clear in that it does not remove something from a location but from another substance, such as lumps from flour or the gold from the sand. The difference between these two types of removal is therefore caused by the relationship between the possible objects: They can be either two contiguous but autonomous entities or they are really incorporated into each other. It is not always clear how to distinguish between these two different subclasses: A verb such as uitkloppen / ausklopfen (to beat (out)), for instance, could be described as removing dust from a certain location (such as the carpet), although the carpet could also be said to physically contain the dust.

The opposites of verbs denoting removal, i.e. verbs denoting actions of attaching or putting something into or onto something else, also often allow MOC. Both categories of verbs, i.e. those denoting removal and those denoting adding something, express some kind of movement between the two possible direct objects. Thus, whereas the verb to unload can be classified as expressing that objects are taken from or taken out of a certain location, the verb load (or load up, cf. examples...
on page 160) expresses the opposite movement. Both categories of verbs allow the same object change, i.e. to load / unload boxes (onto / from a lorry) or to load / unload a lorry (with / of boxes). Other examples of verbs that can be combined with the affected location or with the thing put into this location are to smear, to spread, to plant or to inject and their Dutch and German equivalents.

Yet another category of verbs are what can be referred to as creation verbs. They denote various actions of creating something out of something else or by means of something else. The set of examples of this kind that are tagged as MOCs is remarkably smaller than the other two. The possible objects can be either the source or the result or product.

Two different types of sources should be distinguished. The first is the material or ingredient out of which the product is made or result is produced. The second is an instrument or another means by which the result is brought about. The latter can be illustrated by the Van Dale-examples gitaar / lied tokkelen (‘to strum a guitar / a song’) or een toets / een noot aanslaan (‘to hit a key / a note’). Illustrative examples of the former type taken from Dutch dictionaries are koren / korenwijn branden (lit: burn grain / corn brandy, meaning ‘to distil corn brandy’), sinaasappels / sinaasappelsap persen (‘to squeeze oranges / orange juice’), riet / een dak vlechten (‘to weave reeds / a roof’). Adelung gives Eisen / Nageln schmieden (‘to forge iron / nails’), Leinwand / ein Kleid nähen (‘to sew linen / a dress’), Holz / Bretter sägen (‘to saw wood / planks’) and Sanders’ dictionary tags, for example, Hafer und Getreide / Pferdefutter mischen (‘to mix oat and corn / horse food’) as metonymical.

Verbs roughly meaning ‘to repair’, such as to darn holes / stockings, can also be grouped within this category. These verbs do not refer to a new creation of something, but they nevertheless denote the bringing about of something by repairing it. They therefore allow a focus on the repaired object, which could be seen as the result of the action. The ‘repair’-sense and the shift between the damage and the object to be fixed could be extended to medical examples, such as to cure a disease / a patient.

In a comparable way, verbs that denote some motion can be extended to abstract removing or placing. The German example etwas / jemanden ausfragen (lit.: “something / someone out-ask”, meaning ‘ask something / interrogate someone’) and the Dutch example kennis / iemand bijspijkeren (lit.: “knowledge / someone at/by-nail” meaning ‘to improve someone’s knowledge / to bring someone up to speed’) illustrate this. These examples could be seen as a metaphorical movement, removing or putting abstract content (knowledge/information) from or into an abstract container (a person).

In addition to the movement and creation verbs, some other examples shift between a concrete entity and an event. This can be illustrated by to continue writing / a book (cf. WNT entry continueren) and to interrupt a presentation / the speaker (cf. Van Dale 2005, entry onderbreken). We are not dealing with verbs of creation or movement in these examples, but with the category of so-called eventive verbs
(Verspoor 1997a) or phase verbs (Honselaar 1980). I will come back to these and similar abstract shifts in section 7.4.

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>EXAMPLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. movement between two objects</td>
<td></td>
</tr>
<tr>
<td>1 removing</td>
<td></td>
</tr>
<tr>
<td>a. 2 entities / 1 gestalt</td>
<td>unload goods / a ship; clear table / dishes; wipe the blood / wound; sieve flour / lumps</td>
</tr>
</tbody>
</table>
| b. non-literal (metaphor) | etwas / jemanden ausfragen<sup>G</sup>  
lit.: “something / someone out-ask” |
| 2 putting/adding/attaching/filling |                      |
| a. 2 entities / 1 gestalt | load goods / a ship; plant roses / a garden |
| b. non-literal (metaphor) | kennis / iemand bijspijkeren<sup>G</sup>  
lit.: “knowledge / someone at/by-nail” |
| II. creation |                      |
| a. material/ingredient - product | forge iron / nails  
press oranges / orange juice |
| b. means - result | strum a guitar / a song |
| c. repair (damage/holes - object) | darn holes / stockings |
| d. heal; cure (extended ‘repair’) | heal a disease / patient |
| III. eventive verbs (participant - activity) | interrupt a speaker / presentation; continue a book / writing (cf. §7.4) |
| IV. other | touw / zeil vieren<sup>G</sup>  
lit.: “rope / sail ease”  
as / vuur uitrakelen<sup>G</sup>  
lit.: “ash / fire out-poke” |

Table 4: Coarse-grained classification of verbs

Table 4 gives a general classification of the different categories of verbs allowing MOC. The superscripts (<sup>D/G</sup>) indicate whether an example is Dutch or German. Apart from the three general categories (with their subdivisions), there is also a rest category of verbs allowing MOC and not belonging to any of the other categories. These examples will be discussed in more detail according to their contiguity relations in section 7. First, however, I will compare the three main classes described above with existing analyses made by other scholars.

6.2 Levin’s alternations and MOCs

In the previous subsection (§6.1), MOC-verbs were divided into verbs denoting removal, addition, creation verbs and verbs termed eventive. Verb classes that partly overlap with these categories can be found in existing studies. The work by Pinker (1989), which is based on Rappaport & Levin 1988, and Levin’s book (1993) are especially important in this respect.

Pinker (1989) discusses four alternations, with what he calls dativizable verbs (110-123), locativizable verbs (124-130), causativizable verbs (130-134) and
passivizable verbs (134-137). The only alternations relating to the direct object are
associated with the locativizable verbs. Locativizable verbs exhibit shifts which are
based on the contiguity relation LOCATION AND WHAT IS IN A LOCATION (THE
LOCATUM). They are discussed by Levin as locatum-location shifts of the direct
object, also called transitive locative alternations (1993: 51-53).

Verbs allowing the locative alternation include verbs denoting removal as well as
verbs denoting addition (i.e. putting, adding or attaching) (cf. Levin 1993: 51-53; cf.
Pinker 1989: 126-127 vs. 129-130). Examples of the latter class are smear, pile,
spray, scatter, cram or load (cf. Pinker’s 6 semantic classes on pages 126-127;
Levin 1993: 51; cf. also Iwata 2008: 12-13). Examples of the former class are clear
and empty (Levin 1993: 51-52) or wipe and rinse (Levin 1993: 53). Not all of these
verbs can alternate as readily in Dutch or German as they do in English, as we will
see in more detail in the next chapter.

In addition to this, Levin describes shifts between direct objects called “image
this shift take a location or an image that is added on this location as their direct
object.

Some verbs which are tagged as metonymical in dictionaries belong to this class.
Adelung classifies abdrucken [lit.: “off-print”, i.e. ’to print (off)’ / ’to impress’) as
“metonymisch” and the WNT uses “verwisseling van object” for verbs such as
afdrukken (lit.: “off-print”, i.e. ’to print (off)’ / ’to impress’), afstempelen (lit.: “off-
stamp”, ’to stamp’) and inwerken (lit.: “in-work”, with MOC in the meaning ‘to
work in’ / ‘to inscribe’). Van Dale labels the verb tatoeëren (’to tattoo’) as involving
metonymy (cf. Levin 1993: 66). All these verbs can be combined with an image
as well as with the object or the part of the object on which the image is printed,
pressed or inscribed. This alternation can therefore be considered to be a specific
type of LOCATUM-LOCATION shift. Such verbs are also related to creation verbs,
since the image is positioned on the location.\(^\text{139}\)

The class of creation verbs, which are tagged as metonymy-driven by Apresjan
and a number of dictionaries, is also incorporated in Levin’s work. Levin terms them
transitive material/product alternations (Levin 1993: 56). This alternation includes
creation verbs allowing MOC, such as forge, sew, squeeze. An object shift from an
instrument-source to a result, such as to strum a guitar / a song, is, however, not
included by Levin.\(^\text{140}\) The fact that Levin uses the term “material-product

\(^{139}\) The tagged verb afschrijven (lit.: “off-write”) in Van Dale and in the WNT can also be
combined with the signs which are marked on an object, such as a piece of wood, as well as
the wood itself. This usage of the verb is technical jargon, only used in carpentry,
metalworking and architecture.

\(^{140}\) For the relatedness of MOCs with locative verbs and creation verbs in general: compare
chapter VI, §4.3-4.4.

\(^{141}\) Although Levin does not mention the verb to strum at all, it also occurs in another
alternation, viz. Levin’s so-called conative alternation (cf. Levin 1993: 41-42). An example is
een gitaar tokkelen – op een gitaar tokkelen (’to strum a guitar – to strum on a guitar’) (cf.
also Honselaar & Sweep forthcoming 2012). Since this alternation is a shift between a
transitive and an intransitive construction, it is by definition less relevant for the present research on MOCs.

142 The verb to tattoo also allows this alternation, cf. footnote 174.
143 An example of this is The butcher cuts the meat versus The meat cuts easily. Note again the relatedness with metonymy (AGENT-INSTRUMENT). Dictionaries sometimes even tag these shifts as instances of “subjectsverwisseling” (Metonymical Subject Change).
All other shifts between a transitive and an intransitive construction are also irrelevant for MOC. Examples of these are the substance/source alternation (Levin 1993: 32), unexpressed object alternations (Levin 1993: 33-40), the conative alternation (Levin 1993: 41-42), and the so-called cognate object or reaction object construction (Levin 1993: 95, 97-98).

In addition, alternations between two direct objects that are impossible in both Dutch and German need not be taken into further consideration here. An example of such an alternation is the ‘blame’ or the ‘search’ alternation (Levin 1993: 69-71, cf. Heyvaert 2000; Heyvaert 2005). Examples are *Mira blamed the accident on Terry / Terry for the accident* and *Ida hunted the woods for deer / deer in the woods*. Apart from being impossible in Dutch and German, the ‘blame’ and ‘search’ alternations differ from each other in one crucial respect: Whereas *hunt the woods* as well as *hunt deer* are both possible without any prepositional phrase, the object shift in the case of *blame* is only possible if both the *accident* and *Terry* are expressed simultaneously.

The same can be observed in the ‘fulfilling’ alternation (Levin 1993: 65-66). An example is *The judge presented a prize to the winner / the winner with a prize*. This alternation is only possible if all arguments are expressed, and it also appears only rarely in Dutch and German. Heyvaert’s work on Dutch alternations describes only one, somewhat dubious, example in Dutch, i.e. the equivalent of *to provide food to him / him with food* (i.e. *(??)proviand voorzien voor hem → hem van/met proviand voorzien*, cf. Heyvaert 2000). The alternation is only possible, if all arguments are simultaneously shifted. Alternations in which both arguments need to be shifted simultaneously should not be considered real MOCs (or MSCs) (cf. also Carlberg 1948: 21).

There are other alternations that can only shift their direct object if the other possible object is realised as an oblique or if a new obligatory element is added. An example of the latter type is the resultative construction (cf. Levin 1993: 99-101). In these examples a shifted object only occurs if an additional adverb is added. Since the structure of the sentence must be changed in order to make this kind of shift possible, I will not discuss resultatives any further.

All arguments are also shifted simultaneously in the *with/against* alternation or the *through/with* alternation (Levin 1993: 67-69). They can only alternate their direct objects if the prepositional phrase is present. Examples are *to pierce the cloth (with a needle) versus to pierce the needle *(through the cloth)* and to hit the fence (with a stick) versus to hit a stick *(against the fence)*. The brackets preceded by an

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144 Cf. footnote 141.

145 Adelung tags the example *einen Teich fischen* (‘to fish a pond/lake’) as “figürlich” (‘figurative’). Such examples can be found in the DeWac-corpus, but they refer to archaic language, compare “Über diesen Talwether steht geschrieben: ’1427 an Mittwochen nach Lätare hat man den Weiher in dem Tal gefischt....’” (‘About the lake in the valley has been written: “In 1427 one has fished the lake in the valley on Wednesdays after Laetare Sunday...”’); and “und so hat jeder von euch von Mir Benannten das Recht, den vierten Teil des Teiches zu fischen,” (‘and so everyone of the persons who are assigned by me has the right to fish a fourth part of the pond’).
asterisk illustrate that in those cases the direct object is only possible with the additional PP. This alternation is therefore fundamentally different from most transitive locative alternations, image impression alternations and material/product alternations. Only in some transitive locative alternations can the prepositional phrase be made explicit, and where this is possible it is not necessary. This issue will be discussed in detail in the next chapter.

In sum, if we compare the direct object examples tagged as instances of metonymy by dictionaries with Levin’s alterations, several of these turn out to be relevant. The transitive locative alternations (Levin 1993: 49-53, cf. also Pinker 1989: 124-130), the image impressing alternation (Levin 1993: 66-67) and the transitive material-product alternation (Levin 1993: 56) are reflected in the set of MOCs. Levin does not discuss the class of eventive shifts (i.e. logical metonymies). Other MOCs are not incorporated in Levin’s classification, but they are similar to some other alternation classes. For instance, some fairly standard metonymies, such as shifts between body-parts and possessors as direct objects, are related to Levin’s ‘body-part possessor ascension’ alternation. Similarly, Levin’s class of possessor-attribute alternations (1993: 73-79) describes shifts between direct objects and prepositional phrases, although comparable shifts occur in direct objects only.

6.3 Simplex verbs and complex verbs

Outside lexicography the term “Objektsvertauschung” has mainly been used in connection with morphologically complex verbs (cf. e.g. Hundsnurscher 1986: 125; McIntyre 2001: 17). These morphologically complex verbs consist of a verb stem and a prefix or prefix-like element. Before I will discuss the exact nature of such prefix-like elements (also called particles) in the next section, it should be noted that even literature on such prefix verbs often acknowledges that simplex verbs sometimes allow the same shifts (cf. e.g. Hundsnurscher 1986: 125).

Dictionary data reflect these facts: Although the vast majority of tagged verbs are morphologically complex, some simplex verbs are also tagged as allowing MOC. Table 5, which gives an overview of simplex and morphologically complex verbs which are tagged for allowing MOC, illustrates this.146

146 Van Dale’s 127 examples are all tagged with “objectsverwisseling” or “objectsverw”. The 397 WNT-verbs are the 388 instances tagged with “objectsverwisseling” and variants (cf. footnote 125 and the appendix) and seven additional verbs with the label “metonymisch” / “meton.” (afvlaggen ‘to flag down’, betegelen ‘to tile’, continueren ‘to continue’, evacueren ‘to evacuate’, ondulieren ‘to crimp/perm’, onzitten ‘to desalinate’, toedommen ‘to dam up’) and two with other labels (toesluiten ‘to enclose’, lossen ‘to unload’). Since Table 5 is based on dictionary examples, some examples which were excluded from the realm of MOCs in section 4 are also taken into account. The only occurrence of open- in Van Dale, for instance, is the verb opendoen in Van Dale, which was classified as a wrong example for MOC in the previous section.
Table 5: MOC tagged in dictionaries with complex verbs and simplex verbs

<table>
<thead>
<tr>
<th>Dutch prefix/particle</th>
<th>English translation</th>
<th>number WNT (397)</th>
<th>number Van Dale (127)</th>
</tr>
</thead>
<tbody>
<tr>
<td>aan-</td>
<td>'on'/'(on)to'/'in'/'at'</td>
<td>13</td>
<td>7</td>
</tr>
<tr>
<td>af-</td>
<td>'off'/'away'/'down'</td>
<td>139</td>
<td>62</td>
</tr>
<tr>
<td>be-</td>
<td>(be-)</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>bij-</td>
<td>'at'/'to'/'by'/'with'</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>in-</td>
<td>'in'/'into'</td>
<td>13</td>
<td>1</td>
</tr>
<tr>
<td>om-</td>
<td>'re-/(a)round'/'under'</td>
<td>13</td>
<td>1</td>
</tr>
<tr>
<td>onder-</td>
<td>'sub-/'under'/'inter-'</td>
<td>4</td>
<td>1</td>
</tr>
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<td>ont-</td>
<td>'un-/'dis-'</td>
<td>9</td>
<td>0</td>
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<td>ver-</td>
<td>--</td>
<td>15</td>
<td>0</td>
</tr>
<tr>
<td>weg-</td>
<td>'away'</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>loan prefix / verb</td>
<td>(a(d)-)con-etc.</td>
<td>9</td>
<td>0</td>
</tr>
<tr>
<td>simplex verb</td>
<td></td>
<td>41</td>
<td>17</td>
</tr>
</tbody>
</table>

<table>
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<tr>
<th>German prefix/particle</th>
<th>English translation</th>
<th>number Adelung (102)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ab-</td>
<td>'off'/'away'/'down'</td>
<td>38</td>
</tr>
<tr>
<td>an-</td>
<td>'on'/'(on)to'/'in'/'at'</td>
<td>4</td>
</tr>
<tr>
<td>auf-</td>
<td>'on'/'onto'/'up'</td>
<td>13</td>
</tr>
<tr>
<td>aus-</td>
<td>'out'/'off'/'away'</td>
<td>45</td>
</tr>
<tr>
<td>be-</td>
<td>--</td>
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</tr>
<tr>
<td>simplex verb</td>
<td></td>
<td>1</td>
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</tbody>
</table>

Interestingly, the DWB uses the term Objectverschiebung or meton. primarily for simplex verbs with metonymical object shifts. Examples are träufen (‘to drip’), impfen (‘to inject’), lösen (in the meaning ‘to fire’), mähen (‘to mow’) and pflanzen (‘to plant’).

Adelung, in contrast, uses the word metonymisch almost solely for morphologically complex verbs. In one dictionary entry, however, Adelung refers to a similar shift with a simplex verb: The MOC associated with ausladen (‘to unload’) is also said to occur with löschen (‘to unload’ in combinations with ships and goods). The tag “ingleichen”, indicating MOC, is used in the dictionary entry for the simplex verb löschen.

Adelung also tags other simplex verbs allowing MOC with comparable labels, such as “auf solche Art” or “figürlich”. Examples are fischen (‘to fish’, cf. footnote 145), flechten (‘to braid / to weave’), gießen (‘to pour’), graben (‘to dig’), heilen (‘to heal’), impfen (‘to inject’), kehren (‘to sweep’), lesen (in the older meaning of ‘to

147 Grimm’s examples with gichten and treiben are obsolete in the intended meanings.
gather’/’to pick’), lodemn (’to set alight’), lösen (in the meaning ’to fire / to shoot’), klauben (regional verb for ‘to gather’), nähen (’to sew’/’to stitch’), packen (’to pack’), pflanzen (’to plant’), quetschen (’to squeeze’), sägen (’to saw’), schmieden (’to forge’), sieden (’to cook’), stopfen (’to stuff’/’to darn’), träufen (’to drip’).

The Dutch verbs retrieved from dictionaries show a comparable difference in the proportion of simplex verbs and prefix verbs. According to Van Dale, the simplex verbs allowing MOC are branden (’to burn’/’to distil’), enten (’to graft’), pakken (’to pack’), persen (’to press’/’to squeeze’), schenken (’to pour’), stouwen (’to cram’), stelpen (’to stem / to dab’), strijken (’to brush’/’to spread’), stropen (’to strip’), stroppen (’to tie up’), tapien (’to tap’), tatoeëren (’to tattoo’), tokkelen (’to strum’), vegen (’to sweep’/’to wipe’), vieren (’to slacken’), vlechten (’to braid / to weave’), wieden (’to weed’). The WNT incorporates even more simplex verbs: Apart from some very specific or old-fashioned verbs, the WNT gives a further set of simplex verbs allowing MOC such as borstelen (’to brush’), kappen (’to chop (down)’), krabben (’to scrape’), lichten (’to empty’/’to unload’), ruimen (’to clear’), stampen (’to cram’), stuwjen (’to stow’), trimmen (’to trim’), vullen (’to skin’), vreten (’to eat (away)’), vullen (’to fill’), wassen (’to wash’), wissen (’to wipe’), wringen (’to wring’), ziften (’to sift’/’to sieve’), zugen (’to suck’) and zwelgen (’to gulp’).

These lists of simplex verbs suggest that the prefixes themselves are not of crucial importance. Instead the meaning of the verb, which can be a simplex verb or a morphologically complex verb, must involve two related objects. There are several additional observations which support the view that these shifts are not merely caused by a prefix or particle.

The first observation supporting this is the fact that crosslinguistically, verbs in two languages with a comparable meaning but different morphological structure often both allow MOC. The English verb to clear can be used to illustrate this observation: In the context of tables and tableware, to clear must be translated into Dutch and German by the complex verbs afruimen or abräumen (“off-clear”). However, all these verbs allow MOC, i.e. the English simplex verb to clear as well as the Dutch and German particle verbs afruimen and abräumen. Rather than the prefix or particle, it is apparently the concept of the action itself, i.e. clearing a table of its tableware, and the relation between the table and the tableware within this action, that make MOC possible.

Secondly, a simplex verb which also occurs as part of a particle verb frequently also allows MOC (cf. Hundsnurscher 1986: 125). This can also be illustrated with to clear in Dutch and German. Although the verb to clear should be translated as afruimen or abräumen when they are used in the context of tables and their tableware, it can correspond to the simplex verbs ruimen or räumen in other contexts. In these cases the simplex verb also allows MOC, just as in English. Illustrative are the Dutch and German equivalents of to clear the road and to clear snow, where ‘snow’ and ‘road’ are in a contiguity relation of the form LOCATION-
LOCATUM (cf. also below chapter VI, example (37) on page 190 and §4.3 page 225). Shifts following this contiguity pattern do not only occur with *ruimen* / *räumen* and *afruimen* / *abräumen*, but also with other relevant complex verbs, such as with *inruimen* / *einträumen* (‘in-‘), *uitruimen* / *ausräumen* (‘out-‘) and *opruimen* / *aufräumen* (‘up-‘).

This can lead to certain verb clusters with one similar shift. In German, for instance, the verb *packen* (‘to pack’) as well as *einpacken* (‘in-pack’) and *auspacken* (‘out-pack’), which are tagged as allowing MOC, can be combined with either a container or its content. The same goes for the tagged Dutch verbs *laden* (‘to load’), *afladen* (‘off-load’), *inladen* (‘in-load’), *omladen* (‘re-load’), *ontladen* (‘de-load’), *opladen* (‘up-load’), *uitladen* (‘out-load’). I will discuss some of these MOC-allowing verb clusters in chapter VI, §4.

In fact, some pairs of simplex and complex verbs even have almost identical meanings. Both verbs then allow MOC. This can be illustrated in German by the pair *abmähen* (‘to mow off’) and *mähen* (‘to mow’). The verb *abmähen* is often considered a prototypical verb allowing MOC (cf. Adelung or Reichmann 1989: 110; Carlberg 1948: 27, 39). The same shift with *mähen* is tagged as “metonymisch” by Grimm. A similar Dutch pair is *villen* (‘to skin’) and *afvillen* (‘to skin off’). Both verbs can be combined with an animal as well as with its skin and in the entries for both verbs the WNT describes the latter object as an example of “objectverwisseling”. Pairs such as *villen* - *afvillen* clearly show that the metonymical relation between both direct objects and its relevance for the action expressed by the verb can already be present in the meaning of the simplex verb.

The same point can be illustrated with synonymous or nearly synonymous pairs. The verb *stropen* (‘to skin’), for instance, which has a comparable meaning to *villen* and *afvillen*, also allows both types of direct objects. Similar observations can be made for *betten* - *afbetten* (‘to dab (off)’) and the near-synonym *stelpen* (‘to stem/to dab (off)’). The verbs can all be combined with, for instance, blood or the wound.149

149 These verbs are infrequent, but compare the ANW-examples for *betten* “hij haalde zijn huid open en bette het wondje aan het jasje van zijn pyjama.” (‘he scraped his skin and dabbed the little wound on the jacket of his pyjamas’) versus “Ik blijf het opwellende bloed betten” (‘I keep dabbing the blood that is welling up’) or the internet examples “Zij legden hun heer in bed, betten de wond met natte doeken, maar vergeefs.” (‘They laid their lord in bed, dabbed the wound with wet towels, but to no purpose.’), source: http://www.beleven.org/verhaal/over_de_dankbaarheid [June 2011] versus “Kashmir bette een klein straaltje bloed op Mainyu’s hals.” (‘Kashmir dabbed a little stain of blood on Mainyu’s neck’, via Google-books, LaHaye & Jenkins (2003): Armageddon, Kampen: Uitgeverij Kok).

The verb *stelpen* is often combined with *bloed* as the direct object, as in the ANW-example “Voorzichtig probeerde zij het bloed te stelpen” (‘Carefully she tried to stem the blood’), but it also occurs with the wound, as in the ANW-example “Bloedende wonden werden gestelpt” (‘Bleeding wounds were stemmed’) or in internet-examples, such as “Gelukkig kon ik ze helpen en de wond stelpen met een pleister” (‘Luckily, I could help them and stem the wound with a plaster’), source: http://mariekewillemsen.waarbenijjtu.Reisverslag/?page=message&id=3847000 [June 2011].
Another example are the Dutch synonyms *printen* and *afdrukken* (both ‘to print’), which can both occur with a page or piece of paper and the image or text as a direct object. All these examples show that it is the general action expressed by a verb, rather than the prefix, that contributes to the possibility of MOC.

### 6.4 Prefixes, particles, prepositions and small clauses

One of the topics that give rise to discussion of MOC-alternations in English are so-called phrasal verbs or particle verbs (cf. e.g. Levin & Sells 2007). The particle is then considered to be responsible for the MOC (cf. McIntyre 2007). The underlying assumption is that the particle syntactically functions as a small clause, which affects the argument structure.

Examples (1) and (2) illustrate this. The a₁-sentence is paralleled by an example like a₂. The b-sentences are assumed to contain “unpredicated” particles (cf. Levin/Sells 2007: 2), since the direct object of the particle (the semantic ‘ground’) and not its subject (the semantic ‘figure’) occurs as the direct object in the sentence. In other words, the particles are unpredicated in the b)-sentences, since the dirt is off or out, whereas one cannot say that the window is off or the cloth is out.

(1) a₁ he hosed the dirt off  
   a₂ / he hosed the dirt off the window  
   b. he hosed the window off

(2) a₁ he rinsed the dirt out  
   a₂ / he rinsed the dirt out of the cloth  
   b. he rinsed the cloth out

The same issue is illustrated in example (3) for Dutch and in (4) for German (cf. McIntyre 2007: 356; cf. also Oya 2009).

(3) a₁ hij schonk thee in  
    a₂ / hij schonk thee in het glas  
    b. hij schonk het glas in  
    ‘he poured tea into the glass’

150 It is interesting that the notions ‘figure’ and ‘ground’ are used, since these two notions originally come from gestalt psychology. The notion of a gestalt is also more generally crucial to metonymies (cf. Chapter II or section 7.2 below). Some scholars use the comparable terms ‘trajector’ and ‘landmark’ (cf. Talmy 2000: 253).
The two possible direct objects in these examples are claimed to correspond to the subject (the figure) and the direct object (the ground) of the particle, such as *thee in het glas* (*tea in the glass*) or *Heu auf dem Wagen* (*hay on the wagon*). The particle is therefore seen as a kind of secondary predication (a small clause). The particles of the b-sentences are called “unpredicated”, since they lack the expression of their figures.

There are some problems with this reasoning, however. First of all, it is not universally accepted that a particle should be analysed as a secondary predication when it comes to Dutch and German (cf. Dehé et al. 2002). There is a crucial difference in the structure of complex verbs in Dutch and German on the one hand and in English on the other. In Dutch and German, the particle is to a larger extent part of the verb: Whereas the English phrasal verb is always written as two separate words, in Dutch and German this is only the case in finite forms in main clauses. The verb *to rinse off*, for instance, corresponds to the Dutch and German infinitives *afspoelen*/*abspülen* and the infinitive *pour in* to Dutch and German *inschenken*/*eingießen*.

Traditionally, Dutch and German particles have therefore been analysed as a specific kinds of prefixes. The prefixes are distinct from standard prefixes, in that they are separated from the verb stem in finite forms in main clauses (as also illustrated in (3)). Verbal prefixes that are never separated from their verb stem are the Dutch prefixes *be-*, *er-*, *ont-*, *ver-* and the German ones *be-*, *ent-*, *er-*, *ver-*, *zer-*. Morphological elements which are related to prepositions such as Dutch *aan-*, *af-*, *bij-*, *in-*, *onder-*, *op-*, *over-*, *uit-*, and German *ab-*, *an-*, *auf-*, *aus-*, *bei-*, *ein-*, *um-*, *unter-*, *über-* are separated from their verb stem in some cases but not in others.

Although the Dutch and German tradition of linguistic research therefore makes a distinction between so-called inseparable and separable prefixes, the possibility of separable prefixes has been considered a contradictio in terminis by others (cf. e.g. Maylor 2002: 4). These scholars prefer to call them particles. However, in Dutch and German the difference between a prefix and a particle is not as straightforward as has sometimes been suggested.

Dutch and German particle verbs are well-known for two properties that prefix verbs lack. The first is that, as I pointed out above, the particle is separated from its

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151 Example (4) requires the accusative *den Wagen*, because the verb expresses some movement. The expression of a static figure-ground relation with *auf* requires the dative *dem Wagen*.

152 All preposition-related elements in Table 5 come from verbs which do split.
verb stem in finite forms in main clauses. This is illustrated in sentences (5)-(8): In finite form in main clauses the prefix and verbal base are not adjacent and are not written as a single word, as in (8).

(5) Dutch: Hij wilde het vuil afspoelen.
   German: Er wollte den Schmutz abspülen.
   *he wanted the dirt off-rinse*

(6) Dutch: ..., omdat hij het vuil afspoelde
   German: ..., weil er den Schmutz abspülte
   *..., because he the dirt off-rinsed*

(7) Dutch: Hij heeft het vuil afgespoeld.
   German: Er hat den Schmutz abgespült
   *he has the dirt off-GE-rinsed*

(8) Dutch: Hij spoelde het vuil af.
   German: Er spülte den Schmutz ab.
   *he rinsed the dirt off*

A second difference between prefix verbs and particle verbs manifests itself in the way in which past particles are formed, i.e. with or without the inflectional prefix ge-. Like Dutch and German simplex verbs but unlike Dutch and German prefix verbs, particle verbs form their past participles with -ge- (cf. (7)). For instance, Dutch werken and German arbeiten (both ‘to work’) have as their past particles gewerkt / gearbeitet, the prefix verbs verwerken and verarbeiten (both ‘to process / handle’) have verwerkt / verarbeitet, while the particle verbs inwerken and einarbeiten (‘to work up / settle in’) have ingewerkt / eingearbeitet.

A third property is the differential stress patterns of prefix and particle verbs: Whereas particles can receive stress, prefixes are always unstressed.

It is sometimes claimed that these three properties indicate that particle verbs actually consist of two separate words. If a particle verb actually consists of two words, the particle should not be regarded as a morphological prefix and it could indeed syntactically be analysed as a small clause (cf. e.g. Bennis et al. 1995).

However, other observations contradict the assumption that a verb-particle combination in Dutch and German corresponds to two different words. For instance, particle verbs occur as a unit in derivational processes. This indicates that they must be considered single, complex words.

Illustrative in this respect are Dutch words such as afgrenzing (‘demarcation’) and afgrensbaar (‘demarcatable’) or aflapping (‘draining’/‘tapping’) and aflapbaar (‘possible to drain / to tap’). The words afgrenzen or aflappen are particle verbs:

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153 In Dutch grammar, particle verbs are therefore called samenkoppelingen (lit.: “together-couplings”, i.e. ‘coupled units’) instead of samenstellingen (i.e. compounds) (cf. ANS 12·2·2·1).
They split in finite form in main clauses and they form their past participles with ...
...-ger-... (afgerensd and afgetapt). However, if afgrenzen and aftenappen are two
words, the derivations should also be analysed as the combination of af- and the
derivations *grenzing / *grensbaar and -??tapping / ?tapbaar. Given that these
latter forms do not exist as such, afgrenzing and aftapping should be considered to
be derivations from the verbs aftenappen or afgrenzen. As a consequence, these verbs
should be considered single words (cf. also Neeleman & Weerman 1993: 439ff).

This analysis is also semantically more adequate. Words such as aftapping and
afgrenzing simply denote the process or the result of the verbal action expressed by
the verbs aftenappen and afgrenzen. Parallels such as that between the prefix verb
begrenzen - begrenzing - begrensbaar (‘to bound / to limit’ - ‘boundary / limitation’
- ‘boundable / limitatable’) and the particle verb afgrenzen - afgrenzing
- afgrensbaar (‘to demarcate’ - ‘demarcation’ - ‘demarcatable’) prove elucidating in
this respect.154

A German example that also illustrates that particle verbs are involved as units in
morphological processes is the verb sich überanstrengen (‘to overstrain oneself’).
This verb is formed by the combination of über- (‘over-’) and anstrengen (‘to do
one’s best’ / ‘to make an effort’). The stress pattern (überanstrengen), the past
participle (überanstrengt) and the fact that the particle is not separated from its
verbal stem in its finite forms classifies über- as a prefix. Since prefixes are attached
to words, the basis anstrengen (‘to do one’s best’ / ‘to make an effort’), which is a
caracter verb, must also be a single word.

The fact that a particle verb is a semantic unit is also supported from a cross-
linguistic perspective. The comparable Dutch and German verbs overslaan and
überschlagen illustrate this. Both verbs literally mean “over-strike” and both can be
translated as “to pass over” or “to skip”. However, only the Dutch verb overslaan is a
particle verb (over- is stressed, it can be separated from the verb stem and the past
participle is overgeslagen). The German überschlagen is a prefix verb (the stress is
on the first syllable, it cannot split and the past participle is überschlagen). The
opposite also occurs: The German equivalent of the Dutch prefix verb aanbidden
(lit.: “to-pray”, i.e. ‘to worship / to admire’) is the particle verb anbeten (lit.: “to-
pray”). Clearly, a cross-linguistic perspective shows that prefix verbs and particle

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154 One could say that the conclusion that particle verbs must be single words because they
occur in derivational processes (cf. Neeleman & Weerman 1993: 439) is not straightforward
solely on the basis of morphological form, given the fact that there are plenty of other groups
of words to which suffixes are attached. In Dutch grammars, such examples are called
samenstellende afleidingen, i.e. ‘compounding derivations’ (cf. ANS 12·1·1 number 1;
12·3·3; 12·4·4·2). Examples are, for instance, blauwogig (“blue-eye-D”), blondlakig
(“blond-hair-ED”), ondermaans (“under-moon-S”), tweewieler (“two-wheel-ER”), etc. None
of the examples can be analysed as a word attached to a derivation (cf. *ogig; *lakig;
*maans, *wieler) and in each of these examples the part before the suffix is a word group
rather than a word (cf. *blauwog; *blondlak; *ondermaan; *tweewiel). The additional
problem with words such as afgrensbaar or aftapping is that it is awkward from a semantic
point of view to analyse them as not derived from afgrenzen or aftenappen (cf. also Neeleman &
Weerman 1993: 440-441, example overgeefsel (‘vomit’)).
verbs need not be very different semantically. This also makes it implausible that different syntactic analyses should be applied, the one with and the other without a small clause.

In addition to this, particle verbs are syntactically more restricted than other small clauses. Particles cannot, for instance, be questioned or topicalised and focus markers cannot be placed in between the particle and the verb (cf. Neeleman & Weerman 1993: 438).

Two different analyses of Dutch particle verbs, therefore, have been made. Some syntacticians (such as Weerman) analyse (3)a as involving a complex verb (in-schenken / ein-gießen) with a direct object. In bracket notation, this looks like (9). Others (such as Bennis) analyse the particle as a secondary predication (a small clause) in line with Levin & Sells or Oya, i.e. as in (10) (cf. Bennis et al. 1995).

(9) \[
\left[\text{V'} \left[\text{NP thee}\right] \left[\text{V} \left[\text{Prt in-}\right] \left[\text{V schenken}\right]\right]\right]
\]

(10) \[
\left[\text{V'} \left[\text{V schenken}\right] \left[\text{PrtP} \left[\text{NP thee}\right]\left[\text{Prt in-}\right]\right]\right]
\]

Although a full discussion of this syntactic problem (cf. Dehé et al. 2002) is beyond the scope of this dissertation, the two existing analyses (cf. also Zeller 2002) clearly illustrate that an account in terms of secondary predication is problematic.\(^{155}\)

Apart from the problem associated with the secondary predication analysis, there are several other reasons which cast doubt upon Levin and Sells’ view that particle verbs with different possible objects such as (1)a\(_1\) and (1)b or (2)a\(_1\) and (2)b can are comparable with a simplex verb and a PP, as in the a\(_2\)-sentences of (1) and (2) (cf. page 145).

First of all, it should be noted that a prepositional phrase with a location or a semantic ground cannot only be added to a sentences with a simplex verb; in Dutch and German, the same prepositional phrase is often found in combination with the particle verbs themselves. This is illustrated in (11) and (12)\(^{156}\).

\(^{155}\) A comparable discussion is ongoing concerning verbs with prepositional complements, such as begin on or long for. The traditional syntactic vision is that a verb selects the preposition and the preposition selects a complement (cf. Haslinger 2001). Within brackets, this would be for, for example, long for: \[
\text{VP} \left[\text{V long}\right] \left[\text{PP} \left[\text{P for}\right] \left[\text{comp something}\right]\right] \]
\] The problem is, however, that this analysis is not in line with the intuitions of language users. They consider the complement to be a verbal rather than particle complement, i.e. \[
\text{VP} \left[\text{V long}\right] \left[\text{PP} \left[\text{P for}\right]\right] \left[\text{comp something}\right]\]
\] This clash between syntactic analyses and linguistic intuitions has also been called the “bracketing paradox” by Neeleman (1997). With particle verbs analysed as in (10), the same problem arises. One of the advantages of an analysis that analyses particle verbs as complex verbs (as in (9)) is that it avoids a bracketing paradox for particle verbs.

\(^{156}\) I did not find example (11) as such, but comparable examples can be found without any problems. Compare, for instance, the German examples “Diese Leichen sind aus 87 Grabstätten ausgegraben worden.” (‘These bodies were dug up [lit. ‘out’] out of 87 graves’) [taken from the DWDS-corpus] or “Wenn der sibirische Salamander aus dem
These examples once again cast doubt upon the view that a particle verb is comparable with a simplex verb and a prepositional phrase.\(^{157}\)

Secondly, in some cases of MOC there is no simplex verb combined with a PP that is equivalent to particle verb with different possible objects. The sentences in (13) illustrate this.

a.\(_1\) Dutch: de kip broedde kuikens uit \\
German: das Huhn brütete Küken aus

b. Dutch: de kip broedde eieren uit \\
German: das Huhn brütete Eier aus

a.\(_2\) Dutch: *de kip broedde kuikens uit de eieren \\
German: *das Huhn brütete Küken aus den Eiern

According to Hundsnurscher (1986: 126), the particle in *ausbrüten* has an aspectual meaning rather than a locative one. Sentences, such as (13) \(_a\), \(_a\)_2) and \(_b\), are claimed to support the view that the prefix in *ausbrüten* and presumably also in *uitbroeden* have the aspectual meaning of hatching the eggs to emergence.\(^{158}\) The sentences in (13) show that this object change cannot be caused by a figure and a ground which are connected by the particle. But if this is not the case in (13), it can

\(\text{durchgefahrenen Boden ausgegraben wird, krabbelt er bald munter herum.} \) (‘When he has been dug up [lit. ‘out’] out of the frozen ground, the Siberian salamander crawls around happily’) [taken from Müller/Frings (2009): Tier- Und Humanphysiologie: Eine Einführung, Springer Verlag, p. 616]. Comparable Dutch examples from the ANW-corpus are “die liezen ze eerst met de handen de mijnen uitgraven uit het veld” (‘they let them first dig up [lit. ‘out’] with their hands the mines out of the fields’) or “Ze waren naar de kapstok gelopen, hadden hun jassen uitgegraven uit de berg donkere wollen mannemantels” (‘They had walked to the coat rack, they had dug up [lit. ‘out’] their coats out of the pile of dark woollen men’s coats’).\(^{157}\)

\(^{157}\) Other scholars contrast sentences with a complex verb and an added PP, such as in (11) and (12), with comparable sentences with the other noun as a direct object (cf. McIntyre 2001: 5, 262). The problem with this analysis is, however, that the PPs in (11) and (12) are optional (cf. chapter VI, \(\S\)2.1 and cf. also examples (14)-(21) below).

\(^{158}\) However, diachronically the aspectual meaning has probably been developed on the basis of the locative meaning. Furthermore, one could of course severely question whether, from a synchronic perspective, the locative meaning does not play any role.
be questioned why it would be the case in other examples. Furthermore, examples in which the locative and aspectual meanings overlap, as is the case with *austrinken* (lit.: “out-drink”; ‘to drink out / empty by drinking / finish by drinking’) (cf. McIntyre 2001: 17ff; Zeller 2001: 19-22) also become difficult to analyse.

In many examples, it is simply not entirely clear what the precise semantic contribution of the particle is (cf. also the discussion of *op- / auf- and aan- / an- in footnote 163 and 164). This can be illustrated further by the Dutch verb *insmeren*. The verb *insmeren* with a locatum-object can combine with the location in a PP introduced by *in*, as was the case with *inschenken* in (11). However, different prepositions also occur in such PPs. They do not need to correspond to the particle *in-*. This is illustrated in the Dutch examples (14)-(17), which are taken from the internet.159

(14) Als [...], dan kan je de olie insmeren in je haar
     if [...], then can you the oil in-rub in your hair
     ‘If..., then you can rub the oil into your hair.’

(15), de zalf goed insmeren tussen de haren,
     , the ointment good in-rub between/amongst the hairs.
     ‘rub the ointment in carefully between the hairs.’

(16) Er staat dat je het spul moet insmeren op de onbedekte huid.
     there stands that you the stuff must in-rub on the uncovered skin
     ‘It says that one should rub the stuff on the uncovered skin.’

(17) Smeer nu uw tattoo in met zalf.
     rub now your tattoo in with ointment

     De zalf moet je goed op de tattoo insmeren, ...
     the ointment must you good on the tattoo in-rub
     ‘Rub your tattoo with ointment. The ointment must be carefully rubbed into
     the tattoo’

In most cases the verb *insmeren* (lit.: “in-rub”, ‘to rub (in) / to put on’) is combined with a location as its direct object, as in *je haar insmeren* (‘to rub your hair’), *je huid insmeren* (‘to rub your skin’), *iemand insmeren* (‘to rub someone’), etc (cf. also (17)). Although what is put on the skin or hair, such as some oil or ointment, does not occur particularly frequently as the direct object of this particle verb, sentences (14)-(17) show that this construction is possible. However, in these cases the original location object, such as the skin or hair, can occur in a PP with several

different prepositions. Only in example (14) does the preposition used for the location correspond to the particle, i.e. *in*. Examples (15)-(17) use *tussen* and *op*. The fact that different prepositions occur in the location-PP shows once again that it is problematic to claim that a location is predicated by the particle. The specific semantic contribution of the particle remains vague: Rather, the verb is a semantic unit.

The fact that particle verbs are not equivalent to simplex verbs combined with a PP can also be illustrated by internet-examples, such as (18)-(21).160

(18) Aziatische dames smeren olie in hun haar
'Asian ladies rub oil in their hair'

(19) Om je haar een echte boost te geven
for your hair a real boost to give

kaan je je haren insmeren met olie
can you your hair rub with oil

‘In order to give your hair a real boost, you can rub your hair with oil’

(20) Hoe vaak moet ik nou die uierzalf op de tattoo smeren?
how often should I again that udder-cream on the tattoo rub

‘How often should I rub that udder cream on the tattoo again?’

(21) Als de korstjes erop zitten
if the scabs there-on [=on it] sit

kun je de tattoo dun insmeren met uierzalf
can you the tattoo thin rub with udder-cream

‘If there are scabs on the tattoo, you can rub it in with udder cream’

If sentences such as (14), (18) and (19) lead to the idea that we could treat the b sentence on a par with $a_1$ and $a_2$ in (22), then the internet-examples (17), (20) and (21) give rise to the idea that we could also compare the examples under (23).

(22) $a_{1}$ olie **insmeren** (in je haar) [cf. example (14)]
$a_{2}$ olie **smeren** in je haar [cf. example (18)]

b. je haar **insmeren** [cf. example (19)]

160 Sources: http://www.xead.nl/mooi-haar-zonder-kapper--10-tips-voor-de-gewone-vrouw;
http://girlintomakeup.blogspot.com/2010/10/haar-verzorgen.html;
This is clearly problematic and very implausible. The fact that these prepositional phrases have the same function whether they occur in combination with particle verbs or with simplex verbs shows that the location-direct object in (19) or (21) is nothing more than the direct object of the particle verb itself. The verb is a semantic unit, in which the exact contribution of the particle has become vague.

Last but not least, an analysis which assumes that sentences a1), a2) and b) are similar, as is shown in (1) and (2) (page 145), ignores the fact that sometimes there are formal differences between particles and prepositions. This is illustrated by Dutch inschenken and German eingießen in (24) and (25) (cf. example (3) on page 145).

In Dutch, the particle predication can be illustrated by thee in het glas (cf. page 145). It is questionable whether this is also possible in German, since the particle ein-cannot be used as a preposition. The only possibility is to paraphrase the ein-predication by Tee in das Glas.

This is crucial, since it once again points towards a problem in assuming that sentences like a1), a2) and b) are similar. In the German example (25), only the sentences under a1 and b contain the same particle. Because of the difference between German in and ein, it is doubtful whether the particle verb can be compared with a simplex verb and a prepositional phrase, as is often done for English (as in (1) and (2), page 145). In other words, whereas Dutch resembles English, as in sentences (24) a1), (24) a2) and (24) b), a difference between the two constructions becomes visible in German.

This issue is not only relevant for Dutch and German. In fact, the same problem can be found in English. Levin and Sells compare hose the dirt off with hose the dirt off the window and rinse the dirt out with rinse the dirt out of the cloth (compare examples (1) and (2)). It is taken for granted that only in the latter case similar forms are compared (viz. off and off). The particle out is compared with the preposition out of. One might wonder why rinse the dirt out would be similar to rinse the dirt out of the cloth. This question is important, because it once again casts doubt on the view
that one could compare a particle verb with a simplex verb with a prepositional phrase.

Note also that some of the formal differences between prepositions and particles in Dutch and German are reversed in English. The examples under (26) and (27) illustrate this.

(26) a. English: he hosed the dirt off
    (‘he hosed the dirt off the window)
    Dutch: hij spoelde het vuil af
    (‘hij spoelde het vuil *af het raam / van het raam)
    German: er spülte den Schmutz ab
    (‘er spülte den Schmutz *ab dem Fenster / vom Fenster)
b. English: he hosed the window off
    Dutch: hij spoelde het raam af
    German: er spülte das Fenster ab

(27) a. English: he rinsed the dirt out
    (‘he rinsed the dirt *out the cloth /out of the cloth)
    Dutch: hij spoelde het vuil uit
    (‘hij spoelde het vuil uit de kleding)
    German: er spülte den Schmutz aus
    (‘er spülte den Schmutz aus den Klamotten)
b. English: he rinsed the cloth out
    Dutch: hij spoelde de kleding uit
    German: er spülte die Klamotten aus

In English the particle off corresponds to the preposition off, whereas the particle out corresponds to the preposition out of. In Dutch and German, these formal differences are reversed: The particles and prepositions have the same form for uit and aus, but differ for off-equivalents. It is impossible to add the Dutch af- or the German ab- to these sentences. In Dutch af only occurs as a postposition in fixed expressions (such as fabriek af, i.e. ‘ready from/in the factory’, Van Dale 2005) or in regional usage. Its status as a postposition is often unclear (cf. Beliën 2008). German ab is not a preposition either and hardly ever occurs as a postposition.

The preposition van / von is an alternative, but prepositional phrases introduced by these prepositions also occur freely with particle verbs, as illustrated in (28) or (29) (compare sentence (11)).

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161 Cf. for example from the ANW-corpus: “Ik spoel die rotzooi van me af.” (‘I rinse that dirt from me off/down’), “om het vele al kristalvormige zout van onze huid af te spoelen” (‘for rinsing off/down much already crystallized salt off our skin’), “De storm van het afgelopen weekend heeft alle jonge grijze zeehonden van een zandplaat ten zuiden van Vlieland afgespoeld.” (‘Last weekend’s storm has rinsed all the young grey seals off/down from a sandbar southwards of Vlieland’) or from the DWDS: “daß wir mit Wasser und mit immer frischem Wasser das ewige Blut des Mordes von der Diele abspülen” (‘that we rinse the
hij spoelde het vuil van het raam af

er spülte den Schmutz von dem Fenster ab

Furthermore, the prepositional phrases are optional in actual instances of MOC. With *afspoelen* (‘to rinse off’), for instance, when the locatum is in direct object position the *van*-PP is absent in almost half the cases (100 - 55.6 = 44.4%). Although numbers are very small in the case of German *abspülen* (‘to rinse off’), the locatum also mostly occurs as a direct object without a *von*-phrase. Table 6 and Table 7 give the exact numbers.

Table 6: *Afspoelen* with locatum and location objects in the ANW-corpus

<table>
<thead>
<tr>
<th>query</th>
<th>location object</th>
<th>locatum object total</th>
<th>+ van-PP</th>
<th>unclear/other (e.g. intrans)</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>spoelen &amp; af</em> (0-10)</td>
<td>73</td>
<td>49</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>“<em>af te spoelen</em>”</td>
<td>23</td>
<td>11</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td><em>afgespoeld</em></td>
<td>34</td>
<td>23</td>
<td>10</td>
<td>6</td>
</tr>
<tr>
<td><strong>TOTAL ANW</strong></td>
<td><strong>130</strong></td>
<td><strong>83 (63.8%)</strong></td>
<td><strong>27 (20.8%)</strong></td>
<td><strong>20 (15.4%)</strong></td>
</tr>
</tbody>
</table>

Table 7: *Abspülen* with locatum and location objects in the DWDS-corpus

<table>
<thead>
<tr>
<th>query</th>
<th>location object</th>
<th>locatum object total</th>
<th>+ von-PP</th>
<th>unclear/other (e.g. intrans)</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>spülen #7 ab with S</em>=$PTKVZ16*</td>
<td>16</td>
<td>12</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td><em>abspülen / abgespült</em></td>
<td>110</td>
<td>75</td>
<td>11</td>
<td>4</td>
</tr>
<tr>
<td><strong>TOTAL DWDS</strong></td>
<td><strong>126</strong></td>
<td><strong>87 (69.0%)</strong></td>
<td><strong>12 (9.5%)</strong></td>
<td><strong>27 (21.4%)</strong></td>
</tr>
</tbody>
</table>

 eternal blood of the murder off/down from the hallway with water, with endless fresh water’, “die alles *von dir* abspült” (‘which rinses down/off all from you’).

Examples of ANW-sentences without a *van*-phrase are “Spoel bij het douchen het stof eerst af met water” (‘First rinse off the dust with water while showering”), “om het zand tussen zijn tenen af te spoelen” (‘for rinsing off the sand between his toes’), “omdat het vuil er regelmatig door de regen wordt afgespoeld.” (‘because the dirt gets regularly rinsed off by the rain.’), and DWDS-sentences without *von* are “den Sand des Strandes abspülen” (‘rinse the sand of the beach off’), “da das Öl durch das Wasser wieder abgespült wird” (‘while the oil is rinsed off by the water’), etc.
English is probably slightly different in this respect, because it allows a prepositional phrase less readily with a particle verb. I will come back to the use of additional PPs in the next chapter.

The observations in this section show that it is a simplification to treat particle verbs on a par with simplex verbs and a comparable prepositional phrase: There are formal differences between prepositions and particles; the same prepositional phrases can be added to the particle verb itself; sometimes it is even possible to use different prepositions; and the particle can have a different meaning. Therefore, it is also doubtful whether Dutch and German particles should be analysed as small clauses. The facts discussed in this section show that object changes cannot be triggered exclusively by particle predication, and that they should not be analysed as mere shifts in the realisation of a single underlying syntactic structure.

6.5 Particle verbs and the relation between both possible objects

Despite all these caveats, it cannot be denied that morphologically complex verbs often exhibit MOC. As illustrated in Table 5 on page 142, the dictionary data also clearly indicate this. This section will clarify how this positive correlation of MOCs and particles can be explained semantically. In fact, the observation that morphologically complex verbs often allow MOC perfectly fits the metonymical character of the object changes: The combination of verb and prefix helps in understanding the underlying contiguity relation between both direct objects (i.e. the gestalt).

This also explains why some particles or prefixes turn out to be more important than others. Of Adelung’s 101 morphologically complex verbs labelled “metonymisch” 38 are formed with ab-, 4 with an-, 13 with auf-, 45 with aus-, one with the prefix be- (cf. Table 5). The Dutch data also show that particular morphological elements are more important than others. Even though Table 5 does not represent all possible MOCs and also includes a number of specific combinations and some archaic verbs (as discussed in §3), the table clearly shows the tendency of the particles af- and uit-, like German ab- and aus- (cf. also Carlberg 1948: 27; McIntyre 2001: 276), to be of fundamental importance for MOCs.

These facts can be explained by the meaning of the particles. The contiguity relation between the two possible objects (i.e. being one gestalt) is corroborated by the meaning of the particles. Both af- and uit- or ab- and aus- make the metonymical shift easier to understand, because they reflect the fact that both possible objects are one gestalt: If something is taken off something else or out of something else, the verbal action applies to one single object and its parts (an object or a container with its content).

Particles with a meaning opposite to af-/ab- and uit-/aus- also occur with MOCs, although to a lesser extent. In German, for instance, verbs with the prefix auf- also sometimes allow MOC and the same goes for ein-. Cases with the prefix ein- are be illustrated by examples that are not incorporated in Table 5, such as, among many
other verbs, Adelung’s 

\textit{einschenken}, “in-pour” (tagged as “figürlich”) or Sanders’ 

\textit{einlegen}, “in-lay” (tagged as “meton.”).

The same applies to Dutch particles such as \textit{in-} (cf. \textit{inleggen}; ‘to inlay’, \textit{inpakken}, ‘to pack’; \textit{inruimen}, ‘to put in’; \textit{inschenken} ‘to pour (in)’; etc.) and to a lesser extent to \textit{op}.

Furthermore, MOC with particle verbs with \textit{aan-}~/\textit{an-} also occur in Dutch and German (cf. however McIntyre 2001: 276).

These facts also make sense from a metonymical perspective. These particles shape the context of a single gestalt involved in the verbal action. However, this gestalt only occurs as a result of the action. In contrast to particle verbs with \textit{af}-/\textit{lab-} and \textit{uit-}~/\textit{aus-}, which act on a given single gestalt, particle verbs with \textit{in-}~/\textit{etn}, \textit{auf-}~/\textit{op-} or \textit{aan-}~/\textit{an-} express an action applied to two separate entities, which are going to be connected as a result of the verbal action.

Simplex verbs exhibit the same character in this respect: Among MOC-tagged simplex verbs there are slightly more verbs which express that something is removed rather than that something is added. If we only look at locative shifts,
German dictionaries provide five simplex verbs expressing addition (träufen (‘to drip’), impfen (‘to inject’), packen (‘to pack’), pflanzen (‘to plant’), stopfen (‘to stuff’)) and seven verbs expressing the removal of something (kehren (‘to sweep’), klauben (regional verb for ‘to gather’), lesen (‘to gather’/‘to pick’), lösen (in the meaning ‘to fire’), mähen (‘to mow’), quetschen (‘to squeeze’)). Only in the latter group is the action performed upon a single gestalt. The same can be observed in Dutch. Among the simplex verbs tagged in dictionaries, there are ten examples of gestalts coming into being as a result of the action expressed by the verb and twenty-one verbs which express that an existing gestalt is changed or split. The first group consist of enten (‘to graft’), pakken (‘to pack’), stampen (‘to cram’), stouwen (‘to cram’), strijken (‘to brush’/‘to spread’), schenken (‘to pour’), stroppen (‘to tie up’), tatoëeren (‘to tattoo’) and vullen (‘to fill’). The second group includes borstelen (‘to brush’), kappen (‘to chop (down)’), krabben (‘to scrape’), lichten (‘to empty’/‘to unload’), persen (‘to press’/‘to squeeze’), ruimen (‘to clear’), stelpen (‘to stem/to dab’), strippen (‘to strip’), stropen (‘to skin’), trimmen (‘to trim’), vegen (‘to sweep’/‘to wipe’), villen (‘to skin’), vreten (‘to eat (away)’), wassen (‘to wash’), wieden (‘to weed’) wissen (‘to wipe’), wringen (‘to wring’), ziften (‘to sift’/‘to sieve’), zuigen (‘to suck’) and zwelgen (‘to gulp’).

This shows that the possibility of connecting a part of a gestalt to a verb makes most sense, if two objects are connected before the verbal action has taken place. This is especially the case with af-/ab- and uit-/aus-. In other words, particle verbs are involved in MOCs more often than simplex verbs, because the particle endorses and also specifies the conceptual closeness of the two possible objects (cf. Sweep 2009b: 109). This makes the metonymical shift possible and readily understandable.165

Interestingly, although Levin and Sells analyse MOC as being caused by predication of the particle as a small clause, and although they do not connect this phenomenon to metonymy, they have made partly comparable observations for English (cf. Levin & Sells 2007). Levin and Sells do not explicitly recognise the importance of the contiguity relation between the possible direct objects, but they do

165 On the basis of the WNT data in Table 5, one might think that the prefix om- plays a role with MOC. The problem is that this prefix has several different meanings. The locative meaning as in ‘(a)round’ does not seem to play a role for MOCs, but the meaning of om- as ‘re-’ or ‘from something into something’ does play an important role in such verbs. This can be illustrated by omgieten / omschenken (‘to pour into something else’/‘to decant’), omploegen (‘to plough (up)’), omladen (‘repack’/‘load into something else’) or ompakken (‘repack’/‘pack into something else’). The equivalents of these verbs, such as repack or plough up, also show metonymical behaviour in English. Cf. internet examples such as “After breakfast, Brian and I begin to repack equipment into the van” (http://cerbyd.blogspot.com/2011/03/tuesday.html) versus “Then my dad would repack the van with our luggage” (http://www.freakbacon.com/archives/881) [April 2011] or the BNC-examples “The field is then ploughed up, fertilized, and resown to another crop.” versus “some growers in Bedfordshire have been so disappointed with the insect pollinators’ efforts that they have ploughed up their crops to put in linseed or leave fields fallow.”.
acknowledge the fact that the particle endorses this relation: They explicitly discuss how the particle determines the relation between the figure and the ground (i.e. between both possible objects). They state that “the particle by its nature relates a Figure (the material) to a Ground (the location)” (2007: 5), and that “out and off […] represent spatial relations between the Figure and the Ground that are compatible with the removing nature of the events” (2007: 16-17). The particle on hardly ever occurs with a shifted object, because the relation of the Figure and Ground in these cases is such that “the Ground does not impose any limitations on the spatial extent of the Figure” (2007: 17). From a metonymical perspective, Levin and Sells’ observations demonstrate that the contiguity relation between the two possible objects (i.e. being one gestalt) is more obvious in the context of English out or off than in the context of on.

The particle on has no direct equivalent in Dutch and German. It is sometimes translated into Dutch and German with in-/ein- (‘in’) or op-/auf- (‘up’/‘on’), but it also occasionally corresponds with aan-/an- (‘at’/‘on’). Oya, for instance, discusses why German aufladen and Dutch opladen can be combined with both location and locatum in the direct object, while English to load on can only be combined with a location (Oya 2009). Oya claims that the difference is caused by different underlying structures corresponding to the particles in Dutch and German on the one hand and in English on the other. The problem with this explanation is that it is very doubtful whether the verbs aufladen and opladen should be translated as ‘to load on’.

Dictionaries do not consider the two verbs as equivalents of to load on, but rather of to load up (or just of to load (on x)) (cf. the German on-line dictionaries http://en.pons.eu/ or http://dict.leo.org/ and for Dutch Van Dale 2006 Engels-Nederlands).

In fact, like German aufladen and Dutch opladen, the verb to load up does allow MOC. It does not only combine with a location, but also with the locatum. The

166 In fact, Levin and Sells assume the same for English in, which explains why one cannot *pack a suitcase in or *rub your face in (cf., however, chapter VI, especially footnote 217). They recognise that there are exceptions to the idea that particle verbs with in do not alternate, such as to fill in (2007: 150). Although the fact that many particle verbs with in do not alternate in English is unexpected considering the present account, Levin and Sells explanation is highly problematic with respect to Dutch and German data. Dutch and German instead provide evidence for the analysis that the particles as such do not play a crucial role. In this respect, it should also be noted that English equivalents of Dutch and German particle verbs with in- and ein- do often alternate, but that these equivalents have totally different structures. Consider inleggen / einlegen which are translated as inlay (cf. gold inlaid into wood / wood inlaid with gold), inspuiten / einspritzen (‘in-spray’) which corresponds to the alternating to inject (or to to spray), inruimen / einräumen (‘in-clear’) which should be translated as to put into or even as to clear out and inschenken / eingießen (‘in-pour’) which is mostly translated with to pour (out) (for a discussion of the latter construction cf. chapter VI, §4.2).

167 Oya also uses his analysis to explain that to pour in does not alternate, whereas Dutch and German inschenken and eingießen do. However, the verb to pour shows complicated behaviour in many respect, as I will explain in full detail in chapter VI, §4.2.
BNC-examples under (30)-(32) illustrate this. The a-sentences provide examples with locatums and the b-sentences have locations as direct objects.

(30) a. The following day I hired a van, loaded up my possessions and then handed over my keys to the landlord.
    b. Charlie loaded up the van, then climbed in.

(31) a. Before you load up your board on the car to go off in search of solitude, ...
    b. Just pack your bags and load up the car

(32) a. and it’s like all the good things you ever wanted are loaded up onto a train
    b. but somehow they always knew when the train was being loaded up with tanks

To summarise, although particles are not of fundamental importance for MOC, they often reflect a strong contiguity relation of the objects. Contiguity relations are endorsed most strongly by Dutch particles such as af- and uit- and in-, op-, and aan- and by German particles such as ab- and aus-, and auf-, ein- and an-. The particles which express a removal of something (i.e. af-/uit- and ab-/aus-) occur more readily with MOC, because the verbal action applies to a single gestalt from the start. With the particles that express the addition of something (in-/op-/aan- and auf-/ein-/an-) the action expressed by the verb results in a single gestalt. More restrictions on the possibility of MOC will be discussed in the analysis of actual usage of MOCs in chapter VI-VIII. First, I will examine in the next section the contiguity relations involved in all kinds of MOCs.

7. Metonymical Object Changes: Contiguity types

7.1 Problems with a division into verb classes

At the beginning of section 6, I divided verbs allowing MOC into semantic classes, such as verbs of movement (removal or adding), verbs of creation (or repair) and eventive verbs. Although the different classes are immediately evident when analysing the set of over 400 verbs, there are some problems with these three coarse-grained classes.

First of all, even though the division is coarse-grained, it is questionable whether the difference between verbs of removal and verbs of adding is really useful. Some semantically opposite verbs display exactly the same metonymical behaviour. An example is the verb pair to load - to unload, which can both (in English as well as in Dutch)\(^{168}\) be combined with the container that is loaded or unloaded or with the

\(^{168}\) The German verb *laden* allows this shift only according to some speakers, cf. chapter VI, §4.3.
contents that are loaded into or out of this container. These MOCs are so similar that it would be more adequate to place them together instead of classifying them into two different categories: The possible types of objects are similar and so is their relation, even with respect to the verbal action. This could be an indication that it is not the meaning of the verb, but rather the contiguity relation between both possible direct objects that is crucial.

Secondly, implicitly different types of contiguity relations between both possible objects have already been used within the presentation of the different types of verbs. The group of creation verbs was also shown to involve different types of shifts, such as between material and result/product (riet / een dak vlechten, ‘to weave reeds / a roof’), between ingredient and result/product (sinaasappels / sap persen and Orangen / Orangensaft (aus)pressen, ‘to squeeze orange juice / oranges’) or between the means and its result/product (gitaar / lied tokkelen and eine Gitarre / Melodie zupfen, ‘to strum a guitar / a song’). Interestingly, other SOURCE-RESULT shifts even occur within verbs that do not express a real creation activity. Illustrative are the Dutch and German verbs uitbroeden or ausbrüten (‘to hatch (out)’), which can be combined with eggs as well as with chicks. This shows that rather than the creation activity, the contiguity relation as such plays a role.169

A third problem is that some verbs cannot be clearly placed within one single class, but instead appear to belong to two different classes at the same time. Illustrative is the example to dig sand out (of a ditch/for a ditch) or to dig a ditch out (in the sand). Should this be considered a shift concerning a removal verb, like to clear, since the sand is taken away from the location where the ditch will be realised or should we classify this as a creation verb, since a ditch is made or re-made by digging out the sand? When thinking about such questions, it becomes clear that the result plays a role even within shifts such as with to clear: If one clears away the tableware from a table, one ends up with a cleared table. Such observations make it difficult to classify these verbs within the verb classes, although the objects involved and the general relations between them are the same.

Not only does an examination of the contiguity relations provide a better classification of similar shifts, but it also provides a more fine-grained analysis of some shifts. This can be illustrated with the verbs to squeeze and to squeeze out (or Dutch persen - uitpersen and German pressen - auspressen / keltern - auskeltern). These two different verbs allow the same two types of objects, such as oranges and orange juice. The two objects can be seen as one gestalt, existing in a locative PART-WHOLE relation. This explains the similarity of all MOCs, which cannot be seen if one only takes into account the meaning of the verb. On a more detailed level, however, the PART-WHOLE relation of the orange and the orange juice can be classified as a SOURCE/MATERIAL-RESULT relation in the case of to squeeze, whereas they display a CONTAINER-CONTENT relation in the case of to squeeze out. This

169 Implicitly, Levin also agrees with this view by making a distinction between locative alternations in general and alternations that shift between added images and their locations (cf. also Levin 1993: 66-67). All verbs can acquire the location as a direct object as well as something that is added to this location, which could be an added object or an image.
corresponds with the difference in verb classes, i.e. a removal verb (squeeze out) or a creation verb (squeeze). An examination of the contiguity relations involved at different levels of abstraction simultaneously shows both generalisations and differences between some shifts. The similarity of these shifts remains unnoticed, if only the verb semantics is taken into account.

The verb to dig out can be used to illustrate the same issue. If to dig out is categorised as a verb of removal, the contiguity relation between the ditch and the sand is LOCATION-LOCATUM, but if to dig out expresses the creation of a ditch, the relation between the sand and the ditch becomes SOURCE-RESULT. On a more abstract level, however, the ditch and the sand form one gestalt. Contiguity relations analysed on several levels of abstraction (cf. the next section) provide an equally detailed explanation, while at the same time accounting for the similarity and the difference of the shift. As said above, the parallel or even overlap between shifts with locative verbs and creation verbs remains unrevealed, if only the meaning of the verb is taken into account.

A fourth argument for focussing on the objects involved is the fact that some systematic shifts can primarily be classified by their types of objects. Object shifts occur fairly frequently between, for instance, ropes or wires and objects involved with these ropes, such as the knots or the objects that they tie up. Dutch dictionary examples such as korten (‘to shorten’), losgooien (‘to loosen’), vieren (‘to slacken’), opbinden (‘to tie up’), ontknoppen (‘to unravel / to disentangle’), stroppen (‘to tie up’) illustrate this. Although they display similar MOCs, they cannot really be captured within one verbal group. The relation between the rope and the other object involved turns out to be crucial in making the similarity of shifts clear.

Another group of MOCs is based on the contiguity relation between fire or light and the objects involved. Illustrative are Dutch verbs such as aansteken (‘to light’), or Adelung’s example aufblasen (lit.: “up-blow”) or its synonym anblasen (lit.: “at-blow”) (‘to blow’), which can be combined with a fire or the coal. In fact, many more verbs that have to do with fire allow an object shift between the fire and the source of the fire, such as the Dutch blussen (‘to extinguish’), ontvlammen (‘to enflame’), onsteken (‘to light’), or the German anzünden (‘to light’), anschüren (‘to poke up’), lodern (‘to set alight’), and löschen (‘to extinguish’). These verbs can only be grouped on the basis of the two types of direct objects and the relation between them. Apparently, a fire and what is on fire are conceptually so strongly connected, that if the verb expresses a relation with the fire, it simultaneously takes on this same relation with the burning object.

In a similar way, MOCs often shift between holes and the objects in which these holes can be found. Different groups of verbs allow shifts between objects and the holes in them. The class of reparation verbs often occurs with such shifts. Examples are to repair the roof / the hole or to darn stockings / holes. However, verbs of the class that express some movement of attaching or filling (cf. Table 4: class I.2) also occur with the object and holes which are filled. This can be illustrated by a Dutch

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170 Some of these verbs, such as aansteken, can also be combined with objects such as stoves and heaters. I will discuss this in full detail in the next section.
dictionary example such as *aanvullen* (‘to fill (up/in)’), or a German verb such as *stopfen* (‘to darn’ / lit.: “to stuff”). Note that these shifts cannot simply be classified as locative, given that a hole is not a locatum; that is to say, a hole is not an entity moved to or moved away from a location.

Even verbs which express the opposite to those above display this shift between holes and objects. Consider in this respect the Dutch dictionary example *uitboren* (‘to bore/to hollow out’), which can be combined with the physical object or with the hole made in it.\footnote{Cf. the ANW-examples: “en daarom moesten we het gat iedere keer weer opnieuw uitboren” (lit: “and therefore must we the hole every time once again out-bore”, i.e. ‘and therefore we had to bore the hole out over and over again’) vs. the nominal use in “Naar analogie van de menselijke tandheelkunde behoort endodontie (nl. uitboren en opvullen van tanden) ook tot de mogelijkheden.” (lit.: “by analogy with the human dental surgery belongs endodonty (viz. hollowing out and filling up of teeth) also to the possibilities”, i.e. ‘By analogy with human dental surgery, the endondonty (viz. hollowing teeth out and filling them up) also belongs to the possibilities.’). In addition to the OBJECT-HOLE MOC, the same verb allows a LOCATION-LOCATUM MOC, cf. “Boor de appels uit, schil ze en snijd ze in vieren.” (‘Bore the apples out, peel them and cut them into quarters’) versus “Was de appels, boor de klokhuizen uit” (‘Wash the apples, bore the cores out’), which were both found in recipes from supermarkets (sources: http://www.ah.nl/kookschrift/verzameld-recept?id=160955&userid=253964 and http://www.plus.nl/Recept/recept.cfm?ReceptenID=E8EDE41D-E425-49DF-BDA22B05A708059C [November 2010]).} The WNT also reports the same shift with verbs that express the opposite of repairing. The WNT classifies the verb *branden* (‘to burn’) with the holes that are burned into something as the direct object as an MOC. An example of this is *gaten in het tafelkleed branden* (‘to burn holes into the table-cloth’).\footnote{This shift is complicated in that the combination of the verb with the whole object, i.e. the table-cloth or something such as a coat, usually receives the interpretation of the object being totally burned. However, if the holes are added as some additional constituent (a resultative-like phrase), it seems possible to use the object as such, compare: “Ik zat gewoon in mijn badjas en dat ding is nu vol gaten gebrand” (“I was just sitting in my bath robe/housecoat and that thing is now burned full of holes”) (source: http://webcache.googleusercontent.com/search?q=cache:imgdOw9RErIJ:cosplaybelgie.meloe.n.be/viewtopic.php%3Fp%3D3%26f%3D7%26t%3D95%26start%3D1185%26start%3D1185%3B%26start%3D1185%26start%3D1185&cd=3&hl=nl&ct=clnk&gl=nl [November 2010]).}

These coherent contiguity groups across different verb classes show that it is very important to take the relation between the possible objects into account. Only in this way does the similarity of the shifts discussed above become visible. Taking contiguity into account makes sense, since some objects are so closely related to each other that they can hardly be distinguished. Because a hole cannot be imagined without the object it is situated in or because a fire simultaneously evokes some burning material, these objects can be interchanged without necessarily shifting their literal interpretation. Both possible objects can be perceived literally exactly because they are so closely connected. The fact that the same contiguity plays a role across different verb classes clearly illustrates that it is not only the verb meaning that must be taken into account, but more particularly the contiguity relations between the shifted objects within the verbal context.
In fact, contiguity relations turn out to be more essential than just the meaning of the verb, given that some verbs do allow MOC, but not with all objects. Sentence (33) illustrates this: The location-object of *wieden* / *jäten* or even of *to weed* can be a garden, but not, for instance, tiles. The combination “weeding a terrace” remains questionable.

(33) Dutch: ze wiedde de tuin / ?het terras / *de tegels  
    German: sie jätete den Garten / ?die Terrasse / *die Platten  
she weeded the garden / ?the terrace / *the tiles

This shows that the MOC with *wieden* or *jäten* can only occur if both objects are clearly metonymically connected, or, in other words, if they form one gestalt. Whereas this is clearly the case for the weed in the garden, the connection between a terrace and weeds is not as strong, while tiles with weeds between their joints can hardly be conceptualised as a single gestalt.

The Dutch verb *smeren* and the German verb *schmieren* provide another example. The meaning of these verbs could be described as “adding substance x on location y by rubbing/smearing”. Often, this verb can be combined with substance x as well as with location y as a direct object. However, it depends on the type of location and the relation between the locatum and the location whether the location can occur as the direct object of this verb. Sentences (34)-(36) illustrate this. These sentences show that MOC is possible where buttered sandwiches or greased hinges are involved, but not when dealing with cream on the skin or face. In all contexts, however, the meaning of the verb can be described in the way explained above.

(34) a. Dutch: hij smeerde boter (op een boterham)  
    German: er schmierte Butter (auf eine Scheibe Brot)  
    ‘he spread [lit.: smeared] butter (on a slice of bread)’

   b. Dutch: hij smeerde een boterham (met boter)  
    German: er schmierte eine Scheibe Brot (mit Butter)  
    ‘he spread [lit.: smeared] a slice of bread (with butter)’

(35) a. Dutch: hij smeerde olie in de scharnieren  
    German: er schmierte Öl in die Scharniere  
    ‘he put [lit.: smeared] oil in the hinges’

   b. Dutch: hij smeerde de scharnieren met olie  
    German: er schmierte die Scharniere mit Öl  
    ‘he greased [lit.: smeared] the hinges with oil’
(36) a. Dutch: ze smeerde crème op haar huid / op haar gezicht
   German: sie schmierte Creme auf ihre Haut / auf ihr Gesicht
   ‘she [lit.: smeared] cream on her skin / on her face’

b. Dutch: *ze smeerde haar huid / haar gezicht met crème
   German: *sie schmierte ihre Haut / ihr Gesicht mit Creme
   ‘she [lit.: smeared] her skin/her face with cream’

Such cases show that the relation between the two objects and the metonymy involved should be taken into account in order to analyse some limitations and constraints on MOC. I will present this argument and corresponding data in full detail in chapter VI, §3. The rest of this section will present some characteristics of contiguity relations that play a role in these metonymical shifts.

7.2 Metonymical chains

The metonymical character and the importance of contiguity relations are also evident for another reason: Sometimes a verb shows a cluster of several metonymical objects and MOCs within one general scene. This is because certain contiguity relations are often very closely connected to each other, especially when complex gestalts are involved. It is well-known that metonymy often occurs in such complex series. This phenomenon is also known as serial metonymy (Nerlich & Clarke 2001) or metonymical chain (cf. Barcelona 2005; Dölling 1999), i.e. a series of metonymical shifts.

Some examples with the LOCATION-IMAGE contiguity can be used to illustrate this. Consider MOCs such as to embroider a rose (on a pillow) and to embroider a pillow or to print the king (on coins) and to print coins. Strictly speaking the words rose and king do not denote an image, but in these examples they are metonymically used for the image of a king or a rose. Based on the contiguity OBJECT FOR ILLUSTRATION OF THAT OBJECT, a metonymical reinterpretation applies to the illustration-objects.

However, this particular shift should not be considered to be an MOC, given that the king or the rose are not literally conceptualised within the verbal action. Instead, a normal nominal metonymy seems to be involved: The meaning of a noun as an entity and as the representation of this entity is a normal, systematic polysemy in lexicographical practice.173 In this way, the metonymical chain shows the relatedness between nominal metonymies and MOCs. Because of the conceptual nature of metonymy, it is, as discussed above, often difficult to demarcate them from each other.

The same issue can be illustrated with the possible direct objects of the verb tatoeëren or to tattoo. The dictionary entry in Van Dale 2005 first provides the example zijn naam tatoeëren (“to tattoo his name”) and then gives the combination

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173 Cf. e.g. the entries arend (‘eagle’), bloem (‘flower’), oog (‘eye’) zon (‘sun’) or zwaan (‘swan’) in Van Dale 2005.
een anker tatoëren (“to tattoo an anchor”). The latter is tagged as an instance of “objectswisselings”. Given that the anchor is not conceptualised literally, we probably should not consider this as a real instance of MOC but as a metonymical reinterpretation of the noun only. The comparable nominal reinterpretation can be clarified by to tattoo one’s love which means the name or a picture of one’s love.

However, the possible direct objects of tatoëren and to tattoo are even more multifaceted, in that additional shifts can take place. In addition to the shift between object and image, it is possible to use the location as a direct object. The combination to tattoo an anchor (onto someone’s shoulder) can also be expressed as to tattoo someone’s shoulder (with an anchor) or even with to tattoo someone (on the shoulder) (with an anchor). The latter shift is a metonymy on the basis of WHOLE FOR PART. In other words, three contiguity relations determine the possible expressions of the direct object, i.e. WHOLE-PART, OBJECT-ILLUSTRATION OF THAT OBJECT and ADDED IMAGE-LOCATION OF IMAGE. Whereas the use of an object for an image and the use of someone instead of the actual tattooed body part could be a normal nominal metonymy, the IMAGE-LOCATION shift should definitely be considered an MOC: The direct object of to tattoo an anchor as well as the direct object in to tattoo someone both appear to be interpreted as such. This is because the image and the location to which this image is added are both essential to the action expressed by to tattoo. The verb takes a different type of object based on the contiguity relations between the participants involved in this action.

A comparable case is the verb aansteken (‘to light’). In Van Dale three different examples are given as object changes: het vuur / de kachel / de lamp aansteken (‘to light the fire / the heater / the lamp’). So, apart from the material, such as wood, coal or gas, two other types of entities can be used as a direct object: The result of the lighted fuel is expressed in vuur aansteken and the container or fuel containing object is expressed in de kachel / de lamp aansteken (cf. also Honselaar & Sweep forthcoming 2012). Again, the latter example could be considered to be a nominal metonymy: The ‘heater’, ‘stove’ or ‘lamp’ does not appear to be interpreted literally, given that this would mean that these objects as such are on fire.

Sometimes, however, the complex gestalt leads to several predicative metonymies. Illustrative in this respect are MOCs with guns. A verb such as the Dutch afvuren (‘off-fire’) and the German lösen (‘to fire off’) can be combined with three types of direct objects: With the instrument used, such as a gun, with the object moved out of this instrument (the projectile), but also with the result caused by the instrument, i.e. a shot. All possible objects appear to be interpreted literally. The three elements are all very closely related: A shot implies a weapon and a bullet, and the instrument used and the object moved can coincide, as is the case with fired rockets, for instance.

174 The former MOC is an example of Levin’s ‘image impressing alternation’ (1993: 66) and the latter alternation, i.e. to tattoo someone’s shoulder versus to tattoo someone (on the shoulder), is related to Levin’s ‘body-part possessor ascension’ alternation (1993: 71-72) (cf. section 6.2 above).
Another verb which allows three types of direct objects is the Dutch verb *afgieten* (“off-poor”). This verb can be combined with water from a pan (*water afgieten*), with the pan itself (*de pan afgieten*) or with the things boiled in the water, such as potatoes or pasta (*aardappelen / spaghetti afgieten*). The same applies to German *abgießen*. The pan filled with water and food occurs as a single gestalt involved within this verbal action.

Such complex gestalts also often occur with holes that are created or filled up. The verb allowing the MOC often describes a movement of something into or out of a hole, but at the same time this hole cannot be visualised without the object in which it is situated. The WNT, for instance, points out that the verb *uitkrabben* (“out-scratch”) can shift between a substance that is actually scratched out, such as cement or chalk, and with the metonymically affected entity in the scratching process, such as a wall. Within this MOC, the WNT also gives the combination *voegen uitkrabben* (“to scratch out joints”). Three types of direct objects are thus actually involved: The cement and the joints, which exhibit a LOCATUM-LOCATION contiguity, and the wall with the joint, which is in a WHOLE-PART relation.175

Dictionaries do not always take into account such full metonymical chains of MOCs. Whereas the shift between a location and a locatum has often been illustrated by the verb *abmähen or afmaaien* (lit.: “off-mow”), Honselaar and Sweep (forthcoming 2012) discovered that another possible direct object could be the intended result of the mowing-activity, i.e. the hay.176 In such examples, all

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175 All three objects can indeed be combined with *uitkrabben*, compare an example from the newspaper *Het Nieuwsblad* from 20-03-2004 “Een betere oplossing is de voegen uitkrabben” (‘A better solution is to scratch out the joints’) (cf. http://www.nieuwsblad.be/article/detail.aspx?articleid=GEEAC3EV); the ANW-examples “Na het metselen dient de specie zo diep te worden uitgekrabd dat...” (‘After the bricklaying, the cement must be scratched out so deeply that...’); “Alle gaten, loszittende bepleistering, barsten en scheuren worden voorafgaandelijk uitgekrabd” (‘All holes, loose plaster, cracks and gaps should be scratched out in advance’, cf. page 11); and the internet-example within the same context “Ik mocht de muur uitkrabben” (“I was allowed to scratch out the wall”) (http://kampert.org/Kampert/Pagina/Zwembad/zwembad17.php [March 2011]).

176 Besides the combinations *Heu mähen* and *hooi maaien* (“to mow hay”), the particle verb also occurs with the hay. Cf. e.g. the German internet examples “an einem Feld vorbei zu laufen, wo gerade das Heu abgemäht wird” (i.e. ‘to walk past a field, where the hay just has been mown’, source: http://www.lauforum.de/back-on-the-road-ich-bin-wieder-da-9409-3.htm [March 2011]) or “Von einer 1,21 ha großen Wiese im Bereich "Grimmes Garten" haben Unbekannte zwischen Sonntag und Dienstag (13. bis 15.06.10) letzter Woche das gesamte Heu abgemäht und gestohlen.” (“Last week, between Sunday and Tuesday (13 till 15-06-2010), unknown persons mowed and stole all the hay from a field of 1,21 hectares in the area of the “Grimmes Garten””, source: http://www.presseportal.de/polizeipresse/pm/7452/1635450/polizeidirektion_goettingen [March 2011]). In Dutch, the combination occurs less frequently, but consider attributive uses, such as “Hier krijgen ze ons eigen afgemaaid hooi.” (“Here they get our own mown hay”, source: http://www.bunnybunch.nl/community/voeding/30116-moet-voorzichtig-overstappen-op-nieuw-merk-hooi.html [March 2011]). The ANW-corpus does provide an example with the result ‘harvest’ as the direct object of *afmaaien*: “Men had namelijk
possibilities can be considered predicative metonymies: The verb expresses a single action and all objects appear to be interpreted literally.

Metonymical chains show that these alternations of the direct object are conceptual phenomena concerning a single gestalt. In the next section, the exact nature of these gestalts and the contiguity involved will be analysed in full detail.

7.3 Contiguity types and MOCs

It is generally recognised that it is difficult to provide a complete and precise list of all contiguity relations. In line with Blank or Ullmann, one could therefore try to make a distinction between co-present or successive contiguities, depending on the question of whether we are dealing with a static or a dynamic picture (cf. above chapter II, §3). However, this distinction introduces some complications. Some contiguities of MOCs which clearly do occur within a dynamic picture, still appear to be co-present rather than successive.

Illustrative is the relation between a product and its material (cf. Blank 1999: 181-182). This dynamic relation can be successive, but does not need to be so. Some MOC-verbs express the coming into existence of a product which means that only the material is present at the time of action. Furthermore, even if a product has been created, only some relations between the material and the product are truly successive. An example of a successive PRODUCT-MATERIAL contiguity is the relation between dough and bread: When one starts baking bread, there is only dough, but once the bread has been baked, it is questionable whether we can still say the dough is present. This contrasts, however, with PRODUCT-MATERIAL relations such as reeds and a basket. Of course there is no basket when one starts weaving the reeds, but when the basket is finished the reeds still exists.

Therefore, classifying contiguity relations as either co-present or successive has the unwelcome consequence of making it impossible to consider the relation between a product and its material to be a single contiguity relation. In some instances it should be classified as co-present (such as with wicker baskets) but in others as successive (such as with the bread). The abstraction of contiguity relations as successive and co-present suddenly divides a single contiguity into two different types. The idea that the direction of a single contiguity relation should lead to two different classifications of the contiguity type seems contradictory.

A comparable problem occurs in some instances of MOC that shift between a concrete entity and an event. They clearly refer to a dynamic picture, although sometimes the concrete object and the event can be co-present. For example, the WNT points out that the verb *continueren* (‘to continue’) can occur with a metonymically shifted direct object. In that case, the direct object denotes a concrete entity instead of the action which is actually continued. As an example, the WNT provides the combination of *continueren* with a specific type of text (a baptismal register). In this specific example, the event which is continued is writing the text (or

bindgaren nodig om de oogst, die door de pikmachines werd afgemaaid, samen te binden.”

(‘They needed yarn to bind the harvest together, which was mown by the reaping machines’).
more specifically: keeping it up to date). It is difficult to classify this relation either as successive or as dynamic. A register must be there in order to be continued, but at the same time it changes and grows while being continued. However, if the same metonymical combination occurred with to begin, the relation would be successive: If one begins keeping a baptismal register it did not, by definition, exist before.

This does not apply to all examples of the verb begin combined with a text. For example, to begin the book does not have to mean ‘begin writing the book’, it can also refer to ‘begin reading the book’. In contrast to writing the book, the relation between reading and a book is co-present, despite its dynamic nature. In other words, just as is the case with the PRODUCT-MATERIAL contiguity, one cannot classify the abstract pattern OBJECT INVOLVED-EVENT as either co-present or successive.

Such different general classifications of similar contiguity patterns are undesirable and cast doubt on the usefulness of a division into co-present and successive contiguities. The abstract division in successive and co-present contiguity relations suddenly splits a classical contiguity, such as PRODUCT-MATERIAL, into two different types. Rather than classifying contiguity relations as successive or co-present, it would be preferable to emphasize their close connection as a single gestalt or experiential whole.

Despite the problematic division into co-present and successive relations, it is very useful to use Blank’s different levels to characterise contiguity types. Instead of Blank’s three-layered analysis, I would propose to use four different levels to describe the contiguity relations. Because being contiguous means belonging to an “experiential togetherness” (Waltereit 1999: 234; cf. also Hilpert 2006: 127) or, in other words, belonging to one kind of gestalt (Talmy 2006: 98), the nature of this experience or the type of gestalt should be characterised at the most abstract level: Gestalts can have a spatial (local), causal or temporal nature. Temporal gestalts are events and their parts or events and elements connected to these and therefore I will classify them more precisely as temporal-eventive gestalts.

Naturally, a classification into these different types is not clear-cut: Rather than conforming to a rigid division into these categories, the gestalt-characters have flowing boundaries. Gestalts of a causal nature, for instance, are a hybrid category that resides in between spatial and temporal-eventive relations. This has also been illustrated above, since some MATERIAL-PRODUCT examples are successive in time, whereas others are spatially co-present. As a consequence, it can be very difficult to classify some gestalts as, for instance, either causal or spatial. Figure 4 is a representation of the fuzzy character of types of gestalts.
Because metonymically related entities belong to a single gestalt, all contiguity relations are roughly based on a WHOLE-PART (or PART-PART)\textsuperscript{177} relation. Lower levels of abstraction serve to specify these relations further, as illustrated in Figure 5. The second level of abstraction serves to specify the connection of the two entities within the gestalt. This level shows that the strength of WHOLE-PART relation varies and therefore the second level describes contiguity relations, such as spatial relations of the form ENTITY-ATTACHED ENTITY; CONTAINER-CONTENT; LOCATION-AUTONOMOUS LOCATUM;\textsuperscript{178} causal relations, such as AFFECTED ENTITY-EFFECTED ENTITY; OBJECT-DAMAGE, or part-whole relations of an eventive gestalt, such as ACTION-ENTITY INVOLVED, in which the involved entity could be seen as a part of the general event.\textsuperscript{179}

On the third level, these relations can in turn be split into more concrete patterns, which are still generalisations about concrete examples. Entities and connected entities, for instance, can be physical objects or locations which include another entity as a part of itself. Other connected entities, however, denote two different parts of a single spatial gestalt. An example for this is \textit{een bot / het vlees afknagen} (lit.: “a bone / the meat off-gnaw”). In such cases, none of the two entities includes the other.

\textsuperscript{177} For instance, if there is no direct lexical word for the gestalt as such (cf. below the example \textit{een bot / het vlees afknagen} or \textit{Knochen / Fleisch abnagen} (“to gnaw on a bone / to gnaw meat off”)).

\textsuperscript{178} Waltereit also noticed that a PART-WHOLE relation can be considered a kind of stronger version of a CONTAINER-CONTENT contiguity (Waltereit 1998: 25).

\textsuperscript{179} Although this contiguity relation is based upon an eventive gestalt, it is difficult to classify ACTION-ENTITY INVOLVED as spatial, causal or temporal (cf. Peirsman & Geeraerts 2006: 289, 292, 301): It is clearly not spatial, different from the other causal relations, but it is also no stereotypical temporal relation (cf. Peirsman & Geeraerts 2006: 275; cf. also Geeraerts 2010: 219). Stoeva-Holm (2010) analyses metonymy examples which could be classified as being based on temporal contiguity relations, such as GENERAL ACTION-INCLUDED (SUB)ACTION. Such temporal relations do not play any role for MOCs and I will further classify ACTION-ENTITY INVOLVED as an eventive type of contiguity relation.
Figure 5: Taxonomy of contiguity relations in MOCs

CONTAINER-CONTENT relations can also be classified more specifically. The exact nature of the spatial relation between a container and its content, for instance, depends on the type of content: Fluid contents are connected with their containers in a different way than objects in a container, given that it is difficult to conceptualise liquids without their container. A particular type of container can also cause a
classification of a specific contiguity relation, as is for instance the case for the
relation between an instrument and the projectile it contains. Similar divisions can
be made concerning locations and locatums: Locations can be surfaces, objects or
even persons.

The two causal contiguity relations of the second level, i.e. AFFECT-EFFECT and
OBJECT-DAMAGE, are different in that the damage is not an effect. In most cases it is
not created but actually resolved. On the third level, both patterns can once again be
specified. The damage to an object can be some specific defect or a hole in an
object. There are also different types of affected entities and effected ones.
Examples are locations to which a certain image is added (e.g. to print an envelope / an address); means or instruments and their effect (e.g. strum a guitar / song, hit a
key / note or turn off the radio / music); sources and their results (e.g. hatch eggs / chicks; light wood / fire); or materials and their products (e.g. bake dough / bread or
thread beads / string). As discussed above, materials can be affected in different
ways: They can be modified into a certain product or merely used to create a
product. The relation could be classified as co-present only in the latter case.

Last but not least, contiguity relations concerning eventive gestalts which are
relevant for MOCs can be divided into an EVENT-AGENT or EVENT-PATIENT relation
(cf. chapter VIII, section §4.5). Figure 5 provides an overview of the different levels
of contiguity which occur in MOCs.

The lowest level of contiguity is the actual example. The four different levels of
abstraction thus correspond to a type of gestalt, a general contiguity relation (based
on WHOLE-PART), a subrelation and a concrete example. Table 8 provides concrete
examples for the above subrelations. Because it is often difficult to translate the
dictionary examples and the MOCs into English, the different relations are
illustrated with Dutch and German examples. The superscripts (\textsuperscript{D/G}) indicate whether
an example is Dutch or German.

The examples and the classification of contiguity relations occurring in MOCs
are as complete as possible. This taxonomy of contiguity relations shows that the
traditional solution, which classifies all metonymies under the three types of spatial,
causal and temporal/eventive gestalts, actually works pretty well: In cases of MOC,
there does not seem to be a rest-group (cf. Blank 1999: 177). It is helpful to keep in
mind, however, that such classifications never truly reflect reality, because divisions
into such categories makes the borders sharper than they actually are (cf. Figure 4).

Table 8 also shows that the contiguity relations form a kind of continuum rather
than clear categories. For instance, the distinction between causal relations
(EFFECTED-AFFECTED) and locative relations (LOCATUM-LOCATION) cannot always
be made. This can be illustrated with to squeeze (out) juice / oranges: The oranges
and their juice clearly form one gestalt, an experiential whole, which can be
considered from a spatial as well as from a causal perspective.
<table>
<thead>
<tr>
<th>I. Spatial relations</th>
<th>II. Causal relations</th>
<th>III. Eventive relations</th>
</tr>
</thead>
<tbody>
<tr>
<td>whole entity - included part</td>
<td>de hond / haar van de hond trimmen</td>
<td>coureurs / wedstrijd afvlaggen</td>
</tr>
<tr>
<td></td>
<td>schoenen / schoenpoot afvijlen</td>
<td>iemand / praatje onderbreken</td>
</tr>
<tr>
<td></td>
<td>haas / haaswelp afschieten</td>
<td>moordenaar / moord bestraffen</td>
</tr>
<tr>
<td></td>
<td>Hasen / Hasenhuid afdekkendoor</td>
<td>jemanden / iets afvragen</td>
</tr>
<tr>
<td>location - part of location</td>
<td>tuin / onkruid wieden</td>
<td>Eier / Junge uitbroeden</td>
</tr>
<tr>
<td></td>
<td>nek / nekkhaar afschieten</td>
<td>hout / vuur aansteken</td>
</tr>
<tr>
<td></td>
<td>Garten / Gewächshaus pflanzen</td>
<td>Kohle / Feuer aufblasen</td>
</tr>
<tr>
<td></td>
<td>Wiese / Gras abmähen</td>
<td>Schil / Afhouten</td>
</tr>
<tr>
<td>part - connected part</td>
<td>Knochen / Fleisch abnagen</td>
<td>zeil / touw vieren</td>
</tr>
<tr>
<td>container – liquid</td>
<td>kopje / thee bijschenken</td>
<td>Wagen / Pferde abspannen / anspannen</td>
</tr>
<tr>
<td></td>
<td>gracht / grachtwater aftappen</td>
<td>radio / muziek afzetten</td>
</tr>
<tr>
<td></td>
<td>Weinfass / Wein abfüllen</td>
<td>telefoonlijn / telefoongesprek aftappen</td>
</tr>
<tr>
<td>container – objects</td>
<td>mand / appels uitschudden</td>
<td>kopje / thee bijschenken</td>
</tr>
<tr>
<td></td>
<td>koffer / spullen pakken</td>
<td>gracht / grachtwater aftappen</td>
</tr>
<tr>
<td></td>
<td>Schiff / Waare ausladen / lösen</td>
<td>Weinfass / Wein abfüllen</td>
</tr>
<tr>
<td>instrument – projectile</td>
<td>pistool / kogels afvuuren</td>
<td>Wagen / Pferde abspannen / anspannen</td>
</tr>
<tr>
<td></td>
<td>Pistole / Kugeln lösen</td>
<td>gitaar / lied tokkelen</td>
</tr>
<tr>
<td></td>
<td>Pfeile / Tabak stopfen</td>
<td>toets / toon aanslaan</td>
</tr>
<tr>
<td>surface - what is on surface</td>
<td>tafel / kopjes afvegen</td>
<td>gitaar / lied tokkelen</td>
</tr>
<tr>
<td></td>
<td>tekst / bord uitvegen</td>
<td>toets / toon aanslaan</td>
</tr>
<tr>
<td></td>
<td>Tisch / Tischlöffel aufdecken</td>
<td>gitaar / lied tokkelen</td>
</tr>
<tr>
<td>object - adjacent object</td>
<td>zeil / touw vieren</td>
<td>Wagen / Pferde abspannen / anspannen</td>
</tr>
<tr>
<td>(e.g. rope - object)</td>
<td>Garten / Gewächshaus pflanzen</td>
<td>radio / muziek afzetten</td>
</tr>
<tr>
<td>person - attribute</td>
<td>voetbeker / voetbalk aansparen</td>
<td>radio / muziek afzetten</td>
</tr>
<tr>
<td></td>
<td>zich / Klamotten anziehen</td>
<td>tafel / kopjes afvegen</td>
</tr>
<tr>
<td>object - hole</td>
<td>sokken / gaten stoppen</td>
<td>boek / schrijven continuing</td>
</tr>
<tr>
<td>(= whole - part)</td>
<td>schip / kier (af)dichteren</td>
<td>Buch / lesen anfangen</td>
</tr>
<tr>
<td>entity - defect/state</td>
<td>boot / lek dichten</td>
<td>Eier / Junge ausbrüten</td>
</tr>
<tr>
<td>(= whole - part)</td>
<td>dichte / fouten verbeteren</td>
<td>hout / vuur aansteken</td>
</tr>
<tr>
<td></td>
<td>hek / roest afkrabben</td>
<td>Kohl / Feuer aufblasen</td>
</tr>
<tr>
<td></td>
<td>Kranke / Krankheit heilen</td>
<td>Schil / Afhouten</td>
</tr>
<tr>
<td>material - product</td>
<td>deeg / brood bakken</td>
<td>Eier / Junge ausbrüten</td>
</tr>
<tr>
<td></td>
<td>kralen / ketting rijgen</td>
<td>hout / vuur aansteken</td>
</tr>
<tr>
<td></td>
<td>Zinn / Figuren gießen</td>
<td>Kohle / Feuer aufblasen</td>
</tr>
<tr>
<td>means – result</td>
<td>gitaar / lied tokkelen</td>
<td>Eier / Junge ausbrüten</td>
</tr>
<tr>
<td></td>
<td>toets / toon aanslaan</td>
<td>hout / vuur aansteken</td>
</tr>
<tr>
<td></td>
<td>radio / muziek afzetten</td>
<td>Kohl / Feuer aufblasen</td>
</tr>
<tr>
<td></td>
<td>telefoonlijn / telefoongesprek aftappen</td>
<td>Schil / Afhouten</td>
</tr>
<tr>
<td>source - result</td>
<td>Eier / Junge ausbrüten</td>
<td>hout / vuur aansteken</td>
</tr>
<tr>
<td>(e.g. fuel - fire)</td>
<td>hout / vuur aansteken</td>
<td>Kohle / Feuer aufblasen</td>
</tr>
<tr>
<td></td>
<td>Kohle / Feuer aufblasen</td>
<td>Schil / Afhouten</td>
</tr>
<tr>
<td>location - image</td>
<td>roos / kussen borduren</td>
<td>König / Münze abdrucken</td>
</tr>
<tr>
<td>(= location - locatum)</td>
<td>König / Münze abdrucken</td>
<td>König / Münze abdrucken</td>
</tr>
<tr>
<td>person – knowledge</td>
<td>iemand / kennis bijspijkeren</td>
<td>jemanden / etwas ausfragen</td>
</tr>
<tr>
<td></td>
<td>jemanden / etwas ausfragen</td>
<td>jemanden / kennis bijspijkeren</td>
</tr>
<tr>
<td></td>
<td>Buch / lesen anfangen</td>
<td>boek / schrijven continuing</td>
</tr>
</tbody>
</table>

Table 8: Examples of MOCs divided according to different contiguity relations
The same applies to the example of the sand and the ditch, which could be dug out (cf. section 7.1). Similarly, concerning clear locative relations, it is sometimes difficult to analyse whether two objects should be classified as having contact or merely as being adjacent to each other.

However, such flowing boundaries are not much of a problem, given that we are dealing with a conceptual phenomenon. Conceptual phenomena often belong to a continuous category rather than clear-cut classes. It is known that contiguity relations should be seen as a kind or prototypical category (cf. Peirsman & Geeraerts 2006: 280). Peirsman and Geeraerts (2006) have analysed contiguity as a prototypical category. The dimensions which they have revealed also turn out to be essential for MOC-contiguities.

Peirsman and Geeraerts analyse metonymy as involving contiguity, which is prototypically a spatial PART-WHOLE relation. The prototypical PART-WHOLE relations can be plotted against three dimensions, which are ‘strength of contact’, ‘boundedness’ and the ‘domain involved’. The importance of spatial PART-WHOLE and their extension along these three dimensions can be clearly recognised on the basis of Figure 4, Figure 5 and Table 8: The gestalts in Figure 4 present the wholes and their parts. The lower levels in the taxonomy in Figure 5 can be considered an extension of the PART-WHOLE relation along the three dimensions.

The domain involved tells us that spatial or material PART-WHOLE relations can be extended to the temporal domain (Peirsman & Geeraerts 2006: 286ff), and it is even possible that contiguity relations combine spatial en temporal properties (Peirsman & Geeraerts 2006: 289ff). Such an extension of locative and temporal WHOLE-PART or CONTAINER-CONTENT relations can be illustrated by the EVENT-PARTICIPANT relation (cf. Peirsman & Geeraerts 2006: 289, 292, 301). The extension is also visible within the categories of causal relations: Although Peirsman and Geeraerts consider a relation such as MATERIAL-PRODUCT as primarily spatial (cf. 2006: 283-284), I have argued that a temporal dimension is included as well. The domain involved thus becomes visible in the type of gestalt, as illustrated by Figure 4 and by the main categories in Figure 5.

Concerning the spatial/material domain, two important dimensions are involved. These are ‘strength of contact’ and the dimension of ‘boundedness’ (Peirsman & Geeraerts 2006: 278-279). Boundedness reflects different ways of conceptualising spatial/material relations and of causal ones. Being bounded has to do with being countable. Mass nouns denote materials or substances, which are always unbounded since their referent is boundless. However, this is somewhat complicated for MOCs. Some of the spatial and causal relations and their objects could at first sight be considered unbounded. An example of this would be to load hay or to bake dough. In fact, these unbounded objects refer to some concrete amount of hay or dough in the context of the verb. Instead of referring to hay in general, the loading-context evokes some concrete amount or concrete bales of hay. Similarly, one never bakes dough in general, but only a certain ball of dough, which results in, for instance, a loaf of bread.

The dimension of strength of contact is directly reflected within the general relation of the locative domain, as the second level of spatial or locative relations
clearly illustrates. The spatial relations under ENTITY-ATTACHED ENTITY are most strongly connected, whereas the latter group of LOCATUM-LOCATIONS only gives examples of things that are in close contact or which are even merely adjacent to each other. The CONTAINER-CONTENT group is in-between these categories: It is difficult to conceptualise a liquid content without its container, although at the same time the content and the container denote two different entities which are not necessarily connected. The relations belonging to the locative ones thus directly correspond to the relations that Peirsman and Geeraerts suggest among their strength of contact dimension (cf. Peirsman & Geeraerts 2006: 279).

The same distinction in strength of contact can be made within the causal relations on the third level: Whereas MATERIAL-PRODUCT, LOCATION-IMAGE and PERSON-KNOWLEDGE are very tightly connected, this is the case to a lesser extent for SOURCE-RESULT and INSTRUMENT-PRODUCT. Similarly, one could argue that in the case of the eventive gestalts the relation between an object and an event is stronger than that between an agent and an event.

In the discussion on the group of verbs that express some kind of removal, I also touched upon differences in strength of contact. I distinguished between two separate objects and objects where one object includes the other. An example of the former is to load a ship / goods, where both direct objects express an autonomous entity which exists in a certain relation to the other. An example of the latter is to wipe the blood / the wound, because the blood is a part of the wound. The same can be illustrated with to sieve flour / lumps, in which there is a difference between the flour that goes into the sieve and the flour that comes out of it (without lumps). The flour that goes into the sieve contains the lumps and the lumps themselves consist of flour. This example clearly differs from an example such as the gold digger was sifting the sand which can alternatively be expressed by the gold digger was sifting gold. In contrast to the flour-example, the latter direct object expresses what remains in the sieve and the former what goes through it. It is difficult to mention the object that goes into the sieve as such, i.e. the sand including the pieces of gold. Such differences are reflected in the subrelations in Figure 5, which distinguishes between autonomous, attached and included parts within the contiguity ENTITY-ATTACHED ENTITY.

In line with this, some examples tagged in dictionaries are more difficult to understand than others. This can be nicely illustrated with some tagged shifts with afkluiven versus afknagen in Van Dale. Both literally express something like “off-gnaw”, both can be translated as ‘to gnaw on / off (/to eat away)’. For the verb afkluiven, Van Dale gives the two alternative direct objects vlees (van het been) afkluiven (lit: “meat (from the bone) off-gnaw”, i.e. ‘gnaw meat off (a bone)’) and het been afkluiven (‘to gnaw on a bone’ / ‘to pick a bone’). This shift is easy to understand, since bones and the meat on them are two different entities, even though they are tightly connected.

For the verb afknagen, however, Van Dale classifies de muizen hebben die kaas afgeknaagd (lit.: “the mice have that cheese off-gnawed”) as an instance of “objectswisseling”. Given that the mice have indeed only literally bitten off the edges of the cheese, this can be seen as an MOC with respect to de muizen hebben
CHAPTER V

Because a part of cheese consists of its edges, this MOC (i.e. the difference between the two types of direct objects) is less clear than the bone-meat example. The meat and the bone also form one gestalt, but they can be conceptualised separately from each other much more easily than the cheese and its edges.

The possibility of MOCs and the single gestalt involved can thus be seen as a kind of trade-off. On the one hand, MOCs only occur with objects that can be conceptualised as a single gestalt. MOC cannot occur if the strength of contact between two entities is so low, that they cannot be conceptualised as one entity. On the other hand, no MOC is involved, if only a single object is involved in the verbal action, which cannot be expressed by naming two different parts.

In sum, an analysis of the contiguity relations involved in MOCs gives a very interesting result. The contiguity of MOCs turns out to be prototypical. The relations involved can be traditionally classified as relating to spatial, causal and temporal-eventive gestalts. They can all be analysed as based on a PART-WHOLE relation, which can be characterised by strength of contact and which is extended from the spatial to the temporal domain. The contiguity involved supports the metonymical character of MOCs.

The connection with Peirsman and Geeraerts’ findings is especially interesting, because they revealed the dimensions of their prototypically structured category without taking into account contiguity relations of grammatical metonymies (2006: 292, 310). Therefore, both results mutually support each other: Given that Peirsman and Geeraerts’ dimensions were not based upon grammatical metonymies, the appropriateness with respect to MOCs confirms the correctness of these dimensions. At the same time the fact that the relations between alternative direct objects fit perfectly into Peirsman and Geeraerts’ conceptual category supports the idea that contiguity plays an important role for MOCs.

7.4 Additional examples of MOCs with EVENT-PARTICIPANT shifts

Within the domain of eventive contiguities, one finds specific instances of predicative metonymies, which are also called logical metonymies. In chapter III (§5.2), I discussed several reasons why this type of metonymy is called logical: Firstly, it is claimed to be logical because the metonymy is triggered by type requirements of the verb (cf. also Verspoor 1997b); secondly, because the metonymy is of a very systematic nature (Pustejovský 1995: 54, cf. also Horacek 1996: 120); or thirdly, because the metonymy is paired with a logical shift between a concrete object and an event (cf. Verspoor 1997a: 166). One might question, however, whether the first two characteristics are specific to logical metonymies only: All instances of predicative metonymies discussed so far are systematically triggered by the main verb and shift the type of their argument (cf. also Asher 2011). Logical metonymy could therefore be considered a predicative metonymy or metonymical object change (MOC), which is special in the sense that it is based on
an eventive gestalt. The temporal-eventive contiguity relations\(^{180}\) cause the type shift.

Dutch dictionaries provide examples of contiguity shifts concerning the direct object slot that display a shift between an event and a concrete object or individual, viz. *afvlaggen* (‘to flag down’), *bestraffen* (‘to punish’), *continueren* (‘to continue’) or *onderbreken* (‘to interrupt’).\(^{181}\) If logical metonymy is called logical because of the type shift between an event and a concrete entity, then the above cases neatly fit within the category. The MOCs with *afvlaggen*, *bestraffen* and *onderbreken* are different, however, from the logical metonymies which are normally discussed (such as *continueren*), in that they do not follow the contiguity pattern OBJECT FOR ACTION IN WHICH THE OBJECT IS INVOLVED (cf. Ruiz de Mendoza & Pérez 2001) but rather PARTICIPANT (AGENT) FOR ACTION. Although these combinations of verbs and direct objects are labelled by dictionaries as instances of metonymy, and although they involve a shift in type, they have never been taken into account in previous studies on logical metonymy. This can probably be explained by the fact that AGENT-ACTION shifts cannot be handled by these theories. I will provide a uniform analysis in chapter VIII, which will account for both types of logical metonymy and for non-eventive metonymies in exactly the same way (cf. also Sweep 2010a).

The prototypical verbs that display logical metonymy following the contiguity pattern OBJECT FOR ACTION IN WHICH THE OBJECT IS INVOLVED are *begin*, *finish* and *enjoy*. They may be the prototypical examples of logical metonymy, but they are not the only verbs that seem to behave in this way. Studies on logical metonymy differ, however, in the number of verbs that are mentioned as examples of logical metonymy. Briscoe et al. (1990) state that they found twenty-four verbs that appeared with logically metonymical objects, but they only mention seven of them explicitly, viz. *begin*, *enjoy*, *finish*, *miss*, *prefer*, *regret* and *start* (Briscoe et al. 1990: 44-45). The two studies in which I found the largest number of verbs only included fourteen or seventeen verbs explicitly (McElree et al. 2001: attempt, begin, endure, enjoy, expect, fear, finish, master, prefer, resist, savour, start, survive, try, want; Lapata & Lascarides 2003: the same set plus complete, postpone, want).\(^{182}\) Sets do...
not always overlap: The verbs *miss* and *regret* (cf. Briscoe et al. 1990: 44-45) are, for instance, not included in the examples of the latter two articles. Furthermore, some verbs are only mentioned by a very few authors, such as *choose* (Ruiz de Mendoza & Pérez 2001), *continue* (Choma 2003), *fail* (Egg 2003) or *veto* (Pustejovsky 1991; Verspoor 1997a). Since the latter two verbs do not seem to occur very regularly in metonymical constructions and are not as easily translated by a single verb in Dutch and German, I will not take them into account in this study.

The verbs that seem to allow logically metonymical complements based on PARTICIPANT-ACTION according to the literature can be divided into three general groups. The first group consists of aspectual verbs, sometimes also called eventive verbs (Verspoor 1997a) or phase verbs (Honselaar 1980). Verbs like *begin*, *complete*, *continue*, *finish*, *postpone*, and *start* belong in this group. The verb *onderbreken* (‘to interrupt’) and *afvlaggen* (‘to flag down’, i.e. ‘to stop/finish by flagging’) can also be added to this group.

The second group consists of verbs that may be called evaluative or emotive, since they give information about the agent’s mental state or feelings towards an event. Typical verbs are *choose*, *endure*, *enjoy*, *expect*, *fear*, *prefer*, *regret*, *savour* and *want*. The verb *bestraffen* (‘to punish’) also belongs to this group.

The third group is an in-between category, as the verbs in this group give some aspectual as well as some evaluative information: They tell us in which sense or in which way the agent has dealt with an event. The group includes verbs such as *attempt*, *master*, *miss*, *resist*, *survive*, and *try*.  

8. Summary: Verbs and their shifted objects

Dictionaries can be used to extract data on metonymy, because they tag many phenomena as metonymy-driven. In this chapter, I have explained how Van Dale 2005, WNT, DWB and Adelung’s dictionary can be used to find Dutch and German examples of MOCs. On the basis of this search and the extracted dictionary data, I have made some observations concerning MOCs.

First of all, at least two general conditions need to be fulfilled in real examples of MOC, which excluded some of the Dutch examples tagged as real MOCs. The object change must concern a qualitative valency shift of the direct object without a shift in the general verb meaning. In other words, we can only speak of MOC, if a verb that refers to a single general scene can be combined with two different direct objects which cannot be simultaneously expressed as such. Examples with metonymically interpreted verbs, examples with indirect objects and examples with two direct objects which can be realised simultaneously should therefore be excluded from the realm of MOC.

Secondly, I have discussed the fact that MOCs occur with simplex verbs and with morphologically complex verbs. I have argued that prefixes or particles are not
of fundamental importance because of their morphological-syntactic structure, but that they only occur frequently with MOC because of their semantic impact. It is the relation between the two direct objects within the verbal action that is of crucial importance. Because of this, some particles occur with MOCs very frequently. The particle reflects an underlying contiguity relation and helps in the understanding of a shifted verb-object combination. If, for example, something is taken off from something else, both things must exist in a PART-WHOLE or close contact relation. Similarly, if something can be taken out of something, a CONTAINER-CONTENT relation is presupposed by the particle. This also explains why some particles occur more frequently in MOCs than others. However, if a simplex verb reflects the underlying relation to the same extent, it allows MOC with similar ease. The latter can be illustrated with semantic synonyms within one language. The contiguity relation between the goods and the ship is, for instance, equally important in the German examples Waare / Schiff ausladen or Waare / Schiff löschen (‘to unload the goods / the ship’). Contiguity relations are also equally important in the Dutch examples tekst / pagina’s afdrukken or tekst / pagina’s printen (‘to print text / pages’) or in een haas / zijn huid villen; een haas / zijn huid afvellen or een haas / zijn huid stropen (‘to skin a hare / his skin’). The same can also be supported with semantic pairs across languages such as to clear tableware / the table, which corresponds to the particle verbs afruimen and abräumen in Dutch and German.

I have also classified the contiguity relations found in MOC examples. Although I have shown that Blank’s distinction between co-present and successive relations is problematic, his idea of classifying contiguity relations on different levels of abstraction turned out to be very useful. On the highest level, we find the classical division of spatial, temporal and causal gestalts. These correspond to a more general relation, which in turn can be divided into classical contiguous subrelations. By means of this incremental abstraction, I have provided an overview of the contiguity involved in MOCs. These contiguity relations form a continuum rather than rigid categories. In addition to this, I have shown that the contiguity relations involved in MOCs correspond to important characteristics found by Peirsman and Geeraerts.

On the basis of the verbs presented in this chapter, I will employ the rest of this dissertation to work out the characteristics of MOCs in detail. This concerns the actual usage of MOCs, pragmatic requirements, constraints caused by contiguity, the metonymy involved (modelled with frame semantics) and the continuum with other types of metonymy.
VI. NON-EVENTIVE MOCs IN DUTCH AND GERMAN

1. Non-eventive MOCs

Most linguistic studies that analyse alternations in the direct object share two methodological properties. First of all, they are often based on introspective data and do not present or analyse real examples (cf. Pinker 1989; Levin 1993; Pustejovsky 1995). Secondly, most theoretic accounts on non-eventive shifts contrast examples with the full set of arguments, such as to load hay onto the wagon with to load a wagon with hay, to clear snow from the road with to clear the road of snow or to wipe fingerprints from the wall with to wipe the wall (*of fingerprints).

Dutch and German dictionaries are different in this respect. Dictionaries often only focus on verb-direct object pairs, even if a simultaneous realisation of both arguments is possible. They contrast, for instance, Last ausladen (‘to unload cargo’) with ein Schiff ausladen (‘to unload a ship’) (cf. Adelung), hooi opladen (‘to load up hay’) with een wagon opladen (‘to load up a wagon’) (cf. Van Dale) or de baan ruimen (‘to clear the path’) with sneeuw ruimen (‘to clear snow’) (cf. WNT). One of the reasons for comparing verb-direct object pairs is of course the difference in perspective: Dictionaries consider these shifts as being possible on the basis of a metonymical relation (see also Waltereit 1998; Waltereit 1999). In addition to this, dictionaries support syntactic patterns with real examples.

In this chapter, alternations in the direct object, i.e. Metonymical Object Changes (MOCs), will be analysed in line with the dictionary method. This means that only necessary arguments will be taken into account, the role of the contiguity relation between both possible direct objects will be examined and observations will be based on corpus data. As will be demonstrated, this will reveal some interesting insights into the nature of MOCs. The focus of the examples will be on non-eventive

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184 Sections 2.1, 2.3, 2.4, section 3 and sections 4.3 and 4.4 have been discussed as a paper at the Doktoranden- und Habilitantenkolloquium in Oldenburg (DoHa 2010). I would especially like to thank Heinz Eickmans, Jack Hoeksema, Matthias Hüning and Esther Ruigendijk for their useful comments.

185 Sometimes this leads to interesting claims. The verb to squeeze, for instance, is discussed by Levin as non-alternating in the x from y-form (Levin 1993: 56). This analysis is questionable, given some BNC-examples with liquids, such as “squeeze the juice from both oranges”, “especially not the orange juice for breakfast, which had to be freshly squeezed from three kilos of oranges” or “squeeze all moisture from the petals before discarding them” (cf. also Google-hits for squeeze oranges/grapes/lemons/fruit into juice). The alleged into-alternation, on the other hand, does occur but not very frequently (compare BNC-example “When do I get to squeeze a lump of coal into a diamond?”, “He stopped, squeezing two balls of bread into a pancake between his giant fingers.”). In a comparable way, the verb to encrust is presented by Pinker (1989: 127) as well as by Levin (1993: 51) as non-alternating. This is not true for the attributive use of the verb at least, as illustrated by the BNC-examples “and played ping-pong on the white encrusted table” versus “Beneath each window were long encrusted brown stains” or “bodies encrusted with mud” versus “A thin rim of encrusted mud”.

shifts, i.e. on verbs applying to spatial and causal gestalts (i.e. on transitive locative alternations and material-product shifts).

The chapter is structured as follows. Section 2 will clarify which alternative sentences should be compared to each other. I will argue that the wrong alternatives are often compared, and that differences between certain alternations are overlooked, if one always takes all possible arguments into account. Verbs such as *losen* - *löschen* (‘to unload’) and *to wipe* - *wissen* - *wischen* will be used to clarify some of these issues. In addition, I will illustrate that the few Dutch and German studies on such different argument realisations deviate from English analyses in a strange way. The verbs *(be)*smeren / *(be)*schmieren and *(af)*ruimen / *(af)*räumen will be used to demonstrate that this difference is actually a mistake. After this, section 3 will clarify that some linguistic data can only be explained if the contiguity relation between both possible direct objects is taken into account. This section will demonstrate that the object changes must be analysed as instances of predicative metonymy. Section 4 will discuss some constraints and specific characteristics of MOCs. These will be illustrated by the behaviour of certain verbs and related particle verbs, such as *to fill* - *vullen* - *füllen* in section 4.1; *to pour* - *schenken* / *gießen* in section 4.2; *to clear* - *ruimen* - *räumen*, *laden* - *laden* (‘to load’) and *pakken* - *packen* (‘to pack’) in section 4.3; and *smeren* - *schmieren* (‘to rub’/‘to spread’) and *persen* - *pressen* / *keltern* (‘to press’/‘to squeeze’) in section 4.4. Section 5 will present the conclusions of this chapter.

2. Transitive locative alternations: Comparing sentences

The shift of an argument type only is visible in a contrast between two expressions. If an analysis of alternations is made, one therefore has to compare different sentences with each other. This is, as I explained in chapter II (cf. Sweep 2012), an onomasiological stance. It has always been assumed that it is evident which pair of sentences has to be contrasted. In this section, however, I will show that this is in fact not always that straightforward.

2.1 Primarily shifting the direct object

The first problem is the fact that traditional linguistic literature always compares sentences that express all arguments. In other words, not only the type of the direct object has been analysed, but the expression of the other participant in a prepositional phrase is always taken into account as well. Based on this, Levin (1993) divides transitive locative alternations into the *spray/load*-group, the *clear*-group and the *wipe*-group. These verbs differ syntactically in their use of locatums in prepositional phrases: For the *wipe*-group this is impossible, the *clear*-group uses *of* and the *spray/load*-group uses *with*. The b-sentences in (1)-(3) illustrate alternations with *to load, to clear* and *to wipe.*
One may question, however, to what extent the added prepositional phrase (PP) is actually relevant. Apart from the fact that the addition of a PP is not always possible (cf. examples of the wipe-group, Levin 1993: 53), the PPs are optional. The following English examples taken from the British National Corpus (BNC) illustrate this. In these examples only one participant (i.e. the locatum or the location) is expressed, realised as a direct object (DO). Examples (4)-(7) show examples with load, (8)-(11) with clear and (12)-(15) with wipe. For every verb, the first two examples have the locatum as a DO, the second two have the location as a DO.

(4) Up behind the engine, two baggage handlers were loading a small pile of boxes.
(5) Tony’s all right about drivin’ the lorry as long as we load the stuff ourselves.
(6) When they load or unload a ship they can understand what’s wanted.
(7) They loaded the car and then Fosdyke offered to take the children for a coke in the café opposite the petrol pumps.
(8) Emily cleared the soup plates and Heinrich and Algernon were bringing out individual plates of lobster salad.
(9) when Newcastle council called in workmen to clear the rubbish as part of a scheme to upgrade houses in the area.
(10) There was a chorus of agreement as the maid cleared the table.
(11) so he went into the wardrobe and cleared a shelf and said put it in there.
(12) He shifted uncomfortably on the chair and wiped a bead of sweat that ran down the side of his face.
(13) Don’t expect me to wipe your tears.
(14) ‘Blimmin’ heat,’ he grumbled, wiping his forehead with a handkerchief.
(15) Lucy wept, her hand against her face, wiped her eyes as more tears came.
These examples show that both types of PPs, that is location-PPs (with to load, with to clear and with to wipe) as well as locatum-PPs (as for to load and to clear), can be left out. Some optional PPs are, however, more important than others. Their presence may be required from a semantic-pragmatic point of view, in order to convey the message clearly. This can be illustrated with examples of load something. In the context of example (7) (which is preceded by a sentence about a bag) it is obvious that it is not the car itself that is loaded onto something else but that the car is loaded with luggage. However, given that a car could be loaded onto something else, a with-phrase can be very useful to avoid this conflicting interpretation. This also explains why to load a ship can be found without a with-phrase more often than cars: The latter can easily be loaded as a locatum-object onto something (onto a ship for instance), whereas in the context of the ship it is more obvious that this is the location-object.

These facts are clearly attested in the BNC. I searched for the verb load combined with the entries car or ship within a range of five words before or after the verb (which can be done with the help of the SketchEngine, option ‘filter’) and classified these examples by hand. Out of the ten examples with car as a direct object of location, there are only three instances (33%) in which no with-phrase has been added. For ship this is fundamentally different: Out of the 31 uses of ship as a direct object of location, 22 examples (71%) are used without a with-phrase. No examples can be found of loading a ship onto something, whereas cars are loaded onto something else in four examples.

Similarly, to load a gun / bullets are found without PPs. If one searches for the verb load combined with the entry gun in the BNC and again manually selects direct objects, one finds 18 examples, all without a with-phrase. Bullets occur once as a direct object, also without a PP. These are once again cases in which no confusion can arise; if one object is used as the direct object, the other is clear by default. They are perfect examples of a direct object change (cf. also restrictions on German laden in section 4.3).

The same is even more evident in MATERIAL-PRODUCT shifts, as in (16)-(19) (taken from the BNC). In such cases, examples without PPs are very common.

(16) When sufficient yarn has been spun on spindle or wheel, ...
(17) hamlets where old ladies sit on their doorsteps spinning wool, ...
(18) slabs of rich bread dough baked with herbs and olive oil

186 These examples also show that the idea that particles are of fundamental importance for MOCs is questionable (cf. chapter V, §6.3-6.5). In English, none of the verbs involved is a particle verb. In Dutch and German, however, some of these examples must be translated with particle verbs. Consider, for instance, the pairs (8)-(10) or (9)-(11): the verb ‘clear’ in (8) and (10) should be translated as afruimen or abräumen (‘off-clear’) and in (9) and (11) as opruimen or aufräumen (‘up-clear’). However, the Dutch verb ruimen or the German verb räumen itself sometimes also alternates (cf. the examples under (37) on page 193).
(19) many people no longer have the time to bake their own bread and cakes

The observation that the PPs are optional is relevant, because it reveals that in this respect locative alternations and material/product alternations differ from, for instance, Levin's with/against alternation or through/with alternation (cf. Levin 1993: 67-69). The latter alternations can be illustrated by hit the fence with a stick / hit the stick against the fence and pierce the cloth with a needle / pierce the needle through the cloth (cf. chapter V, §6.2). These alternations cannot be considered a real change of the direct object slot, since they only shift their direct object if the original one is expressed as a prepositional phrase.

In addition to the optionality of PPs, they can often be realised with different prepositions, especially with locations. Consider, for instance, the BNC-examples (20)-(23) with the verb to clear.

(20) Have they cleared that chicken off the roundabout?

(21) He flicked the corner of his cloak at Izzie to clear her off the table - as if to touch her would dirty his hands.

(22) In the past, it was commonplace to clear the lymph glands out of the armpit at the same time as performing the mastectomy (removing the whole breast).

(23) The only thing left to do is to sort through that pile of things we cleared out of the cupboards

The sentences show that the location-PP cannot only be formed with from but also with off (as in (20) and (21)) or with out of (as in (22) and (23)).

Although both participants do play a crucial role within the verbal action, the fact that their literally interpreted preposition can be realised in several ways, and that they can be left out, as in examples (4)-(19), makes it questionable whether we are really dealing with complements in the case of location-PPs (cf. Honselaar 1980: 11-12).

For the locatums in PPs with with or of, as in (1)b and (2)b, it is more difficult to use an alternative preposition. A simple reason could be that there are not many

187 Cf. also sentences (14)-(17) in chapter V, which illustrate that different prepositions of the location also occur with particle verbs.

188 A possible alternative for with in this sense could be full of (cf. also §4.1 below). This phrase can indeed be found with locatums, cf. BNC-examples with to load: “RAIDERS smashed their way into a furniture store and calmly loaded a van full of three-piece suites.”; with to pack: “he was surprised to see her packing a suitcase full of clothes.”; with to plant: “He’s planted fields full of sunflowers”; with to cram: “It’s an awful building really, architecturally. […] Milligan has crammed it so full of Victorian antiques, paintings and illustrations that the cement is hidden by memorabilia.”; with to stuff: “And he and his man would take a black bin-liner and carry it upstairs and stuff it full of cash from the safe.”, etc.
different ways to paraphrase the meaning of *with* or *of*: Whereas locations can be accompanied by different prepositions, this is generally problematic for all kinds of arguments with *of* or *with*. The same is true for, for instance, instrumental *with*, as in *to load hay with a fork*. Instrumental *with*-phrases, such as *with a fork*, do not play a crucial role within the verbal action and are definitely considered an adjunct.

Furthermore, syntactic tests, which can be used to determine the syntactic status of *with*-locatums, are not as conclusive as sometimes suggested (cf. e.g. Iwata 2008: 46-48). Iwata even explicitly concludes that “while the locatum *with* is indeed distinct from the instrumental *with*, they are nevertheless both adjuncts.” (Iwata 2008: 48). The same line of reasoning can be applied to locatum phrases with *of*.

Given that location and locatum PPs are optional constituents, which are in all probability adjuncts, they should not necessarily be taken into account in an analysis of locatum-location and material-product shifts. Rather than the shifting of all arguments simultaneously, only the direct object slot (DO-slot) is crucially involved in the shift. Therefore, only the combination of verb and DO should be directly compared to each other. The optional PPs are only useful to illustrate that the examples are paraphrases of each other. The next section will present additional reasons for leaving PPs out of consideration from a crosslinguistic perspective.

### 2.2 Crosslinguistic differences in the analysis and usage of PPs

The previous subsection has shown that in cases of MOC PPs are not necessary and sometimes even impossible, and that their syntactic status as a complement may be questionable. In addition, the syntactic status of the PP can be unclear because the PP is often syntactically ambiguous in actual sentences. In many examples, it remains unclear whether the PP should be analysed as an autonomous constituent within the sentence or as an attribute of the direct object. This problem especially emerges in Dutch and German, because of some structural differences between these languages compared to English.

This can be illustrated by the clear parallel between the German examples (24) and (25) on the one hand and (26) and (27) on the other.\(^{189}\)

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\(^{189}\) These examples have all been found with the help of the internet: Example (24) has been found via the internet-based deWac-corpus, the sources of (25) and (27) are [http://www.tis-gdv.de/tis/misc/becker.htm](http://www.tis-gdv.de/tis/misc/becker.htm) [August 2010] and [http://www.rheinhafen.de/rheinhafelen-karlsruhe/aktuelles/hafenmagazin-hafen-aktuell.html](http://www.rheinhafen.de/rheinhafelen-karlsruhe/aktuelles/hafenmagazin-hafen-aktuell.html); 02/2008 [July 2011] and example (26) is taken from Gushterov, Savin (2011): *Der Revers im Seefrachtgeschäft*. Münster: LIT Verlag, page 235 (via Google-books).
(24) die syrische Hafenstadt Tyrus, the Syrian seaport town Tyrus

wo die Ladung des Schiffes gelöscht wurde, where the cargo ship-gen unloaded got

‘the Syrian seaport town Tyrus, where the cargo of the ship got unloaded.’

(25) Die erhitzte Ladung aus dem Schiff kann gelöscht werden in: -... the hot cargo out of the ship can unloaded got/be in: -...

‘The ship’s hot cargo can be unloaded in: -...’

(26) Wollen Ablader und Verfrachter [...] want unloader and shipper

die ganze Ladung aus dem Schiff löschen, the whole cargo out the ship unload

‘If unloader and shipper want to unload the whole cargo out of the ship,’

(27) die beiden Kräne, die [...] den Brennstoff aus den Schiffen löschen, the both cranes which the fuel out the ships unload,

‘both cranes, which unload fuel out of the ships’

The genitive phrase “des Schiffes” in (24) can only be interpreted as an attribute belonging to “die Ladung”. The same is also true, however, for the PP in example (25), since German allows only one sentential constituent (in this case the subject) before the finite verb in main clauses. Therefore, the subject must be “die erhitzte Ladung aus dem Schiff” as such, meaning that the PP of (25) can only be analysed as an attribute belonging to “die erhitzte Ladung”.

Examples (26) and (27) differ in this respect, since the locatum-object and location-PP occur within an infinitive construction or within a subordinate clause. In subordinate clauses all constituents occur before the finite verb, so word order does not discriminate whether the PP is an attributive or sentential constituent. Although German prefers genitives as attributive phrases in such cases, the parallel between (25) and (26) or (27) demonstrates that in the latter two examples the PP also could be an attributive phrase belonging to the direct object.

In other words, for many examples which include a shifted object and a PP, the syntactic analysis of the PP is ambiguous. The two possibilities are shown in bracket notation in (28). Structure i) shows a non-attributive PP, structure ii) an attributive one. The closing brackets of the NP and of the VP are aligned.

(28) i) [VP [NP [N ] ... [PP [NP ] ] ] ]

ii) [VP [NP [N ][PP [NP ] ] ] ]
This problem can also be illustrated for Dutch. The ANW-examples (29) and (30) show that besides the combination ‘to wash clothes’ one can sometimes also use ‘to wash stains’. Example (29) shows that the stains can occur as a direct object of *wassen* without an additional PP.\(^{190}\)

(29) Oude vlekken eventueel meerdere malen [...] wassen
old stains if necessary more times wash
‘If necessary, old stains should be washed several times.’

(30) De vlekken uit mijn regenjas waste ze [...] eruit.
the stains out of my rain coat washed she there-out/out of it
‘She washed the stains of/in my rain coat out of it.’

Example (30) contains two prepositional phrases: *uit mijn regenjas* as well as *eruit*. Given these two simultaneously realised phrases and because of the fact that it is only possible to place one argument before the finite verb, the phrase *uit mijn regenjas* can only be analysed as an attributive phrase, belonging to *de vlekken*. The fact that an analysis of the PP as an attribute of *de vlekken* must apply in example (30) demonstrates that this analysis can also apply to more common structures such as (31). Although it is more plausible in such examples to analyse *de vlekken* instead of *de vlekken uit mijn laken* as the direct object, the latter is theoretically possible.

(31) om de vlekken uit mijn laken te wassen
for/to the stains out of my sheet to wash
‘for washing the stains out of my sheet / the stains in my sheet’

This problem is more evident in Dutch and German than in English because of differences in the use of prepositions. First of all, English prepositions which play a crucial role in these alternations, such as *of* and *from* and even some instances of *off*, are all translated with *van / von* in Dutch and German. In Dutch, this preposition is also a default preposition for attributes, corresponding to English *of* and to the

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\(^{190}\) Cf. also the internet examples “Ik heb mijn broek uitgetrokken en heb de vlek gewassen” (*I have taken off my pants and have washed the stain*) (http://www.waarmaarraar.nl/blog/670/ID/86951/GO/0/WMR_blog:_WMR_blog:_Stront.htm l); “We adviseren om deze vlekken te wassen met een voorwas met een wasmiddel dat enzymen bevat, en een hoofdwas met zuurstofbleekmiddel.” (*We advise to wash these stains with a prewash with a detergent containing enzymes*) (http://www.pgprof.com/belgium_nl/index.php?page=search-results&flt=1&all=1&sc=) or “Om de vlek echt weg te krijgen is het zaak om direct na het knoeien de vlek te wassen met [...] een vlekkenmiddel.” (*To really get rid of the stain, it is necessary to wash the stain with [...] a stain remover directly after spilling*) (http://www.besteprodukt.nl/Artikelen/Onderzoek_verwijderen_wijnvlekken_samenvatting.htm ml) [all retrieved in October 2011].
German genitive (which is sometimes also analytically paraphrased by a *von*-attribute).

Consider in this respect a Dutch internet-example such as (32).191

(32) Ze veegde het wassop van haar handen af/aan haar schort.
    she wiped the washing suds of/from her hands off on her apron
    ‘She wiped the washing suds on her hands off on her apron.’
    ‘She wiped the washing suds off from her hands on her apron.’

The phrase *het wassop van haar handen* in example (32) cannot only be translated into a non-attributive PP (i.e. ‘the suds from her hands’) but also into a PP that can be interpreted attributively (i.e. ‘the suds of her hands’ = ‘the suds on her hands’). Although it is possible that both PPs (*van haar handen* as well as *aan haar schort*) are non-attributively used, it also makes sense to analyse the first PP as an attribute belonging to *het wassop*. The positions of both PPs with respect to *af* even point towards this interpretation.

However, if this is plausible in an example such as (32) the same ambiguity arises for other *van*-phrases, as in the ANW-example (33).

(33) Hoe krijg ik die plekken van mijn broek gewassen?
    how get I those stains off/from/of my pants washed
    ‘How can I wash (away) the stains in my pants / wash the stains from my pants?’

The preposition *van* plays a crucial role, because it is often used with particle verbs with *af*.

Apart from the problematic status of the prepositional phrase as an attribute, which is endorsed by the use of *van* in Dutch, there is an additional problem from a cross-linguistic point of view: Even if the same object alternations as in English are allowed in Dutch and German, not all of them are equally possible with a prepositional phrase (PP) in both variants. Examples (34)-(35) illustrate this.192 Just as in English, the alternations in (34) and (35) are possible with PPs in both variants.

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192 Although these examples are abstractions, I tested all combinations by checking for real examples in the Dutch ANW-corpus, the German DWDS-corpus or the deWac-corpus.
(34)  a. Dutch: zijn spullen pakken (in een koffer)
    *German: seine Sachen packen (in einen Koffer)
    his stuff pack in a suitcase

    b. Dutch: een koffer pakken (met zijn spullen)
    *German: einen Koffer packen (mit seinen Sachen)
    a suitcase pack with his stuff

(35)  a. Dutch: tin gieten (in bepaalde vormen)
    *German: Zinn gießen (in gewissen Formen)
    tin cast in certain forms

    b. Dutch: vormen gieten (in tin / uit tin)
    *German: Formen gießen (aus Zinn)
    forms cast in tin / from (lit. out) tin

An example such as (36)b, however, which is quite possible with English to clear,
does not allow the location in a PP in Dutch and German.

(36)  a. Dutch: de borden afruimen (van de tafel)
    German: die Teller abräumen (vom Tisch)
    the plates off-clear off/from the table

    b. Dutch: de tafel afruimen (*van borden)
    *German: der Tisch abräumen (*von Tellern)
    the table off-clear of plates

Similar observations can be illustrated with simplex verbs. The simplex verb ruimen /
räumen, which can be used, for instance, in combination with snow and roads,
displays different behaviour in English and German than in Dutch. Example (37)
shows that the locatum-PP is only possible in German, and not in Dutch.

(37)  a. Dutch: sneeuw ruimen (van het dak / parkeerplaats)
    German: Schnee räumen (vom Dach / Parkplatz)
    snow clear off/from the roof/parking place

    b. Dutch: het dak / de parkeerplaats ruimen (*van sneeuw)
    *German: das Dach/ den Parkplatz räumen (von Schnee)
    the roof / the parking place clear of snow

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193 Dutch does allow the location as the direct object, cf. the ANW-example in (147) or
internet examples, such as “Ik sta speciaal vroeger op om sneeuw te ruimen […] In onze
straat zijn er slechts een handvol mensen die hun stoep ruimen” (“I get up especially early to
clear snow […] In our street, there are only a couple of people who clear their pavement”) [http://nl.yunomi.be/artikel/voetpaden-sneeuwvrij-maken] or “Even later kwam ook de
sneeuwschuiver de weg en parkeerplaats ruimen.” (“The snow plough came a moment later
to clear the road and the parking place”) [http://groen828.hyves.nl/blog/] (all retrieved in April
2011). Examples with a PP cannot be found for Dutch.

194 Many instances of these combination can be found on the internet: “Wann soll das Dach
vom Schnee geräumt werden?” (“when has the roof to be cleared of snow”)
The difference between Dutch and German would force Levin to consider only German *räumen* as a verb similar to *to clear*, whereas Dutch *ruimen* should instead be classified as comparable to *to wipe*. In my view, this makes a division between verbs based on the use of PPs unreliable.

There are also other simplex verbs that do not allow one variant in Dutch and German. The Dutch simplex verb *lossen* and German *löschen*, for instance, do not allow PPs with similar ease as the composed English equivalent *unload*. The verb *to unload* allows prepositional phrases with locations and locatums. In Dutch, the use of a location-PP appears to be impossible and in German it is problematic (cf. the German examples (26)-(27) above). Both Dutch and German thus prefer not to add the location in a PP. Locatum-PPs are clearly impossible in Dutch and German, as illustrated in (38).

(38) *Dutch:* het schip lossen (*van goederen)*  
*German:* das Schiff löschen (*von Ware)*  
*the ship unload of goods*  
*English:* to unload the ship (of goods)

Things are even more complicated when it comes to the simplex verbs *wissen* and *wischen* (*‘to wipe’*). Example (39)b shows that the locatum-PP with *wissen* / *wischen* is, as in English, impossible. In contrast to English, a locatum such as ‘sweat’ is only allowed as a direct object, if the corresponding location-PP is added. In other words, the location-PP is not optional in Dutch and German. This is illustrated in (39)a. Examples (12) and (13) above show that the PP is optional in English.195

*www.verwaltung.bayern.de/Anlage2143901/SchneelastaufDaechern.pdf*; “Der Toom-Markt in Höchberg lässt sein Dach von Schnee räumen.” (*‘The Toom market in Höchberg gets its roof cleared of snow.’*)  
(http://www.main.de/wuerzburg/hoechberg/h%F6chberg/art673,411224/); “Mieter stehen nun vor der Wahl, entweder selber den Parkplatz vom Schnee zu räumen oder irgendwo sonst auf der Straße zu parken.” (*‘Tenants have the choice either to clear the parking place of snow by themselves or to park somewhere else on the street.’*)  
*www.juraforum.de/forum/mietrecht/schnee-raeumen-264855/); “muss ein discounter seinen parkplatz von schnee und eis räumen” (*‘does a discount store have to clear its parking space of snow and ice’*)  
(http://www.recht.de/phpbb/viewtopic.php?t=191221) [all retrieved in June 2010].

With other verbs, such constructions with obligatory location-PPs also occur in English: Compare, for instance, *to wash the car; to wash the mud off the car;* *to wash the mud.*  
Langacker (1995) discusses sentences such as *to wash mud off the car* as related to raising constructions (1995: 22) with a shift in the meaning of the verb (1995: 23). Although I do not consider such examples as clear MOCs and although I strongly doubt whether verbal polysemy should be assumed in such cases, it is interesting that Langacker considers such construction as involving a complex kind of metonymy (1995: 1, 57) and a “highlighting effect” with a “focal prominence of trajector or landmark status” (1995: 38).
The situation with wissen and wischen is even more complicated, since these observations do not apply to every object. In combination with ‘tears’ and ‘eyes’, for instance, the location as a direct object is only allowed in German and not in Dutch (= sich den Augen wischen / *zijn ogen wissen). This is illustrated in (40) b. Furthermore, if the tears are used as a direct object (as in (40)a), the location is, in contrast to (39)a, optional.

(40) a. Dutch: tranen wissen (uit je ogen)
German: Tränen wischen (aus den Augen)

b. Dutch: *je/haar/zijn ogen wissen (van tranen)
German: (sich) die Augen wischen (*von Tränen)\textsuperscript{198}

All these examples show that whereas to wipe easily displays MOC in English (as illustrated in (12)-(15)): German wischen allows MOC only in some cases (as with ‘tears’ and ‘eyes’) and with Dutch wissen comparable shifts occur even less frequently (compare some examples in the WNT).

\textsuperscript{196} In most examples, German adds the possessive dative sich (himself/herself) to this object-verb combination. The word sich is not necessarily added, however, cf. in the DWDS-corpus “und von dem Wirbel des Geschehens benommen, die Stirn wischte,” (‘and dazed by the fuss, (he) wiped his [lit: the] forehead’). Footnote 198 also provides examples without a possessive dative.

\textsuperscript{197} As in the ANW-examples “Nadat ze haar tranen had gewist, wilde ze een sigaret opsteken.” (‘After she had wiped her tears, she wanted to light a cigarette’) or “Ze wiste haar tranen met de volle hand en herstelde zich.” (‘She wiped her tears with her whole hand and pulled herself together’) and in the German deWac-examples, such as “Wisch ihnen die Tränen, wenn ihr Vater getötet wird.” (‘Wipe their tears, when their father gets killed’) or “aber dabei sieht sie zu Boden und wischt verstohlen ihre Tränen” (‘but with that she is looking at the floor and stealthy wiping her tears’).

\textsuperscript{198} Cf. DWDS-examples such as “Er wischte die Augen mit dem Handrücken und lächelte” (‘he wiped his [lit.: the] eyes with the back of his hand and smiled’); “Adalbert, der dann nichts mehr sagte, aber im Umdrehen die Augen wischt mit dem großen gelben Taschentuch” (‘Adalbert, who then said nothing further, just wiped his [lit.: ‘the’] eyes with the large yellow handkerchief while turning around’); “Sie wischte mit dem Handrücken die wunden Augen” (‘she wiped with the back of her hand the injured eyes’).
On the basis of these considerations it emerges that, even in MOCs where the PPs are acceptable, they should be left out of consideration. The syntactic status of a PP is not entirely clear, it can even be ambiguous, and the PP is an optional constituent. In addition to this, the use of PPs differs cross-linguistically, even if the same MOCs are possible. In such cases, possible PPs do not give much information on the object change as such. The addition of PPs seems to bring in new complexities of its own, which do not necessarily have to be connected with the object shift as such.

On the other hand, PPs can provide much information on the demarcation of alternations that are seemingly MOCs but actually display different structures. Examples in this respect are the English \textit{with}/\textit{against} alternation or \textit{through}/\textit{with} alternation and probably some Dutch and German examples with \textit{wissen} and \textit{wischen} (cf. also footnote 195). Differences between such alternations and real object shifts are only visible if PPs are not automatically taken into account.

\section*{2.3 Morphological marking in Dutch and German?}

Research on locative alternations in Dutch (cf. de Groot 1998; Laffut 1998) and German (Brinkmann 1995; Sauerland 1994; Frense/Bennet 1996) deviates in a strange way from research on English. This is caused by the fact that Dutch and German have different restrictions upon some alternations as compared to English and because the former two languages have a richer morphology. As a consequence, whereas examples of an English alternation always contain the same verb, it is alleged that Dutch and German alternations occur with two different verbs, viz. a simplex verb and a morphologically marked one. In this subsection, I will show that this in fact is a misrepresentation.

The different analyses for Dutch and German as compared to English can be explained on the basis of examples in (41)-(47). Examples (41)-(43) show locative alternations in English.

\begin{enumerate}
\item (41) a. The farmer sprayed pesticide (onto the fields)
  b. The farmer sprayed the fields (with pesticide)
\item (42) a. The lorry spattered mud (onto my clothes)
  b. The lorry spattered my clothes (with mud)
\item (43) a. John heaped/piled/stacked books (on the shelves)
  b. John heaped/piled/stacked the shelves (with books)
\end{enumerate}

These prototypical examples of locative alternations in English are not equally felicitous in Dutch and German. An analysis of a balanced sample of 200 examples of the ANW-corpus with the Dutch verb \textit{spuiten} (‘to spray’) revealed only 5 locations as the direct object (2.5%). All examples were things that were painted, such as sprayed cars, sprayed furniture or sprayed easter eggs. German behaves
similarly: Among a sample of 200 sentences with *spritzen* in the deWaC-corpus only 3 location-DOs were found (1.5%). These were locations that were sprayed with paint or plants that were sprayed with pesticide. The latter combination is also possible in Dutch to a limited degree.

The German loan word *sprayen* behaves the same way: Again, among all 230 occurrences in the deWaC-corpus only 3 examples with locations as the direct object could be extracted (1.3%). Although the verb *sprayen* is infrequent in Dutch (14 examples in the ANW-corpus), the only locations as the direct object reflect the above patterns: In these cases the locations are sprayed with a remedy against fleas. The location-DO thus only seems to be possible, if the locatum is some kind of paint or varnish or a type of poison, such as pesticide or a remedy against fleas. Furthermore, in all corpus examples the locations are three-dimensional.

The Dutch verb *sproeien* (‘to spray’/ ‘to sprinkle’) also occurs with locations to which some water is added. The verb *sproeien* occurs 135 times as a verb in the ANW-corpus,\(^{199}\) with seven examples with location-objects (5.8%). These locations are a race circuit which is sprayed against the dust, a terrarium and gardens (three examples) which are sprayed with water, plants and a field which is sprayed with poison.

Mostly, both languages express equivalents of the b-sentences of (41)-(43) with morphologically marked verbs, as illustrated in (44)-(46).

\begin{align*}
(44) \quad \text{Dutch:} & \quad ?? \text{De boer } \text{spoot } \text{de akker} \text{ (met pesticide)}^{200} \\
& \quad \text{De boer } \text{bespoot } \text{de akker} \text{ (met pesticide)} \\
\quad \text{German:} & \quad ?? \text{Der Bauer } \text{spritzte } \text{den Acker} \text{ (mit Pestizid)} \\
& \quad \text{Der Bauer } \text{bespritzte } \text{den Acker} \text{ (mit Pestizid)} \\
& \quad \text{‘the farmer [be]-sprayed the field (with pesticide)’} \\
(45) \quad \text{Dutch:} & \quad * \text{De vrachtwagen } \text{spatte } \text{mijn kleren} \text{ (met modder)} \\
& \quad \text{De vrachtwagen } \text{bespatte } \text{mijn kleren} \text{ (met modder)} \\
\quad \text{German:} & \quad * \text{Der Lastwagen } \text{spritzte } \text{meine Klamotten} \text{ (mit Dreck)} \\
& \quad \text{Der Lastwagen } \text{bespritzte } \text{meine Klamotten} \text{ (mit Dreck)} \\
& \quad \text{‘the lorrey [be]-spattered my clothes (with mud)’}
\end{align*}

\(^{199}\) The SketchEngine provides 139 examples with four double sentences.  
\(^{200}\) On the internet, only one elliptical example could be found, in the head of a newspaper article, i.e. “Milieubewust een akker spuiten met gps” (“To spray the field in an environmentally responsible way with gps”) [http://www.volkskrant.nl/binnenland/article1195695.ece/Milieubewust_een_akker_spuiten_met_gps] [July 2010]. Possibly, the verb *sproeien* (‘to spray’) is preferred in this context, as in the single ANW-example “De landbouwer moet maar eenmaal zijn akker sproeien met een herbicide” (“With a herbicide, the cultivator has to spay his field only once’). The intuition of some native speakers (e.g. Honselaar p.c.) that the combination *de tuin spuiten* (‘to spray the garden’), in the meaning of ‘to water the garden’, is much better than *de akker spuiten* (‘to spray the field’, i.e. with pesticide) is questionable: The combination *de tuin spuiten* does not occur in the ANW-corpus and it is also infrequent on the internet.
Based on such equivalents of prototypical examples, scholars often consider locative
transformations in Dutch and German as involving morphological markers such as be-
/bed- or vol-/voll-. It has only occasionally been noticed that in Dutch and German
locative alternations in fact occur without any morphological marking
investigate locative alternations in Dutch and German primarily take into account
different verbs and analyse the morphemes used (cf. Brinkmann 1995;
however, Dewell 2004: 18).

Thus, whereas in English two different syntactic patterns with a single verb are
analysed, in Dutch and German the same two syntactic patterns with different verbs
have been taken into account. This is strange, especially since sometimes similar
alternatives can be found in English, as illustrated in (47).201

(47) a. A stone flew through the air, striking a rain pool and spattering mud on
   Ashe’s boots
   b. heavy vehicles passing close by spattered his shoes and trousers with filth
   c. his elegant shoes and trousers bespattered with mud

The location as a direct object occurs with spatter ((47)b) as well as with bespatter
((47)c). However, only the pair spatter with a locatum-DO and spatter with the
location-DO are considered to be relevant for the locative alternation.

Although the prefix be- is unproductive in English, spatter - bespatter is not the
only pair of verbs corresponding in this way. Other examples are strewn - bestrewn;
smear - besmear/besmirch; sprinkle - besprinkle. None of the be-verbs are, however,
taken into account as the alternating counterpart of the simplex verb. They are
simply treated as two different verbs with their own syntactic patterns (cf. for
instance strewn versus bestrewn Levin 1993: 50 vs. 51).

This makes sense, because if a language uses specific morphology, such as with
bespatter, bespritzen or bespetteren, we could not, strictly speaking, analyse the
location-direct object as an alternation or shift. Pure or real locative alternations,
such as the ones in English, occur without any morphological marking on the verb.
Given that some morphologically simple verbs in Dutch and German, as in English,
do in fact allow the locatum as well as location as a DO, one should primarily

201 The a-sentence comes from The Time Traders by Andre Norton (page 56, 2008 re-
published by Bibliobazaar) and the b- and c-sentences are taken from the BNC-corpus.
consider the same verb occurring with (or without) type shifts concerning the direct objects.

Honselaar has also stated that real alternations are patterns of a single verb (1980: 63). He points out that one should not confuse diathesis (i.e. alternation) with conversions. In the case of conversions two different, morphologically related verbs are compared (as in (41)-(43)), which only shows a lexical-syntactic relation between two sentences. Alternations or diatheses, on the other hand, involve different syntactic patterns for one invariant verb.

Some linguistic data also show clearly why one should not compare simplex verb with be-verbs: There are verb-object combinations which allow the locative alternation without the option of using a be-verb. Consider in this respect the contrast between the Dutch and German examples in (48)-(49)\textsuperscript{202} smeren or besmeren and schmieren or beschmieren (cf. also examples with Dutch beladen in footnote 221).

\begin{enumerate}
\item \textbf{Dutch:} hij smeerde boter op een boterham\textsuperscript{203}  
\textit{German:} er schmierte Butter auf eine Scheibe Brot  
\textquoteleft he spread [lit.: smeared] butter on a slice of bread\textquoteright
\item \textbf{Dutch:} hij smeerde een boterham met boter  
\textit{German:} er schmierte eine Scheibe Brot mit Butter  
\textquoteleft he spread [lit.: smeared] a slice of bread with butter\textquoteright
\end{enumerate}

\textsuperscript{202} Real examples for (48)a and b are ANW-examples, such as “Voor Ewa's aanrecht smeerde ze een boterham met boter en legde er een plak jonge kaas op,” (‘She spread a slice of bread with butter at Ewa’s kitchen counter and put a piece of young cheese on it’) and “Olga smeerder boter op een stuk geaderd brood,” (‘Olga spread butter on a piece of grainy bread’) or deWac-examples, such as “Du sollst aber ein Brot mit Butter schmieren” (‘You should just spread a slice of bread with butter’) and “Ob er lieber Butter oder Margarine aufs Brot schmiert...” (‘Whether he prefers to spread butter or margarine on his bread’). Real examples for (49)a and b are the Dutch internet examples “Een piepende deur gaat u te lijf door een paar druppels olie in de scharnieren te smeren.” (‘You can repair a creaking door by greasing the hinges with a few drops of oil [lit.: ‘by smearing a few drops of oil in the hinges’]’ (http://www.ah.nl/huishouden/nuito?lp_sortReverted=true&lp_sortProperty=dateInserted&filter=applicableRooms%3DStudeerkamer) and “Maak alle onderdelen schoon en smeer het scharnier met olie” (‘Clean all parts and grease the hinge with oil’) (http://www.aazet.nl/pages/kozijnen/afstelling-kozijnen.php) or the German internet examples, such as “Die hatten [...] ein bisschen Fett in die Scharniere geschiert.” (‘They had greased the hinges with a bit of grease [lit.: ‘a bit grease in the hinges smeared’]’.) (http://www.opel-voting.de/opel-forum/corsa-tigra/41187-hintere-tuer-knarzt.html) and “und wenn du fertig bist, die Scharniere mit etwas Öl [...] schmieren” (‘and when you are done, you should grease the hinges with some oil [lit.: ‘the hinges with some oil smear’]’) (http://f3.webmart.de/f.cfm?id=2902459&r=threadview&t=3212998&pg=2) [all retrieved in October 2011].

\textsuperscript{203} It is useful to point out that the Dutch compound boterham does not, from a synchronic point of view, involve any butter: It simply refers to ‘a slice of bread’. In German, a slice of bread is called Scheibe Brot. The German word Butterbrot denotes ‘a slice of bread with butter’.
c. Dutch: 
  *hij besmeerde een boterham met boter
  *he spread [lit.: smeared] a slice of bread with butter

(49) a. Dutch: 
  hij smeerde olie in de scharnieren
  ‘he spread [lit.: smeared] oil in the hinges’

b. Dutch: 
  hij smeerde de scharnieren met olie
  ‘he greased [lit.: smeared] the hinges’

c. Dutch: 
  *hij besmeerde de scharnieren met olie
  *he spread [lit.: smeared] the hinges

These examples under (48) as compared to (49) clearly show that a simplex verb and a corresponding be-verb are two different verbs with their own behaviour. They should therefore not be compared as if they were the same. In other words, we should discard “the habit of thinking of be-verb constructions as “The Locative Alternative in German” ” and Dutch (Dewell 2004: 18).

The occurrence of simplex verbs with shifted direct objects is not the only reason to compare sentences involving the same verb. The confusion of comparing two different verbs is even more problematic for the clear-group and wipe-group. Since all verbs in these groups express some kind of removal, they can never be combined with the prefix be-. The prefix be- is semantically connected to an “applicative meaning” applied to a location which is preferably a surface (cf. Laffut 1998: 157, 142-143). Occasionally scholars have proposed that German examples with removal verbs use the particle ab- for the location-DO (cf. Frense/Bennet 1996: 315). Dutch has a similar construction with af-.

The translation of (50) into Dutch and German (illustrated in (51) and (52)) does indeed seem to suggest that af- or ab- marks the location-variant. The use of PPs differs from English: For the Dutch and German a-sentences the location-PP is obligatory and for the Dutch and German b-sentences, a location-PP is impossible.

(50) a. The waiter has cleared dishes (from the table)
   b. The waiter has cleared the table (of dishes)

(51) a. De ober heeft de borden van de tafel geruimd
   b. De ober heeft de tafel *geruimd / afgeluimd

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204 Intuitively, (49)c is infelicitous because be-verbs are often used with respect to surfaces. Therefore, example (49)c is maybe possible, but not under the same interpretation as in (49)a and b. I will not discuss the semantics of be-verbs in Dutch and German in further detail (which has been done by Dewell 2004 and Laffut 1998: 157, 142-143).

205 Real Dutch and German examples will be provided below (Cf. examples (53) and (54) and the corresponding footnotes).
The sentences under (51) and (52) illustrate that, in the context of clearing tables, the morphologically simple verb *ruimen* or *räumen* can only be used with the locatum (including location-PP), and not with the location as a direct object. The location-DO can be expressed with *afruimen* / *abräumen*.

However, these verbs themselves also occur with the locatum as a direct object. In other words, apart from the combination *tafel afruimen* / *Tisch abräumen* (as in (51)b) and (52)b) one could also use *borden afruimen* / *Teller abräumen*. Translations (51) and (52) are thus misrepresentative: The full, correct comparison is displayed in (53) and (54). The a-sentences are examples with a locatum as the DO, the b-sentences contain a location-DO. The sentences with subscript 1 show morphologically simple verbs, the sentences with 2 as a subscript contain a morphologically complex verb. The behaviour of the PPs has been included in these examples: An asterisk before a bracket indicates that the phrase within brackets is obligatory, whereas an asterisk after a bracket indicates that the prepositional phrase cannot be added to the sentence.

(53)  
\[ \begin{align*} 
\text{a1.} & \quad \text{De ober heeft de borden *(van de tafel) geruimd}\quad \text{207} \\
\text{a2.} & \quad \text{De ober heeft de borden (van de tafel) \textit{af}geruimd}\quad \text{208} \\
\text{b1.} & \quad *\text{De ober heeft de tafel geruimd} \\
\text{b2.} & \quad \text{De ober heeft de tafel *(van de borden) \textit{af}geruimd}\quad \text{209} 
\end{align*} \]

(54)  
\[ \begin{align*} 
\text{a1.} & \quad \text{Der Ober hat die Teller *(vom Tisch) geräumt}\quad \text{210} \\
\text{a2.} & \quad \text{Der Ober hat die Teller (vom Tisch) \textit{ab}geräumt}\quad \text{211} 
\end{align*} \]
b1. *Der Ober hat den Tisch geräumt
b2. Der Ober hat den Tisch (*von den Tellern) abgeräumt212

These examples lead us to the conclusion that *ruimen and *räumen do not allow direct object shifts within this context, whereas *afruimen and *abräumen do: The latter verbs are the only verbs which allow both types of direct objects, without needing to add a PP in any of the variants. This shows that comparing two different verbs such as a1-examples with b2-examples (as in (51) and (52)) is misleading.

In sum, several reasons can thus be revealed why one should only compare sentences with a single verb when analysing alternations. First of all, the invariant verb is the crucial factor which distinguishes alternations from conversions. Secondly, research on English alternations also takes into account a single verb, even if similar comparisons between simplex and complex verbs can be made in English. Thirdly, simplex verbs and morphologically complex verbs sometimes display differing behaviour. In some cases, as with Dutch (be)smeren or German (be)schnieren, some location-objects can only occur with the simplex verb and not with the morphologically complex verb. This fact demonstrates that the complex verb cannot be a marker for the alternation. The same can also be proven by a fourth argument why single verbs should be taken into account: Morphologically complex verbs themselves can often also be combined with both types of direct objects, as has been illustrated using *afruimen and *abräumen.

2.4 Concluding remarks: Comparing the right sentences

This section has shown that, if one investigates alternations, such as transitive locative alternations or material/product alternations, one should be very careful about which alternatives are compared. First of all, real alternations occur with a single verb. Secondly, one should keep the comparison as simple as possible and only take into account essential parts of the sentence, such as subjects and direct objects which cannot be left out. In addition to this, it is very important to use language data, since some objects are more appropriate than others and intuitions sometimes seem to differ. I will discuss this in more detail in the following sections.
3. Metonymy as the mechanism underlying object changes

Before I will analyse some specific verbs in detail, I will first demonstrate that metonymy must be taken into account in order to understand the above alternations (cf. also chapter V, §7.1). The following sentences clearly show the conceptual closeness of material and product or location and locatum.

(55) Sie schmierte Butterbrot
    she smeared       butter-bread
    ‘she spread a slice of bread with butter’

(56) De jongen bakte een spiegelei
    the guy           baked a     mirror-egg
    ‘The guy fried an egg sunny side up’ / ‘The guy cooked a fried egg’

(57) She planted a rose garden.

(58) Der Bauer hat einen Sonnenblumenfeld angebaut213
    the farmer        has a     sun flower field    on-build
    ‘The farmer planted a sun flower field’

The German word Butterbrot in (55) refers to ‘a slice of bread with butter’ (cf. footnote 203). Although the morphological head (i.e. -brot) refers to a location, the locatum is also directly included. In a comparable way, the word spiegelei in (56) literally denotes an egg reflecting light, which refers to a fried egg (with the yolk whole). Because the egg is morphologically included in this word, it cannot be added to the sentence. In other words, the material and the product coincide in these examples.

Sentences (57) and (58) illustrate the same issue for a location and a locatum. A rose garden is a type of garden, but it simultaneously refers to plants in this garden. Similarly, a Sonnenblumenfeld is a certain field which lexically includes the flowers. It therefore remains unclear whether we should consider such direct objects as a locatum or a location. This problem is also reflected by the fact that if some PP has been added to such examples, it is often another location. This is illustrated in the deWaC-example in (59).

(59) Er pflanzte Rosengärten zwischen die gigantischen Redwood-Bäume in Browns Valley.
    ‘He planted rose gardens between the huge redwood trees in Browns Valley’

213 Cf. the deWaC-example “Dank einer großzügigen Spende […] konnte im Juni 2003 das erste organische Sonnenblumen Feld im Pine Ridge Reservat angebaut werden”
(uneccessarily with an incorrect space between Sonneblumen and Feld).
The fact that one could add the location where the direct object has been planted, suggests that, despite morphological properties, the direct object is the locatum and not the location.

Such problems also occur for Dutch (and similar German) phrases such as *een kopje thee* (‘a cup tea’), *een emmer water* (‘a bucket water’) or *een fles wijn* (‘a bottle wine’). Although their morphological head is the container, they clearly differ from real compounds, such as *een theekopje* (‘a tea-cup’), *een wateremmer* (‘a water-bucket’) or *een wijnfles* (‘a wine-bottle’). The examples *een kopje thee, een emmer water* or *een fles wijn* thus simply simultaneously denote container and content.

This fact can be illustrated by the commonly used examples (60) and (61). The verb *schenken* (and *inschenken / uitschenken*) is mostly combined with content-objects, whereas *vullen* likes to be combined with a container in its DO-position.

(60) hij schonk een kopje thee (in) / (uit)
    he poured a cup tea (in) / (out)
    ‘he poured (out) a cup of tea’

(61) ze vulde een emmer water
    she filled a bucket water
    ‘she filled a water-bucket / bucket of water’

The phrases *een kopje thee* or *een emmer water* make it difficult to determine whether examples (60)-(61) display a variant with a location-DO or locatum-DO.

The same problem applies to examples with words that do not morphologically but rather semantically include the material or the locatum. Such examples are illustrated in (62)-(63).

(62) Zeef de bouillon
    sieve the broth
    ‘Sieve the broth’

(63) Sie zupfte sich die Augenbrauen
    she plucked herself the eyebrows
    ‘she depilated her eyebrows’

The alternation as in *sieve gold (out of sand)* versus *sieve sand (for gold)* is not so clear in the Dutch example (62): The sieved broth simultaneously denotes the substance that went through a sieve as well as the substance that is obtained after the

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214 The head of such phrases could be determined by the plural form and grammatical gender. The plural of *emmer water*, for instance, is *emmers water* (and similarly *kopjes thee, flessen wijn*). The singular word *emmer* has masculine gender (*de emmer*), whereas *water* is neuter (*het water*), but the phrase *emmer water* could only be preceded by the determiner *de*. 

sieve. A comparable problem arises for German (63): Do eyebrows denote the location that is depilated or does it refer to the hairs that are pulled out?

Examples (55)-(63) all illustrate that the direct object refers to the conceptual unity of locatum and location or to the conceptual unity of material and product, i.e. to a single gestalt (cf. chapter IV, §7.3). Because most of these examples cannot clearly be classified as a single variant of the alternation, they pose a problem for investigations that do not take into account the metonymical relation between both possible arguments. These examples therefore support the analysis that in alternations a type of metonymy of the direct objects has to be involved.

The important role of the metonymical relation between the two possible objects can also be recognised if one compares possible alternations with impossible ones. A single verb often only allows object change with some objects (cf. also Brinkmann 1995: 55-57). Consider, for instance, the contrast between examples (64) and (65).

(64) a. Dutch: ze wiedde onkruid in de tuin
   German: sie jätete Unkraut im Garten
           'she weeded weeds in the garden'
b. Dutch: ze wiedde de tuin
   German: sie jätete den Garten
           'she weeded the garden'

(65) a. Dutch: ze wiedde onkruid op het terras / tussen de tegels
   German: sie jätete Unkraut auf der Terrasse / zwischen Platten
           'she weeded weeds on the terrace / between tiles'  
b. Dutch: ze wiedde ?het terras / *de tegels
   German: sie jätete ?die Terrasse / *die Platten
           'she weeded ?the terrace / *the tiles'

215 Although Levin mentions to weed as an alternating verb (1993: 53), the English translation of the (33)a is somewhat infelicitous in English, because the direct object weeds is already incorporated within the denominal verb. In Dutch and German the verb and the locatum-DO differ, which does not make the direct object 'weeds' / 'onkruid' / 'Unkraut' redundant. However, one does find examples in the BNC such as: “The idea is that recruits from the towns will weed the crops.”; “I have spent over £500 in shrubs plants and bulbs, and put in a great deal of time collecting rocks and weeding and feeding the plants”. Strictly speaking, however, these shifts are different, since it is not the plants taken out of the garden which are denoted, but rather the plants from between which the weeds are removed. The question emerges whether these crops and plants should be classified as locations or locatums: They denote the objects connected to the location, but they are not the locatum removed from a garden or a field. This example shows that we are dealing with a metonymical chain, caused by the complex gestalt of a location, such as a garden or a field, with weeds that should be removed from that location (the removed locatum) and the plants that are supposed to be there (another locatum).
The location-variant is felicitous in (64) but not in (65). The relation between weeds and a garden is obviously stronger than that between weeds and a terrace or tiles. The word garden strictly refers to a location, but simultaneously denotes the plants belonging to this location. Terraces do not evoke the idea of plants in the same way that gardens do. Tiles do not semantically or pragmatically include any plants.

This is reflected in language use. In corpora and on the internet, one can find many instances of gardens in DO-position, whereas tegels wieden or Platten jäten cannot be found at all. The terrace-example is in between the garden and the tiles: I found one internet example of German Terrasse jäten and two examples for Dutch.

The ANW-corpus also gives examples with another type of location-DO, as illustrated in (66).

(66) De hele dag heb ik een ontzettend rotwerkje moeten doen: de straat om de boerderij wieden.

‘I had to do a very tiresome job the whole day: weeding the street around the farm.’

Although terraces are semantically closer to gardens than streets are, this example shows that even the street as a DO can be possible. The context probably helps to make the street as a direct object acceptable: The use of boerderij (‘farm’) evokes some rural picture that encourages the relation between a primitive street and the weeds in them.

The important issue is that differences between (64) and (65) cannot be explained by verb semantics. Apparently, the relation between the direct objects plays a crucial role. Weeds can grow in several locations, but the contiguity relation between such plants and the relevant locations differ. The examples show that contiguity is not only spatial proximity, but rather the evocation of a single gestalt (an experiential unit). Gardens and plants form such an gestalt, whereas tiles and weed are spatially close but conceptualised as two separate entities. Therefore, the contiguity relation (i.e. the metonymical relation) between weeds and a garden is very strong, whereas it is very weak between weeds and tiles. This is directly reflected in the locative alternation.

One can illustrate the same issue with the possible alternations for smeren / schmieren (‘to spread’, ‘to smear’, ‘to rub’). Examples (48) and (49) and the real examples in footnote 202 above show that combinations such as boter smeren / Butter schmieren alternate with a location-DO in Dutch and German. However, a locative alternation with smeren / schmieren as in (67) is not allowed.

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216 It would be very interesting to test this by psychological research, but this is beyond the limits of the present research.
Although the skin is, in a similar way as a slice of bread or a chain, the location of some kind of grease (i.e. butter, oil or ointment), the buttered bread and the greased chain can be more easily visualised as one conceptual entity within the context of this verb. A crucial difference is, for instance, that the cream will go into the skin and not be visible on the face anymore, whereas one can see whether a hinge is oiled or whether there is butter on a sandwich.

In the same way, it can even explained why insmeren or einschmieren (‘to rub in’)\(^{217}\) can occur with locutums, such as cream, as well as with locations, such as faces or persons, as its direct object. Whereas cream and a face, for instance, are less easily visualised as a conceptual unity within the context of smeren or schmieren than a buttered sandwich or a greased chain, visibility does not play an important role for the verb insmeren or einschmieren: The semantics of these verbs implies that the cream goes into the skin. In this way, the particle verb endorses the relation between cream and a location in a stronger way than the simplex verb.

A comparable difference as with schmieren can be found with streichen (cf. also Dewell 2004: 17) which could be used in combination with a wall that is painted (eine Wand streichen), but not with a wound on which some ointment is applied (*eine Wunde streichen). Alternating verbs, such as smeren / schmieren (‘to spread’/’to smear’/’to rub’) or wieden / jätten (‘to weed’) do occur with some instances of locatum-location objects, but not with others. Such differences can only be explained in terms of the different contiguity relations between the objects involved and their relevance within the context of the verb.

\(^{217}\) The verb to rub has a slightly different meaning than smeren / schmieren. This could be the reason that to rub in hardly alternates (cf. also chapter V, footnote 166), although some examples can be found on British internet pages, such as “Another one of those "great" advices: "Rub your face in with lemon".” [http://www.ciao.co.uk/Dianette_Review_5437352]; “I rub her in with Johnson & Johnson baby oil gel twice a day but it is still flaky.”[http://www.netmums.com/coffeeshouse/children-parenting-190/drop-clinic-652/574916-flaky-skin-itch.html] or “It is time to start a new historical chapter, the sequel to Classic Age: The Medieval times. Rub yourself in with some anti-plague lotion” [taken from the magazine “PC Gameplay”, cf. http://forums.totalwar.org/vb/showthread.php?60307-Preview-and-Interview-in-PC-Gameplay] and via Google-books, such as “The child must be washed. [...] The old mother will rub her in with fat” [Sleigh, Dan (2004): Island. Secker & Warburg, page 158]; “Please, girl, rub your husband in with oil and massage his arms and legs, and you too stay there with him.” (American anthropologist, 1930 vol. 32, Washington: American Anthropological Association, page 680) [all retrieved in August 2011].
The German verb *abziehen* illustrates the same issue. Whereas the locatum and location can be used in (68)a and (68)b and also in (69)a and (69)b, this is different for (70)a and (70)b.

(68) a. Das Zimmermädchen hat den Bettwäsche abgezogen  
    the chambermaid has the bed linen off-pulled  
    ‘The chambermaid changed the bed linen’  
    b. Das Zimmermädchen hat das Bett abgezogen218  
    the chambermaid has the bed off-pulled  
    ‘The chambermaid changed the bed’  

(69) a. Der Jäger hat das Hasenfell abgezogen  
    the hunter has the hare-skin off-pulled  
    ‘The hunter took off the hare’s skin’  
    b. Der Jäger hat den Hasen abgezogen219  
    the hunter has the hare off-pulled  
    ‘The hunter skinned the hare’  

(70) a. Die Diva hat ihre Handschuhe abgezogen  
    the diva has her gloves off-pulled  
    ‘The diva took off her gloves’  
    b. *Die Diva hat sich die Hände abgezogen220  
    the diva has POSS-DAT the hands off-pulled  
    ‘The diva took off her hands’  

For Dutch, the same difference applies to *load*. The verb *laden* does allow the shift between locatum and location, but again only for certain types of objects. The contrast between (71) and (72) illustrates this.

218 Cf. deWac-examples such as “Sie hat die Bettwäsche abgezogen” (‘She had changed the sheets’) vs. “die Nachbarinnen hatten das Bett abgezogen” (‘the neighbours had changed the bed’).

219 Cf. deWac-examples such as “Junge Hasen und Wildkaninchen, die noch nicht abgezogen sind,” (‘young hares and wild rabbits, which are not yet skinned,’); “doch erst nach fünf Minuten ist das Tier schließlich tot. Während es abgezogen wird,” (‘but only after five minutes the animal finally dies. While it is being skinned,’) versus “Nun zog ich dem Hasen das Fell ab,” (‘now I took the skin off of the hare [lit.: ‘the hare-dative the skin’]’) or “als Sävehof das Zebrafell schon abgezogen hatte.” (‘when Sävehof had taken off the zebra skin’).

220 Cf. for (70)a deWac-examples such as “denn er hatte die Handschuhe abgezogen” (‘because he had taken off the glove’) (or even with *Hand* in a prepositional phrase: “warum er niemals den Handschuh von der linken Hand abzog” (‘why he never took the glove off of the left hand’)). An additional problem for (70)b is that this sentence could be interpreted as meaning that the diva skinned her hand. This shows that the skin is more closely connected to a hand than a glove. Furthermore, in (70)b there is the possible interpretation that the direct object may be interpreted as a locatum instead of as a location, which means that the diva took off her hand (cf. below, section 4.3).
Whereas one can use *een auto laden* (‘load a car’) or *een aanhangwagen laden* (‘load a trailer’) as locatum-objects in Dutch, one cannot use *een ezel laden* (‘load a donkey’). Apparently, only three-dimensional, hollow locations can occur as a direct object of Dutch *laden* (cf. also Oya 2009: 281). To put this differently, whereas the contiguity relation container-content does allow the metonymical shift in Dutch, surface-locatum does not. Vehicles with luggage are to a larger extent one conceptualised entity (one gestalt) as compared to donkeys with luggage.

On the basis of this example, one might wonder why some of these impossible alternations in Dutch and German do occur in English, such as, for instance, *to load a donkey with bags*.

Although most alternations in English, Dutch and German are fairly similar, metonymical shifts can be restricted in different ways across languages. The fact that metonymical mechanisms are constrained differently across languages is well-known (cf. e.g. Brdar 2009; Brdar & Brdar-Szabó 2003; Kleiber 1995: 130; Kleiber 2007: 177; Koch 1999: 158; Panther & Thornburg 2003b; Panther & Thornburg 1999; Peters 2003). The metonymical shift with English *to load*, German *laden* and Dutch *laden* illustrates this: English is very flexible, allowing all kinds of locatum and location in the alternation, while German is less flexible than Dutch or English. The metonymy is constrained on the basis of pragmatic reasons, which are applied differently in different languages and which therefore lead to different restrictions. In the next section, I will examine some cross-linguistics differences of locative alternations by investigating semantic differences and pragmatic constraints. This will bring me back to German *laden* in section 4.3.

221 The verb *beladen* can be used with both, which again illustrates that *beladen* and *laden* should not be directly compared to each other. The fact that the combination *een ezel beladen* is perfectly acceptable, whereas *een ezel laden* is impossible, demonstrates that the former verb cannot be just a morphologically marked alternative of the latter.

222 Cf. BNC-examples such as “Two girls are loading the donkeys with water containers and sacks”; “stepping back from a mule loaded with carpets”; “I saddled my horse, loaded a sumpter pony,”; “His family were shown outside, loading a donkey and preparing with sad looks for their journey into exile.”, etc.
4. Some characteristics and constraints of MOC

The previous section has shown that the possibility of a transitive alternation is determined by the relation between the two participants. The combination of a verb and its direct object, or more precisely the direct object slot of the predicate, can only be changed on the basis of a close contiguity relation between two entities. It is therefore better to call such alternations “metonymical object changes” (MOCs). This section will discuss some semantic and pragmatic characteristics of verbs and objects involved in MOCs. These characteristics will be used to clarify some restrictions on the felicity of MOCs and to analyse some cross-linguistic differences.

Broadly speaking, I will discuss three issues. First of all, I will show that MOCs depend on a contiguity relation of the direct object within the conceptual structure evoked by the verb. Secondly, I will show that pragmatics play a crucial role: There can be general pragmatic reasons which make MOCs infelicitous. Finally, I will demonstrate that, although they are not instances of prototypical metonymies, MOCs belong to a clear continuum of different types of metonymical effects.

The section is structured as follows. Subsection 4.1 will demonstrate that cross-linguistic variation nicely illustrates the interplay of verb semantics and contiguity relations. By taking the semantic properties of the verb into account, I will analyse why English to fill and Dutch vullen do not alternate, whereas German füllen does. Subsection 4.2 will discuss the verb to pour, which is also said not to alternate. It will become clear that the alternation of to pour is restricted because of a semantic-pragmatic reason: I will demonstrated that two different gestalts are involved. In subsection 4.3, I will discuss another semantic-pragmatic property that limits the possibility of using different types of contiguous objects. This property will be illustrated by the verbs to load - laden - laden and to clear - räumen / afräumen – räumen / abräumen. The fact that MOCs are not only pragmatically constrained, but also used for a pragmatic reason, will be illustrated in subsection 4.4 with the verbs pakken or packen (“to pack”) and smeren and schmieren (“to spread”/”to smear”/”to rub”). On the basis of such pragmatic properties, several additional metonymical effects will be disentangled. This will bring me back to the metonymical character of MOCs: I will show that different metonymical effects can be interwoven with each other. The continuum will be illustrated by means of the examples wijn persen and Wein pressen (“to press wine”). These examples will also illustrate that the locative alternation and the material-product alternation can be closely related to each other.

4.1 Crosslinguistic differences: to fill / vullen / füllen and related particle verbs

A verb that, surprisingly, cannot alternate is the verb to fill. Although some content is conceptually involved in the activity of filling, the verb is combined with a container as its direct object. In this section, I will show that this is caused by semantic characteristics of the verb in combination with the gestalts involved.

The verb to fill expresses “to cause a container to become full” (cf. Iwata 2008: 82). Due to this semantics, the focus is upon the container which becomes filled or
full. Although some content is conceptually involved in the process of filling, the use of some content as a direct object is hardly ever allowed in English. 223 Dutch also does not like the verb *vullen* (‘to fill’) with a clear content-DO. The ANW-corporus only provides a very few exceptional examples, as illustrated in (73) and (74).

(73) … en stoomolie vullen zodat dit reeds gedaan is voor de volgende rit.
... and steam-oil fill so that this yet done is for the following ride
‘...and to refill oil for the steam engine, so that this has been done for the following ride.’

(74) ieder om beurt vulde water in een peilglas
everyone in turn filled water in a gauge glass
of goot er een hoeveelheid uit.
or poured there a quantity out
‘everyone in turn put water in a gauge glass or poured a quantity out of it’

German, however, behaves differently. In German, it is fairly normal to use the simplex verb *füllen* with the content instead of the container. Examples (75)-(80) (taken from the COSMAS II-corpus) illustrate this. One can easily find many more examples of this kind.

(75) Füllt man Tee in eine normale Teekanne, ...
fills one tea in a normal tea-pot
‘If one puts tea into a normal teapot,...’

(76) Die Kinder füllten Hirsekörner, Reis oder Sand in Jogurtbecher
the children filled barley-kernels rice or sand in yoghurt-cups
‘The children put barley kernels, rice or sand in yoghurt cups’

(77) Also füllen die Schüler brav Wasser in die Schüsseln,
so fill the pupils obedient water in the dishes
‘The students therefore obediently put water in the dishes’

223 Examples in the BNC-corpus (cf. also Iwata 2008: 82ff) are ‘the new spirit is filled into oak casks and stored in cool, dark warehouses’; ‘And mango, exotic mango sorbet filled into a half mango skin.’; ‘...it is quite certain that ore being produced at Coniston, was machine and hand dressed to as great a concentration as possible, before filling into strong saddle bags for the 20 mile pack-horse journey, over the mountain tops, to the Brigham smelters.’ Some other examples can be found on the internet (for instance via Google books: “to fill sand into hydraulically induced horizontal fractures in low permeability strata”), but in general they are few.
(78) Er füllt ein wenig Brei auf den Löffel,
he fills a little porridge on the spoon
‘He is putting some porridge on his spoon’

(79) Am Ende filtern sie das Bier, füllen es in Flaschen, Fässer oder Dosen.
in-the end filter they the beer fill it in bottles casks or cans
‘In the end they filter the beer and put it into bottles, casks and cans.’

(80) Nun ist dieser neue Wein in Flaschen gefüllt
now is this new wine in bottles filled
‘Now the “neuer Wein” [= ‘wine which is almost grape juice’] has been bottled’

The examples show that the container which is actually filled is almost always simultaneously expressed as a PP. Sometimes however, only a content-DO occurs, as illustrated in (81) and (82).

(81) Alexandra S. […] hat […] begonnen […] einen eigenen Wein zu füllen.
Alexandra S. has begun a own wine to fill
‘Alexandra Schmedes has started to bottle her own wine.’

(82) …, der mit viel Aufwand technisch polierte Weine füllt,
…, that/the with much effort technically polished wine fills,
‘…, who bottles technically refined wine with great effort,’

In this context, the containers are not crucially relevant and automatically interpreted as bottles. The focus is therefore upon the content. The verb füllen in these sentences can best be translated into English as “to bottle”, as in (79) and (80). Dutch has a similar verb for such contexts, viz. bottelen. Sentences (81) and (82) resemble the use of abfüllen, which is the most direct German translation for to bottle. This verb consists of an aspectual particle ab- (‘off/done’) and the verb füllen and therefore expresses something like “finish something by putting it into a container”. Consider some examples with the content in (83) and with the container in (84). A similar verb can also be found in Dutch, viz. afvullen, as illustrated in (85) and (86).

(83) Da in Braunschweig nur noch Bier gebraut und abgefüllt wurde,
because in Braunschweig just so far beer brewed and off-filled was
‘Because they were in Braunschweig now just brewing and bottling the beer,’

(84) …, weil wir die Flaschen nicht selber abfüllen können.
because we the bottles not selves off-fill can.
‘…, because we cannot fill the bottles ourselves.’
Het bier wordt in vaten of flessen afgevuld.
the beer is in casks or bottles off-filled
‘The beer is put in casks or bottles.’

Dat is vooral merkbaar als de flessen niet direct worden afgevuld.
that is especially noticeable if the bottles not directly are off-filled
‘That is especially noticeable, if the bottles are not filled immediately.’

The fact that German has no equivalent for to bottle other than füllen (or abfüllen) probably helps to allow the use of füllen with some content, but it cannot be the primary reason for accommodating the content object. The reason that füllen can occur with container or content is simply caused by its semantics: The verb füllen does not express “to cause a container to become full” but should rather be paraphrased as “to put some substance into a container”. This fact can not only be supported by examples such as (75)-(79), but is also reflected in some morphological processes. German dictionaries provide many morphologically complex verbs with füllen, including voll füllen (‘to fill full’).\(^{224}\) As is also the case with English to fill and Dutch vullen, the verb voll füllen can only occur with containers as direct objects, as illustrated in (87)-(90).

Autofahrer, die […] ihre Tanks alle ein bis zwei Wochen vollfüllen müssen,
car-drivers, those their tanks all one till two weeks full-fill must
‘car-drivers, who had to fill their tanks every one to two weeks,’

Die Jordan-Techniker füllten aber auch den Tank voll,…
the Jordan-engineers filled but also the tank full,…
‘And so the Jordan engineers filled the tank,…’

der seinen Pkw oder Kombi mit Bierkisten vollfüllen kann
that his passenger car or station wagon with beer-boxes full-fill can
‘who can load his passenger car or station wagon with boxes of beer.’

die […] einen Einkaufswagen voll gefüllt mit Ware nach Hause brachten
those a shopping trolley full filled with goods to house brought
‘who brought home a shopping trolley filled with goods’

Apparently the added voll is not considered redundant in German, which shows that füllen cannot be paraphrased as ‘to cause a container to become full’. Examples with full / vol in the meaning ‘totally full’, as in the German sentences (87)-(90), cannot be found in Dutch or English. The Dutch ANW-corpus provides not a single

\(^{224}\) The combination voll füllen is incorporated in some dictionaries, because it was spelled as a single word (i.e. vollfüllen) under the older German orthographical rules from before 1996. In finite form in main clauses the parts voll and füllen are always separated (cf. example (88)), as is the case with all particle verbs in German and in Dutch.
example with (half)vol and vullen (or volvullen).

The English BNC-corpus only provides slightly different examples with to fill and full(y).

In a few cases (seven BNC-examples in total) a modifier with full is added to express that a container is not totally filled (to fill a container half full / a quarter full, etc.). In addition, one finds the combination of to fill something full of something. However, such examples could be considered a kind of prepositional phrase (an alternative for with something, cf. also footnote 188).

Examples with full in the meaning ‘totally full’ seem to be infelicitous in English, as is also the case for Dutch. These facts reflect that to fill and vullen can be analysed as ‘to make something full’, which makes an additional full or vol redundant. Given that the verbs to fill and vullen have the meaning “to make full”, no content can be combined as a direct object.

These observations also predict that if this particular meaning of to fill or vullen is changed or lost, both types of objects, i.e. containers as well as contents, should be possible. This prediction is indeed born out. Some morphologically complex verbs can have a semantics in which the “cause to become full”-meaning has been lost. Such verbs can therefore accommodate object change. We already encountered such examples in (85) and (86) with Dutch afvullen. This verb expresses a finishing activity with some content and a container and can therefore be combined with both types of direct objects.

Sentences (91)-(92) show examples with bijvullen (‘to-fill’/ ‘add-fill’). This verb expresses that some content is added into a container. Because the ‘cause a container to become full’-aspect is lost, it can also be combined with both types of direct objects.

(91) ... en de brandstoftank werd bijgevuld.
... and the fuel-tank was at/to-filled
‘... and the fuel tank was replenished.’

(92) Nochtans heb ik niemand een motor zien starten of benzine zien bijvullen
however have I no-one a motor see start or gasoline see at/to-fill
‘However, I have seen no one starting a car of replenishing gasoline.’

225 The following ANW-example suggests that Dutch does not even like to combine vullen and halfvol: ‘Eerst de tank halfvol doen, dan petroleum in-gieten en daarna de tank vullen.’ (lit.: “First the tank half full do, then petroleum in-pour and afterwards the tank fill”).

226 The English verb to fulfill does not have to be taken into account, because it can only be used in a totally different, non-literal way, which has nothing much to do with literal filling. The same goes for Dutch vervullen.
In (93)-(96) the same is illustrated for English with *to fill out* and *to fill in* (cf. Levin & Sells 2007: 15ff). These verbs can be combined with abstract containers and contents, such as information on a form. Similar examples can be found for the Dutch equivalent *invullen* and German *ausfüllen*.

(93) ... he has been accustomed to collect statements from informants, write down stories, and fill out sheets of paper with savage texts

(94) ... when he fills out C of E on a form,

(95) Fill in the form opposite with the same details as on the label.

(96) ..., he would then be able to fill in the details on the form and ...

However, a particle or prefix does not always automatically accommodate the content as a direct object. The Dutch verbs *hervullen* (‘to refill’) and *navullen* (‘to fill again’) could be paraphrased as “to cause a container to become full again”, which are therefore still container-oriented. Comparably, Dutch verbs such as *opvullen* or the English verb *fill up* (“to cause a container to become totally full”) need to be combined with a container-DO, just as *vullen* does.

The mechanism that some Dutch and English particles or prefixes can either suppress the meaning of the container becoming full, and therefore defocus the container participant, or endorse the focus upon the container participant, also applies to German. We already saw this with *voll füllen*. This verb has a meaning such as ‘to cause a container to become full by putting something into it’ which has a focus upon the container. A verb as *verfüllen* (‘to fill’ / ‘to make totally full’) or *überfüllen* (‘to overfill’) has the same effect. The German equivalent of *opvullen* / ‘to fill up’, i.e. *anfüllen*, also expresses that a container is filled, which therefore also only allows the container as its direct object. The prefixes add to the verb *füllen* that the container becomes full, totally full, overfull or filled up, which makes these particle verbs only container-oriented.

Similar to English and Dutch, not all German particles cause such a shift in focus. Consider examples (97) and (98).
Given that *füllen* can be paraphrased as “to put some substance into a container”, *nachfüllen* (lit.: ‘after-fill’, i.e ‘to refill’) should be paraphrased as “to put again some substance into a container”. As expected, the verb *nachfüllen* can therefore occur with containers and contents in a similar way as *füllen*. Similar to the Dutch verb *navullen*, a particle such as *na-/nach-* (‘re-/again’) does not fundamentally alter the focus of the simplex verb to which it is combined. Both types of direct objects are therefore allowed in German, in contrast with Dutch.227

Table 9 provides an overview of all morphologically complex verbs, which are based on *vullen* or *füllen* and the types of direct objects that they can be combined with. I generated this list of verbs from the ANW-corpus and the deWac-corpus by extracting all words that include *füllen* or *vullen* with the help of the SketchEngine (http://the.sketchengine.co.uk, option: wordlist). 228 Which types of objects can occur with each verb has been carefully checked in dictionaries and corpora (ANW and Cosmas II).

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227 The German verb *einfüllen* (lit.: ‘in-fill’) also has a shifting effect: It should be paraphrased in English as ‘to put into’ and can only be used with content (cf. Table 9). Unfortunately, I cannot explain this clearly.

228 The Dutch verb *vervullen* (‘to fulfill’) is not taken into account, because it does not refer to a literal filling-action (cf. footnote 226). The German verb *erfüllen* (‘to fulfill’/’to fill’) is also left out, because its filling-meaning has a different construction with the content as a subject (as in e.g. ‘smoke filled the room’). The German verb *beifüllen* is a little obscure, because it only occurred as a noun in the deWac-corpus and cannot be found in dictionaries. However, some examples of *beifüllen* as a verb could be found in the COSMAS II-corpus.
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<tr>
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</tr>
<tr>
<td>auffüllen</td>
<td>up-fill</td>
<td>to complete / to fill up / to replenish</td>
<td>aanvullen / bijvullen</td>
<td>- hole &amp; object</td>
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<td>- supply / stock &amp; content</td>
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<td>- object &amp; loss of object</td>
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<td></td>
<td>- container &amp; ?content</td>
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<tr>
<td>ausfüllen</td>
<td>out-fill</td>
<td>to fill in / to fill out</td>
<td>invullen</td>
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<tr>
<td>befüllen</td>
<td>be-fill</td>
<td>to fill</td>
<td>vullen</td>
<td>- container</td>
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<tr>
<td>beifüllen</td>
<td>up/on-fill</td>
<td>to fill up / to replenish</td>
<td>aanvullen / bijvullen</td>
<td>- container &amp; content</td>
</tr>
<tr>
<td>einfüllen</td>
<td>in-fill</td>
<td>to pour in / to shovel into</td>
<td>ingieten / inscheppen</td>
<td>- content</td>
</tr>
<tr>
<td>nachfüllen</td>
<td>re/-after-fill</td>
<td>to refill</td>
<td>hervullen / bijvullen</td>
<td>- container &amp; content</td>
</tr>
<tr>
<td>überfüllen</td>
<td>over-fill</td>
<td>to overfill</td>
<td>overvollen</td>
<td>- container</td>
</tr>
<tr>
<td>umfüllen</td>
<td>around-fill</td>
<td>to pour into / to load into</td>
<td>overgieten / omladen</td>
<td>- container &amp; content</td>
</tr>
<tr>
<td>verfüllen</td>
<td>ver-fill</td>
<td>to fill (totally) / to fill up</td>
<td>volladen/-gieten / vullen / volstorten</td>
<td>- container</td>
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<tr>
<td>voll füllen</td>
<td>full fill</td>
<td>to fill (totally)</td>
<td>(geheel) vullen</td>
<td>- container</td>
</tr>
</tbody>
</table>

Table 9: Verbs with *vullen & füllen*
Besides the shift between container and content, some verbs exhibit other object changes. Verbs, such as German *auffüllen* or Dutch *opvullen* and *aanvullen*, can also denote some kind of repairing. Many verbs of reparation can be combined with the object which is repaired as well as with the damage. For some filling-verbs this means that they can be combined with the object as such or with the holes in the object. The English examples (99)-(102) also illustrate this. A cavity in a wall and the cavity wall itself can be filled. The same goes for cavities in teeth and the teeth themselves. As explained in the previous chapter, MOCs with holes and their objects often occur, because a hole cannot be conceptualised without an object.

(99) If your house has cavity walls [...], you can have the cavity filled with approved insulation material by a professional contractor.

(100) If the home has cavity walls, they can be filled with an injected cellular compound.

(101) The company is also developing two new materials which it hopes will be strong enough to fill cavities in the back teeth.

(102) …, if fewer teeth were filled to begin with, and more worn fillings were repaired,…

Other shifts can also be found with *aanvullen* and *auffüllen* in the meaning that a supply is replenished. In such contexts, the verbs display complex object patterns, shifting between stocks or supplies (*een voorraad aanvullen* / *den Vorrat auffüllen*) or some content or material which makes up the stock or content level. Consider in this respect the deWac-examples (103)-(104) and the ANW-examples (105)-(106).

(103) ob dort Sand ersetzt oder aufgefüllt werden musste
whether there sand replaced or up-filled be should
‘whether the sand should be replaced or replenished’

(104) Für die Crème den Saft der Ananaskonserve auf ¼ Liter auffüllen,
for the cream the juice the pineapple-preserve up to ¼ litre up-fill
‘For the cream, add the juice of the canned pineapple up to ¼ litre,’

(105) Indicatie Zout geeft aan dat het zout dient aangevuld te worden.
indicationSalt gives on that the salt must on-filled to be
‘Indication Salt shows that the salt should be replenished.’

(106) Daarna heb ik [...] het water aangevuld tot het juiste niveau
there-after have I the water on-filled till the right level
‘After that, I replenished the water up to the right level’

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229 Because examples (100) and (102) are in the passive voice, the subjects are shifted instead of the direct objects, but the subjects of the passive show that the verb allows MOC.
The following ANW-examples also show a shift between some content used to undo a loss (example (107)), the loss that is undone (example (108)) and the content deficiency (example (109)).

(107) zorg ervoor dat je tijdens sportieve inspanningen het vocht aanvult
take care that-for that you during sporty exertions the fluid on-fill
‘make sure that you replenish your fluids during physical exertions’

(108) De eerste maatregel is het vochtverlies aanvullen.
the first measure is the fluid-loss on-fill
‘The first measure is replenishing the lost fluids.’

(109) Gelukkig [...] kunnen onze organen heel wat vocht missen,
luckily can our organs quite a lot fluid lack,

zodat dit tekort aangevuld kan worden.
so that this shortage on-filled can be

‘Luckily, our organs can get along without fluid, so that the shortage can be replenished.’

Content-objects as in (103)-(107) are not really connected to a ‘filling’-action, because the sentences do not express that some container is filled with something but rather that the content itself is replenished. This possible semantic aspect complicates any analysis of whether the verb *aanvullen* can be used with container and content, because it is problematic which content-DO examples can be taken into account as evidence for container-content shifts.

The internet-example (110), which is an advice about the maintenance of an aquarium, clearly illustrates this problem. Should the sand be analysed as an MOC with respect to the spaces between the stones which are filled, or is the level of sand in the aquarium replenished?

(110) En dit is ook een gemakkelijke manier
and this is also a/an easy way

om tussen de stenen zand aan te vullen.
for between the stones sand on to fill / replenish

‘and this is also an easy way to replenish the sand between the stones/ to fill up the spaces between the stones with sand’

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To summarise, the data discussed in this subsection show that the possibility of an MOC is simultaneously dependent on the contiguity relation between two objects and on the semantics of a verb. A verb must create the context in which the close connection between both direct objects becomes relevant. MOCs are clearly brought into being by an interplay of the contiguity relation between two participants (cf. section 3) and by the role that they play within the concept evoked by the verb. The verb evokes the relevant frame for the metonymical change (cf. chapter VIII).

In this subsection, I have noted that the concepts of Dutch vullen and English to fill differ from the one expressed by German füllen. The former two do not express an action in general with a container and content involved, rather they express a modification of a container (i.e. ‘to make full’). Because of this meaning, the verb can only be applied to a container. The fact that this meaning applies to vullen and to fill is reflected by the fact that, in contrast to German, no additional vol or full can be added. German füllen is different, as can be illustrated by the frequent occurrence of German voll füllen. This clearly shows that a paraphrase such as “to cause to become full” does not apply to füllen. Therefore, füllen can occur with content as a direct object.

Only if some German prefix or particle shifts the verb meaning to “to make full” (as with anfüllen, befüllen, überfüllen, verfüllen or voll füllen), the content can no longer be used as a direct object. Such effects by morphological elements upon focus within the verbal action can also be observed in Dutch. As soon as the container modifying meaning aspect is lost, container and content can occur in the direct object slot. This is, for instance, the case with afvullen and bijvullen.

4.2 Verbs involving more than one container, such as to pour

The verb to pour is traditionally analysed as a non-alternating verb, just as to fill. However, the behaviour of to pour is exactly opposite to that of to fill, in that the verb to pour is combined with some content (a liquid) as a direct object. In this section, I will take a closer look at this verb and at its equivalents in Dutch (schenken and gieten) and German (schenken and gießen).

The verb to pour usually expresses the fact that some liquid is moved into a container (container A) from another one (container B). Examples (111)-(112) from the BNC-corpus illustrate this.

(111) Sweetheart poured tea into her cup from a pretty tea-pot
(112) He watched as she poured water from the jug into the bowl

The focus of the verb is upon the content, which makes to pour crucially different from to fill, where the filled container (A) is the center of attention. The

231 I would like to expressly thank Mara van Schaij-Rădulescu for discussing this observation with me.
CHAPTER VI

consequence of this focus upon the content is that both containers are equally important for the pouring-action. In other words, with to pour there is not one but almost always two different containers (A and B) involved in the action expressed by the verb.

These two equally important containers cause a restriction upon the alternation. The metonymical object shift cannot be applied, because there is not just one gestalt involved but actually two different ones: The content is not only poured into some container (such as a filled cup or bowl), but it is poured out of a container (for instance out of a kettle) at the same time. Using a container as the shifted DO of to pour can cause confusion, because a pouring process fills one container by simultaneously emptying another. Which of the two containers, i.e. A or B, should therefore be considered ‘poured’?

However, it must be noted that this restriction is not as strict as alleged in most linguistic literature. Some contexts or circumstances could make the use of a shifted object possible. One might even question whether it is actually true that to pour does not allow a shifted direct object at all: Although the use of *pour a container with some kind of fluid is impossible, one can use to pour a container, as illustrated by English BNC-examples with the verb pour and a container in the DO-position, as in (113)-(116).

(113) Then he looked back at the T’ang, standing there, pouring a second bowl for his father.

(114) She poured her own mug, stirred in two sugars

(115) Luke frowned, went over to the coffee-machine and poured two cups, placing one in front of Merrill.

(116) He got the top off and a cup poured before lowering himself gingerly back into the driving seat and passing it over to Catherine.

One could argue that these examples are slightly different from other examples with to pour, in that it is restricted to an interpretation of ‘providing someone with a drink by the act of pouring’. Besides the fact that this is not really the case in examples (114) or (115) and not very likely for the attributive usage in example (116), a similar use of the verb also occurs with a liquid as a direct object, as in the BNC-examples (117)-(119). The verb to pour something (for someone) therefore still displays an object change.

(117) Jay poured cocktails for them all

(118) When she went down to the sitting-room to pour tea for her mother,

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232 Which once again proves that some facts may be overlooked the expression of both participants is always taken into account.
Buckmaster poured coffee for himself.

The Dutch and German equivalents of *to pour* in this context of serving and consuming are the particle verbs *inschenken* and *einschenken* or *eingießen*. These verbs also occur with containers as well as with the content as their direct objects, as illustrated in the ANW-examples (120)-(121) and in the deWac-examples (122)-(125).

(120) Hij schonk de wijn in.
    he poured the wine in
    ‘He poured the wine.’

(121) Ik schonk hun glazen in.
    I poured their glasses in
    ‘I poured their glasses.’

(122) Während ich Kaffee eingoß und mir ein Brot zurechtmachte,
    while I coffee in-poured and me-DAT a bread good-made
    ‘While I poured coffee and prepared a slice of bread for myself,’

(123) ..., eilte Philip in die Personalküche um [...] eine große Tasse einzugießen
    ...Philip hurried to the staff kitchen for ... a big mug in-to-pour
    ‘...Philip hurried to the staff kitchen, in order to pour a big mug.’

(124) In dem Moment, in dem das Bier ins Glas eingeschenkt wird,
    in the moment in that the beer in-the glass in-poured is,
    ‘At the moment that the beer is poured into the glass, ...’

(125) Falls Sie selbst die Gläser auswählen und einschenken müssen,...
    If you self the glasses choose and in-pour must
    ‘If you have to choose and pour the glasses yourself, ...’

The parallel between the English examples (117)-(119) and the Dutch and German ones in (120)-(125) shows that it is not the particle as such but rather the general semantics of the particle verb that makes the shift possible. If the verb is used in the context of pouring a drink for someone, the MOC is possible, as is also true for English. The focus upon the fact that a person gets a drink shifts the attention to the container into which some liquid is poured (container A). Consider in this respect also the morphologically simple verb *schenken* in the Dutch examples (126) and (127).

(126) Tijl [...] schonk zichzelf een bekertje
    Tijl poured himself a cup-DIM
    ‘Tijl poured himself a little cup.’
De ingebouwde [...] teller houdt bij hoeveel kopjes er zijn geschenken the in-built meter holds up how-many cups there are poured ‘The built-in digital meter counts how many cups are poured.’

These examples also show that the particles of (120)-(125) are not crucial in Dutch, but that their general semantics (a focus on the resultant drink in container A) simply helps to avoid confusion about which container is actually intended.

Comparable observations can be made for *uitschenken* and *ausschenken / ausgießen*, as illustrated by the Dutch ANW-examples (128)-(129) and the German deWac-examples (130)-(132). In these cases, the focus shifts to the container which is poured empty (B) and, as expected, object change is allowed. The essential difference with *schenken* and *schenken / gießen* is that one container (container B) is more prominent than the other (container A) with these particle verbs.

(128) ..., terwijl hij de flesjes voor ons ontkurkte en uitschonk. ..., while he the bottles-DIM-s for us uncorked and out-poured ‘while he uncorked the little bottles and poured them for us.’

(129) op het moment dat het flesje uitgeschonken is on/at the moment that the bottle-DIM out-poured is ‘the moment the little bottle is poured’

(130) Insgesamt drei 30-Liter-Fässer werden dabei ausgeschenkt in-total three 30-Liters-casks were there-at out-poured ‘With that, a total of 3 casks of 30 liters were poured’

(131) sie gießen die Krüge aus they pour the carafes out ‘They emptied the carafes’

(132) er [...] goß die Kannen über mich aus he poured those jugs over me out ‘he poured those jugs over me’

However, the shift with *uitschenken* and *ausgießen* is nowhere near as frequent as that with *inschenken* and *eingießen*. This could be caused by the fact that MOCs like to shift to the result of the verbal action. In many cases, the goal of pouring something out is not just to empty a container (i.e. emptying B), but rather to put something into another one (i.e. filling container A). Therefore, the possible confusion concerning which container is intended (the emptied or the filled one, i.e. B or A) can still occur. 233

233 Compare in this respect a German example, in which the filled container occurs as a direct object with *ausschenken*, cf. “In Unkenntnis oder auch im Trubel wird so manchem Jungen oder Mädchen auch das ein oder andere Glas ausgeschenkt.” (lit.: “In ignorance or also in bustle is in this way for many a boy or girl also the one or other glass out-poured”, i.e. ‘In a
English data also reflect this. It has been demonstrated above that a focus on the filled container could result in MOC, as with *to pour someone something*. The English verb *to pour in* does not alternate, which is probably caused by the fact that it does not have the meaning of providing someone a drink, as is the case for Dutch and German *inschenken* or *einschenken* and *eingießen*. Therefore, neither of the two containers becomes relevant enough to allow the MOC with English *to pour in*. The verb *to pour out* on the other hand does alternate. In some contexts, it can be used with a container, but again with the one that is actually filled (container A). The BNC-examples in (133)-(135) illustrate this.

(133) she poured out two cups and handed one to her host

(134) During a lull in the shouting I made the tea, and as I was pouring the cups out Mum asked Dad what she should do.

(135) As if to show that bygones were bygones, he produced a bottle of Sandeman’s sherry from a cupboard and, though it was three in the afternoon, poured out glasses for all.

This verb has a semantics of making drinks for someone or providing someone with drinks, comparable to *pour someone something*. The verb *to pour out* should therefore be translated into Dutch and German as *inschenken* or *einschenken* / *eingießen* (‘in-pour’) rather than with *uitschenken* or *ausschenken* / *ausgießen* (‘out-pour’).

Such an analysis which focusses upon the semantics of the verb and its participants explains these linguistic facts more adequately than an account which considers MOCs as a movement of the figure out of a prepositional phrase into a direct object position (cf. also chapter V, §6.4-6.5). According to, for instance, Oya 2009, *to pour in* does not alternate because, in contrast to Dutch *in-* and German *ein-*, the particle *in* lacks a functional structure which makes this movement possible (as is also the case with German *hineingießen*, i.e. cf. Oya 2009: 287). Prepositions such as English *out* and *off*, Dutch *uit* and German *aus*, on the other hand, do have such a functional structure (cf. Oya 2009: 277-278). However, this explanation conflicts with the fact that *to pour out* does not occur with the emptied container (B) but instead with the filled one (container A), as in (133)-(135). The latter two facts are also problematic for the analysis in Levin and Sells 2007. The analysis employed in this dissertation, which takes into account the semantics of the verb and the relation to its participants, explains why the comparable verbs *inschenken*, *eingießen* and *to pour out* (and also *to pour someone a drink*) behave uniformly.

situation of ignorance or also of bustle, there is also one glass or another poured out for many boys and girls in this way’).

234 An exception is the BNC-example “So he brought my bottle out and poured his out and we tapped glasses together.”
There can also be other specific semantic contexts which make a shift possible. The German simplex verb *gießen*, for instance, also allows an MOC in the context of watering plants, as in the deWac-examples (136) and (137). The standard variety of Dutch used in Belgium displays the same behaviour, as illustrated in the ANW-example (138).

(136) Er arbeitet daher gerade draußen im Garten, he works therefore just outside in-the garden
    gießt dort seine Pflanzen und füttert die Tiere. pours there his plants and feeds the animals
    ‘Because of that, he is working outside in the garden right now, he is watering his plants there and feeding his animals.’

(137) Und vergiss bitte nicht, die Pflanzen zu gießen! and forget please not the plants to pour
    ‘And please do not forget to water the plants!’

(138) Ahib heeft niet eens een plant om te gieten. Ahib has not even a plant for to pour
    ‘Ahib does not even have a plant, which he can water.’

In such examples, there is only one container involved (container B), viz. a watering can (cf. in this respect also example (132)) and the content is defocused, because its default interpretation is water. Therefore, the verb has the lexicalised usage in which the direct object is shifted to the goal of the pouring, i.e. the location to which the water is added, such as the plants. The plants and the water are clearly contiguously connected and shifting need not cause confusion.235

In sum, the fact that metonymical relations between objects play a role in object changes is also reflected by certain restrictions on such alternations. Using one object instead of another is only possible if both objects form one gestalt (such as a container with some content), which as such is crucial within the context evoked by the verb. If two different container-content gestalts (container A and B and their content) are both directly relevant for the verbal action, as with *to pour*, the object change becomes infelicitous, since confusion can occur concerning which container is intended. Only very specific contexts with a clear focus, as could be evoked by particles, can make the shift possible.

235 An alternative explanation could be that we are dealing with homonyms: One could assume that this Belgian-Dutch use of *gieten* (*‘to water’*) is a back formation based on *gieter* (*‘watering can’*), which is itself based on the original *gießen* (*‘to pour’*) (Moerdijk p.c.). German casts doubt upon this, because this analysis is very unlikely for German, given that a watering can is *Gießkanne* (*‘pour-can’*).
This is evidenced by examples with a context in which a drink is poured for someone, as with to pour someone something, to pour out or with Dutch and German inschenken and einschenken / eingießen. With these verbs, the focus is automatically upon the intended goal of the action, i.e. a filled container (A). With Dutch and German uitschenken and ausschenken / ausgießen, on the other hand, the focus is upon container B and its content. Another example is the context of watering plants in Belgian-Dutch and German. In these examples, a location and a container are involved and the container has the default interpretation of a watering can. Therefore, one can use planten gieten or Pflanze gießen (lit.: “to pour plants”).

4.3 Avoidance of ambiguity-of-DO-type: ‘to clear’, ‘to load’ and ‘to pack’

Even if only two objects that form one gestalt are involved (in contrast to to pour / schenken / gießen) and if both participate in the verbal action (in contrast to to fill / vullen), it is still not always possible to shift the direct object from a thing in a location to the location itself or from a certain material to the product. The possibility of MOCs differs across languages (as also mentioned at the end of section 3) and probably even across speakers.

German linguists, for instance, present opposed judgments about laden (‘to load’). Some scholars fully reject the possibility of using German laden with a location-DO such as a car or a wagon (Frense/Bennet 1996: 313-314; Sauerland 1994: 54-55), whereas others actually present this combination as an example of a morphologically unmarked alternation (Brinkmann 1995: 50; Dewell 2004: 23). The use of corpus examples is therefore of crucial importance. Real data reveal that the locative alternation with German laden in the context of vehicles is not totally impossible, though it is very uncommon (cf. also Dewell 2004: 27): No instance of it can be found in the DWDS-corpus (www.dwds.de) and only a few reliable, original German examples are available on the internet, such as examples (139)-(141).

(139) Der Vater hat den Wagen geladen. Der Wagen wurde von Kühen gezogen.

‘The father has loaded the wagon. The wagon was pulled by cows.’

236 Similar differences in judgments can sometimes be found for Dutch: De Groot, for instance, explicitly denies that simplex verbs such as smeren or laden can be used with locations in direct object slots (de Groot 1998: 65,68). The ANW-corpus provides evidence that this is absolutely not true for Dutch speakers in general.

237 Sources: example (139) http://www.geschichtsverein-lustnau.de/HeuselH.htm; example (140) Maria Bidlingmaier (2009/1918): Die Bäuerin in Zwei Gemeinden Württembergs. Bibliobazaar, LLc., p. 35 (via Google-books); example (141)

Die Heuschwaden reicht die Bäuerin hoch, der Bauer lädt den Wagen. ‘The farmer’s wife hands the hay swathes up, the farmer loads the wagon.’

Ich lud den Karren tüchtig mit Steinen und anderen Materialien, ‘I loaded the cart thoroughly with stones and other materials’

The locative alternation with to load has a very special property, which could explain its restricted use in German. As also touched upon in section 2.1, vehicle-DOs, such as cars or wagons, could not only be involved in some loading event as a location, but also as a locatum, i.e. as an object loaded onto something else. The BNC-examples (142)-(143), the ANW-example (144) and deWaC-example (145) illustrate this.

(142) Once dry of all fluids the car is loaded onto the factory’s rolling ‘D production’ line.
(143) Derek [...] and Luke’s dad Kevin had just loaded a car on the trailer
(144) In Suriname [...] weet men precies waar je een auto zou kunnen laden in een vaartuig ‘In Suriname [...] people know exactly where one could load a car into a ship’
(145) Hier wurde ihr Auto auf einen Klein-LKW geladen ‘Here, their car was loaded onto a truck’

Normally such ambiguity, to which I will refer as ‘ambiguity-of-DO-type’, is avoided. This explains, for instance, why one could express the action of taking away the things from the table by clear a table but not by *to remove a table. The latter is by default interpreted as that the table is removed as a locatum and this interpretation blocks the object change.

This constraint also explains why one can use to clear a table in English, but not translate this into Dutch with *de tafel ruimen or into German as *den Tisch räumen. The verbs ruimen and räumen do not denote ‘make clear’ but rather ‘to take away’. As a consequence, the phrase de tafel ruimen or den Tisch räumen can be
interpreted with the table as the locatum-object and therefore it cannot be used as a location-object, as is the case with to remove a table.\textsuperscript{238}

The ambiguity-of-DO-type arises to a much lesser extent for straten ruimen / Straßen räumen or daken ruimen / Dächer räumen (‘to clear roads’ or ‘to clear roofs’), since one cannot easily take away a street or a roof. The fact that hardly any ambiguity arises in these types of contexts, predicts that the simplex verb ruimen and räumen do alternate with, for instance, snow and roofs or streets. This prediction is indeed born out, as illustrated in the corpus examples (146) from the DWDS and (147)\textsuperscript{239} from the ANW.

(146) Wenn er im Winter durch die Stadt läuft, when he in-ART winter through the city walks kümmert sich der Bürgermeister persönlich darum, take care himself the mayor personally there-for daß die Straßen geräumt und gestreut sind...
that the streets cleared and salted are ‘When the mayor is walking in the city during winter time, he personally makes sure that the streets are cleared and salted...’

(147) De weg naar Lenfield is geruimd, maar in de bochten moet je tegensturen the road to Lenfield is cleared but in the bends must you against-steer ‘The road to Lenfield has been cleared, but one has to steer carefully in the bends’

A locatum-location shift can also often be found with Dutch ruimen in the context of farms and animal diseases (such as Q fever), as the internet examples (148) and (149) illustrate this.\textsuperscript{240}

\textsuperscript{238} If one assumes that ruimen primarily means ‘make space on or in something’ (cf. Van Dale 2005; WNT meaning 2), a comparable line of reasoning applies: One cannot only make space on a table by removing the tableware, but one can also make space in a room by removing a table. In other words, this interpretation of the verb also leads to conflicting interpretations in the case of de tafel ruimen. For the examples (146), (147) and (149) below, conflicting interpretations are hardly available under this meaning.

\textsuperscript{239} The word Lenfield could give the impression that this is a translated text, which would make the word geruimd a direct translation of cleared. This is, however, not true: The ANW-example comes from an authentic Dutch book by the author Bernlef. Comparable examples can be found on the internet (cf. footnote 194).

(148) Een commissie [...] adviseert drachtige geiten te ruimen
   a committee [...] advises pregnant goats to clear
   ‘A committee [...] advises the elimination of pregnant goats’

(149) Vandaag is in Oostrum de eerste Limburgse geitenboerderij geruimd
   today is in Oostrum the first Limburgian goat-farm cleared
   ‘Today, the first Limburgian goat farm has been cleaned in Oostrum.

Because one can only take away moveable objects, no conflicting interpretations arise for (149). The farm will only be interpreted as the location involved in the verbal action and therefore the construction with farm as a direct object or passive subject is allowed.

In a comparable way, it can be explained why afruimen and abräumen allow MOC: Within the combination de tafel afruimen or den Tisch abräumen (‘to off-clear the table’) the table can only be interpreted as the location-DO. This is so, because the verb afruimen or abräumen can only be used in the meaning of ‘taking away tableware from a table/freeing the table from tableware’. Therefore, a table will not be seen as a locatum-object with de tafel afruimen / den Tisch abräumen. Because no confusion will arise, the object change is allowed.

The English phrase to load a car also presents the ambiguous possibility of being a location-DO or a locatum-DO. Of course context easily makes clear which interpretation is intended. In addition to this, the interpretation of the car as a location-DO will be much more frequent. Whereas Dutch and English will therefore probably allow this MOC, German apparently still does not like the ambiguity-of-DO-type with laden. The deWac-corpus supports this fact; while no examples with Wagen / Auto laden (as a locatum) can be found, the corpus does provide some examples with ein Schiff / Frachtschiff laden (‘to load a ship / cargo ship’) as a location-DO. This supports the idea that the former is hardly ever used as a location-DO because of ‘avoidance of ambiguity type’: Ships are loaded onto something else less frequently than cars.

However, this explanation predicts that if no such ambiguity arises, the shift with laden should in fact also be allowed in German. DWDS-sentences (150)-(154) illustrate that this prediction is indeed born out.

(150) Sie öffnete das Magazin und lud eine Kugel nach der anderen,
   ‘She opened the magazine and loaded one bullet after the other,’

241 Cf. the deWac-examples of to load a ship: “Im Januar 1579, [...] hatte ein Steuermann, namens David Bottig, ein Schiff mit Sand oberhalb Dresden geladen.” (‘In January 1579, [...] a steers man of the name David Bottig had loaded a ship with sand, above Dresden’); “Die meisten [JS: = Frachtschiffe] waren angeblich nur mit Düngemittel geladen.” (‘Most of them [JS: = of cargo ships] were allegedly only loaded with fertilizer’); “Die Andromeda gibt einigen Frachtschiffen, die mit Medikamenten geladen sind, Geleit.” (‘The Andromeda sailed in convoy with some cargo ships, which were loaded with medicines.’).
(151) Es ist schade, daß ich keine Kugel geladen habe
   ‘It is a pity that I have not loaded a bullet’

(152) Nach dieser Instruktion sollten die Milizen lediglich ein Gewehr laden und...
   ‘After this instruction, the armed forces should just load a gun and...’

(153) Die [...] laden ihre Gewehre.
   ‘They [...] are loading their guns.’

(154) der schon seit geraumer Zeit sein Gewehr geladen hat
   ‘who loaded his gun already a long time ago’

Within the context of putting bullets into guns, i.e. to charge a gun, no such confusion as that with the vehicles can arise. Within this context, German does allow the verb laden to combine with the loaded content (the bullets) as well as with the loaded container (the weapon), just as is the case in Dutch and English. The same applies to a more abstract kind of loading, in the context of software, data and computers. Table 10 provides an overview.

<table>
<thead>
<tr>
<th>Meaning laden&quot;, laden&quot;</th>
<th>Realised VP</th>
</tr>
</thead>
</table>
| 1a) put things onto or into something: load, lade, freight | A hooi / koffers / vracht laden"  
Heu / Koffer / Fracht laden"  
hay / suitcases / cargo to load  
B schip / wagen / auto / "ezel laden"  
?Schiff / ??Wagen / ??Auto / "Esel laden"  
ship / wagon / car / donkey to load |
| 1b) put munition into something, provide with munition, load, charge | A kogels / munitie laden"  
Kugeln / Munition laden"  
bullets / munition to load  
B geweer / kanon laden"  
Gewehr / Kanone laden"  
gun / cannon to load |
| 2 load, read in | A software / gegevens laden"  
Software / Data laden"  
software / data to load  
B computer laden"  
Computer laden"  
computer to load |

Table 10: German and Dutch laden

At this point, it should be remarked that such an avoidance of conflicting interpretations really applies to the ambiguity of the type of direct object (within one verb meaning). German does allow, for instance, two kinds of DOs with the verb packen. Consider the examples in (155).
The combination of only the verb and DO (without the PP) in the b-sentence can also have two different interpretations, because the Dutch verb *pakken* does not only mean ‘to pack’ but is more frequently used as ‘to grab’ or ‘to take’. According to the etymological dictionary of Dutch (EWN) the meaning ‘pack things into something’ (/to make a pack out of things/) is the basic one, from which the combination ‘to pack a suitcase’ and the new modern Dutch meaning ‘to grasp / take’ has been developed. The latter meaning also occurs with German *packen*, although this meaning is less prominent and is less frequently used than in Dutch. Its interpretation is also slightly different: the meaning in German can be paraphrased as ‘to grab forcefully’ / ‘to catch’ (cf. meaning 2 versus 3 in Table 11). A German phrase such as *Klamotten aus dem Schrank packen* can be found in real language, but it is marked compared to *Klamotten aus dem Schrank nehmen*. Additionally, it should be noticed that, although the use of *pakken* in combinations such as ‘to pack things in a suitcase’ and ‘to pack a suitcase’ is perfectly possible in Dutch, the verb *inpakken*, which also allows content and container as a DO, is more common. The same applies to German, with *einpacken*.

Table 11 schematizes the two meanings of *pakken* and *packen*. The second meaning can be analysed as a metonymical extension of ‘to pack’, because if one is packing things into a container, one automatically also grasps these things. As a consequence, the phrases *de koffer pakken* and -to a much lesser extent- *den Koffer packen* can have the interpretation ‘to pack a suitcase’ as well as ‘to grab / take a suitcase’. This ambiguity caused by the verb is, however, a different ambiguity as

242 Cf. “Der Schnee soll schmelzen damit ich endlich wieder meine zerfetzten Shirts aus dem Schrank packen kann” (‘The snow should melt so that I can finally take my torn shirts from the wardrobe again’) (http://tentacletree.myblog.de/tentacletree/art/6559060); “Man darf die herrliche Strickmode wieder aus dem Schrank packen” (‘One may take the lovely knitting fashion out of the wardrobe again’) (http://issuu.com/marionnaud/docs/marionnaud_magazin_herbst2_2011_de); “oder ob wir doch noch mal die Babysachen aus dem Schrank packen müssen.” (‘or whether we should just take the baby stuff out of the closet one more time’) (http://bfriends.brigitte.de/foren/eine-familiensache/69431-an-die-mamas-mit-3-kindern-oder-mehr.html); “Mein Siebenjähriger hat die Sektgläser aus dem Schrank gepackt” (‘My seven-year old had taken the champagne glasses from the cupboard’) (http://www.nicht-jugendfrei-online.de/index.php?SID=zyjkhyka&s=aktuell_archiv&artikel=1136) [all retrieved in October 2011].
compared to *load a car, where the ambiguity arises within a single verb meaning (as is also the case with *remove a table in the meaning ‘to clear a table’.

<table>
<thead>
<tr>
<th>Meaning in English of <em>pakken</em> / packen</th>
<th>Realised VP</th>
<th>metonymy involved</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 to pack, to put things in a container</td>
<td><strong>A</strong> spullen (in een koffer) <strong>pakken</strong> Sachen (in einem Koffer) <strong>packen</strong> stuff (in a suitcase) to pack</td>
<td>--</td>
</tr>
<tr>
<td>2 to take / to grab / to grasp</td>
<td><strong>B</strong> een koffer (met spullen) <strong>pakken</strong> einen Koffer (mit Sachen) <strong>packen</strong> suitcases (with stuff) to pack</td>
<td>predicative metonymy (MOC: location)</td>
</tr>
<tr>
<td>3 to grab forcefully / to catch</td>
<td>kleren uit de kast <strong>pakken</strong> Klamotten aus dem Schrank <strong>packen</strong> clothes from the wardrobe to take</td>
<td>polysemy based on meaning 1</td>
</tr>
<tr>
<td></td>
<td><strong>jemand</strong> (bij zijn arm) <strong>pakken</strong> jemanden (am Arm) <strong>packen</strong> someone at his arm to grab</td>
<td>polysemy based on meaning 1/2</td>
</tr>
<tr>
<td></td>
<td><strong>de tijger pakt het prooidier</strong> der Tiger <strong>packt das Beutetier</strong> the tiger grabs/catches the prey animal</td>
<td></td>
</tr>
</tbody>
</table>

Table 11: English paraphrases of Dutch *pakken* and German *packen*

Another interesting pragmatic-semantic property of phrases such as *koffer pakken* and *Koffer packen* has been observed by Dewell: Verbs with a shifted location-object always imply some point of completion (2004: 23ff). According to Dewell, the “completion of the packing event is defined […] in terms of the suitcase”, because “we know that the event has been completed when the suitcase has been filled” (Dewell 2004: 24). This description links to the so-called “holistic effect” (cf. chapter IV, §4.1), but the idea that the suitcase must be full is not in line with my intuitions. Although I do underline the fact that *de koffer packen* implies an endpoint, this endpoint is reached as soon as “the packed suitcase […] is ready for travel” (Dewell 2004: 32). Suitcases are, however, not ready for travel if they are totally full, but as soon as all the items needed for travel have been packed into them.

This shows that MOC’s are not used without a reason. The focus on the suitcase implies that the container is important and relevant. This is true, because the goal of a packing-event is making something, i.e. the suitcase, ready for travel.

In other words, some kind of functional or resultative element is involved in the location-as-DO, precisely because the location has been chosen as a DO. This explains the observation that alternating verbs with locations “describe a process that is completed when a finished product is created” (Dewell 2004: 32). In the next section, we will see that the focus on the location as a type of result can have some interesting consequences.
4.4 Metonymy types and their continuum: *smeren* / *schmieren* and ‘to squeeze’

The verb *to pack* is not the only verb which allows a locative alternation with some resultative flavour. In fact, we already saw very similar examples with *smeren* / *schmieren* (cf. example (34) and (34)-(35) or (55)): The combination *ein Scharnier schmieren* (‘to grease a hinge’, cf. (34)) results in a smoothly working hinge and *een boterham smeren* (‘to spread a slice of bread’, cf. (34)) results in a prepared sandwich. The verb *smeren* and *schmieren* can therefore be used in several ways, with different semantic nuances.

Literally, *smeren* and *schmieren* denote some movement like ‘to smear’. The verbs are basically used in this sense, which could be translated as ‘to spread’/ ‘to grease’/ ‘to smear’ / ‘to rub’. If two objects can be conceptualised as one gestalt (a unity of locatum and location), a shift of the DO-position can occur.

MOCs are, however, not used without a reason. The focus on the location could be warranted because the location-object has some cognitive salience. It must therefore be prominently involved in the * ‘smeren / schmieren’-event*. The salience could (among many other things) be the fact that the affected location is a kind of desired result.

The fact that *smeren* or *schmieren* in combination with a location-DO often has a resultative meaning-component has lead to another meaning of this verb: Within the context of sandwiches, the verb could also refer to ‘to make sandwiches’. The difference between the ‘spreading a sandwich’-meaning (meaning 1) and the ‘making sandwiches’-meaning (meaning 2) is very subtle, because one is often making sandwiches if one spreads them with something. Consider, however, examples (156) and (157) (from the deWaC and from the ANW-corpus).

(156) de vader […] smeerde voor z’n vlijtige dochter boterhammen met extra dik hagelslag
‘the father spread [lit.: smeared] for his thrifty daughter sandwiches with an extra thick layer of chocolate sprinkles’

(157) Bernardo Fischer […] schmiert Brote. Eines mit Thunfisch, eines mit Eiern und Salatblättern, eines mit Rührei,
‘Bernando Fischer is spreading [lit.: smeared] sandwiches. One with tuna, one with eggs and lettuce leaves, one with scrambled egg.’

The verb *smeren* or *schmieren* cannot literally apply to chocolate sprinkles or egg with lettuce. Therefore, the act of *smeren / schmieren* is not directly referred to in these examples: Based on a relation between a ‘smeren / schmieren’-event (for instance with butter) and the act of making sandwiches, the verb just refers to the latter action with respect to the direct objects of (156) and (157). In other words, the verb is metonymically polysemous. Comparable to the different meanings of *pakken / packen* or of the verb *klateren* (cf. chapter III, §2.2 or §4.7), the original meaning is...
extended on the basis of a relation in reality between the original, literal event with another event (corresponding to the extended meaning).

It is important to note that this metonymical meaning extension of the verb does not have to occur in combination with bread. Examples (158) and (159) (from the deWaC- and the ANW-corpus) show sentences in which the meaning of ‘making a sandwich’ cannot be intended.

(158) Dabei köpfen wir unser Frühstücksei, schmieren unser Butterbrot und legen eine Scheibe Schinken drauf.

‘In addition to this, we take the top of the egg for breakfast off, spread [lit.: smear] our ‘butterbread’ and put a slice of ham on top of it.’

(159) In de ontbijtzaal smeerde hij drie boterhammen, belegde ze met kaas,

‘In the breakfast room he spread [lit.: smeared] three sandwiches, put cheese on them,”

Given that the verbs *smeren* and *schmieren* are followed by an act of putting a slice of ham or cheese on the bread, the verb cannot be interpreted as ‘making a sandwich’ (cf. also the Dutch example in footnote 202). Examples (156) and (157) versus examples (158) and (159) clarify the difference between meaning 1 and meaning 2 in Table 12.43

These examples reveal a clear parallel between so-called locative alternations and shifts between material and products: Even locative shifts also often pragmatically evoke the idea of a finished product. The latter can be illustrated by *ein gepackter Koffer* (‘a packed suitcase’), *een gesmeerde ketting* (‘a greased chain’) or *een gesmeerde boterham* (‘a sandwich’), as explained in this section.

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243 Based on the English paraphrases, one could think that the verbs *smeren* and *schmieren* are used in a separate sense within the phrases *een ketting smeren* and *eine Kette schmieren* (‘to grease a chain’). It could be assumed that in such examples *smeren* and *schmieren* do not mean ‘to smear grease’, but are rather extended to the meaning ‘to make ready for use by greasing’. However, it is not necessary to assume such a separate sense. According to the etymological dictionary (EWN) the Dutch verb *smeren* is a derivation of the noun *smeer* (‘grease’), which tells us that the Dutch verb *smeren* basically means ‘to apply grease’/ ‘to grease’ (lit.: ‘to smear’). The implicit grease (*smeer*) can be replaced by all kinds of semiliquids, as is also the case in combinations such as *brood met boter smeren* or *een ketting met vet smeren*. The same holds for German.
<table>
<thead>
<tr>
<th>Meaning in English of <em>smeren</em> / <em>schmieren</em></th>
<th>Realised VP</th>
<th>Metonymy involved</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 to move (semi)liquid on a surface or object (lit. ≈ ‘to smear’)</td>
<td><strong>A</strong> <em>boter / jam smeren</em>&lt;sup&gt;1&lt;/sup&gt; <em>butter / Marmelade schmieren</em>&lt;sup&gt;2&lt;/sup&gt; <em>butter / jam to spread [lit.: smear]</em></td>
<td>--</td>
</tr>
<tr>
<td></td>
<td><strong>B</strong> <em>brood / boterham(men) smeren</em> / <em>Brot / Brotscheibe(n) schmieren</em>&lt;sup&gt;2&lt;/sup&gt; <em>bread / slice(s) of bread to spread</em></td>
<td>Predicative metonymy (MOC: location)</td>
</tr>
<tr>
<td></td>
<td><strong>A</strong> <em>vet / olie / smeer smeren</em> / <em>Fett / Öl / Schmierfett schmieren</em>&lt;sup&gt;3&lt;/sup&gt; <em>fat / oil / grease to smear</em></td>
<td>--</td>
</tr>
<tr>
<td></td>
<td><strong>B</strong> <em>ketting / scharnieren smeren</em> / <em>Kette / Scharniere schmieren</em>&lt;sup&gt;3&lt;/sup&gt; <em>chain / hinges to grease [lit.: smear]</em></td>
<td>Predicative metonymy (MOC: location)</td>
</tr>
<tr>
<td>2 to make sandwiches (no necessarily involved action as denoted by meaning 1)</td>
<td><strong>A</strong> <em>brood / boterham(men) smeren</em> / <em>Brot / Brotscheibe(n) schmieren</em>&lt;sup&gt;3&lt;/sup&gt; <em>bread / slice(s) of bread to spread</em></td>
<td>Metonymical polysemy based on meaning 1</td>
</tr>
<tr>
<td></td>
<td><strong>B</strong> <em>belegde broodjes / broodje ham smeren</em> / <em>belegte Brötchen / Schinkenbrot schmieren</em>&lt;sup&gt;3&lt;/sup&gt; <em>sandwiches / ham sandwich spread</em></td>
<td>Metonymical polysemy based on 1) + Predicative metonymy (MOC: result)</td>
</tr>
<tr>
<td></td>
<td><strong>C</strong> <em>lunchtrommeltje smeren</em> / <em>Lunchdose schmieren</em>&lt;sup&gt;3&lt;/sup&gt; <em>lunch box spread (‘make a lunch box’)</em></td>
<td>Metonymical polysemy based on 1) + Metonymical DO</td>
</tr>
</tbody>
</table>

Table 12: English paraphrases of Dutch *smeren* and German *schmieren*

Table 12 also illustrates the difference between a real metonymical meaning shift of the verb (meaning 1 or 2) as opposed to predicative metonymies (MOCs), which only occur at VP-level (A or B). Table 12 also shows the difference between an MOC and a metonymically re-interpreted object: Whereas *brood / Brot* and *ketting / Kette* (meaning 1, VP type B) refer to the literal locations, the noun *lunchtrommeltje*<sup>244</sup> is metonymically used to refer to the sandwiches in it (meaning 2, VP type C).

Table 12 illustrates different types of metonymy and combinations of them. Although MOCs can be distinguished from metonymical re-interpretation of the DO and also from metonymically polysemy on the verb as such, sometimes metonymical

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<sup>244</sup> Cf. “Ik had al netjes de avond daar voor mijn broodtrommeltje gesmeerd.” (‘I had already nicely prepared my lunch box the night before’) ([http://jasperdownunder.waarbenijj.nu/Reisverslag/?Australi%EB/Eerste+week+stage/&subdomain=JasperDownUnder&module=site&page=message&id=4014010](http://jasperdownunder.waarbenijj.nu/Reisverslag/?Australi%EB/Eerste+week+stage/&subdomain=JasperDownUnder&module=site&page=message&id=4014010)) or “Jij mag mijn broodtrommeltje wel smeren” (‘You can make my lunch box’) ([http://forum.viva.nl/forum/Eten/Brood_invriezen_met_beleg_wat_is_lekker/list_messages/?73860](http://forum.viva.nl/forum/Eten/Brood_invriezen_met_beleg_wat_is_lekker/list_messages/?73860)) [both retrieved in October 2011]. I would like to thank Wim Honselaar for providing me with this type of example.
effects are clearly connected to each other. A beautiful example to illustrate the parallel between different metonymy types and between locations and results is presented in (160).

(160) a. Dutch: De wijnboer perst de druiven
     German: Der Weinbauer presst / keltert die Trauben
           the winegrower presses / squeezes the grapes

b. Dutch: De wijnboer perst de wijn
     German: Der Weinbauer presst / keltert den Wein
           the winegrower presses / squeezes the wine

Verbs such as Dutch persen, German pressen or English to squeeze can be combined with the fruits squeezed or with the juice that is squeezed out of these fruits. This can be illustrated with to squeeze oranges or to squeeze (orange) juice. One cannot exactly determine whether the fruits and the liquid stand in an INGREDIENT-PRODUCT relation or whether they are instead connected as CONTENT AND CONTAINER (i.e. LOCATUM-LOCATION). The context evoked by the verb persen or pressen does not solve this problem: The verb contains the semantic component of ‘cause a movement of something out of something by physical force’ as well as ‘produce something out of something by physical force’.

The combination wijn persen or Wein pressen (example (160)) is even more complicated. This is caused by the semantics of wijn or Wein. If one looks this word up in a dictionary, two metonymically related meanings can be found: The noun wijn or Wein denotes an alcoholic drink made out of grapes, but it can also directly refer to the different kinds of grapes of which the wine has been made. The latter meaning is, for instance, also reflected in the Dutch and German words wijnterras / Weinberg (‘vineyard’); wijnbouw / Weinanbau (‘wine-growing’); wijnrank / Weinranke vs. druivenrank / Traubenranke (‘wine tendril’ vs. ‘grape tendril’), etc.

On the basis of these observations, the difference between the a-sentences and the b-sentences in (160) can be analysed in several ways, all involving metonymy. First of all, one could just consider the direct object wijn / Wein as metonymically referring to the grapes. The combination then involves a metonymical interpretation (metonymical polysemy) of the DO.

Secondly, one could claim that the meaning of the predicate has been metonymically shifted: The verb refers to a production process based on a contiguity relation with a physical action (the original meaning) that is involved in this production process. This explanation analyses the verb in the b-sentences as metonymically polysemous.

However, if one examines the above combination in line with other alternations (such as to squeeze oranges / juice), it turns out that such a kind of polysemy does not have to be assumed (cf. e.g. Van Dale 2005 entry persen meaning 5 or DWDS (www.dwds.de) entry pressen meaning 1). The predicate can be subsumed under a single action and both direct objects can also be considered literally interpreted. In other words, a third analysis is to explain the alternation as MOC: The predicate can
be combined with two types of direct objects in its DO-position, because the predicate evokes a kind of activity, in which these two conceptually connected participants are closely related. The relation between the two objects could be explained as a LOCATUM-LOCATION contiguity or as MATERIAL-PRODUCT contiguity. The resultative meaning of a production process just occurs by the combination of verb and direct object, that is by the semantic import of the ‘wine’-NP in combination with this verb. This analysis has the advantage that the product meaning of the NP is not projected onto the meaning of the verb (cf. Willems 2006: 591 for the same issue with certain adjectives).

These different accounts of example (160) perfectly illustrate the continuum of well-known instances of metonymy and alternations. In addition to this, this example reflects the connection between locatum-location and material-product shifts.

5. Conclusions

In this chapter, I have analysed some verbs that allow two different types of direct objects. The examples which have been taken into account are based on shifts tagged in dictionaries, which have also been discussed by Weltert, Pinker and Levin. Therefore, the focus in this chapter is on locatum-location shifts (also called transitive locative alternations) and product-material shifts. On the basis of language data in Dutch and German, it has been revealed that these two types of alternations are closely related to each other.

The chapter opened with an explanation of why research on alternations should compare a single verb with two different types of direct objects (DOs) and why additional prepositional phrases (PPs) need not necessarily be taken into account (section 2).

Secondly, as may be expected by the names ‘product-material alternation’ and ‘locatum-location shifts’, it has been demonstrated in section 3 that changes in the direct object should be analysed as metonymy-based. I have shown that the relation between both direct objects within the context evoked by the verb is indeed crucial, because MOCs can only be used if one single gestalt is involved with respect to the verb meaning. In other words, the relation between two objects restricts the possibility of the alternation. Sometimes both objects can be lexically expressed by a single word. In line with the Dutch and German terms “objectsverwisseling” and “Objektsvertauschung”, locative alternations and material/product alternations should therefore be called Metonymical Object Changes (MOCs.)

Section 4 revealed some semantic and pragmatic characteristics of MOCs. In this section, I have analysed some meanings of the English, Dutch and German verbs, such as to fill / vullen / füllen; to pour / schenken / gießen; to clear / ruimen / räumen; to load / laden / laden; to pack / pakken / packen; and Dutch and German smeren / schmieren and persen / pressen or kelttern. As illustrated with to fill and füllen, MOCs can only be used if the contiguously related objects play an equally important role within the semantics of the verb. Furthermore, no confusion may
arise concerning how the verbal action applies to the object, as illustrated with *to pour* (and Dutch and German equivalents); with *ruimen / räumen* versus *afruimen / abräumen* and with German *laden*. In addition, it has been shown on the basis of language data that the two types of alternations are closely related to one another. Last but not least, I demonstrated that MOCs belong to a continuum of several metonymical effects at the end of section 4.

In the previous chapters, I argued that the metonymy involved in such alternations is comparable to the metonymical effect in instances of so-called logical metonymy. This will be worked out in the next two chapters: Chapter VII will discuss the use of some logical metonymies in Dutch and German and analyse the semantics of the verbs involved, while chapter VIII will clarify how all these metonymies can be analysed as highlighting effects within a frame.
VII. EVENTIVE MOCs OR LOGICAL METONYMY IN DUTCH AND GERMAN

1. Logical metonymy (LM)

In the previous chapter some properties of MOCs have been discussed and some reasons to use or not to use MOCs have been analysed. The focus of the examples was on non-eventive metonymies, i.e. MOCs that shift between two concrete objects, which form a spatial-material gestalt. In chapter IV (§7.4) ‘logical metonymy’ has been presented as a predicative metonymy based on a temporal-eventive gestalt. Such MOCs shift between an event and a concrete object. Sentences (1)-(4) illustrate this.

(1) Mary began reading the book / writing the book.
(2) Mary began the book.
(3) John enjoyed eating a sandwich.
(4) John enjoyed a sandwich.

While in (1) and (3) the activity that was begun or enjoyed is explicitly specified, in sentences (2) and (4) the same activity may be involved, but this is left implicit. Because we cannot begin or enjoy an object as such, some activity with the book or the sandwich needs to be interpreted in (2) and (4). By default, we understand that sentence (2) means that Mary began ‘reading the book’ or ‘writing the book’ (as explicitly expressed in (1)). Sentence (4) is understood in a similar way: Enjoying an object presupposes some experience with the object, which is by default eating it.

In consequence, whereas sentences (1) and (3) are interpreted in a normal way, examples (2) and (4) are interpreted metonymically, that is by inferring an activity needed for the interpretation on the basis of a real world relation with the concrete object. Under a default interpretation, this metonymical interpretation is similar to the meaning of (1) and (3). These examples are considered to be instances of logical metonymy, since the metonymical inference from the object to a related activity is systematically triggered by type requirements of the main verb (Pustejovsky 1995: 54; Verspoor 1997b).

The best-known analysis of logical metonymy is Pustejovsky’s account within his theory of the generative lexicon (Pustejovsky 1989; 1991; 1995). In his view, the

245 A modified version of this chapter was published as Sweep (2012) “Logical metonymy in Dutch and German: Equivalents of begin, finish and enjoy.” International Journal of Lexicography, 25.2, 117-151. Therefore, I am greatly indebted to the anonymous reviewers who suggest some improvements for previous versions of this paper, from which this chapter has also profited.
interpretation of an implicit event is triggered by a metonymical link between the concrete object, as referred to by book or sandwich, and the intended activity. This link is said to be directly incorporated in the lexicon via the so-called qualia structure. A qualia structure, which represents lexical information of a noun, comprises four roles: A ‘constitutive’, a ‘formal’, an ‘agentive’, and a ‘telic role’ (Pustejovsky 1995: 76). The first two roles provide information about inherent characteristics of the object, such as the material it is made of (the constitutive role) and the general class or category it belongs to (the formal role). The agentive and the telic roles describe typical actions in which the object is involved, i.e. how it is brought about (the agentive role) and what the purpose or function of the object is (the telic role). The qualia structures for book and sandwich thus look as follows (cf. Pustejovsky & Boguraev 1993: 211, 207):

<table>
<thead>
<tr>
<th>book(x)</th>
<th>sandwich(x)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONST = {text, paper,...}</td>
<td>CONST = {bread,...}</td>
</tr>
<tr>
<td>FORMAL = physobj(x)</td>
<td>FORMAL = physobj(x)</td>
</tr>
<tr>
<td>TELIC = read(P,y,x)</td>
<td>TELIC = eat(P,y,x)</td>
</tr>
<tr>
<td>AGENTIVE = write(R,w,x)</td>
<td>AGENTIVE = artefact(x)</td>
</tr>
</tbody>
</table>

According to Pustejovsky, the activity needed for a full interpretation of sentences (2) and (4) is by default understood on the basis of the latter two roles of the qualia structure belonging to, for example, book or sandwich. Based on the qualia structure, the noun denoting a concrete entity is really changed into a noun denoting an event. This change is called coercion.

Most analyses of logical metonymy have two limitations. First of all, analyses of logical metonymy mainly focus on English: Only a very few studies compare English with French (Godard & Jayez 1993; Pustejovsky & Bouillon 1996), but other languages are hardly ever analysed (Horacek 1996 and a recent paper by Rüd and Zarcone 2011 being notable exceptions).

Secondly, most accounts are solely based on introspection: There are only four studies on logical metonymy that use examples from corpora (Briscoe et al. 1990; Lapata & Lascarides 2003; Rüd und Zarcone 2011; Verspoor 1997a). Briscoe, Copestake and Boguraev did a very small corpus study of a total of 235 examples and Lapata and Lascarides use real data only to check automatic predictions on the interpretation of logical metonymies. Verspoor exhaustively analysed corpus examples of logical metonymy with the verbs begin and finish. Rüd and Zarcone examined the German equivalents anfangen (mit) (‘to begin’), aufhören (mit) (‘to stop’), beginnen (mit) (‘to begin’), beenden (‘to finish’) and genießen (‘to enjoy’) in combination with artefacts as direct objects.

This chapter will extend previous research by comparing the behaviour of logical metonymy in Dutch, German, and English. I will base this analysis on English results obtained by Verspoor (1997a) compared to an analysis of Dutch and German corpus examples of equivalents of begin, finish, and enjoy. The German findings will also be compared with Rüd and Zarcone 2011 (which appeared after I had
conduct this study). Although their study has a slightly different line of approach, a different method, uses a different corpus (deWac instead of DWDS) and even took into account slightly different verbs, Rüd and Zarcone’s results and my findings mutually support each other, given that despite differences in the set-up comparable patterns have been revealed.

2. The usefulness of corpus samples

On the basis of a corpus study, Verspoor concluded that the actual use of metonymically interpreted direct objects combined with English \textit{begin} and \textit{finish} is highly restricted (Verspoor 1997a; Verspoor 1997b): Only certain types of nouns and only limited telic interpretations occur in logically metonymical constructions with \textit{begin} and \textit{finish}. She found that mainly artefacts with agentive interpretations (Verspoor 1997a: 188) were used with \textit{begin} and \textit{finish} and only approximately twenty nominal categories, such as texts, pieces of music, food and drink, with telic or agentive interpretations (Verspoor 1997a: 186-187). Based on the BNC, she also found that \textit{finish} showed more logically metonymical examples than \textit{begin} (Verspoor 1997a: 187).

Lexical differences between verbs have also been reported in other corpus studies (cf. Rüd & Zarcone 2011: 22). According to Verspoor (1997a: 187), such restrictions are unexpected in Pustejovsky’s generative lexicon. According to this theory, every noun which has certain values for the agentive and telic role of the qualia structure should be able to occur in a logically metonymical construction, under an agentive as well as under a telic interpretation. If in practice some combinations occur far more often than others, one should, just as Verspoor does, incorporate such conventions within a lexical theory and also within a dictionary.

In this chapter, Dutch and German corpus data of comparable verbs with concrete objects are analysed. The Dutch verbs selected for this study are \textit{beginnen} (‘to begin’), \textit{beëindigen} (‘to end’/ ‘to finish’), \textit{eindigen} (‘to end’/ ‘to finish’), and \textit{genieten van} (‘to enjoy’). The investigated German verbs are \textit{beginnen} (‘to begin’), \textit{anfangen} (‘to begin’), \textit{beend(i)gen} (‘to end’/ ‘to finish’), \textit{enden} (‘to end’/ ‘to finish’) and \textit{genießen} (‘to enjoy’). The Dutch and German corpora which have been used are comparable in size (around 100 million tokens) and, more importantly, both corpora are lexicographic corpora, which means that texts have been selected and the amount of different types of texts has been balanced.

All Dutch examples were obtained from the corpus belonging to the dictionary project \textit{Algemeen Nederlands Woordenboek} (ANW-corpus). More information about the ANW-corpus and about the ANW-dictionary project can be found on http://anw.inl.nl/show?page=help_anwcorpus and http://anw.inl.nl/show

\footnote{In the present corpus analysis, the German verb \textit{aufhören} (mit) (‘to stop’) has not been taken into account, because this verb can hardly ever be combined with concrete objects. Rüd and Zarcone in fact also observe this in their study (2011: 21). The same goes for the Dutch verb \textit{ophouden} (met) (‘to stop’).}
These ANW-examples were extracted with the help of the SketchEngine (http://www.sketchengine.co.uk/), which allows a balanced selection of random examples as well as an extraction of statistically relevant collocations with the help of the tool WordSketch. The automatic extraction of direct objects can be made with the help of the grammatical relation “direct object” in the Dutch WordSketch (see Tiberius & Kilgarriff 2009). However, since this does not work perfectly, examples were checked by hand, and because of the high rate of noise, an additional random sample of at least 400 examples (without additional infinitives or prepositional phrases) has been analysed for beginnen, beëindigen, eindigen en genieten van.

Because the WordSketch did not provide much noise for the prepositional objects, smaller samples could be analysed for these verb-complement combinations. It proved to be less useful to extract examples of beginnen met or eindigen met, since these verbs occur mostly in constructions without agentive subjects. In order to avoid ‘something starts/ends with something’-examples I therefore searched for beginnen met with specific collocates, such as brief (letter), boterham (sandwich), boek (book), gezin (‘family), or kind (child) and I extracted all pronouns followed by eindigen met. Table 13 gives an overview of the analysed Dutch corpus examples.

<table>
<thead>
<tr>
<th>English</th>
<th>Dutch</th>
<th>WordSketch</th>
<th>(additional) sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>to begin</td>
<td>beginnen</td>
<td>634 (= total)</td>
<td>400</td>
</tr>
<tr>
<td></td>
<td>beginnen aan</td>
<td>350</td>
<td>~</td>
</tr>
<tr>
<td></td>
<td>beginnen met</td>
<td>100</td>
<td>111 (= specific objects)</td>
</tr>
<tr>
<td>to finish</td>
<td>beëindigen</td>
<td>53 (= total)</td>
<td>500</td>
</tr>
<tr>
<td></td>
<td>eindigen</td>
<td>22 (= total)</td>
<td>400</td>
</tr>
<tr>
<td></td>
<td>eindigen met</td>
<td>100</td>
<td>114 (= preceded by pronoun)</td>
</tr>
<tr>
<td>to enjoy</td>
<td>genieten van</td>
<td>100</td>
<td>500</td>
</tr>
<tr>
<td>TOTAL</td>
<td>(3384 =)</td>
<td>1359</td>
<td>2025</td>
</tr>
</tbody>
</table>

Table 13: Dutch analysed samples extracted from the ANW-corpus

For German, I used randomly selected samples from the corpus of Das digitale Wörterbuch der deutschen Sprache (the DWDS-Kernkorpus). Random examples can easily be extracted via the online-interface (www.dwds.de). In order to get as many potential metonymical examples as possible for anfangen, beginnen, beenden, beendigen and genießen, I searched for examples without additional infinitives and without prepositional phrases (query example: beginnen with $p=VVFIN &&!mit \&&!an \&&!zu \&&!*zu) and in addition for combinations of a verb and a specific preposition (anfangen mit; beginnen mit; enden mit) without an infinitive.

A problem with anfangen is that this verb sometimes splits up in finite form. Since the corpus is tagged with the STTS-tagset (http://www.ims.uni-stuttgart.de/projekte/CQPDeimos/Bundestag/help-tagset.htm), it is, however, possible to search for split up finite verbs (query: "fangen #5 an with $p=PTKVZ").
The analysed sample of *anfangen* therefore consists of forms that are not separated (*anfängt, anfangen*, etc.; sample of 300) as well as split up (*fähnt/fanngen/etc....an*; sample of 200). Table 14 gives an overview of the used samples for German.

<table>
<thead>
<tr>
<th>English</th>
<th>German</th>
<th>analysed random sample</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>to begin</em></td>
<td><em>anfangen</em></td>
<td>500</td>
</tr>
<tr>
<td></td>
<td><em>anfangen mit</em></td>
<td>500</td>
</tr>
<tr>
<td></td>
<td><em>beginnen</em></td>
<td>500</td>
</tr>
<tr>
<td></td>
<td><em>beginnen mit</em></td>
<td>500</td>
</tr>
<tr>
<td><em>to finish</em></td>
<td><em>beenden</em></td>
<td>500</td>
</tr>
<tr>
<td></td>
<td><em>beendigen</em></td>
<td>42 (= total)</td>
</tr>
<tr>
<td></td>
<td><em>enden mit</em></td>
<td>500</td>
</tr>
<tr>
<td><em>to enjoy</em></td>
<td><em>genießen</em></td>
<td>500</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>3542</strong></td>
</tr>
</tbody>
</table>

**Table 14:** German analysed samples of the DWDS-Kernkorpus

Apart from these verbs, I will additionally touch upon the semantics of some other alternative translations for *to begin* and *to finish*, such as the Dutch verbs *aanvangen* and *aanvatten* (*‘to begin’ / ‘to start’*), the verbs *voltooien, vervolledigen* and *afmaken* (*‘to finish’ / ‘to complete’*) and the German verbs *vollenden, vervollständigen, erledigen* and *fertig stellen* (*‘to finish’ / ‘to complete’*).

In contrast to Verspoor’s study (1997a: 186), no exact numbers of occurring types of objects for the analysed verbs are provided in this chapter. If one wants to analyse the usage of logical metonymies and the semantics of the verbs involved, one might question to what extent exact numbers are informative. There are several reasons why it is problematic to give exact numbers and why they only provide limited information, which leads to the conclusion that a qualitative analysis, rather than a quantitative one is needed.

First of all, the different verbs allowing logical metonymy are very different in their structures. German verbs such as *beginnen* (*‘to begin’*) and *enden mit* (*‘to finish’*) or Dutch verbs such as *beginnen* (*‘to begin’*) and *eindigen* (*‘to finish’*), for instance, cannot only be used transitive, but also intransitive: In such cases, the event that is started or finished occurs as the subject. Such constructions are not possible with German *genießen* (*‘to enjoy’*) and *beenden* (*‘to finish’*) or with Dutch *beëindigen* (*‘to finish’*) and *genieten van* (*‘to enjoy’*). As a consequence, even if the analysed corpus samples for each verb are the same size, the number of transitive sentences and therefore of potential logical metonymies differs. For this reason, absolute or relative numbers of logical metonymies within a corpus sample do not provide much information.

Secondly, it can be questioned which insights can be obtained from numbers without any statistical analysis. However, often categories are so many or frequency numbers are so low that statistical analyses are problematic.

A third problem is that it is doubtful whether numbers of certain types of objects are useful without taking into account the sources they are taken from. For instance,
suppose that a handbook on how to write novels is incorporated within the corpus. This text could contain many examples which describe how to begin or finish a text. Frequency numbers of such combinations do not provide much information about the usage of logical metonymies in general, if such examples all occur within this single source.

Fourthly, it is not always clear which examples should be classified as belonging to a certain category. For instance, a verb such as German beginnen (‘to begin’) or beenden (‘to finish’) is often combined with a text, such as a book or a letter. Books and letters are prototypical examples of texts. This is not the case for all direct objects that are interpreted as being read or written. It is, for example, less clear whether a ‘pamphlet’, a ‘sentence’, a ‘survey’, or ‘beautiful scenes’ could all be classified as texts.

The same problem can be illustrated with examples of beginning a company or a commercial enterprise (which are excluded in Verspoor’s analysis, cf. 1997a: 185). Some of these words clearly refer to the concrete stores, hotels or restaurants which are set up and managed. They can be considered instances of logical metonymy. However, other words which refer to commercial enterprises are polysemous between the noneventive store or company and the activities that are employed in such business enterprises.

Categories which, as we will see, frequently occur with verbs that semantically require an event, are more often ambiguous between the concrete thing and a related event (cf. also Rüd & Zarcone 2011: 19). The category of games, for instance, denote concrete things that can be played, but some words referring to games also denote the gaming-activity. Another group of frequently occurring direct objects with the above mentioned verbs are types of education, such as trainings, studies and courses. Although the referents of these words are of an eventive nature, one could also claim that the agents start to follow the course/training/study. Furthermore, words such as school denote a non-eventive institute, while at the same time polysemously referring to the lessons given at school (cf. Moerdijk 1989). Verspoor explicitly states that she only includes such examples, if it is necessary to add an event for the intended interpretation (Verspoor 1997a: 185-186). However, to me it

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247 In the small corpus study by Briscoe et al. of 235 examples in total, which were unequally divided over seven different verbs, 10% of the examples (24 examples) have not been analysed, because the authors had difficulty classifying them.

248 Original German DWDS-examples are, for instance, “wir beenden das Flugblatt” (‘we are finishing the pamphlet’), “Ich beginne mit dem zweiten Satz” (‘I am starting with the second sentence’), “In Lieferung 15 beginnt dann Zatschek eine Übersicht über die deutschböhmischen Schreibschulen.” (‘In issue 15, Zatschek is then beginning a survey of German-Bohemian writing schools’) or “Schon am Morgen [...] sitze ich an der Schreibmaschine. Ich beginne mit den schönen Szenen.” (‘Already in the morning, I am sitting at the typewriter. I am beginning (with) the beautiful scenes.’).

249 Illustrative in this respect is the difference between ANW-combinations, such as een hotel beginnen (to start a hotel’) versus een hotelbedrijf beginnen (‘to start a hotel business’). A logically metonymical example with a clearly concrete direct object is, for instance, “Hij kon zo een marktkraam beginnen” (‘He could start a market stall right away’).
is often unclear when this is the case (cf. also the discussion with examples (7)-(8) below).250

One could decide to provide exact numbers of selected categories without incorporating problematic examples (cf. Briscoe et al. 1990: 45), but this obscures results. Rather than making the decision whether a specific noun denotes a text or a company, it is important to present the finding that texts and companies are often used in examples of logical metonymy.

This shows that a qualitative analysis, rather than a quantitative one is useful. The semantics and usage of the verbs should be based upon reliable samples, but the analysis itself can be of a qualitative nature. In the terminology of Sinclair this would make the present analysis ‘corpus-assisted’ or ‘corpus-oriented’, because samples of corpus examples are used “to support reasonable claims about the language” (cf. Sinclair 2007: 202).

It should be remarked that a general difficulty of quantitative and qualitative corpus research is that corpus examples do not provide information about the impossibility of categories and telic or agentive interpretations. Corpus data only show how language is used and not what is possible or impossible. Nevertheless, the language use as reflected in corpus examples is based on what is possible. Actual occurrences therefore provide information about important concrete categories and such information is especially relevant for lexicography.251

Modern lexicographers also use corpus samples in a corpus-oriented way: They design their dictionary definitions and incorporate collocations on the basis of interpretations and qualitative analyses of a reliable sample of examples. Likewise, the present chapter provides a qualitative analysis of actually occurring concrete nouns with the above verbs, which can be used to obtain insight into the nature of logical metonymy in Dutch and German.

The results of this analysis are presented as follows: Section 3 will discuss the semantics of concrete complements with the Dutch verb beginnen and the German verbs anfangen and beginnen (‘to begin’). In section 4, logical metonymy with the Dutch verbs eindigen met and beëindigen and German beend(en) (‘to finish’) will be analysed. Section 5 will describe the semantics of Dutch genieten van and German genießen and their concrete complements. These sections will not only examine the actual use of logical metonymy, but also reveal some properties of prepositional objects. In section 6, the lexicographical relevance and practice will be discussed. Implications of this study will be summarised in section 7.

250 Such a kind of polysemy exists in Dutch and German very frequently, since these languages lack gerunds and instead always use verbal nouns (cf. chapter VIII, §4.1). Such nouns are almost always ambiguous between an activity and a concrete object.

251 I would like to thank an anonymous reviewer of the Journal of International Lexicography who stressed the fact that corpus examples strictly speaking only provide information on ‘performance’ and not on ‘competence’. However, performance is of course competence-based. Furthermore, a researcher’s competence is indirectly taken into account, because the corpus samples are interpreted and sometimes additional examples have been searched for. This is comparable with the common practice in lexicography.
 CHAPTER VII

3. LM with Dutch and German translations of ‘to begin’

3.1 Direct objects and prepositional objects

In this section, the German verbs beginnen or anfangen (‘to begin’) and Dutch beginnen (‘to begin’) in combination with concrete objects will be analysed. The German verbs beginnen or anfangen and Dutch beginnen cannot only occur with direct objects, but also with prepositional objects. In this subsection, I will first discuss which concrete direct objects could be found in the corpus sample and secondly I will explain which types of prepositional objects occur with the above verbs. Results on prepositional objects will be discussed in full detail in the subsequent subsections.

The verb aanvangen is also Dutch for ‘to begin’, but it is less frequent and mainly occurs in formal, written language. It also was found that within all ANW-examples of aanvangen in finite form in main clauses (307 examples in total), transitive constructions with concrete objects are very infrequent: Besides the fixed combination de terugweg aanvangen (‘to begin (to make) the way back’) the only real metonymical example is one combination with een roman (‘a novel’, interpreted as ‘writing it’). The verb aanvangen has therefore not been included in this analysis.

Besides de terugweg aanvangen one could also use de terugweg aanvatten. This verb, which also has the meaning ‘to begin’ / ‘to start with’, is especially used in Dutch spoken in Belgium. The ANW-corpus provides 348 corpus examples of this verb, in which the verb is written together. Among these examples only a few examples occur in metonymical constructions. Compare in this respect (5)-(7), with the eventive interpretations between curly brackets.

(5) ..., terwijl Bolle geofend een volledig menu aanvatte.
   ‘..., while Bolle started a whole menu in a trained way.’ {eating}
(6) Toen het nummer daarna werd aangevat, ...
   ‘When after that the track has been begun, ...’ {playing}
(7) anderzijds worden nieuwe thema’s aangevat
    ‘on the other hand people begin with new themes’ {doing research on &
    writing about}

It is interesting that the comparable categories which can also be found with other verbs, as will be demonstrated below, are found with aanvatten. In addition to the above examples, one can find combinations such as een studie / training aanvatten (‘to begin a study/training’). Such examples can also be found for the other verbs, but in these cases no metonymy has to be assumed. Examples (8) and (9) (from two
different sources) are probably different in this respect. The university refers to an institute and the interpretation of what is started is something as ‘going to the university’ / ‘following education at the university’.

(8) laatstejaars middelbaar onderwijs die de universiteit willen aanvatten
    ‘pupils in the last year of their secondary school who want to begin university’

(9) de jongeren die universiteit aanvatten
    ‘the young people who begin university’

Such examples again illustrate that there is a tight connection between clear instances of logical metonymy and reinterpreted objects: Although the university does in principle not denote an event, it remains unresolvable whether university is an expressed element of an activity frame or whether it is re-interpreted according to the standard metonymical polysemy pattern PLACE-ACTIVITIES DONE/EDUCATION AT THAT PLACE.

In the corpus samples of Dutch beginnen or German anfangen and beginnen (see Table 13 and Table 14) also only a handful of direct objects referring to concrete entities can be found. Whereas Verspoor found that only a limited number of specific nominal categories are used metonymically with English begin, Dutch and German appear to be even more restrictive in selecting concrete direct objects.

In German almost all metonymical direct objects refer to stories or texts, all with an agentive interpretation (telling the stories and writing the pages, texts, chapters, and so on). In addition, there are some examples with other concrete objects, such as ‘beginning a piece of music’ or ‘beginning a store/company’ (again only with an agentive interpretation).

The Dutch ANW-sample shows a result with exactly the same categories. Telic interpretations are very marginal; an example is the advice to a reader in (10) to start reading another book.

(10) De schouders ophalen en gelaten een ander boek beginnen
    ‘Shrug one’s shoulders and resignedly begin another book’

However, the Dutch verb beginnen and the German verbs beginnen and anfangen cannot only occur with direct objects, but also with prepositional objects. In German, the prepositional objects with beginnen and anfangen are formed with mit (‘with’). In Dutch, prepositional object with beginnen can be formed with aan (‘on’) as well as with met (‘with’) (cf. Broekhuis 2004: 105).
Prepositional objects occur more frequently with nouns which refer to concrete entities as compared to the direct objects. This will be discussed in detail in the following subsections. Section 3.2 will start with some remarks on the usage of Dutch beginnen aan and beginnen met in contrast to transitive beginnen. Section 3.3 will analyse beginnen met in detail and section 3.4 will do the same for beginnen aan. German anfangen mit and beginnen mit will be discussed in section 3.5. Section 3.6 will summarise the semantics of these verbs in combination with objects which denote concrete entities.

3.2 LM and prepositional objects with Dutch beginnen

It has been claimed that there is little difference between minimal pairs of Dutch verbs with direct objects or with prepositional objects (cf. De Schutter 1974: 178, but cf. also examples in note 17). However, with Dutch beginnen, some types of concrete objects can only occur in a prepositional object and not as a direct object, which can be exemplified by the equivalents of begin a sandwich (or other types of food). If one wants to translate this sentence into Dutch while preserving the metonymy, one has to use beginnen aan / met een boterham. The ANW-corpus reflects the obligatoriness of the prepositional object for the metonymy: The only corpus examples of beginnen and boterham (‘sandwich’) are examples with aan, such as in (11) and (12). In their contexts, both examples are given a telic interpretation, i.e. the subjects start to eat the sandwiches.

(11) hij [...] begon aan twee boterhammen
he began on two sandwiches
‘he began two sandwiches’ {eating}

(12) ik begon aan boterham nummer vijf
I began on sandwich number five
‘I began a fifth sandwich’ {eating}

Other examples of beginnen with words denoting concrete objects also require the preposition aan, as in the general expression in (13) and the strongly context-dependent metonymy in (14).

(13) Paren beginnen gemiddeld later aan kinderen.
couples begin average later on children
‘On average couples start a family later.’

(14) Hij haalde de dop weer van zijn pen en begon aan een rechthoek.
he took the cap again off his pen and began on a rectangle
‘He again took the cap off his pen and began (on) a rectangle.’
Comparable examples with words denoting concrete entities that cannot occur as a direct object can be found in a prepositional object with the preposition met, as illustrated in (15). The met-object has a slightly different semantics than the aan-object, both of which I will come back to below.

(15) Zij is begonnen met een half pilletje en heeft er nu 2 of 3 nodig  
She is begun with a half pill and has there now 2 or 3 needfull

‘She started with half a pill and now needs 2 or 3’

In order to discover whether logical metonymy generally occurs more frequently with prepositional objects than with direct objects, it is useful to analyse how often a specific concrete object combined with beginnen occurs as a prepositional object or as a direct object. I therefore extracted all combinations of boek (‘book’) and beginnen (met / aan) without additional infinitives and calculated the number of direct objects and prepositional objects metonymies in this selection. The results are displayed in Table 15.

<table>
<thead>
<tr>
<th>form</th>
<th>total</th>
<th>agentive interpr.</th>
<th>telic interpr.</th>
<th>other interpr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>aan-object</td>
<td>27</td>
<td>18</td>
<td>9</td>
<td>0</td>
</tr>
<tr>
<td>met-object</td>
<td>5</td>
<td>2</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>direct object</td>
<td>4</td>
<td>11%</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>36</td>
<td>100%</td>
<td>23 (64%)</td>
<td>10 (28%)</td>
</tr>
</tbody>
</table>

Table 15: Combinations of boek and beginnen in the ANW-corpus

The noun boek was only used as an object-complement of beginnen in 36 examples, of which 4 times (11%) as a direct object and 32 times (89%) as a prepositional

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252 It should be remarked that book is a so-called dotted object (cf. Pustejovsky 1995: 93), which means that its meaning is the complex product of the facets (cf. Cruse 2000: 115) or senses ‘text’ and ‘tome’. None of these facets are activities and therefore book as a text as well as book as a tome can be seen as metonymically combined with beginnen. However, the activity interpreted can be writing as well as publishing. This has probably to do with the different facets, since writing a book is making the text, whereas publishing the book can rather be described as making the tome. This would mean, however, that the facets correspond to different qualia structures (different agentive roles). As far as I know, Pustejovsky does nowhere explicitly state that this indeed is the case. I severely doubt whether this is theoretically desirable: Facets are interrelated and it is known that several facets can simultaneously be relevant with one occurrence of a word (as for example in I gave him the book). The fact that book has several agentive roles remains problematic for Pustejovsky’s theory.
This distribution of \textit{boek} as a direct object or prepositional object supports the idea that the prepositional object is preferred for a metonymical construction.

By far the most examples of logical metonymy have an agentive meaning (23 in total), which can be writing or publishing. If a telic interpretation (‘reading’) is intended, the prepositional object is used very frequently, i.e. in 9 out of 10 examples (all nine examples with \textit{aan}). Only three examples are given an interpretation that is not based on the telic or agentive role of the qualia structure. These examples are displayed in (16)-(18) with the context-dependent interpretations between curly brackets. Interestingly, even though \textit{aan} seems to be the default preposition for the metonymical use of \textit{boek}, the context-dependent examples all contain a \textit{met}-object.

(16) Een volgend stapje is beginnen met eenvoudige boekjes   
\hspace{1cm} a next step is begin with simple booklets  
\hspace{1cm} ‘A next step is beginning with simple booklets’ \{classifying them in a computer\}

(17) Waarom zijn wij begonnen met de digitale boeken?   
\hspace{1cm} why are we begun with the digital books?  
\hspace{1cm} ‘Why have we begun with the digital books?’ \{making them available for blind people\}

(18) Als het nog moeilijk is, kunnen ouders beginnen met het Turkse boekje   
\hspace{1cm} if it still difficult is can parents begin with the Turkish booklet  
\hspace{1cm} ‘If it is still difficult, parents can begin with the Turkish booklet.’ \{read while playing\}

The following subsections will investigate the meaning of \textit{beginnen} + prepositional objects. Subsection 3.3 will discuss the few studies of \textit{beginnen} + \textit{met}-object and analyse the semantics of the combination of the verb and such prepositional objects. Subsection 3.4 will do the same for \textit{beginnen} + \textit{aan}-object.

\begin{footnote}
253 The other examples found for \textit{beginnen} + \textit{boek} without infinitives are sentences in which the noun \textit{boek} is used as a subject of an unagentive \textit{beginnen} or sentences in which the noun is not directly connected with the verb. Examples of the former are, for instance, “Het boek begint met de handel in bouwmaterialen” (‘The book opens with the trading business in building materials’) or “Gaandeweg begon het boek een eigen leven te leiden” (‘Gradually, the book started to lead its own life’). Examples of the latter are, for instance, “De cultuurfilosoof zet in zijn nieuwe essay de gedachtegang verder die hij begon in zijn boek” (‘In his new essay, the philosopher of culture continues the line of reasoning which he started in his book’), “Wanneer de rust was weergekeerd, begon hij gewoon uit een boek voor te lezen” (‘When silence had returned, he simply began to read from a book’), etc.
\end{footnote}
3.3 Dutch beginnen met and logical metonomy

De Schutter does not only state that there is hardly any semantic difference between beginnen with a direct object or a prepositional object (cf. De Schutter 1974: 178), but in addition he claims that the only semantic difference between beginnen met and beginnen aan is that the latter expresses the relation with the object in a more direct way (cf. De Schutter 1974: 156). Unfortunately, this claim appears to be based solely on intuitions.

In contrast to this, the few other studies on the semantics of beginnen met all conclude that beginnen met expresses that the started action is the first in a series of comparable actions (cf. Dik 1972: 171). This means that it is a sub-part of a larger coherent action (cf. Honselaar 1980: 148)\(^{254}\) or the start of a repeated action (cf. WNT (1882-1998): entry beginnen meaning 3.1° & 3.2°). More schematically, this can be explained as that beginnen met-action V’ either expresses that action V will be repeated in the future (V-V-...) or that V is part of a more general event W.\(^{255}\)

Similar as with beginnen with a direct object, the started action V can be left implicit. In such cases, beginnen met occurs with a concrete object, on the basis of which an event V is metonymically implied and interpreted.

This meaning aspect of beginnen met is directly reflected in examples (15)-(18): In (15) different stages of using pills are described, the larger context of (16) clarifies that the classification of the simple books is a step in a general classification process of all kinds of books and materials, in (17) the first phase of making books suitable for blind people was the adaptation of digital books, and in (18) the inferred activity is the first reading-event that is intended to be repeated. In other words, these examples with met illustrate that the metonymical event V is either part of a larger event W or will be repeated in the future.

The examples also illustrate that the implicit events are not, as with beginnen with a direct object, primarily agentive. In (15), a telic interpretation is metonymically implied and in examples (16)-(18) the metonymical event is context-dependent and cannot be inferred on either the agentive or the telic role of the concrete object.

The fact that beginnen met brings into mind the idea of a repetition of the started event or evokes a larger general action with the started event as a first stage, as in (15)-(18), is reflected by some syntactic properties: The combination beginnen met is one of the few constructions which sometimes allows a simultaneous realisation of a prepositional object and a direct object (cf. Broekhuis 2004: 99, 110ff).\(^{256}\) The

\(^{254}\) Honselaar in addition assumes that beginnen met ‘event X’ can express that someone starts with the first phase or part of event X, which itself is by definition also activity X (Honselaar 1980: 148). In this case, beginnen met is synonymous with beginnen with a direct object or beginnen aan without the projection of an event.

\(^{255}\) Although English to begin with has never been mentioned or taken into account in research on logical metonomy, the same semantic aspect seems to apply (cf. e.g., the third meaning in the Cobuild (2003) online dictionary).

\(^{256}\) As discussed by Broekhuis some linguistic conditions (2004: 102-107) and some syntactic tests (2004: 107-109) demonstrate that we are in all probability dealing with a prepositional
metonymical ANW-example (19) and the non-metonymical examples (20) and (21) illustrate *beginnen* with a direct object and a *met*-object and (22) and (23) display similar examples with events as the subjects of passive constructions.

(19) Branson begon zijn zakenrijk met Virgin Records  
‘Branson began his business empire with Virgin Records’

(20) We beginnen de lessen met het typische voetenwerk.  
‘We begin the lessons with the typical foot-work’ [context: dancing lessons]

(21) We beginnen onze stadsexploratie met een bezoek aan…  
‘We are starting our exploration of the city with a visit to…’

(22) De eerste concerten van de tour worden […] begonnen met een minuut stilte  
‘The first concerts of the tour are started with a minute of silence.’

(23) Meestal wordt een reading begonnen met een algemene legging  
‘A reading is mostly started with a general fortune telling’ [context: tarot]

The combination of a direct object and prepositional object with *beginnen* corresponds to the interpretation of a sub-action *V* belonging to a more general action *W*: The prepositional object specifies the first sub-action (*V*) of the more general event or action (*W*), which is expressed as a direct object or passive subject.

The fact that the *met*-complement could be interpreted as a part of another action is also reflected in related constructions without an agentive subject. Examples such as *De voorstelling begon met een dans* (‘The performance started with a dance’) or *Mijn werkdag begint met (het drinken van) een kop koffie* (‘My work day starts with (drinking) a cup of coffee’) illustrate this. In such examples, the interpretation of the subject corresponds to action *W* and the prepositional object is interpreted as sub-action *V*. 257

In constructions with an agent, the semantic link of the *met*-complement (*V*) to another action (i.e. a repetition of *V* or *W*, which can be expressed as an underlying direct object in (19)-(23)) explains why more concrete complements and more object rather than with just some adjunct, even if another direct object has been realised simultaneously (Broekhuis 2004: 110-113).

257 If the subject denotes a thing such as a text or CD, such constructions can even occur with two concrete entities, as exemplified in *Het boek begon met een voorwoord* (‘The book started with a preface’), *De brief begon met lieve mamma* (‘The letter started with dear mum’) or *De cd begon met een aria* (‘The CD started with an aria’). These examples just express that the first part of an object was another object. In these cases, no events are required for a correct interpretation of the sentence.
context-dependent eventive interpretations are used as met-objects. The inference to the implied action V is easier, because the started (implicit) met-event is related to another action, which is in all probability known in context. In this way, the prepositional object makes it easier to interpret the combination with a concrete noun as compared to the interpretation of a direct object denoting a concrete entity. As a side-effect of the semantics of the met-object, we understand that the event (V) that is needed for a full interpretation must be some action related to other actions (the repetition of V or more general action W).

### 3.4 Dutch beginnen aan and logical metonymy

In contrast to beginnen met, the precise semantics of beginnen aan is often considered to be complicated (cf. Dik 1972: 172; Honselaar 1980: 152). Dik confines himself to the assertion that in the case of beginnen aan the scale, duration, and implications of the event may be calculable (Dik 1972: 172). However, even Dik himself considers this description tentative, and he does not offer any solid argumentation for this claim, as also indicated by Honselaar (1980: 152).

Honselaar’s account of beginnen aan (1980: 152-154) describes a specific property, which is in line with the findings discussed above (cf. examples (11)-(14)): Honselaar claims that whereas beginnen + direct object needs to be combined with an event-denoting direct object and can only occasionally be used with certain thing-denoting words that are closely associated with a specific event (Honselaar 1980: 145), beginnen aan can be used with all kinds of nouns and pronouns (Honselaar 1980: 153).

Verspoor makes comparable observations for English begin on on the basis of corpus data.\(^ {258}\) Since she finds more complicated, context-dependent metonymies with begin + on-object as compared to those with begin + direct object, she deduces that on could serve as a kind of marker for the fact that in the interpretation some event needs to be added (Verspoor 1997a: 191-192).

Initially, the analysis of Dutch aan as a marker for logical metonymy seems to be correct, given that the idea has been independently established for English on. There is one major problem, however: Although aan may seem to be an indication of logical metonymy, it would be impossible for this to be its function, since beginnen aan + events also occurs. Therefore, it is more reasonable to think that there is some independent aspect of beginnen aan that makes logical metonymy easier to understand.

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\(^ {258}\) Although examples of to begin on X (with the on-phrase as a verbal argument) can be found on the internet, in the BNC (cf. also Verspoor 1997a: 191), and in dictionaries (cf. the bilingual Van Dale 2006 (English-Dutch) or the Cambridge online dictionary), I am aware of the fact that not all native speakers of English consider begin + on-object as correct English.
According to Honselaar, *beginnen aan* strongly brings into mind the idea of an event.\(^{259}\) He describes this in terms of a ‘projection’ of an ‘event’. He provides the following description of the semantics of *beginnen aan*:

“Het AAN-complement wordt als volgt begrepen *X begint aan Y* betekent: ‘er is bij DE entiteit een projectie van HET voltooide gebeuren B, waarin Y de zaak is die voltooid wordt, of een betrokkene in een gebeuren dat voltooid wordt; X is vanaf het BP [JS: = beginpunt] in de eerste fase van het voltooide gebeuren B’.” (Honselaar 1980: 153)

[‘The *ON*-complement should be understood as follows *X begins on Y* means: ‘THE entity [JS: i.e. “the one intended by the speaker”] projects THE completed event B [JS: i.e. “the one intended by the speaker”], in which Y is the object which is completed, or in which Y is a related entity in an event that is completed; X is from the SP [JS: = starting point] in the first phase of completing the event B’.’] (Honselaar 1980: 153, my translation)\(^{260}\)

It remains somewhat vague whether this meaning description can be applied to examples in which the interpreted event B is expressed by Y (the noun of the *aan*-object). Given that the Dutch word *zaak* (‘object’ / ‘entity’ / ‘thing’ / ‘matter’) does not have to refer to a concrete object, but can just refer to some phenomenon in general, Honselaar’s description can be interpreted as that Y could be ‘an event or a concrete entity related to an event’.

The ANW-examples (24)-(27) illustrate that a started event can indeed be realised in the prepositional object (cf. Honselaar’s examples on 1980: 153, cf. however also page 152).

(24) Hij [...] staat te trappelen om aan het grote avontuur te beginnen.
He cannot wait to begin (on) the big adventure.

(25) Ik begon aan de bereiding van het sap
I began on the making of the juice

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\(^{259}\) This analysis is in line with the intuition that *beginnen aan* can be used to express that something has to be done anyway or that it is a planned task (Moerdijk p.c.; De Schutter 1974: 156).

\(^{260}\) The definite articles in capitals are used by Honselaar to express that the interpreted entity is the most expected and suitable one in the context (cf. 1980: 24).
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(26) Na de zomervakantie zijn we echt begonnen aan het opbouwen van een repertoire.

After the summer-holiday are we really begun on the up-building of a repertoire.

‘After the summer holiday, we really began (on) building up a repertoire.’

(27) Hij begon in juli aan het uitzitten van een driejarige gevangenisstraf.

he began in juli on the out-sitting of a three-year-ish imprisonment

‘In July, he began (on) serving a prison term of three years’

These non-metonymical examples show that the noun of the prepositional object does not have to refer to a concrete entity and that it is very well possible to express the started event if some _aan_-complement is used. This fact is in line with Honselaar’s semantic analysis of _X begint aan Y_, which should be interpreted that a subject _X_ thinks of some event _B_, which could be expressed by _Y_ or which could be related to the concrete entity _Y_.

In addition, it can be observed that Honselaar’s explanation of the semantics of _beginnen aan_ contains the verb _voltooien_ (‘to complete’) three times. This should not be interpreted that Honselaar believes that the event must be finished: The phrase ‘a completed event’ (“een voltooid gebeuren”) is simply used to express the idea that _beginnen aan_ brings an event as a completed whole into mind (Honselaar p.c.). In other words, Honselaar suggests that the _aan_-complement evokes the idea of an event which the subject started (Honselaar 1980: 153), in a stronger way than _beginnen_ + direct object does. The specific meaning aspect of _beginnen aan_ is this projection or evocation of an event as such.

This underlying semantics is reflected in the syntactic requirements of _beginnen aan_: In contrast to _beginnen_ + direct object and _beginnen met_-object, _beginnen aan_ can only be combined with verbal nominalisations (cf. sentences (25)-(27)) and not with infinitives (cf. Dik 1972: 166; Honselaar 1980: 148, 152). Sentences (28)-(30) illustrate this.261

(28) Marie begon het boek (te lezen)

Mary began the book (to read-INF)

‘Mary began (to read) the book’

261 In line with the previous section and Honselaar’s analysis, three interpretations are possible for (29): Mary could just start to read the book (cf. footnote 254), she could begin reading a book, which she will do more often in the future or she could begin some implicit general event (e.g. studying, doing her homework, relaxing, etc.), of which reading a book is the first activity.
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(29)  a. Marie begon met het boek (te lezen)\textsuperscript{262}
     Mary began with the book (to read-INF)

   b. Marie begon met (het lezen van) het boek
     Mary began with (the read-SUBST of) the book

   ‘Mary began with (reading) the book / with (the reading of) the book’

(30)  a. Marie begon aan het boek (*te lezen)
     Mary began on the book (*to read-INF)

   b. Marie begon aan (het lezen van) het boek
     Mary began on (the read-SUBST of) the book

   ‘Mary began on (*reading) the book / on (the reading of) the book’

These syntactic requirements reflect the underlying semantics: From a conceptual point of view, the difference between a verbal nominalisation and an infinitive is that the former conceptualises the event as a kind of thing (cf. Langacker 2002: 17, 60). The syntactic requirements of beginnen aan therefore imply that it is not that some event in general is required, as is the case for beginnen + direct object, but rather that some abstract event as a kind of thing-like entity is evoked. This meaning aspect is in line with Honselaar’s analysis that in the case of beginnen aan we think of ‘the event as a projected entity’ (Honselaar p.c.), which is not the case for beginnen met or beginnen + direct object. This semantic difference is reflected in the syntactic form of the different types of objects.

As an additional consequence, the syntactic requirements of beginnen aan directly indicate the metonymy to a hearer, if the verb is combined with a word that refers to a concrete entity. Whereas hij begint (met) een boek (‘he begins (with) a book’) could, because of Dutch OV-word order, still be followed by a verb (cf. sentences (28) and (29)), this is impossible for the sentence hij begint aan een boek, as illustrated in (30). Even if aan does not have the primary function of marking metonymy, from the perspective of the addressee it automatically does so in combination with a word denoting a concrete object, because of its syntactic requirements. It is exactly this semantic-syntactic aspect which makes the use of infinitives impossible and which explains why logical metonymy occurs often with beginnen aan.

Both beginnen met and beginnen aan thus have inherent properties that have nothing to do with logical metonymy as such, which explain why prepositional objects are more often used in logically metonymical constructions. First of all, both prepositional objects are in general more suitable for nouns. Beginnen aan can only

\textsuperscript{262} In the ANW-corpus, many examples of beginnen met X te V-en can be found, such as “Die man zou eens moeten beginnen met Thorbecke te lezen!” (‘That man should once begin with reading Thorbecke!’ lit: begin with Thorbecke to read); “Ze begon met het verhaal van Harry Dolph te vertalen,” (‘She began with translating the story of Harry Dolph,’ lit: “began with the story of Harry Dolph to translate”) or with music “André Rieu [...], die begon met het thema uit The Godfather te spelen.” (‘André Rieu [...], who began with playing the theme from The Godfather’, lit.: “began with the theme from the Godfather to play”). These examples come from Dutch and Belgian texts.
be combined with nouns and, as explained above, the combination beginnen met is also used in constructions with two nouns to express that an event (the subject) starts with another event (another noun).

Secondly, the metonymical inference will be understood more easily in both prepositional objects. In the case of beginnen aan the idea of an activity is already brought into mind and the syntactic form directly indicates that the combination with a noun referring to a concrete entity has to be interpreted metonymically. In the case of beginnen met with an agentive subject the specific meaning aspect of the prepositional object helps us to understand the intended activity: The event that is needed for a full interpretation must be some action related to other actions in the context.

3.5 LM in POs with German beginnen and anfangen

In German, prepositional objects with beginnen and anfangen can only be formed with mit (‘with’). Similar as in Dutch, the German corpus sample of anfangen mit and beginnen mit reveals different types of concrete nouns with more telic and more complicated, context-dependent metonymically implied activities as compared to the sample of anfangen and beginnen with direct objects. Comparable observations have been made by Rüd and Zarcone for nouns denoting artefacts in the German deWac-corpus (2011: 20). In addition to this, I found that the verbs beginnen and anfangen differ in that the corpus samples of beginnen contained in general fewer metonymies as compared to anfangen (cf. also Rüd and Zarcone 2011: 19 table 1).

The examples in (31)-(34) illustrate logical metonymies with anfangen mit.

Examples (33) and (34) are given an interpretation that depends heavily on context.

(31) und jetzt fängst du wieder mit Whisky an!
   and now begin you again with Whiskey [on-PARTICLE]
   ‘and now you are beginning with whiskey again!’ {drinking}

   one began with Aristotle [on-PARTICLE]
   ‘We started with Aristotle’ {reading/studying}

(33) Ich fing mit schwarzen Zigaretten an
   I began with black cigarettes [on-PARTICLE]
   ‘I began with illegal cigarettes’ {selling}

(34) Auch sie fängt vielleicht mit einem Buch an
    also she begins maybe with a book [on-PARTICLE]
    ‘She also maybe begins with a book’ {giving as a present}

Hardly anything seems to be known about meaning differences between the use of direct objects or prepositional objects in the case of beginnen or anfangen. German dictionaries also do not provide much information about this (cf. section 6). As
discussed above, more is known about the semantics of Dutch beginnen met. Since Dutch and German are very similar and the Dutch semantics of beginnen met even seems to apply to begin with (cf. note 255 below), it seems reasonable to assume that the same meaning aspect plays a role for German anfangen mit and beginnen mit. In consequence, beginnen mit and anfangen mit express that a started event V either will be a repeated event (V-V) or is a subaction of a more general event (W).

Examples (31)-(34) reflect this analysis with metonymically inferred V-events. In (32), the reading of Aristotle will be the first part of study. The metonymically implied drinking of the whiskey in (31) is a repeated event, just as the non-default metonymical interpretation of (34). In (33), after the selling of illegal cigarettes other illegal activities followed. These interpretations show that in all examples, the metonymically implied event is either part of a larger action or will be repeated in the future.

From this it again follows why more words denoting concrete entities and more context-dependent interpretations are found in prepositional objects as compared to direct objects in German: The fact that mit indicates that some activity (V) is repeated (V-V) or is part of a larger, coherent action (W) makes V more easily to infer within the context.

3.6 LM with beginnen\textsuperscript{D} and with beginnen\textsuperscript{G} and anfangen\textsuperscript{G}

On the basis of the data discussed in subsections 3.1-3.5 we can draw several conclusions. The actual use of metonymically interpreted direct objects in combination with Dutch and German equivalents of begin is very limited, in a very similar but much more radical way than in English. In Dutch and German, the metonymical use of combined direct objects with all kinds of begin-verbs is almost entirely restricted to direct objects that refer to texts, pieces of music, and companies. The metonymical use of concrete objects is not only restricted to these categories for telic interpretations (as in English, see Verspoor 1997a: 186-188), but even for agentive interpretations. In general, telic interpretations of direct objects referring to concrete entities occur very rarely. These language-dependent differences in the actual use of logical metonymies are unexpected under Pustejovsky’s theory.

\textsuperscript{263} German is different from Dutch in the use of a direct object and a mit-object with anfangen or beginnen. Dictionaries do not discuss this possibility and no example has been found in the DWDS-corpus. However, an anonymous reviewer for the International Journal of Lexicography provided a very natural example taken from the internet, i.e. “Beginnen Sie den Tag mit einem Frühstück?” (‘Do you start the day with a breakfast?’) (http://www.cafe-erdmann.de/karte.pdf [July 2011]). Also, the use of a mit-object without an agent, such as Die Vorstellung begann mit einem Tanz (‘The performance started with a dance’) or, as discussed in footnote 257, Das Buch fängt mit einem Vorwort an (‘The book started with a preface’), is very common. As discussed above, the latter combinations reflect the idea that the prepositional object expresses that its object belongs to some other object and they make the prepositional object suitable for concrete nouns.
Although we have seen that the meaning of prepositional objects is rather complicated, the idea that logical metonymies are more often used in the form of a prepositional object rather than in the form of a direct object is supported by corpus data. The range of categories of concrete nouns is broader in prepositional objects than in direct objects. Moreover, telic interpretations and specific, context-dependent interpretations can be found more frequently in prepositional objects (for German, cf. Rüd and Zarcone 2011: 20 table 2). As indicated, this broader range could be the result of independent properties of the prepositional object as such.

Dutch *beginnen aan* is more suitable for metonymies for semantic-syntactic reasons. First of all, whereas the phrase *beginnen* + direct object / *met*-object could lead to the expectation of an additional verb phrase, the preposition *aan* directly indicates that the noun denoting a concrete thing is all there is. In this way, *aan* in combination with a concrete noun is a direct signal that an inference to some event has to be made. In addition to this, these syntactic requirements point towards a slightly different semantics: Even if *beginnen aan* is combined with a word referring to an event, this event is presented as a kind of thing or abstract entity (cf. Honselaar 1980: 153; Langacker 2002: 17, 60). This makes the step to the use of a noun referring to a concrete thing much smaller.

A similar kind of reasoning applies to the Dutch preposition *met* and probably also to German *mit*. This preposition relates the prepositional object to another kind of action. The use of the prepositional object with an agentive subject therefore evokes the idea of a repetition or of a larger coherent action, which will in all probability be clear in the context. This makes the intended activity more transparent and in this way it makes the metonymical construction with this prepositional object easier to interpret correctly.

4. Logical metonymy with translations of ‘to finish’ / ‘to complete’

4.1 Cross-linguistic differences in expressing ‘to finish something’

A generally known difference between Dutch and German on the one hand and English on the other is the use of drinks as complements with *finish* (cf. Horacek 1996: 122): Whereas Dutch *een boek beëindigen* or German *eine Buch beenden* (i.e. ‘to finish a book’ is acceptable with a strong preference for an agentive interpretation (cf. Horacek 1996: 123), Dutch *een biertje beëindigen* or German *ein Bier beenden* (i.e. ‘to finish a beer’) is not.

(35) Mary finished the book.
(36) Marie beëindigde het boek.
(37) Maria hat das Buch beendet. (see Horacek 1996: 122)
(38) Mary finished the beer.
Sometimes this is explained by the fact that German has alternative ways to express such messages, namely with particle constructions, that are preferred over the above ones (cf. Horacek 1996: 110). The same constructions exist in Dutch. Translations of (38) into Dutch and German illustrate this, as shown in examples (41) and (42).

(41) Marie dronk haar biertje op.
Mary drank her beer up

(42) Maria hat das Bier ausgetrunken.
Mary had the beer drunk-out

The problem is, however, that in English for *finishing a beer* also such an alternative exists, as illustrated in (43). The same even holds for the Dutch and German logical metonymies of (36) and (37), as is shown in (44)-(45).

(43) Mary drank up her beer.

(44) Marie schreef het boek af.
Mary wrote the book off/ready

(45) Maria hat das Buch zu Ende / fertig geschrieben.
Mary had the book to end / ready written

The existence of particle verbs that are preferred can thus not be the only reason that constructions as in (39) and (40) are blocked. In general, a metonymical construction with aspectual verbs, such as *begin* or *finish* and their equivalents, seems to be more acceptable with texts than with drinks in Dutch and German, just as in the case of equivalents of *to begin*.

If we analyse the other verbs of the rich spectrum of translations for *finish*, another interesting finding shows up. For some verbs it is very difficult to decide, whether they actually need an event. Therefore, it is hard to conclude whether they can appear in logically metonymical constructions at all. Sometimes it is for instance impossible to explicitly combine an event, although there does exist an associated event with the expression as a whole. Clear examples are verbs like *afmaken* and *fertig stellen*.^264^ They literally mean ‘to make ready’ and because of the incorporated ‘make’ it is questionable whether they need an additional event at all. If one searches in corpora for direct objects combined with these verbs, it turns out that

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^264^ Before the German spelling change of the end of 2006, this was written as one word, i.e. *fertigstellen*. 
almost all hits are combinations with concrete objects, such as texts and buildings. In such examples, as illustrated in (46) and (47), it seems to be impossible to make the associated writing-activity explicit. The a)-sentences come from the DWDS-corpus and the ANW-corpus.

(46) a. Er stellte den Bericht fertig
   he made the report ready
   ‘He finished the report.’ {writing}

   b. */? Er stellte das Schreiben des Berichtes fertig.
      he made the writing the-GEN report-GEN ready

(47) a. Hij moet een boek afmaken
   he must a book finish [lit.: “off/ready-make”]
   ‘He has to finish a book’ {writing}

   b. */? Hij moet het schrijven van een boek afmaken
      he must the writing of a book finish [lit.: “off/ready-make”]

It is, however, not in general impossible to combine events with afmaken or fertigstellen. A random search of 500 examples in the ANW-corpus contains eventive combinations such as werk afmaken (‘finish work / a job’), een studie afmaken (‘finish as study’), een karweitje afmaken (‘finish a chore’) and so on. Fertig stellen behaves in a similar way. It is combined with events such as den Bau (‘building’), den Entwurf (‘the design / designing’) or die Übersetzung (‘the translation / translating’). However, these objects are no prototypical events, since they often also denote concrete things. As a consequence, verbs such as afmaken and fertigstellen in combination with concrete direct objects do not have to be considered metonymical. The meaning of the ‘making’-activity is literally part of the verb meaning. This idea is also reflected in dictionary information, where the meaning of the verb is specified as finishing the creation of something.

However, this brings in the problem, that it is very difficult to decide whether a verb actually needs some event from a semantic point of view. This question seems to be a trivial one, but the rich spectrum of translations for finish shows how complicated this is. It is not so clear what the right criteria are to judge whether a verb needs an event or a concrete object and intuitions on this are not always clear. The fact that the verb can appear with events is not a very good criterion, since this

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265 The online German dictionary Das digitale Wörterbuch der deutschen Sprache defines fertigstellen as „die Herstellung von etw. beenden“ (‘to finish the production of something’) and Dutch dictionary WNT describes afmaken as “Van een werk dat men te verrichten, of van een voorwerp dat men te vervaardigen heeft. Het geheel ten einde of in gereedheid brengen, voltooien; maken dat het af, d.i. gereed of voltooid is.” (‘About some job that on has to do, or about some object that one has to produce. Get the whole through an end or in readiness, finish; make that it is ‘af’, i.e. completed or finished’). Both verbs thus explicitly incorporate the activity and do not need an event per se.
is sometimes also true for *afmaken* and *fertig stellen* and because the distinction between events and non-events can be vague.

The verbs *voltooien* and *vollenden*, for instance, are in dictionaries described as the completion of an object or event. Only some explicit events can be found in corpora. An analysis of 500 corpus examples of *voltooien* leads to examples such as *een toren / zwembad voltooien* (‘finish a tower/a swimming pool’) as well as *de bouw voltooien* (‘finish a building-event’), but examples like *het schrijven voltooien* or *het schrijfproces voltooien* (‘finish a writing-event’) as a contrast for *een boek voltooien* (‘finish a book’) cannot be extracted. Direct objects of *vollenden* (362 hits) can also be as well texts (e.g. *das Lehrbuch*) or concrete buildings (*Damm, Dom*) as building activities (*den Bau*). Again no writing activities can be found in the DWDS-corpus.266

Contrary to *fertig stellen*, however, there can be found one very clear instance of *vollenden* in the DWDS-corpus with an eventive combination, as shown in (48).

(48) Aber der Sintlinger [...] vollendete das Auskleiden
   ‘But Sintlinger finished getting undressed.’

Such combinations, with infinitival nouns, are impossible for *fertig stellen*. Unfortunately, ((48)) is the only, somewhat obscure, old example that uses such a conversed infinitive. For Dutch *voltooien* no example at all can be found. Other events combined with *vollenden*, such as *den Bau* (‘building’), *die Vernichtung* (‘destroying’), *die Suche* (‘the search’), *das Werk* (‘the work’) are, as explained above, not very prototypical events; they often also have a concrete meaning and most of them can also be combined with *fertig stellen*. Dutch *voltooien* behaves in a very similar way.

Many other *finish*-verbs have an even more specific semantics. The German verb *erledigen*, for instance, is always combined with objects that refer to exercises and assignments. This is reflected in the dictionary (cf. www.dwds.de) and can also be confirmed by the analysis of the 286 corpus-examples. The Dutch verb *vervolledigen* (209 corpus-examples) is hardly ever combined with events and the concrete objects do not really require an additional, metonymically inferred, eventive interpretation, since the verb can in all examples be interpreted as ‘to make complete’. This is also reflected in Dutch dictionaries (cf. Van Dale 2005). The German verb *vervollständigen* (174 DWDS-hits) is, as compared to the Dutch verb

266 A reason for the lack of writing-events combined with these verbs could be the fact that it is so normal to use the metonymical expression that it is therefore not necessary to use the non-metonymical expression, i.e. the writing-event. This hypothesis was supported for English in a very small corpus study on *start* (Briscoe et al. 1990: 45). The problem is, however, that although such combinations in English may be marginal, they are intuitively possible and can sometimes also be found in corpora. For verbs such as *afmaken, voltooien, fertig stellen* and *vollenden* on the other hand, the combinations with a lot of events can not at all be found in corpora and seem intuitively impossible.
vervolledigen, more often combined with nouns that can denote concrete objects as well as events (e.g. die Einrichtung, die Beleuchtung, die Ausstattung, die Ausbildung). However, the combination with clearly concrete nouns also seems to have the meaning ‘to make the object complete’ (cf. www.dwds.de). Interestingly, the English word complete can also be used with concrete objects in exactly this sense. A very clear example for this is to complete the collection.

On the basis of these observations, we can conclude that the Dutch verbs afmaken, voltooien and vervolledigen and the German verbs fertig stellen, vollenden, vervollständigen and erledigen should not be considered verbs that need an event but can appear with concrete objects. Although there is a clearly associated event with examples such as het boek afmaken or voltooien / das Buch fertig stellen or vollenden (‘to complete/finish the book’), this event cannot be explicitly added.

Contrary to verbs as German beenden and beendigen and Dutch beëindigen and eindigen met, some agentive interpretation (‘making’) turns out to be a part of the verb meaning of such verbs. In case of fertig stellen, afmaken and even voltooien we can morphologically recognise the ‘make’-meaning. An analysis of corpus-examples with these verbs supports this hypothesis. For vollenden the make-meaning is less clear, which is reflected in corpus data, since this verb appears with most evitve combinations.

This discussion illustrates, however, how difficult it is to decide what should be considered instances of logical metonymy. The notion seems to be rather gradual than absolute. The discussion of the examples and of the semantics of each of these verbs, even shows that this is not specific for Dutch or German. The English verb complete is, as explained, problematic in a similar way.

The rest of this section will take into account some literal translations of to finish something which can be analysed as involving logical metonymy. These verbs are Dutch beëindigen, eindigen (met), and German beend(igen). Corpus data will be analysed to gather insights into the actual use of concrete objects with such finish-verbs in Dutch and German.

4.2 LM with German beenden and Dutch beëindigen

The German verbs beenden and the more formal variant beendigen are combined in logically metonymical constructions with the categories texts, pieces of music, concrete games, and food. For the first two categories only agentive interpretations can be found; and the latter two are always interpreted in a telic way (i.e. playing the game and eating the food).

An analysis of Dutch beëindigen basically results in three categories: texts that are written, companies that are shut down, and cancelled agreements such as contracts, subscriptions, mortgages, or subventions. The difference between Dutch

267 Transitive use of German enden, is obsolete (cf. www.dwds.de). The sample of enden mit only yields different constructions with inanimate subjects. The verbs ahhören (mit) and Dutch ophouden (met) are not taken into account, because they can hardly be combined with concrete objects (cf. footnote 246).
and German could be caused by the fact that the Dutch verb *beëindigen* is more formal and has a lower frequency of use as compared to German *beenden*. In respect to combinations of these verbs with nouns referring to food, Dutch and German seem to differ. Even though it appears to be hardly possible to use drinks metonymically in both languages,\(^{268}\) the combination with (liquid) food, such as soup, is certainly possible in German (cf. DWDS-example (49)), but problematic in Dutch.

\[(49)\] Er beendete die Leberknödelsuppe.
   he finished the Leberknödel-soup
   ‘He finished the soup with leberknödel’ {eating}

\[(50)\] */ Jan beëindigde zijn soep (met leberknödel).
   Jan finished his soup (with leberknödel)
   ‘Jan finished his soup (with leberknödel)’

Only one Dutch example with non-liquid food was found in the ANW-corpus, that is (51). Examples of ‘finishing food’ in German can easily be found in the DWDS-corpus, as illustrated in (52) and (53).

\[(51)\] ..., zodat ik in alle rust het vleesgerecht kon beëindigen.
   ‘so I could finish the meat dish in peace and quiet’ {eating}

\[(52)\] Er beendete den Imbiß schnell.
   he finished the snack quickly
   ‘He finished the snack quickly.’ {eating}

\[(53)\] wortlos konnte er dann auch sein Frühstück beenden
   without words could he then also his breakfast finish
   ‘he could therefore finish his breakfast without a word’ {eating}

\(^{268}\) No examples of German *beenden* combined with a drink were found in the DWDS-corpus, but the internet provides some, such as examples with *Bier* (beer), *Wein* (wine) or *Getränk* (drink) as direct objects. In Dutch the combination seems to be less acceptable. The only example on the internet is *een fles beëindigen* ‘to finish a bottle’ with the general meaning ‘making it empty’ (cf. [http://www.thehotzoneonline.com/2006/08/07/review-zaaschila-habanero-pepper-sauce/nl/](http://www.thehotzoneonline.com/2006/08/07/review-zaaschila-habanero-pepper-sauce/nl/); [www.5keystohealth.com/nl/t33172.html?usg=ALkJrhh9sURpU_jq1ldDwicXkNiFuAhAQ](www.5keystohealth.com/nl/t33172.html?usg=ALkJrhh9sURpU_jq1ldDwicXkNiFuAhAQ) [March 2009])
4.3 The use of LM in Dutch with eindigen and eindigen met

Apart from direct objects referring to events, the Dutch verb *eindigen* is combined with pieces of music and stories or texts, all with an agentive interpretation. The combination *eindigen met* also occurs. The use of a prepositional object seems to facilitate the combination of much more words denoting concrete objects (cf. (54) and (55)), but such examples seem to have the additional meaning that the metonymically inferred activity with the object is similar to other activities, such as the last activity within a series of activities.

ANW-examples (54)-(56) illustrate this. Example (54) expresses what drink to start and to end with, and (55) is uttered in the context of the final action of finishing a garden. Events can also be used in the *met*-object, as in the non-metonymical (56), in which the explicit events are the final one of a coherent series of actions (i.e. producing beer).

(54) dan kan je bijvoorbeeld wel met bier beginnen en met wijn eindigen
then can you for example just with beer begin and with wine finish
‘then you could for example just begin with beer and finish with wine’

(55) We eindigen natuurlijk met klimop (hedera) of maagdenpalm (vinca)
we end of course with ivy (hedera) or periwinkle (vinca)
‘We finish of course with ivy (hedera) or periwinkle (vinca)’

(56) we eindigen met het afwerken en bottelen van het bier
we end with the finishing and bottling of the beer
‘we end with finishing and bottling the beer’

These examples illustrate that the *met*-object with *eindigen* has similar semantics as in the case of *beginnen met*: The finished activity is considered to belong to actions of the same kind, that is the final one in a succession of related events (V-V or W with V as a sub-action). Because the thought of a certain event has again already been triggered, a broader range of metonymically interpreted concrete objects can be used within the prepositional object.

4.4 The use of LM with beëindigen/eindigen and with beend(e)igen/enden

In contrast to Verspoor’s finding that more logically metonymical constructions can be found for *finish* than for *begin* (Verspoor 1997a: 187), I illustrated in this section that Dutch and German equivalents again show a very limited use of logical metonymy. In fact, the frequently used categories are very similar to the ones found with *begin*-equivalents.

Apparently, some metonymical relations between activities and objects are simply stronger than others and with gradual differences across languages. The classes of
nouns that can be used felicitously in logically metonymical constructions appear to be hierarchically ordered. Texts or stories and pieces of music are easy to use without specifying the intended event. Companies are also good candidates for logically metonymical constructions. Food is more problematic though; for *finish* the food-category turns out to be not very acceptable in Dutch and in case of *begin*-equivalents a prepositional object needs to be used in Dutch and German. Drinks only occur in English corpus data with *finish* and not with *begin* (Verspoor 1997a: 186) and cannot be used with Dutch or German aspectual verbs (cf. also Horacek 1996: 122).

In addition to this, the kind of interpretation turns out to be dependent on the type of noun. Although the agentive activity seems to be the default interpretation for most nouns, for some objects, such as for types of food or games, the telic activity seems to be more relevant. This indicates that, in all probability, the relation between food and eating or between games and playing is stronger than the relation between food and cooking or games and making or developing them, whereas this does not apply to the relation between a book and writing or reading.

5. *Genieten van*\textsuperscript{D} and *genießen*\textsuperscript{G} combined with concrete things

Dutch and German clearly differ in the structure of translations for *enjoy*: German *genießen* is combined with direct objects, whereas Dutch *genieten* in the meaning of ‘to enjoy’ gets an obligatory prepositional object. The combination *genießen von* does occur in German, but is specifically used under the interpretation of eating something (cf. Duden 2006 meaning 1). The combination Dutch *genieten* + direct object is also possible, but this has the meaning of ‘to eat’/‘to consume’ or of ‘to have the advantage of’ (especially in Dutch used in the Netherlands).\textsuperscript{269} Examples (57)-(59) illustrate sentences of *enjoy (reading) a book* in all three languages.

(57) Mary enjoyed (reading) the book.
(58) Marie genoot van (het lezen van) het boek.
(59) Maria hat das (Lesen des) Buch(es) genossen.

\textsuperscript{269} Thus an interesting difference exists in Dutch of the Netherlands between *een pensioen genieten* and *van een pensioen genieten* (‘enjoy a pension [DO/PO]’). The first example with a DO expresses that someone receives a pension, whereas the latter expresses that someone enjoys things that could be done with his/her pension or enjoys the situation that one does not have to work and is getting a pension (thanks to Wim Honselaar and Fons Moerdijk for the clear example). Similarly *een maaltijd genieten* simply means ‘to eat a meal’, whereas *van een maaltijd genieten* should be translated as ‘to enjoy a meal’. For Dutch used in Belgium the first example is probably slightly different, given that *genieten van* can also be used in the meaning of ‘to have the advantage of’ as a loan translation of French *jouir de* (cf. Van Dale *genieten* meaning 5).
Apart from those in syntactic form, differences are apparent from a pragmatic point of view as well. Some metonymically interpreted objects are felicitous in English and Dutch, but not (or at least not equally well) in German. Consider (60)-(62):

(60) John enjoyed his grandchildren.
(61) Jan genoot van zijn kleinkinderen.
(62) ?Jan genoß seine Enkelkinder.

Sentence (62) is only possible within a clearly defined context. The reason for this could lie in the interaction between verb semantics and syntactic form: The verb genießen also has the meaning ‘to consume/eat or drink’ (and ‘to have the advantage of’). For some speakers of German, this polysemy gives rise to conflicting interpretations for (62): The non-metonymical interpretation of the sentence is that Jan, who must be some man-eater, has eaten up his own grandchildren. If the context is strong enough to make clear that the ‘enjoy’-meaning and therefore a metonymical interpretation is intended, the sentence can be used as an equivalent of (60). An example for this is (63), which was uttered on an internet forum about having children.270

(63) Und wenn du denkst, dass du dein 2. Kind mehr genießen kannst, And if you think that you your 2nd child more enjoy can, ‘And if you think that you can enjoy your 2nd child more,’

English enjoy has no direct consuming-interpretation. In Dutch the syntactic form disambiguates between the verb meanings: Only genieten with a prepositional object means ‘to enjoy’. Since the German verb genießen with a prepositional object but also with a direct object can be interpreted as ‘consuming’, syntactic form cannot be used for disambiguation.

An analysis of the corpus samples of genießen and genieten van again yields the interesting result that only certain categories of nouns seem to be used metonymically, but more freely as compared to the aspectual verbs (the equivalents of begin and finish).271 Categories that are often used in Dutch as well as in German are: views (e.g., van het uitzicht genieten; den Ausblick/das Landschaftsbild genießen); food (e.g., van uw eitje; den Kaviar mit Wodka); drinks (e.g., van de cocktail; den Rotwein); impressions/feelings, such as ‘taste’, ‘smell’ ‘beauty’,

270 In the DWDS-corpus no examples of this kind can be found. However, the bilingual Van Dale (Dutch-German) gives the sentence sie genossen ihr Kind, and the internet-based deWac-corpus (http://trac.sketchengine.co.uk/wiki/Corpora/DeWaC) provides some examples, such as (63) (original source: http://www.rund-ums-baby.de/).

271 Unfortunately, these results cannot be compared with English, since Verspoor did not extract relevant corpus-examples for enjoy.
CHAPTER VII

Dutch uses a number of categories that were not found in the German DWDS-sample, i.e. money; animals; and persons (including performing groups). Probably, persons and animals are not found in the German examples because of the ambiguity explained above. The category of art did occur often in the German sample (das Kunstwerk genießen; die vollendete Kunst genießen) but only once in the Dutch ANW-sample. Furthermore German seems to use the category of impressions/feelings more often than Dutch.

Interestingly, not only more categories have been used as compared to equivalents of begin and finish, but the telic role is also suddenly of crucial importance. The same observation has been made by Rüd and Zarcone for genießen in combination with artefacts in the deWac-corpus (2011: 21). The importance of the telic role of course makes sense in light of the meaning of enjoy, but it is not accounted for in most analyses of logical metonymy. In all examples, the implicit event just seems to be some kind of implicit experience with the concrete object. Many of these examples cannot be explained by Pustejovsky’s qualia structure, because categories such as views, locations, sun/weather or more abstract things do definitely not have agentive roles and telic roles are also problematic to specify. A related problem shows up for the Dutch categories animals and persons. The interpretation of what is actually enjoyed could even be seeing the things that these persons or animals do.

The frame-semantic analysis advocated in the next chapter (VIII) will show that the latter could be explained by the fact that not only the object involved in the experience, but also the agent of such an experienced event could be highlighted. Furthermore, it will be demonstrated in the next chapter that a verb such as enjoy is indeed slightly different in its structure as compared to begin or finish: Rather than an activity in general, enjoy must be interpreted with some kind of experience. For nouns such as food or books, this experience can be specified easily, but for others, such as the sun or children, this is considerably vaguer. Therefore, even if the same mechanism applies, different interpretations are inferred for enjoy as compared to the aspectual verbs begin or finish.

6. Dictionary information

6.1 Lexicographical relevance

Logical metonymy comes into being by the subtle interplay of a main verb and a noun denoting a concrete entity. Although semantic-encyclopaedic information of
the concrete object provides some clarification as to what the activity could be, the need to find a specific activity is triggered by the main verb. In a dictionary, information about logical metonymy could therefore best be incorporated in a verb’s entry, even though the specific activity is in most cases inferred on the basis of knowledge connected to the concrete object. 272

Interestingly, the traditional Dutch dictionary WNT clearly reflects this interplay of verb and object in the entry *continueren* (‘to continue’): It states that this verb can metonymically be combined with a direct object referring to a concrete, physical entity (cf. meaning 6.b.). The WNT gives the example of *continueren* in combination with a specific type of text (a baptismal register). In this example, the event which is continued is writing this text or more specifically keeping it up to date. This combination is a perfect example of logical metonymy. The fact that lexicographers have recognised such constructions as metonymical early on can be considered corroboration for the general idea of the existence of logical metonymy. Conversely, new insights into logical metonymy could help to improve dictionaries. In this way, logical metonymy shows that linguistic research and lexicography can clearly benefit from each other.

Since logical metonymy occurs on the basis of a combination of lexical items with an effect on the interpretation of the expression as such, it falls on dictionaries to incorporate information about logical metonymy. Of course it is impossible to provide examples with all kinds of possible concrete object, which could have telic, agentive or several context-dependent interpretations, but something must be said about the general option to use a concrete object instead of an event as a direct object or prepositional object. One also expects to find information about logical metonymy in dictionaries, given that some types of concrete objects are far more frequent than others. Frequently occurring categories of nouns with an explanation of the activity interpreted by default could be incorporated to clarify logically metonymical constructions. In addition, differences in the use of prepositional objects and direct objects are expected to be incorporated.

In the next two subsections, I will therefore discuss which combinatorial information of the discussed equivalents for *begin*, *finish* and *enjoy* with agents as subjects is given in the Dutch Van Dale and the WNT and in the German DWDS and Duden. The comparison of this survey with the results of this chapter will show which improvements could possibly be made to the dictionary entries.

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272 Such information will be incorporated in the *Algemeen Nederlands Woordenboek* (ANW) (cf. also Moerdijk 2004; Moerdijk et al. 2008), because the ANW incorporates in nominal entries contextual-encyclopaedic information and combinatorial possibilities with verbs, which take the entry as a direct object. Compare, for example, the direct objects combinations with *bier* (‘beer’) and its so-called semagram in the online demo-version of the ANW: http://anw.inl.nl/article/bier?searchtype=form&form=bier#s=1-3.
6.2 Information in Dutch dictionaries

The best-known and most used dictionaries for Dutch are the ‘Woordenboek der Nederlandsche Taal’ (WNT) and Van Dale’s ‘Groot Woordenboek van de Nederlandse Taal’ (van Dale 2005). The WNT is the world’s largest dictionary, which has been compiled between 1882 and 2001. The WNT is a historical dictionary, given that it describes Dutch used from the 16th century till the 20th century. The WNT is therefore very rich in information but also heterogeneous in its structure, which makes the WNT more suitable for scientific purposes than for daily usage. For the latter purpose, however, Van Dale 2005 is the reference work of choice. It will therefore be very interesting to compare how information about logical metonymy with the verbs beginnen, eindigen, beëindigen and genieten is incorporated in both dictionaries.

In both dictionaries, examples of beginnen with the often occurring concrete texts and companies as direct objects are included, but the combination with a piece of music is missing. The dictionaries correctly give examples of different types of texts with agentive interpretations, such as letters, which are written, a piece of work, which is written or poems, which are composed. In addition, the WNT gives an example with a book, which is read. Interestingly, the WNT explicitly describes the phenomenon of logical metonymy with beginnen, although the word ‘metonymy’ itself is not used: It states that in general the occurrence with noun referring to a concrete entity suggests that a possible verb should be added in order to interpret the sentence (cf. meaning 4.b and also the prepositional objects in meaning 3).

With the verbs eindigen and beëindigen fewer metonymical examples are provided. With eindigen Van Dale provides an example with a letter and the WNT with a novel, but the frequently occurring companies and musical pieces are missing. With beëindigen both dictionaries are very brief; they only give examples with contracts or agreements. In the WNT, the meaning of eindigen is described as “voltooien” and in Van Dale the verb beëindigen is paraphrased under one meaning description as “afmaken” / “afwerken”. These paraphrases could all be translated as ‘carry out’ / ‘carry through’ / ‘accomplish’. Such verbs are normally combined with direct objects referring to concrete entities. By means of these paraphrases, both dictionaries thus only very implicitly account for the logical metonymy.

None of the dictionaries says anything about eindigen met. Concerning the information about direct objects versus prepositional objects with beginnen, both dictionaries clearly differ on the facts which they account for. The WNT does not only notice that beginnen can occur with a direct object referring to a concrete entity (cf. meaning 4), but also explains that the combination beginnen aan often occurs with words referring to concrete objects (meaning 3 -aan iets). The fact that this prepositional object can also occur with nouns referring to events is not reflected. Also no additional semantic aspects are incorporated in the WNT.

Although Van Dale does not remark at all that beginnen aan is often combined with words referring to concrete entities, Van Dale provides information about the semantics of this prepositional object. It is claimed that beginnen aan zijn werk (“to
begin on his work’) is used “zonder de gedachte aan voltooiing” (i.e.: ‘without the idea of completion / finishing’). It is very difficult to analyse on the basis of corpus examples, whether it is true that the idea of completion has been left open. The following two ANW-examples show that completion could at least be planned and expected.

(64) wij zijn eraan begonnen, we gaan het ook afmaken
we are there/that-on begun we go it also finish
‘we have begun with it, so we are also going to finish it’

(65) Na 2005 begint men aan de tweede fase.
after 2005 begins one on the second phase
Die moet in 2012 voltooid zijn.
that must in 2012 completed are
‘After 2005, the second phase will start. That should be completed in 2012.’

Contrary to the description of the semantics of beginnen aan, Van Dale tells us hardly anything about beginnen met. Only examples with a VP or specific usages with a concrete person (‘with him’) that have some idiomatic flavour are included, such as begin maar niet met hem (meaning: ‘be sure not to have anything to do with him’), wat moet ik met hem beginnen? (meaning: ‘what am I to do with him?’) or er is niets met hem te beginnen (meaning: ‘he is a lost cause’).

The semantics of beginnen met is, however, perfectly described in the WNT. Meaning 3.1° expresses that the prepositional object refers to the event that is done as a first step and meaning 3.2° expresses that something is started which will be repeated in the future. Examples with events (VPs or NPs) as well as with objects referring to concrete entities are given. This information perfectly reflects the observations above.

Surprisingly, Van Dale hardly discusses the difference between genieten and genieten van. Only two examples are given, i.e. to enjoy some pleasant taste of something and to enjoy a cigar (which does not occur in the ANW-corpus). In

273 The idea that the started activity (which could be explicit or metonymically implied) is probably not totally finished in the case of beginnen aan could be in line with a more common observation: A general semantic difference between a direct object and a prepositional object with the same verb is that the prepositional object does not have to be totally affected by the verb. This is, for instance, reflected in iets schieten (‘to shoot something’) versus op iets schieten (‘to shoot at something’) or in iets eten (‘to eat something’) versus van iets eten (‘to eat from something’) (cf. Broekhuis 2004: 122). The idea that the entity referred to by the noun of the prepositional object will possibly not been finished or could not have been finished, can be paraphrased as that it has begun in a different way: It could be the case that whereas the entity expressed by the direct object is fully affected by the beginning-process, the entity in the aan-object is not, given that it will not necessarily be finished.
contrast to Van Dale, the difference between genieten and genieten van is very well incorporated in the WNT. The WNT says that genieten van iets (lit.: ‘to enjoy of something’) expresses that the something should be seen as the source of a pleasant experience. This perfectly explains the logical metonymy: To enjoy is semantically combined with a certain experience and its source can be mentioned in the prepositional complement.

6.3 Information in German dictionaries

In order to see which information about logical metonymy could be found in German dictionaries, I compared the entries of anfangen, beginnen, enden, and beend(en) in the contemporary dictionaries Duden’s Deutsches Universalwörterbuch (Duden 2006) and das digitale Wörterbuch der deutschen Sprache (DWDS 2002-2006). In general, these dictionaries do not provide explicit information about logical metonymy and the examples with words referring to concrete objects are few and far between.

In both dictionaries, the examples with anfangen differ from the ones with beginnen: For beginnen both dictionaries only include events. The DWDS is even more or less explicit on this, by paraphrasing the verb’s meaning as “mit einer Handlung einsetzen” (‘to start with an activity’). This meaning description reflects the fact that fewer examples of logical metonymy can be found with beginnen than with anfangen, but the meaning paraphrase contradicts combinations in the DWDS-corpus, such as ein Buch / den Roman beginnen (‘to begin the book / the novel’), ein Lied beginnen (‘to begin a song’) and even more occasional combinations from a single source such as das Jäckchen / den Rock beginnen (‘to begin the little jacket / the skirt’).

With anfangen the Duden only provides examples of texts as direct objects. Examples with companies or musical pieces are not incorporated. The DWDS also does not take into account pieces of music, but it does provide examples with texts or companies. An explanation of the interpretation of such combinations or an explanation for the fact that these verbs can occur with implicit events is lacking.

Information about semantic differences between direct objects and prepositional objects with the aspectual verbs beginnen and anfangen is rather summary. A general semantic description of the mit-complement is missing. The Duden provides only one example with an event-denoting noun in combination with beginnen, i.e. mit dem Training beginnen (‘to begin with the training’). Furthermore, both dictionaries only incorporate combinations with an idiomatic flavour, such as was soll ich nun damit beginnen? (meaning: ‘what should I do with it?’), was soll ich mit ihm anfangen (meaning: ‘what should I do with him?’), nichts mit sich anzufangen wissen (meaning: ‘to not know what to do with oneself’) or mit ihm ist nichts anzufangen (meaning: ‘he is unsuited/a lost cause’).

The combination of enden mit is, as reflected in the corpus, hardly ever used with an agent as subject: It primarily occurs in constructions, such as ‘the fight / the letter / etc. ends with...’ (cf. note 267 above). Additionally, both dictionaries include
the standard combination such as der Redner endet mit X (lit.: “the speaker ends with X”), in which the implicit event of a speech or presentation that finishes with the words X has to be added. The incorporation of the combinatorial possibility for this specific logical metonymy is accurate.

With beenden or beendigen, the Duden does not provide a single example of a direct object referring to a concrete entity. The DWDS performs much better in this respect. Besides examples with nouns that denote events such as den Krieg (‘the war’), das Gespräch (‘the conversation’), die Versammlung (‘the meeting’), which are also given in Duden, the DWDS mentions examples with nouns referring to concrete things, such as das Kunstwerk (‘the work of art’) or die letzten Kapitel des Romans (‘the last chapters of the novel’). Comparable to the Dutch dictionaries, this meaning is paraphrased as vollenden (lit.: “full-finish”), which can best be translated into English as ‘carry out’ / ‘carry through’ / ‘accomplish’. This paraphrase automatically evokes the idea of a concrete entity. As is also the case in Dutch dictionaries, the frequently found category of musical pieces is not incorporated. Examples that were found in German in particular, such as food and games, are also not taken into account by the Duden or the DWDS.

With respect to genießen, the DWDS says nothing about the combination with a von-complement, but the Duden does explain the specific meaning of genießen von as ‘to consume’. The DWDS tells us that genießen with a direct object can also be interpreted as ‘to consume’, which is, however, not included in the Duden. The Duden furthermore only incorporates examples of events, which are enjoyed, such as das Leben (‘the life’) and den Urlaub (‘the holiday’) genießen. This is once again different in the DWDS. Besides events such as life and holiday, the DWDS incorporates some of the non-eventive objects which were also found in the corpus, such as impressions, views and nature.

6.4 Logical metonymy and Dutch and German dictionaries

Based on the results of the previous sections, we must conclude that some crucial information and important examples of logical metonymy are missing in most Dutch and German dictionaries. Especially the frequently found category of pieces of music has hardly been taken into account. More examples could be given to illustrate certain collocations and more should be said about the semantics of prepositional objects in contrast with direct objects.

However, some of the observations on the basis of corpus data are in fact reflected in the dictionaries. Although German dictionaries lack explicit information about logical metonymy, the German DWDS has incorporated some classes of concrete objects found with anfangen and with genießen. The German Duden does not give any example with a concrete entity which can be enjoyed, but Duden explains the occurrence with a prepositional object and the clear meaning difference with a direct object. The Dutch Van Dale provides information about the semantics of beginnen aan. The fact that beginnen aan often occurs without expressing the activity has not been included in Van Dale. The latter aspect has been incorporated
in the Dutch WNT, without mentioning that events can occur with aan-objects as well. The exact semantics of beginnen met is nicely described in the WNT, including examples with words denoting concrete entities (cf. meaning 3.1° & 3.2°). Explicit information about the additionally interpreted event is also provided for beginnen. With respect to genieten, the WNT incorporates clear information about the difference between genieten and genieten van, which has surprisingly not been taken into account in Van Dale.

On the basis of this survey, we can conclude two different things. First of all, information incorporated in dictionaries and the observations in this chapter validate each other, given that both describe similar findings independently of one another. However, not all observations have been equally well reflected in different dictionaries. As a second conclusion therefore, the results of this study could be used to improve relevant dictionary entries.

7. Conclusions

Analysing corpus examples reveals differences between verbs in their actual sensitivity to logical metonymy. A similar result has been obtained for English by Verspoor (1997a: 186-192). She suggested that logical metonymies are used in a restricted way with differences between begin, finish, and enjoy (Verspoor 1997a: 192). The Dutch and German equivalents show comparable behaviour. Several observations can be made on the basis of the corpus results. These observations should be reflected in dictionaries, which is not always the case.

A first observation concerns differences in the use of direct objects or prepositional objects. Dutch genieten is obligatorily combined with a prepositional object, whereas German genießen is transitive. Aspectual verbs, such as German anfangen and beginnen or Dutch beginnen and eindigen, are used with a direct object or a prepositional object. The necessity for using a prepositional object depends on the kind of interpretation and the kind of object: More nouns referring to concrete entities are used in the prepositional object slot than in the direct object slot and prepositional objects lead to more complicated interpretations. The latter observation has also been made for English (Verspoor 1997a: 191-192) and for German artefacts (Rüd and Zarcone 2011).

The idea that the preposition serves as a marker for the logical metonymy (Verspoor 1997a: 191-192, cf. also Honselaar 1980: 153) appears to be untenable for Dutch and German, since these prepositions occur with events as well. Rather the preposition brings in some properties independent of logical metonymy, which make the construction more transparent. In case of the Dutch preposition met, as in beginnen met and eindigen met, and probably also in German anfangen mit the preposition indicates that the started or finished action belongs to a series of similar actions or is a sub-part of one coherent larger action. With Dutch beginnen met this coherent action can even be made explicit by an additional direct object. Since the prepositional object hints at the general action expressed or known in the context, the activity can more easily be inferred. A specific property of beginnen aan is that
no infinitives can be added. Therefore, *beginnen aan* projects the event as a kind of thing, i.e. as a complete entity (cf. Honselaar 1980; cf. also Langacker 2002). In addition to this, if a noun which denotes a concrete thing is combined with *beginnen aan*, it is, in contrast to transitive *beginnen* or *beginnen met*, directly clear that the activity has to be inferred metonymically. Thus, both prepositions make logical metonymy easier to understand: *aan* on the basis of its semantic-syntactic properties and Dutch *met* or German *mit* as a side effect of its semantics.

Secondly, as summarised in Table 16, the corpus samples indicate the tendency that logical metonymy occurs with certain categories of nouns. In practice, the metonymical use of direct objects for Dutch *beginnen* and German *anfangen* and *beginnen* is almost limited to stories, texts, pieces of music, and companies. Metonymical combinations of direct objects with equivalents of *finish* are also very restricted. The common categories for Dutch *beëindigen* are texts and companies, with an agentive interpretation only. In these cases, the expressed concrete object is the result (cf. chapter VI, §4.3 and §4.4). In addition to these categories, German *beenden* and *beendigen* are often combined with pieces of music (with an agentive interpretation), concrete games, and food (both with a telic interpretation). With equivalents of *enjoy*, different and also more categories are used (cf. also Verspoor 1997a: 192-195). The interpretation is also different: Telic interpretations are more common and the interpreted event can often not be derived from qua(lia) structure at all. Information about such combinations is hardly incorporated in dictionaries, as has been summarised in section 6.
<table>
<thead>
<tr>
<th>verbs</th>
<th>frequent categories in sample</th>
<th>interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>TO BEGIN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dutch</td>
<td>beginnen (DO)</td>
<td>text/story; music; company</td>
</tr>
<tr>
<td>German</td>
<td>anfangen (DO)</td>
<td>text/story; music; company</td>
</tr>
<tr>
<td></td>
<td>beginnen (DO)</td>
<td>text/story; music; company</td>
</tr>
<tr>
<td>TO FINISH</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dutch</td>
<td>beëindigen</td>
<td>text/story; company; agreement</td>
</tr>
<tr>
<td></td>
<td>eindigen (DO)</td>
<td>text/story; music</td>
</tr>
<tr>
<td>German</td>
<td>beend(ig)en</td>
<td>text/story; music</td>
</tr>
<tr>
<td></td>
<td>text/story; food; game</td>
<td>telic</td>
</tr>
<tr>
<td>TO ENJOY</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dutch</td>
<td>genieten van</td>
<td>text/story; performance; view; food; drink; impression; location; nature; weather; commercial product; money; animals; persons</td>
</tr>
<tr>
<td>German</td>
<td>genießen</td>
<td>text/story; performance; view; food; drink; impression; location; nature; weather; commercial product; art</td>
</tr>
</tbody>
</table>

Table 16: Frequent logical metonymies in Dutch and German corpus samples

Thirdly, Table 16 illustrates that qualia structure cannot do all the work. Since there are differences between the enjoy-equivalents and the aspectual verbs, logical metonymy is apparently restricted by the interplay between verb semantics and qualia structure (or: the metonymical link between noun and event). Because a verb such as to enjoy has to be combined with a kind of experience, the telic role is very important, whereas verbs such as to begin or to finish express that an activity in general is started or finished by a certain agent. In addition to this, the interpretation can depend on the noun used. Whereas with German beend(ig)en nouns denoting texts or pieces of music lead to an interpretation on the basis of the agentive role, food and games are interpreted in an telic way. Furthermore, qualia structures can be very unspecific. In some cases a noun seems to have more values for one role (cf. also Rüd & Zarcone 2011: 20). This appears to be the case for the agentive role of texts (books, chapters, stories, etc.), which could come into existence by writing them, telling them or publishing them. In other cases, role values are lacking (cf. Pustejovsky 1995: 76), as for example with the qualia structure of feelings or persons.

Another problem is the fact that some types of nouns can be more easily used in logically metonymical constructions than others. Language data show that texts and
also pieces of music are often combined with all kinds of verbs in all three languages. Whereas types of food can be used with all kinds of verbs in English, they require a prepositional object when used with the Dutch and German equivalents of begin and can rarely be combined with Dutch equivalents of finish. Drinks and cigarettes occur in Verspoor’s study only with finish (1997a: 186), whereas these categories are never used under an agentive or telic interpretation with Dutch and German aspectual verbs.

From a cross-linguistic perspective, we can thus say that Dutch, German and English display a comparable usage of logically metonymical combination. For all three languages lexical-conceptual information beyond qualia structure is crucial: The semantics of the main verb (in combination with its possible prepositional objects) restricts logical metonymy lexically and some metonymical associations are more strongly anchored than others. Furthermore, all languages use very limited categories of nouns, in all languages the possibility of using logical metonymy depends on the main verb, the agentive interpretation is generally far more common than the telic one (depending on the noun though), and all languages allow more complicated metonymies with prepositional objects than with direct objects. Dutch and German only prove to be less flexible than English.
VIII. AN IMPLEMENTATION INTO FRAME SEMANTICS

1. Waltereit’s analysis of Metonymical Object Changes

Metonymical Object Changes (MOCs) have been defined as instances of predicative metonymies (cf. chapter III): They are metonymy-driven shifts of the direct object slot of a predicate. In linguistic literature examples of MOCs have been analysed as logical metonymy or as shifts based on semantic role contiguity (cf. chapter III, §5). Some specific shifts are also referred to as locative alternations and material-product alternations (cf. chapter V, §6.2). Waltereit has made a detailed analysis of why shifts such as locative alternations should be regarded as metonymy-related figure/ground effects of the direct object, within a frame evoked by the verb (Waltereit 1998; Waltereit 1999; cf. also Koch 2001).

However, I explained in chapter III, Waltereit makes two problematic claims. He argues that metonymy is only involved in MOCs from a diachronic perspective. In his view alternations are caused by diachronically developed polysemy of the verb, which is based on classical nominal metonymy, also called ‘insertional-level metonymies’, in his own words: “The occasional metonymic use is likely to be fixed later as a new meaning of the verb, when a metonymic shift is no longer involved.” (1999: 235). From a synchronic perspective, Waltereit only considers the two possible direct objects to be metonymically related on a semantic role level rather than contiguous on the basis of their underlying concepts (Waltereit 1998: 56; Waltereit 1999: 235). Both claims, i.e. that verbal polysemy has to be assumed and that there is no metonymy between the objects from a synchronic perspective, are questionable.

As I explained in §5.3 of chapter III, the claim that a metonymic shift is no longer involved is untenable. First of all, it is problematic to assert that the semantic roles are in a contiguity relation, because it is not clear what these semantic roles are. In the case of examples such as to clear the table or to clear the tableware, some scholars speak of locatum and location or theme and goal, whereas others consider all these direct objects to be ‘themes’ (cf. the discussion in Rappaport & Levin 1988 or in Dewell 2004: 22ff) or ‘patients’ (cf. Jackendoff 1990: 172; Jackendoff 2002: 181; Laffut 1998: 129), irrespective of whether they refer to locations, things in a location, material or products. If the two possible objects have the same semantic role or if it is unclear what their roles are, it does not make sense to claim that these roles are contiguous.

Secondly, even if we do not use very general semantic roles such as theme or patient, it is reasonable to assume that contiguity relations between semantic roles are different from normal contiguity relations between the concepts denoted by the nouns that serve as direct objects. However, Waltereit himself uses normal

274 The main idea of this chapter has also been published in Sweep 2011 and §4 has also appeared in a modified version as Sweep 2010a. I would like to thank all anonymous reviewers of both publications for their very useful comments.
contiguity relations, such as CONTAINER-CONTENT (Waltereit 1998: 26) or CUSTOMER-ORDER (Waltereit 1999: 235), for role continguities. This shows that the contiguity relations associated with the nouns serving as direct objects are crucial, even from a synchronic point of view. If semantic role contiguity is involved in MOCs, this can only be the case in the sense that normal contiguity relations play a role in the verbal action. In this chapter, I will develop this view in detail.

Waltereit also explicitly claims that semantic role contiguity evolves from an occasional insertional metonymy (cf. Waltereit 1998: 56; 1999: 235). This means that a locative alternation such as to load the truck with hay must be based on an occasional use of track for ‘hay’ or that to spin yarn was first used with yarn referring to ‘wool’ (or the other way around). As I also pointed out in chapter III (§5.3), evidence for this claim is lacking and its plausibility may be questioned.

The fact that some MOCs are occasional, is evidence against the analysis that semantic role shifts are conventionalised verb meanings based on insertional metonymies. Waltereit’s analysis of MOCs in terms of fixed verb meanings implies that a comparable, non-conventionalised object change must be fundamentally different from conventional MOC (cf. Waltereit 1999: 241). An example will make clear why this claim is problematic: According to Waltereit de tafel afruimen or den Tisch abräumen (lit.: “the table off-clear”, i.e. ‘to clear the table’), which is a well-established combination, can no longer be explained directly in terms of metonymy, whereas this should be different for the opposite phrase bestek dekken / Besteck decken (lit.: “cutlery cover”, i.e. ‘to set cutlery (on the table)’ instead of ‘to set the table’). This example cannot be found in any dictionary and only occurs occasionally, for instance in educational texts on how to set a table.275 Given that, according to Waltereit, de tafel afruimen or den Tisch abräumen was developed on the basis of an occasional use of tafel / Tisch (‘table’) for ‘tableware’, the occasionally used phrase bestek dekken / Besteck decken should still contain an insertional-level metonymy in the direct object (cf. Waltereit 1999: 241). In other words, the consequence of Waltereit’s proposal is that the direct object of bestek dekken / Besteck decken should be analysed as metonymically denoting ‘table’.276 The problem is that the shifts occurring with afruimen / abräumen and with dekken / decken appear to be similar, and that all nouns in the direct objects (i.e. the table and the tableware or cutlery) can be analysed as being interpreted literally. I would therefore argue that both are examples of MOC and that, irrespective of whether they are fully conventionalised or not, the same mechanism underlies these shifts.

In addition to these problems, I showed in chapter IV (cf. §4) that it is questionable whether verbal polysemy must be assumed if the direct object has been

275 Cf. e.g. in Dutch “Het bestek voor het nagerecht dek je boven het bord of het servet” (“The cutlery for desert is set above the plate or the napkin”) (Source: www.onwikkelecentrum.nl/objects/smaaklessen/OC-21913p1-1.pdf [September 2010]) or in German “Für jeden Gang wird ein komplettes Besteck gedeckt.” (“A complete cutlery is set for every dish”) (DeWac-corpus, original source: http://www.wienerzeitung.at/Desktopdefault.aspx?TabID=3946&Alias=wzo&lexikon=Fotografie&letter=F&cob=6124).

276 The same should apply to shifts with Dutch vullen as in examples (73)-(74) in chapter VI.
shifted. To a certain extent, Waltereit himself is inconsistent in his assumption of polysemy of the verb, in that he states that both “thematic roles are part of the verb’s lexical content” (1999: 235) and that the metonymical figure/ground effect occurs in “the frame embodied by the respective verb” (1999: 238-239). If a verb has specific lexical content with thematic roles, and if it evokes a certain frame, this could be regarded as its lexical meaning (cf. Sweep 2010b). As I also explained in chapter IV, Iwata’s distinction between L-meaning and P-meaning is relevant in this respect (Iwata 2005; Iwata 2008). L-meaning is the general lexical meaning of the verb, i.e. the general frame or scene evoked by the verb. P-meaning, i.e. phrase level meaning, is the meaning of the combination of verb and direct object (meaning on VP level). When Waltereit speaks of “the respective verb’s frame” (Waltereit 1999: 238), he implicitly refers to the single lexical meaning of the verb, i.e. Iwata’s L-meaning.

Except for Waltereit’s assumption of polysemy and his view that contiguity relations between the concepts expressed in the direct object no longer play a role, I agree with many other aspects of his analysis. MOCs do work differently compared to more prototypical instances of metonymy (which Waltereit calls ‘insertional metonymies’). In prototypical metonymical expressions, a word is reinterpreted on the basis of contiguity relations. With MOCs, the underlying contiguity makes the shifts possible, but the words themselves (i.e. NP or V) keep their literal meaning. Only the way in which they are interpreted in combination with each other is determined by the shift (VP) (cf. also Recanati 2004: 24). I therefore agree with Waltereit that MOCs should be analysed as a metonymical figure/ground effect (an onmasiologico highlighting of elements) within the conceptual-semantic frame evoked by the verb (Waltereit 1998: 25-26, 56; Waltereit 1999: 238, cf. also Koch 2001).

In this chapter, this will be worked out in detail. Most studies which define metonymy as a highlighting effect in a frame, leave the frames implicit (cf. the criticism in Peirsman & Geeraerts 2006). In this study, the highlighting effect of predicative metonymies will be explained in detail on the basis of frames as they were developed by FrameNet (https://framenet.icsi.berkeley.edu/ [October 2011]). The implementation is based on corpus data discussed in previous chapters.

The chapter is structured as follows. Section 2 discusses the notion of a frame and the way frame semantics is worked out by FrameNet. Section 3 and its subsections investigate how non-eventive MOCs, such as the locative alternation and the material-product alternation, can be analysed with the aid of frames. Section 4 and its subsections explain how logical metonymy, which was not discussed by Waltereit, can be explained as a highlighting effect in a frame. These sections will make clear that a frame-semantic account of logical metonymy can handle some of

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277 All frames discussed here have been retrieved or checked in September 2011. Because FrameNet is an ongoing project, frames are constantly being updated and new frames are added to the database, so frames could have been changed in the meanwhile. Between September and October 2011 the website interface has been changed and therefore also the URL (from http://framenet.icsi.berkeley.edu/ to https://framenet.icsi.berkeley.edu/).
the subtleties of language pretty well. Section 5 relates this analysis to the
observations made on the Dutch and German data, which were discussed in chapter
VI and VII. Section 6 provides an overview.

2. Frames, Frame Semantics & FrameNet

The term ‘frame’ is used in a number of different but related senses. In all these
senses, frames can be understood as “structured knowledge clusters” (cf. Martin
1997: 65). Originally, the notion of a frame was developed in artificial intelligence
by Marvin Minsky (Minsky 1975) on the basis of the psychological notion of a
schema (Bartlett 1932; cf. also Schank & Abelson 1977). In artificial intelligence, a
frame is a structured data knowledge base, consisting of slots and fillers. On a par
with the notion schema and frames in psychology and artificial intelligence, the term
has also been used by linguists (Barsalou 1992; Fillmore 1977a; Fillmore
2006[1982]).

In linguistics, the notion of a frame is best-known in connection with work by
Fillmore. He uses frames as a representation of a concept, which includes purely
semantic and conceptual-encyclopaedic information. Such rich representations are
necessary in order to interpret words. For instance, the meanings of buy and sell can
only be understood in the context of a ‘commercial transaction event’. The verbs buy
and sell provide two different perspectives in relation to a single scene including a
Seller, a Buyer, Money and Goods (Fillmore 1977b; Fillmore 2006[1982]: 378; cf.
also Ruppenhofer et al. 2010: 10-11; 76).

The classic buy/sell example shows that words do not merely denote things in
reality, but that they refer to them from a certain perspective or with a specific focus.
Frames help to explain this. Frame semantics can, for example, also be used to
understand and analyse the difference between the English words land and ground
or coast and shore (Fillmore 2006[1982]). Although the words land and ground
identify a single entity in reality, they are not fully interchangeable, because each
word situates the entity differently in a single frame: “land designates the dry
surface of the earth as it is distinct from the sea, whereas ground designates the dry
surface of the earth as it is distinct from the air above it” (Fillmore 2006[1982]:
382). A comparable difference applies to shore and coast in that “the shore is the
boundary between land and water from the water’s point of view, the coast is the
boundary between land and water from the land’s point of view” (Fillmore
2006[1982]: 382).

Basing itself on Fillmore’s concept of a frame, FrameNet (http://framenet.icsi.
berkeley.edu/) tries to design, as precisely as possible descriptions of frames on the
basis of real linguistic data. A frame is regarded as “a script-like conceptual
structure that describes a particular type of situation, object or event” (Ruppenhofer
et al. 2006: 5 / 2010: 5). This is directly in line with one of Fillmore’s first
definitions of a “frame as characterizing a small abstract ‘scene’ or ‘situation’, so
that to understand the semantic structure of the verb it was necessary to understand
the properties of such schematized scenes” (Fillmore 2006[1982]: 377). Besides
normal frames, FrameNet contains scenarios, more general scenes which structure our knowledge.

The frames in FrameNet describe prototypical situations and predications in terms of the participants and roles involved. Moerdijk therefore characterises these frames as “syntagmatic frames”. They can be contrasted with “paradigmatic frames” (Moerdijk 2008b: 561-562). Rather than describing a situation or object with the participants that are associated with it in reality (against a cultural background) paradigmatic frames are lists of properties, used to capture the conceptual-lexical knowledge of a word. An example of a paradigmatic frame is the template for the semagrams in the ANW-dictionary. Semagrams are paradigmatic frames filled out in the ANW-dictionary, which are representations of word meanings (cf. http://anw.inl.nl/show?page=help_artikelstructuur).

A further important difference between frames in FrameNet and semagrams is that semagrams are more directly connected with a specific lexeme. FrameNet-frames represent concepts by describing situations; they can therefore be non-lexical. For filled in paradigmatic frames which are applied to a specific word (such as the ANW’s semagrams) this is by definition impossible.

With respect to the latter difference, Honselaar makes a comparable distinction. He speaks of LEX SITs (lexical situations) versus REF SITs (referential situations). A lexical situation is syntagmatic, given that it is defined as a meaning description connecting a verb to its possible REF SITs (Honselaar 1980: 3ff). The REF SITs are described as “situations-in-reality” (1980: 3). FrameNet-frames can be seen as descriptions of REF SITs, which can be used to explain the meaning of words, but which, in contrast to semagrams or LEX SITs, cannot always be referred to by lexical units.

Non-lexical frames in FrameNet “have no lexical units” (Ruppenhofer et al. 2006: 113 / 2010: 80), which means that they are “never evoked by lexical units” (Ruppenhofer et al. 2010: 75), and which are “present purely to connect two (or more) frames semantically” (Ruppenhofer et al. 2006: 113 / 2010: 80).

It depends on a linguistic community which frames are relevant and how frames are lexically represented. This is also explicitly noted by FrameNet researchers: “In fact, a frame which in English is Non-lexical might well have associated LUs [= lexical units] in another language” (Ruppenhofer et al. 2006: 112 / 2010: 79). This can be illustrated by the coast-shore difference. The two differently framed words coast and shore correspond to single words in Dutch and German, i.e. kust / Küste.

As a consequence, the general frame describing ‘the boundary between land and sea’ is represented lexically only in Dutch and German, and not in English. In English, this frame is non-lexical connecting, the ‘coast’-frame and the ‘shore’-frame.\footnote{Fillmore only speaks of the boundary between land and water (Fillmore 2006[1982]: 382), but besides this perspective another difference between coast and shore is that coast can only refer to the boundary between land and sea, whereas shore could also be used with lakes. The Dutch and German words kust and Küste are similar to coast, in that they can only refer to the boundary between land and sea.}
In other cases, English lexically represents frames that are non-lexical in other languages. This can be illustrated by the contrast between English river on the one hand and French rivière and fleuve on the other: Whereas in English a frame with a description such as ‘a natural continuous wide flow of fresh water in a long line across the land flowing into another type of natural water’ could be expressed by the lexical unit river (similar to Dutch rivier or German Fluss), this frame would be non-lexical in French.\(^{279}\) French has two words for ‘river’, depending on whether the river flows into the sea (= rivière) or not (= fleuve). In French, the only lexical frames would therefore be the related frames of ‘a natural continuous wide flow of fresh water in a long line across the land flowing into the sea’ and ‘a natural continuous wide flow of fresh water in a long line across the land flowing into another type of fresh water’, corresponding to rivière versus fleuve respectively.

Most frames defined by Framenet are lexical, which means that they can be expressed or evoked by words (cf. also Fillmore 2006[1982]: 378) or more formally by lexical units (LUs). A lexical unit is a pairing of words with a sense. Even the more general frames, which are called scenarios, can sometimes be directly expressed by words (cf. e.g. the expression of the Cause_change_of_consistency frame (Ruppenhofer 2010: 12) or the LUs belonging to the Commerce_scenario [September 2011]).

All frames, whether they are lexical or non-lexical, and in particular frames describing verbs and events, are associated with participants that are necessary for the conceptualisation of the meaning. These participants, or roles, in frames are called frame elements (FEs) (Ruppenhofer et al. 2006: 5 / 2010: 5). Frame elements can be divided into core and non-core frame elements. Core frame elements are “conceptually necessary components of a frame” (Ruppenhofer et al. 2006: 26 / 2010: 19). Frame elements make frames very useful for valency analyses and therefore also for research into MOCs, since they concern the type of direct objects of verbs.

Two factors in particular make FrameNet-frames highly relevant for research on MOCs. Firstly they are very useful, because MOCs cause qualitative valency shifts of the direct object (cf. chapter V, §3). Secondly, if an object change can in fact be analysed as involving metonymy, it should be possible to analyse it as highlighting effects in a frame. In other words, frames of FrameNet can be used to overcome Peirsman and Geeraerts’ criticism, which also applies to Waltereit’s analysis, that many metonymy accounts hinge on the use of frames without specifying them (cf. Peirsman & Geeraerts 2006: 270-271). FrameNet-frames offer a solution to this problem, because they are conceptual structures based on linguistic data (cf. Ruppenhofer et al. 2010: 5-6), which were developed independently of metonymy research.

\(^{279}\) At the moment, the only frame described by FrameNet is the more general “Natural Features” frame describing “a geographical location as defined by shape […] including land/ice forms and bodies of water” (http://framenet2.isi.berkeley.edu/frnReports/data/framIndex.xml?frame=Natural_features [September 2011]).
3. MOCs based on spatial and causal gestalts

Verbs are crucial elements in sentences. FrameNet therefore analyses sentences as the evocation of a frame by the main verb, with the other words in the sentence analysed as syntactic realisations of its frame elements (Ruppenhofer et al. 2006: 5-6 / 2010: 5-6).

Well-known alternations, such as locative alternations, are treated in a specific way by FrameNet: The verb occurring in the alternation belongs to different frames depending on the type of object it is combined with. These two frames are related to each other in complex ways. This means that the verbs are treated as polysemous, with related but distinct senses. The same goes for verbs occurring within the material-product alternation.

The treatment of locative alternations can be illustrated with the verbs *to load* and *to unload*. Both verbs belong to two related frames: *to load* belongs to the “Placing” frame and to the “Filling” frame and *to unload* belongs to the “Removing” frame and to the “Emptying” frame. Sentences (1)-(4) illustrate the four frames.

(1) The driver loaded boxes (into the truck)
(2) The driver loaded the truck (with boxes)
(3) The driver unloaded boxes (from/out of the truck)
(4) The driver unloaded the truck (of boxes)

In all sentences the main verb evokes a frame. Because the verb *to load* is used in (1) in combination with boxes, FrameNet suggests that a “Placing” frame is evoked. Sentence (3) with *to unload* expresses the opposite. In this case, the “Removing” frame is evoked. Sentences (2) and (4) are different, because both verbs are used in combination with a container as their direct object. Therefore, FrameNet claims that no “Placing” or “Removing” frame is evoked but a “Filling” frame (with *to load*) or an “Emptying” frame (with its opposite *to unload*).

These four frames, “Placing”, “Filling”, “Removing” and “Emptying”, are clearly related to each other. In the “Placing” frame FrameNet explicitly states that “This frame differs from Filling in that it focuses on the Theme rather than the effect on the Goal entity. It differs from Removing in focusing on the Goal rather than the Source of motion for the Theme.” (http://framenet.icsi.berkeley.edu/, September 2011). In other words, the “Placing” frame is locatum-oriented, whereas the “Filling” frame is location/container-oriented. The “Removing” frame is also locatum-oriented, but expresses the movement of a locatum away from something rather than a movement towards something, as is the case with the “Placing” frame.

Relations between the frames are not only explained within the frame definitions, as in “Filling”, but they are also made clear in frame-to-frame relations (cf. Ruppenhofer et al. 2010: 73ff). All four frames are subtypes of a more general, non-lexical “Transitive_action” frame. Also, the two alternating frames that
correspond to the same verb are connected: The “Placing” frame and the “Filling” frame are considered to be two different perspectives on a more general “Placing_scenario” and similarly the “Removing” frame and the “Emptying” frame are considered to be different perspectives on a “Removing_scenario”. These scenarios are claimed to be non-lexical, which means that there should be no lexical units (pairings of a word with a sense) which can evoke this scenario. In this way, FrameNet describes the relations and differences between (1) and (2) and between (3) and (4). Figure 6 presents this schematically. For technical reasons, to achieve inheritance relations between the frames correctly, the “Filling” and “Emptying” frames are considered to be based on a non-lexical “Container_focused_placing” frame and a similarly non-lexical “Container_focused_removing” frame.

There are a number of problems with this analysis. First of all, it is doubtful whether the “Placing_scenario” and “Removing_scenario” are non-lexical in English. Actually, the words to load and to unload directly correspond to these general scenarios: The fact that both verbs also occur in both perspectives on these scenarios supports this view.280 This casts doubt on the claim that there are no lexical units associated with the frame.281

280 Note that this cannot be said of the verbs to place or to remove themselves, because they always focus upon the locatum, i.e. they only belong to the “Placing” or “Removing” frame and not, as to load or to unload to the Filling or Removing frame as well.

281 In contrast to Boas’ analysis that “The alternating behaviour of […] verbs is accounted for by the different valence patterns of the two LUs associated with the verb. This means that certain non-alternating verbs that are closely related in meaning to alternating verbs are associated with only one LU evoking one of the two frames evoked by one of the two LUs associated with the verb.” (2011: 230), I thus argue that alternating verbs differ from non-alternating verbs in that the former are associated with a more general LU corresponding to the scenario. Therefore, my account is closer to Iwata’s than to Framenet’s (cf. Boas 2010:31).
Intransitive use of the alternating verbs, as in the BNC-examples (5)-(7), also shows that the scenarios should not be considered non-lexical.

(5) Soon after I came on board we finished loading.
(6) my men [...] came to my tent [...]. Next morning while we were loading,
(7) eventually she just had to pack and go to Orkney.

It is problematic to decide whether sentence (5) refers to placing things in a ship or to filling a ship. This is true of (6) as well. Rather these sentences refer to the general “Placing_scenario”. The same goes for all other verbs which allow an alternation and can be used intransitively, such as (7).

A second problem is that not all locative alternations are treated in terms of perspectivised frames. Verbs such as to spray (and to spatter, to splash, to sprinkle, to squirt) belong to the “Filling” frame on the one hand (as in Henry sprayed the wall with paint), but to the “Cause_fluidic_motion” frame on the other. As a consequence, the alternation with to spray is not conceived as two different perspectives on a single scenario, in contrast to the alternation with to load. Also, the “Filling” and the “Cause_fluidic_motion” frames are not very clearly linked to each other. They are only linked in the sense that “Cause_fluidic_motion” is seen as a specific type of “Cause_Motion”, which is also considered relevant to the “Filling” frame. Moreover, this analysis is inconsistent with the analysis of other locative alternations, since they are treated in single frames. I will come back to this below.

Most MATERIAL-PRODUCT shifts are also analysed slightly differently: Verbs allowing the material-product shift, which have already been incorporated in the FrameNet database, are often treated in two frames, with one frame using the other. A clear example is the verb to bake. This verb belongs to the “Apply_heat” frame (as in bake apples with cinnamon) and to the “Cooking_creation” frame (as in to bake an apple pie). The relation between these two frames is explained as that the “Cooking_creation” frame makes use of the “Apply_heat” frame. Also, the “Cooking_creation” frame is related to the “Intentionally_create” frame, which describes an activity by a creator with respect to a created entity and its components.

Although this distinction between the two frames does make some sense (cf. Atkins et al. 1988), it is problematic all the same. First of all, it is questionable whether to bake apples with cinnamon really belongs to the “Apply_heat” frame; it is also an act of cooking and creating dishes.

Secondly, a single verb can simultaneously refer to both frames. Similar to the locative alternations, this is the case for the intransitive use of these verbs, as in the BNC-examples (8) and (9).

(8) I haven’t been doing much baking lately
(9) Bake in the centre of the oven
In Dutch, too, a verb can simultaneously express “Apply_heat” and “Cooking_creation” in cases in which the verb is coordinated with two types of direct objects.\(^{282}\) The Dutch internet example in (10)\(^ {283}\) with *bakken* (‘to bake/to fry’) and the ANW-example (11) with *koken*, which means ‘to boil’ or ‘to cook/to prepare food’, illustrate this.

(10) Men gebruikte ook koekepannen om eieren en pannekoeken in te bakken.  
‘People also used frying pans to fry eggs and pancakes in it.’

(11) Die man moest aardappelen koken en koolraap en sudderlappen.  
‘That man had to boil/cook potatoes, kohlrabi and braising steak.’

As is the case with *to bake apples with cinnamon*, sentences (10) and (11) show that the action of applying heat, such as frying or the literal boiling action, and the preparation of food cannot be totally separated. The fact that different frames can coincide is not accounted for by the different frames in FrameNet.

A third problem for distinguishing between “Apply_heat” and “Cooking_creation” is that the generalisation that this MOC also applies to baking in the context of clay is not accounted for. Although in this case only “Apply_heat” and not “Cooking_creation” is relevant, a comparable shift between material and product is allowed, as is illustrated by the internet example (12)\(^ {284}\) and the BNC-example (13).

(12) Thousands of years ago, during the Neolithic stage of civilization, people learned how to mold and bake clay to form bricks and pottery.

(13) Many Third World people use firewood to bake bricks.

This shows that heat is only applied with a purpose, viz. to create something, be it food or bricks. In other words, the “Apply_heat” frame is directly connected with an intentional creation frame (rather than the other way around).

Apart from the fact that distinct frames for material-object and product-object are problematic, FrameNet does not treat all shifts to a product or result in this way. Many verbs of creation only belong to one frame (at least at the moment). This

\(^{282}\) For comparable examples with placing or removing verbs, cf. in chapter IV the German sentence (1) and the Dutch sentences (2) and (3).

\(^{283}\) Source: http://nl.wikibooks.7val.com/wiki/Sociale_geschiedenis_van_de_late_Middeleeuwen/Keuken [September 2011]. This example uses Dutch orthography from before 1996: Nowadays the words *koekepan* and *pannekoek* are used.

\(^{284}\) Source: http://www.britannica.com/EBchecked/topic/120654/clay [September 2011].
applies to *to spin*, which belongs to the “Processing_materials” frame and to *to braid*, which belongs to the “Rope_manipulation” frame (cf. http://framenet.icsi.berkeley.edu/, September 2011).

However, the “Rope_manipulation” frame is a perspective on a scenario (the “Knot_creation_scenario”). For some verbs, the combination with a source as a direct object or with a result as a direct object is incorporated in two different frames which belong to this scenario, in a comparable way as locative alternation with *to load / to unload*. An example for this is the verb *to tie*, which evokes either the “Knot_creation” frame, illustrated in (14), (16) and (18), or the “Rope_manipulation” frame, illustrate in (15), (17) and (19) (all taken from the BNC). These frames manifest two perspectives on the “Knot_creation_scenario”. Although the verb *to tie* corresponds to both frames, the scenario is claimed to be non-lexical.

(14) ‘Are you any good at tying knots?’ ‘[...] Just give me the rope.’
(15) Nearby was the giant oak where Buddie had tied a heavy rope,
(16) Hastily she ties a negligent knot with her hair,
(17) one of Queen Mab’s favourite amusements was to tie people’s hair in knots
(18) Your author forgot all about the steam service and has tied a knot in his tie
(19) As he finished tying the cravat into an acceptable knot he saw that ...

If the “Knot_creation_scenario” is non-lexical and the verb *to tie* evokes different frames depending on its kind of direct object, then the verb must have different meanings in (14) and (15), in (16) and (17) and in (18) and (19). These BNC-examples cast doubt on the assumption that it is really the verb, which belongs to different frames. The plausibility of the “Knot_creation_scenario” being non-lexical might also be questioned, given that it can apparently be evoked by a single verb.

Similar problems apply to the “Shooting_scenario”. This scenario connects two different perspectives, viz. the frames “Shoot_projectiles” and “Use_firearm”. The former is evoked by BNC-sentence (20), the latter by (21). The difference between the two frames is explained in the “Shoot_projectiles” frame as that “usages with the Firearm as object are out of frame, belonging to Use_firearm” (http://framenet.icsi.berkeley.edu, September 2011). Although both frames are evoked by a single verb, the scenario underlying these two frames is regarded as non-lexical.

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285 The verb *to fire off* only belongs to the “Shoot_projectiles” frame, although it also occurs in combination with firearms as its direct object (cf. BNC-examples, such as “Usually the Law ignores what we get up to down in Deptford, but firing off shotguns is something they have a duty to respond to.” or “The officers made much of us children: the Marine band played on deck and the captain fired off one of the guns, after we had been given cotton wool to stuff in our ears.”)
if he shoots enough bullets at a target, one of them will hit it

Alex Household must have said it just before he shot the gun;

The question is whether we can reasonably claim that these different frames are evoked by the verbs. The examples and the arguments above show rather that the verb only evokes the general scenario, which can therefore not be non-lexical, and this scenario can be profiled differently by the realisation of frame elements. In other words, the verb initially evokes a single frame, leading to two different perspectives upon this frame by the semantic input of the other elements.

A comparable view was presented by Iwata (2005; 2008). Using the verb *to spray* as an example, he showed that an alternating verb by itself evokes a single scene (Iwata 2005: 361). The way in which the frame elements are realised syntactically may cause a certain focus or perspective in this scene. As I explained at the beginning of this chapter, the general scene evoked by the verb is referred to as L-meaning (Lexical head level meaning), and L-meaning therefore corresponds to the lexical meaning of the verb. The meaning of the combination of verb and direct object (i.e. the meaning of the VP) is referred to as P-meaning (Phrase level meaning). Iwata’s analysis is thus very similar to FrameNet-like scenarios with perspectivised frames (cf. Iwata 2005: 370), with the only important difference that the scenario meaning is considered to be lexically evoked by the verb. The difference between L-meaning and P-meaning is in line with the view that meaning is compositional: The meaning of a VP consists of the combination of verb and direct object. Therefore, if the direct object is a created product the VP expresses a creation, and if the direct object is a container the VP expresses an action with respect to this container. Each of the individual parts keeps its meaning and in combination they determine the meaning of the phrase. Verbs and the participants in the verbal action could be considered coherent pieces of a puzzle, which in some cases simply fit together in different ways (cf. Figure 3 in chapter III, page 74): The puzzle pieces (V/N) remain the same, but they are combined in a different way (VP).

As I also discussed in chapter IV (§4.1), one should be careful not to project the semantic contribution of direct objects onto the verb (cf. also Willems 2006: 591), if this is not necessary.286

Interestingly, the view that alternations or MOCs are differently profiled sentences which belong to a single frame (which is evoked by the verb) is even in line with the treatment of other MOCs in Framenet. The “Setting fire” frame, which can be evoked by *to light*, is defined as “This frame describes either the creation of a Flame by a Kindler or the igniting of Flammables by a Kindler”

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286 Iwata explains P-meaning as L-meaning realised in a meaningful construction (cf. also Goldberg 1995). It is questionable whether the idea of a meaningful construction is really an explanation or merely a description: The metonymy account in this dissertation explains where these constructional differences come from.
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(http://framenet.icsi.berkeley.edu, September 2011). This either/or definition directly corresponds to the MOC as incorporated in dictionaries (cf. e.g. Van Dale ‘to light’) and as illustrated by BNC-examples (22)-(25) (to light a flame / fire) versus (26)-(29) (to light a boiler / candle / sticks / wood stove).

(22) if it won’t work but you can light the flame by hand, the ignition device is faulty, and again needs replacing.
(23) we used to light the fire of the boiler
(24) if you were in the scouts, maybe you can light a fire with two matches.
(25) Suzie has lit the fire
(26) Have you tried lighting that boiler then?
(27) If I light the big candle on the mantelpiece
(28) Cold. Anna in the cradle. Her grandma trying to light some sticks.
(29) Nenna made the tea and lit the wood stove.287

The “Setting_fire” frame describes the highlighting effect of MOCs exactly. Instead of the verb to light evoking two related frames, I would argue that the verb evokes a single frame. If MOC is possible, this frame describes an action with respect to two core frame elements, which are very closely related to each other. This relationship can be of different contiguity types, such as SOURCE-RESULT (as with fire and fuel or a knot and the knotted object), MATERIAL-PRODUCT (as with clay and bricks), LOCATIONS and their LOCATUMs (as with cargo and ships), OBJECTs which are in a certain STATE, etc. (cf. Figure 5 in chapter V, page 171).

Not only the “Setting_fire” is represented in this way by FrameNet, fitting my line of reasoning; some other frames in FrameNet incorporate MOCs in a similar way. For OBJECT-STATE MOCs, consider for example the treatment of to cure in FrameNet (http://framenet.icsi.berkeley.edu, September 2011). This verb belongs to the “Cure” frame and the “Recovery” frame, with the “Recovery” frame referring to the intransitive use of to cure where no “reference to the influence of any Treatment or Healer (see the Cure frame)” is made. The “Cure” frame, on the other hand, “deals with a Healer treating and curing an Affliction (the injuries, disease, or pain) of the Patient”. The MOC, which makes it possible to use both to cure a patient and to cure a disease, is thus accounted for in this single frame. Choosing either a patient or his/her disease as the direct object is a metonymical highlighting effect within the “Cure” frame (cf. Honselaar & Sweep forthcoming 2012, cf. also Honselaar & Keizer 2009).

287 Actually, this is a combination of MOC and nominal metonymy, because it is not the literal wood stove but the wood in it which is lit (cf. chapter V, §7.2).
Some locative alternations, i.e. MOCs based on LOCATUM-LOCATION, too, only occur in a single frame, for example the MOC to pluck feathers (off/from a duck) / to pluck a duck (*of feathers). In this context, the verb to pluck belongs to the “Removing” frame, but it shows some similarity with the “Grooming” frame, to which to pluck eyebrows belongs (http://framenet.icsi.berkeley.edu [September 2011]). The “Grooming” frame has as its core frame elements an ‘Agent’, a ‘Body part’ and a ‘Patient’, which in this case correspond to the ‘Theme’ and ‘Source’ in the “Removing” frame. The agent is always realised as the subject of to pluck, but the direct object can be the theme/body part (feathers) or the source/patient (a duck).

The verb to plant is also accounted for by a single frame. This verb evokes the “Planting” frame. This frame has an ‘Agent’, a ‘Theme’ and a ‘Ground’ as its core frame elements. Like the theme and the source in the case of a bird and its feathers, the theme and the ground are contiguously related. They can be seen as a single gestalt which is as such relevant in the frame. Therefore, the direct object can metonymically shift between the theme-element and the source-element, depending on which part of the gestalt involved is highlighted.

This means that, in line with some FrameNet frames, predicative metonymies based on spatial or causal gestalts can be analysed as frame-internal highlighting operations. In a single frame, one of the core elements is realised as a direct object, thereby shifting the focus in the frame. In all instances of MOC, the frame evoked by the verb includes two (or more) core frame elements (x and y), which are contiguous (cf. Figure 7 below). These two frame elements can be ‘Theme’ and ‘Goal’ (cf. e.g. to load), ‘Fluid’ and ‘Source’ (cf. e.g. to spray), ‘Body part’ and ‘Patient’ (cf. e.g. to pluck), ‘Theme’ and ‘Source’ (cf. e.g. to unload), ‘Theme’ and ‘Ground’ (cf. e.g. to plant), (with locative alternations), ‘Knot’ and ‘Rope’ (cf. e.g. to tie), ‘Flame’ and ‘Flammables’ (cf. e.g. to light), ‘Affliction’ and ‘Patient’ (cf. e.g. to cure), a ‘Created entity’ and its ‘Components’ (cf. Intentionally_create frame for verbs such as to paint, to mold and probably to bake), etc.

Figure 7 is a schematic illustration of an MOC-licensing frame, with the gestalt character of the two core elements indicated by the dashed oval. If the contiguity relation is strong enough and relevant in the frame, different core elements can be highlighted, resulting in an MOC.

This frame-based analysis shows how verb and object can keep their literal meaning. While the combination of verb and object is metonymically changed, it makes clear how the metonymical highlighting effect operates and it shows the parallel between various kinds of MOCs. Although only causal and spatial MOCs have been
accounted for thus far, the next section will show that logical metonymies can be analysed on the basis of a comparable frame-internal highlighting operation.

4. Logical metonymy: MOCs based on EVENT-PARTICIPANT

In the following section I will discuss a specific type of MOC, which shifts between a concrete entity and an event in which this entity is involved. These metonymical shifts are also referred to as instances of logical metonymy (cf. also chapter III, §5.2; chapter V, §7.4; and chapter VII). I will demonstrate that logical metonymy can be analysed in a way comparable to non-eventive shifts, i.e. as a highlighting effect in a conceptual structure or frame evoked by the verb. As we will see, logical metonymy is based on an eventive gestalt and is therefore different from other MOCs in that the event which is involved as a frame element makes the conceptual structure more complex.

Sentences (30)-(32) illustrate MOCs that are based on eventive gestalts.

(30) The novelist began writing (the book) / the book
(31) The student of literature finished reading (the book) / the book
(32) The gastronome enjoyed eating (the steak) / the steak

As illustrated by examples (30) and (32), a concrete object such as book is connected with (at least) two different types of default activities, i.e. reading and writing. According to Pustejovsky, these activities correspond to the telic and agentive roles of the qualia structure of book. Pustejovsky claims that, on the basis of the qualia structure, the word book is changed (i.e. coerced) into an activity (cf. chapter VII, § 1).

Examples (30)-(32) show that the nouns used as subjects may determine different default interpretations: For the novelist in (30) writing will be the default interpretation of an activity involving a book, whereas students of literature usually read rather than write books (cf. Egg 2003: 168). Pustejovsky, who tries to incorporate all necessary world knowledge into the semantics of a word, does not fully take account of the role that knowledge about words besides verb and object may play.

Known properties about participants involved may even evoke totally different interpretations. The next two sentences, taken from Lascarides and Copestake (1998), can be used to illustrate how contexts can block a default interpretation.

(33) John began the book.
(34) Mary enjoyed the book that John gave her.
Suppose that (33) is uttered in a situation in which we know that John is a hungry goat who has escaped and run into the library. The activity will not be interpreted as reading or writing: Rather we will understand that the goat has probably started eating the book. Similarly, if in (34) the book that John gave Mary is made of marzipan, the interpretation of (34) will be that Mary enjoyed eating this particular kind of candy (Lascarides & Copestake 1998: 392). Interpretations on the basis of qualia structures can thus be overruled by knowledge of context and situation. As a consequence, interpretations cannot be explained solely in terms of qualia structure. For a better account of the metonymy involved, a more flexible procedure will therefore be needed. I will come back to this in section 4.4. Examples such as (30)-(34) show that context plays an important role in interpreting logically metonymical sentences. This is considered to be a problem for many analyses of logical metonymy.

Secondly, the problem of whether the verb or the noun should be considered metonymical was discussed in chapter III (§5.2). Both positions have disadvantages, but most scholars claim that one of the two must be correct. I have challenged this view: Logical metonymy could be analysed as a shift primarily occurring at VP-level and not at the level of the verb (V) or the noun (NP) (cf. Iwata 2005).

Without using the puzzle-metaphor from chapter III (cf. Figure 3 above), I will show in this chapter with the help of a frame-semantic approach how this works. I will offer a general explanation for various examples of logical metonymy, without denying the semantic differences between them. For this purpose, conceptual structures on the basis of the frames developed by FrameNet (http://framenet.icsi.berkeley.edu/) will be used. Although FrameNet is entirely based on English data, the same mechanism operates in Dutch and German. The account set out in the following subsections will give a more precise and insightful analysis of the metonymy involved and will provide a solution to the two issues raised above.

There is a third problem when we look at occurrences of logical metonymies in actual language use. The previous chapter showed that the actual use of logical metonymies is limited and, more importantly, that it depends on the specific verb which concrete objects are frequently used. In previous studies, these differences between verbs have mostly been disregarded; verbs which can be combined with an event and a concrete object (the patient of the event) are all classified as logical metonymy, without any distinctions among them being analysed. These and further problems that have arisen in connection with logical metonymy will be discussed in the next section on the basis of real linguistic data.

288 Or one should, for the interpretation of (33), assume that qualia structures themselves are context-sensitive and that, in the context of a goat, for example, book has a different qualia structure (a different telic role) than in the context of a human agent (as suggested to me by Wim Honselaar). A problem with this solution is that qualia structures are considered to be lexical representations of nouns, and lexical representations must be context-independent.
4.1 Logical metonymy: A gradual notion?

Verbs that allow logical metonymy can be divided into three different groups (cf. chapter V, §7.4). First of all, many of these verbs have an aspectual meaning. They can also be referred to as eventive verbs (Verspoor 1997a) or phase verbs (Honselaar 1980). English examples are *begin*, *complete*, *continue*, *finish*, *postpone* and *start*. Secondly, logical metonymy occurs with evaluative or emotive verbs. These verbs give information about an agent’s feelings or emotions about an event. This groups can be exemplified by *choose*, *desire*, *endure*, *enjoy*, *expect*, *fear*, *prefer*, *regret*, *savour* and *want*. A third group of verbs expresses a combination of aspectual and evaluative information, as can be illustrated by *attempt*, *master*, *miss*, *resist*, *survive* and *try*. This class of verbs can be called eventive-evaluative.

Verspoor’s study on the semantics of verbs allowing logical metonymy only discusses two verbs from the eventive group, i.e. *begin* and *finish*, and one emotive-evaluative verb, i.e. *enjoy*. Her corpus study only covered the verbs *begin* and *finish*, but she did notice differences between *begin* and *finish* and also between these verbs and *enjoy* (1997a: 187, 191-192). As I noted in the previous chapter, a corpus analysis of the Dutch and German equivalents of *begin*, *finish* and *enjoy* also revealed differences about the types of concrete objects allowed by the aspectual verbs and the evaluative-emotive verb. *Enjoy* appears with a much broader range of objects and interpretations.

Since combinations of concrete objects with verbs from the three different groups are regarded as metonymical, it is assumed that, from a semantic point of view, all verbs require an eventive direct object. Differences between the verbs indicate that, in all likelihood, not all metonymical combinations of verbs and nouns denoting concrete objects are the same. There has, however, never been any analysis of what kind of events these verbs require, and consequently whether they all have logically metonymical complements in the same way. I will demonstrate that in fact they do not, although the underlying metonymical mechanism will turn out to be the same.

The BNC provides examples of *enjoy* with concrete direct objects, which cannot occur with *begin* or *finish*. Examples are *to enjoy the sun* (fifteen examples in the BNC) or *to enjoy (grand)children* (five out of seventeen relevant examples in the BNC are used metonymically). As I also noted in the previous chapter, these sentences do not appear to be interpreted on the basis of an agentive or telic role of the NP. In general, it is rather difficult to make the enjoyed event explicit in these examples. What is enjoyed is simply some experience with the children, such as just having them, the time spent with them, or seeing what they do. Similarly, *to enjoy the sun* means to be exposed to the sun in some particular way, such as seeing it, feeling it, sunbathing or walking in the sun. It poses no problem in the interpretation of the sentence that the way in which someone enjoys the sun is left unspecified.

An unspecific or very general interpretation can also be illustrated by the BNC-example in (35).

(35) When we finish our house in Sussex, ...
If we finish a house, we may finish building it, arranging the furniture, painting it or doing (and finishing) all these activities. In (35) there does not even seem to be any need to interpret a particular activity. Examples like (35) pose a problem for any coercion of the direct object on the basis of its qualia structure: Apparently, it is not necessary to change the noun into an event. It is even possible to understand the sentence without thinking of some specific event: The event can be left vague (‘finish creating the house’) or the object noun may refer to several events at the same time (‘finish building and painting the house and arranging the furniture in it’). It is, however, unclear how this unspecific, vague event should be derived from the qualia structure of the noun alone.

Corpus examples also reveal other problems with the relation between verb, concrete object and implicit event. Consider the BNC-examples (36) and (37).

(36) I want a car
(37) I want a car, a nice home, a working wife, a child, and to go on holiday.

If you want a car, this does not necessarily mean that you want to drive it, but rather it means that you want to obtain a car (i.e. buy or get it) and become its owner (the possessor). However, the same goes for a nice home, a working wife and a child, as in (37). Thus, it again remains unclear how the intended interpretation can be inferred. If all kinds of NPs in combination with want are similarly interpreted as ‘to become the possessor of/get the NP’, then the shifted interpretation cannot come from the qualia structure of the noun alone. It is even open to discussion to what extent these examples are metonymical. Given that in all these cases the same shift appears independently of the kind of noun, it is questionable whether it is the noun itself that is metonymically associated with the interpreted event.

The same goes for other verbs, such as choose. In previous analyses it is stated that sentences with choose/want and a concrete object are interpreted on the basis of the agentive or telic role (cf. among others Pustejovsky 1995: 45-46; Ruiz de Mendoza & Pérez 2001: 342). This may be true in some cases, but definitely not in all of them. Sentences such as I want a beer or I choose a beer do indeed seem to imply that someone is going to drink the beer, but sentences such as I want a book or I choose this book do not have to mean that I will read (or alternatively write) the book. According to my intuition, this simply means that the speaker wants to obtain the book, thereby becoming the possessor of the book. It is quite possible to want a book without wanting to read it. I will come back to this at the end of subsection 4.3.

The same shift may even occur when the verb is already combined with direct object noun indicating an event, as in (38).

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289 This description is meant to refer to a single concept which cannot be very well expressed by a single lexeme.
290 This does not have to be the person who ordered the beer, since I can also order a beer for someone else.
He just wanted a quiet, restful life. Wanting a quiet, restful life means wanting to have a quiet, restful life. This sentence therefore shows that it cannot, at least in this case, be the missing event that induces a metonymical interpretation.

**Event-event** shifts also occur with verbs that do not have one general shift for all concrete objects. An example is *enjoy the lecture* (however, cf. footnote 292). Although *lecture* can be an event, this direct object is sometimes treated as logically metonymical, since it can mean *enjoy attending the lecture or enjoy giving the lecture* (cf. Lapata & Lascarides 2003: 274). In such cases it is not possible for the shift to be induced by a missing event. We may therefore question whether a logical shift, the fact that a concrete object is shifted into an event, is of any importance.

We might conclude that logical metonymy is not merely a type shift, but a type shift which is visible in the syntax as a VP-NP shift. This applies to *enjoy (reading) a book* as well as to *enjoy (giving) a lecture*. However, such a definition does not work for Dutch and German, because gerunds do not exist in Dutch and German. Whereas in English as well as in Dutch and German a VP-clause can be expressed by an infinitive phrase, Dutch and German have to use a noun derived from a verb, i.e. a nominalisation of the verb, instead of a gerund.291

The only crucial requirement for logical metonymy that seems to apply in English as well as in Dutch and German, is the fact that some event is metonymically inferred. This metonymical inference can be made on the basis of a concrete or an eventive noun. Since metonymy is generally seen as a conceptual device that establishes links between linguistic units on the basis of a real world relationship (a contiguity relation) between the underlying concepts (cf. Barcelona 2000; Panther & Radden 1999), the question of whether this metonymically inferred event can be made explicit by an NP derived from a verb or by a VP is not of any real importance.

On the basis of examples discussed in this section, three important observations can be made. Although the issues presented in this subsection are exemplified by English data (taken from the British National Corpus), exactly the same issues apply to their Dutch and German equivalents.

In the first place, the examples discussed above and the different classes of verbs show that the verbs do not form a homogeneous group. In all corpus studies on logical metonymy “lexical differences” between verbs “were noticed” (Rüd & Zarcone 2011: 22; cf. also Briscoe et al. 1990; Verspoor 1997; see also Horacek 1996). This was also observed in the previous chapter and is in line with the discussion above. Verbs seem to vary in the type of event that needs to be interpreted. Sometimes the associated event can easily be made explicit, as is the

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291 It is verb-dependent whether verbs are combined with infinitive clauses or verbal nominalisations. In English for instance, *enjoy and finish* can only be combined with gerunds, whereas *begin* can have gerunds as well as an infinitival clause as its head (cf. Egg 2003: 163). In Dutch and German *beëindigen* and *beenden* and *genieten van* and *genießen* require verbal nominalisations, whereas *beginnen* and *anfangen* are combined with infinitives.
case for most examples of aspectual verbs or verbs of the eventive-evaluative class (the third group of verbs). For other verbs it may be difficult to make explicitly clear which event is actually intended. Examples of this type are some emotive-evaluative verbs, such as enjoy or fear. We know that the subject experiences the object in one way or another. Sometimes it is easy to make this experience or exposure explicit (an experience with a book by default means reading it), but in other cases, as in the examples with the sun or children, it is difficult to choose exactly which of the various possible experiences is intended (as with to enjoy the sun) or to describe exactly what experience is meant (as with to enjoy the children).

Some verbs even evoke one and the same specific activity, independently of the kind of direct object. The verb to want illustrates this, since for both non-eventive and eventive direct objects the missing activity is generally interpreted as to get/obtain something. But even if a verb allows many different interpretations of the implicit event, EVENT-EVENT shifts sometimes also occur, as with to enjoy the lecture. Consequently, as a second conclusion, a correct analysis of logical metonymy should also be able to account for EVENT-EVENT shifts.

A third important observation is that all examples discussed above show that interpreting logically metonymical sentences is not a rigid operation. Although verbs of the aspectual group, for example, clearly need to be combined with an event, even for this group it is not always necessary for our understanding of the sentence to interpret this event in a very specific way, as is demonstrated by example (35).

If all verbs and various types of examples are subject to logical metonymy, it should be explained why this is so. In other words, it should be explained to what extent these verbs really require an event as a complement, and in what way metonymy is actually involved.

4.2 Explaining the metonymy in examples of ‘logical metonymy’

Apart from the lack of an analysis of the differences between the verbs that are claimed to appear in logically metonymical combinations, it is remarkable that authors do not explain why they refer to these cases as examples of metonymy. Sometimes scholars say that in examples of logical metonymy “one phrase is used in place of another” (Verspoor 1997a: 166). This is, however, a rather poor definition of metonymy. Also, although Pustejovsky tries to explain where the conceptual link between noun and verb comes from (from qualia structure), he offers hardly any explanation as to why this should be called metonymy, nor does he define what metonymy actually is. This is in sharp contrast to the debate in cognitive linguistics about how to define metonymy (cf. e.g. Barcelona 2000; Panther et al. 2009; Panther & Radden 1999, Peirsman & Geeraerts 2006; Benczes et al. 2011).

292 Given that one does agree with this claim of Lapata and Lascarides (2003: 274). It is probably more plausible to assume that a lecture could refer to some abstract content, which makes the metonymical interpretation CONTENT-EVENT INVOLVING THE CONTENT (Moerdijk p.c.).
In this section, I will show how insights into metonymy from cognitive linguistics (cf. chapters II and III) can help to make clear why logical metonymy can be seen as a type of metonymy. Using frames as they are developed by FrameNet (http://framenet.icsi.berkeley.edu), I will show that logical metonymy can, from an onomasiological point of view, be analysed as a highlighting effect in a conceptual structure. As we will see, the conceptual frames are linguistically represented in different ways by expressing different core elements. Each shift in the linguistic expression causes the semasiological highlighting, i.e. an interpretation of the verb-object combination which is enriched with a connected activity. This analysis is comparable to the analysis offered for non-eventive MOCs.

In order to account for logical metonymy, it should first be analysed which frames are involved in non-metonymical sentences, such as (39).

(39) Mary began to read / reading.

As we saw in section 3, FrameNet analyses sentences as the evocation of a frame by the main verb with the frame elements realised as verbal arguments and adjuncts (Ruppenhofer et al. 2006: 5-6 / 2010: 5-6). In (39) the main verb began is a lexical unit (LU) that evokes the so-called “Activity_start” frame. Two core frame elements are included in this frame: An ‘Agent’ and an ‘Activity’ (cf. http://framenet.icsi.berkeley.edu, September 2011). In (39) both frame elements are realised: Mary is the agent of the activity reading/to read, which is started.

However, the lexical unit which expresses the specific ‘Activity’, e.g. reading, in its turn evokes its own frame. In example (39), the verb read evokes a “Reading” frame with a ‘Reader’ and a ‘Text’ as its core frame elements. In (39) therefore the “Reading” frame is embedded within the “Activity_start” frame.

These multi-layered conceptual structures can explain the interpretative process involved in (40) (the metonymical counterpart of (39)).

(40) Mary began the book

Again the verb begin evokes the knowledge structure of starting an activity. The core frame elements of this structure are an ‘Agent’ and an ‘Activity’. The ‘Agent’ is obvious: It is realised as Mary. The ‘Activity’ is missing; instead some element of the frame corresponding to the intended ‘Activity’ can be found: The object that plays a key role in it. Since we understand that not the ‘Activity’ itself is expressed, but that only a core frame element of the embedded frame is highlighted in the sentence, we know how to interpret this sentence. The semantics of begin a book is metonymically enriched (cf. Jackendoff 1997: 47ff), because book is the lexical unit that corresponds to the core frame element ‘Text’ of the “Reading” (and “Writing”) frames, which are possible activities to infer with the begin-frame.
The meanings conveyed by (39) and (40) are represented in Figure 8.

Figure 8: The conceptual structure for Mary began reading / the book

Figure 8 is a graphic representation of what is described in the previous sections. The lexical unit begin in (39) and (40) belongs to, and therefore evokes, an “Activity_start” frame. This conceptual structure has two core frame elements, an ‘Agent’ and an ‘Activity’. In both sentences the ‘Agent’ is expressed by the lexical unit Mary. Sentences (39) and (40) differ with respect to the explicitness of the core frame element ‘Activity’. The square brackets are used in Figure 8 to indicate this difference. In (39) the second core frame element of the “Activity_start” frame is made explicit as reading. This lexical unit evokes its own conceptual structure. Given the combined frames, the same meaning can be expressed in a different way, as in (40). In this case the required ‘Activity’ is expressed metonymically: Only a core frame element of the conceptual structure corresponding to the intended ‘Activity’ (i.e. reading) is highlighted, while the ‘Activity’ itself is left implicit. Since we know that we need to interpret an event, and that book is a ‘Text’, we understand that book can be the expression of the second core frame element of the “Reading” frame. In this way we understand by default that Mary began to read.294

293 Of course, the meaning represented in Figure 8 only applies to (40) under the assumption that a reading and not a writing-activity or other event is intended by the sentence.

294 Or ‘to write’, since ‘Text’ is also a core frame element of the “Text_creation” frame, to which write belongs (http://framenet.icsi.berkeley.edu/index.php?option=com_wrapper &Itemid=118&frame=Text_creation& [September 2011]). Pragmatics and context make it possible to choose the correct option, which I will explain below.
It is important to note that FrameNet itself gives a different analysis of how to account for “Pustejovskian coercions” within frames (Ruppenhofer et al. 2006: 12-13, cf. 2010: 10). The examples used to illustrate the analysis are want to win and want an orange. Because a frame element should be in a constant relationship with the verb, each frame element must be of a specific type. The phrases want to win and want an orange both belong to the “Desiring” frame, but to win has a different relation to want than an orange because they belong to different types. They are therefore different frame elements, which must, according to FrameNet, all be incorporated in the “Desiring” frame. As a consequence, the “Desiring” frame has three core frame elements: An ‘Experiencer’, an ‘Event’ and a ‘Focal_participant’. The direct object of to want an orange is explained as the realisation of the ‘Focal_participant’ of the “Desiring” frame.

There are a number of drawbacks to this explanation. In the first place FrameNet does not use the notion ‘Focal_participant’ consistently in its databank on the internet. Among the frames developed for the twenty-two English verbs that may combine with logically metonymical direct objects (cf. http://framenet.icsi.berkeley.edu/, September 2011), there are only two frames with a ‘Focal_participant’ as a frame element. Even in the case of the prototypical aspectual verbs to begin or to finish, nothing is said about the realisation of a ‘Focal_participant’.

Secondly, other cases of metonymy, such as I am reading Goethe, are never explained with the help of a ‘Focal_participant’ (cf. e.g. the “Reading” frame). These classical metonymies, however, behave in a comparable way: A verb such as to read, for instance, can be combined with different types of direct object nouns, such as books or authors used metonymically. The phrase to read Goethe is not the realisation of the ‘Text’ frame element of the “Reading” frame, but instead the ‘Author’ frame element of the “Text” frame is explicitly highlighted (i.e. used in the sentence) and as a result the interpretation of Goethe is metonymically shifted.

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295 Also, in other frames it is not considered to be a problem that the direct object can differ in its grammatical form. In the “Expectation” frame it is claimed that the core frame element Phenomenon “can be expressed as [...] an NP Object, or a VP Complement with or without an NP Object” (http://framenet.icsi.berkeley.edu [September 2011]). This observation also applies to want to (eat) an orange.
298 The latter is different in the case of MOC. With nominal metonymies, the word referring to the author is used instead of the text-element. It is, in Waltereit’s terms, inserted for the text-
The approach taken in this study does not have these drawbacks. Since it allows combinations of conceptual structures, the ‘Focal_participant’ is already present in the main conceptual structure, because it is a direct frame element of the embedded ‘Activity structure’.

To summarise, the frame-semantic analysis developed in this section provides an explanation for the metonymy in logically metonymical sentences such as (40). Because part of a conceptual structure is explicitly highlighted, the direct object metonymically gives mental access to an event that is needed for the interpretation of the sentence, but that is not made explicit. It also makes clear which ‘focal participants’ can be metonymically selected: Only core frame elements of the frame (evoked by the particular activity that was started) can appear metonymically, signifying the embedded frame as a whole. This embedded frame represents the eventive gestalt that is involved, parts of which can be highlighted metonymically. In addition, the explanation presented in this section solves some of the problems discussed earlier. I will return to them in section 4.4. In the next section I will first show how the above analysis presented in this chapter can be applied to different verbs that appear with logically metonymical direct objects.

4.3 Accounting for the continuum of logical metonymies

In the previous section, conceptual structures were used to explain what metonymy does in logical metonymy. I used FrameNet as a basis for these conceptual structures, although the argumentation itself differed from FrameNet (Ruppenhofer et al. 2006: 12-13 / 2010: 10), because I assume that conceptual structures (CSs) can be combined. The combination of CSs is reflected in sentences such as (39), in which the Reading CS is incorporated in the main Activity_start CS. The combination of CSs allows us to explain the use of a concrete direct object noun in (40) without stipulating further frame element (such as a ‘focal participant’) in the main CS (the frame evoked by the main verb). Instead, the concrete object is considered to be a highlighted core element of the activity CS.

This fits seamlessly with the definition of metonymy. Because metonymy is involved, semantic traits that do not constitute the literal meaning of a verb-object combination are shifted or enriched (i.e. highlighted in a semasiological sense), when the object is combined with a verb that needs to be interpreted with some event. The shift in interpretation follows, however, from the fact that, from an onomasiological point of view, some element (the concept denoted by the concrete direct object) of the interpreted event is explicitly given more importance (i.e.

\footnote{Because FrameNet does not use embedding in this sense I will avoid using the term \textit{frame} and will simply call them \textit{conceptual structures} or \textit{CSs} (with their names in normal font starting with a capital and elements between single quotes). I will only use the term \textit{frame} when I am referring directly to the conceptual structures that FrameNet have defined on their website (http://framenet.icsi.berkeley.edu/).}
explicitly highlighted) in the sentence. This theoretical explanation of metonymy as a complex highlighting operation is an exact description of what we intuitively feel is happening: Instead of expressing the whole event, only a crucial element of the event is highlighted, and this causes the expression which is used to be interpreted slightly differently.

All verbs of the aspectual group behave in a straightforward way. They all take an ‘Agent’ and an ‘Activity’ as their core frame elements, independently of whether the “Activity_start” frame (begin, start), the “Activity_ongoing” frame (continue), the “Activity_finish” frame (finish, complete) or the “Change_event_time” frame (postpone) is evoked. In all examples, the expression of the ‘Activity’ evokes a more specific CS. As well as expressing this CS right away (as in (39)), it is possible to highlight one of its core elements (as in (40)). On the basis of the core element of a combined CS we can understand which CS is referred to. This observation applies to all combinations of all relevant aspectual verbs with a concrete noun, as in the BNC-examples (41)-(48).

(41) I’ve begun a novel!!!
(42) Charlotte began a new book -- Emma, she called it.
(43) And, after he completed his report in about three months’ time, it would be published, she said.
(44) In fact, now you’ve rummled me, may I, would you mind if I postponed the coffee just a few moments more?
(45) We finished our coffee
(46) Mariana had finished the soup. She lowered the mug under her own volition and he took it from her.
(47) Ben the actor appeared beside them and started his piece,
(48) Mr. and Mrs. Harvey, the master and matron, were both away on sick leave in the early months of 1900, and the Board received a letter from their general practitioner, Mr. C. G. Johnson, to say that they were making good progress and that he recommended continuing the champagne which had contributed to their recovery. The clerk was instructed to inform Mr. Johnson however that the guardians ‘did not see their way to continuing supplying champagne’.

A core element of the CS is highlighted in each of these sentences (the text, the drink, the food, the play, the drink/medicine), instead of fully expressing the intended event structures (writing, drinking, eating, playing, drinking/taking). All

\[\text{300 In this structure FrameNet speaks about an ‘Agent/Cause’ and an ‘Event’. The type shift between a concrete object and an event does of course remain the same and the event also embeds another frame.}\]
these sentences can thus be represented schematically as in Figure 8, each verb with slightly different main structures and with the appropriate details of the embedded activity structures added. Figure 9 illustrates this.

In fact, all verbs that can be combined with logically metonymical direct objects can be accounted for by Figure 9 appropriately modified. Although each verb belongs to a different main CS, each of them needs to combine with an event. All of them must therefore have an eventive second core element, irrespective of the exact details of their main CS. In the rest of this section, I will show how the other verbs from the emotive-evaluative and the intermediate group can be explained in a comparable way.

The two frames with a ‘Focal_participant’, the “Desiring” and “Preference” frames, are evoked by the verbs desire and prefer, both belonging to the emotive-evaluative group. These two frames are very similar to the frames for the aspectual verbs, since their second core frame element is an ‘Event’. The only difference is that instead of an ‘Agent’ they take an ‘Experiencer’ as their first core frame element. As I explained in 4.2, the third frame element ‘Focal_participant’ is redundant, because it is automatically incorporated in the embedded frame evoked by the ‘Event’.

Not all frames evoked by the verbs belonging to the emotive-evaluative group have such a ‘Focal_participant’. The “Desiring”, “Preference” and “Tolerating” frames, which are closely related to the “Experiencer_focus” frame, do not contain a

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301 This frame has not been described in Sweep 2010a, because at that time the frame did not exist yet.
The “Experiencer_focus” frame is by far the most dominant frame among the evaluative-emotive set of verbs: enjoy, fear, regret and savour belong to this frame. Since the “Desiring” and “Preference” frames, which have an ‘Event’ as a core frame element, are so closely related to the “Experiencer_focus” frame, one would expect that the “Experiencer_focus” frame also has an ‘Event’ as one of its core frame elements.

The “Experiencer_focus” frame is defined as describing “Experiencer’s emotions with respect to some Content” and this Content may “refer to an actual, current state of affairs” and “quite often it refers to a general situation” (http://framenet.icsi.berkeley.edu, September 2011). We may therefore conclude that the ‘Content’ must be some kind of event. This reflects our intuition that some sort of activity is needed for the correct interpretation of these evaluative or emotive verbs. However, apart from the eventive ‘Content’ another separate core frame element of this frame is an ‘Event’. The fact that the “Experiencer_focus” frame contains this additional eventive core frame element is problematic, because it seems possible that the ‘Event’ (“the occasion or happening that Experiencers in a certain emotional state participate in”) coincides with the ‘Content’ (“what the Experiencer’s feelings or experiences are directed towards or based upon”), exactly as stated in the above definition of ‘Content’. It is thus doubtful whether these frames really include these two different frame elements.

It seems to me that we are only dealing with one core frame element of an eventive type, which causes the ‘Experiencer’s emotional state. In order to avoid confusion as to whether the ‘Content’ is an event or whether some ‘Event’ includes some ‘Content’, I will use the term ‘experience’ for this second eventive core element. Intuitively, this core element seems to be interpreted as an experience. It also fits the descriptions of both ‘Content’ and ‘Event’. The “actual, current state of affairs” or “general situation” that “Experiencers in a certain emotional state participate in” and “which causes the emotion” (http://framenet.icsi.berkeley.edu, September 2011) is the experiencer’s experience. The CS Experiencer_focus can therefore be redefined as: ‘an ‘experiencer’ is brought into a certain state by some ‘experience’. The CS can be schematically represented as Figure 10.

\[302\] The “Tolerating” frame ‘uses’ the “Experiencer_focus” frame and the “Preference” frame ‘inherits from’ the “Desiring” frame which ‘uses’ and ‘inherits from’ the “Experiencer_focus” frame (September 2011). This means that the “Tolerating” frame presupposes the “Experiencer_focus” frame and that the “Preference” frame is a subtype of the “Desiring” frame and the latter presupposes and is a subtype of the “Experiencer_focus” frame (Ruppenhofer et al. 2006: 8, 104ff, 110 / 2010: 7, 73ff, 78).

\[303\] As said before, FrameNet is an ongoing project and in the time between the first and final version of this chapter the frame for enjoy has been updated by FrameNet: The verb enjoy is said to belong not only to the “Experiencer_focus” (previously labelled “Experiencer_subj”) frame, but also to the “Emotions_of_mental_activity” frame. The core frame elements of the latter frame are an ‘Experience’ and a ‘Stimulus’. I do not really understand why this verb belongs to two different frames. Furthermore, I would suggest that something like a ‘Stimulus’ is already incorporated in my conceptual structure for enjoy, since it could be considered a core element of the embedded ‘experience’ CS (cf. below).
The ‘experience’ can be made explicit by inserting a lexical unit. In that case, the ‘experience’ evokes a new CS, as happened in all the cases discussed above (cf. Figure 9). In the same way as *Mary began reading* combines the Reading CS within the Activity_start CS (cf. Figure 8), a sentence such as *Mary enjoys eating* embeds the Eating CS within the Experiencer_focus CS (Figure 10). In the case of logical metonymy of *Mary enjoys the sandwich*, the ‘experience’ itself is not expressed, but one of its core elements is highlighted instead. It is easy for us to understand the metonymical object, since we interpret enjoying the sandwich as enjoying some experience with a sandwich, such as enjoying its taste or, more generally, eating it. The metonymical link between *sandwich* and *eating* is therefore established by the fact that a sandwich is a kind of food and ‘food’ is a core element of the Eating CS. We can interpret the metonymy correctly thanks to our understanding of the metonymical link and due to the fact that we know that eating is a particular ‘experience’ of the type we were looking for.
Although this example can be analysed in the same way as examples with aspectual verbs, such as begin, the second core element of enjoy is not just any possible activity. The event required by enjoy has already been specified as an ‘experience’. In the case of a concrete direct object one therefore has to search for a more specific event than simply an activity. This explains why begin a sandwich requires an actual event to be started (namely eating or preparing the sandwich), whereas to enjoy the sandwich seems to mean something like to enjoy experiencing the sandwich (eating or tasting it rather than preparing it). This intuition is reflected in language data, because it is often difficult to make the exact experience explicit, as is shown by examples like to enjoy the sun or to enjoy your children (cf. section 3), and also because the telic role is much more important than is the case in examples with begin or finish (cf. chapter VII).

An analysis based on conceptual structures is therefore more specific and more flexible at the same time. Since we know that some ‘experience’ is conveyed by enjoy, we do not need the sentence to be more explicit or specific. It is only possible to make the experience explicit, if what is experienced is the core element of a specific experience CS, such as different types of food that are core elements of the Eating CS (Ingestion frame).

The relevant CS of the emotive-evaluative verb expect also requires some kind of event. The verb belongs to the “Expectation” frame with the core frame elements ‘Cognizer’ and ‘Phenomenon’. The ‘Phenomenon’ is defined as “what the Cognizer believes will happen in the future” (http://framenet.icsi.berkeley.edu, September 2011). It is therefore not as specific as the event in the case of the “Experiencer_focus” verbs, but more specific than just any event, since it is something that will probably happen in the future. This future event evokes its own CS, which is incorporated in the main CS, and in the case of (logical) metonymy it is not the ‘Phenomenon’ itself which has been made explicit, but only some core element in the CS. An example is expect a reply (cf. Lapata & Lascarides 2003) which means ‘expect to get a reply or answer’. 

The eventive core element of the verbs in the intermediate class is similarly a type of event that is less specific than the ‘Event’ frame element of the “Experiencer_focus” frame, but more specific than the eventive core element of the aspectual class. The verb survive, for instance, belongs to the “Surviving” frame, which consists of the frame elements ‘Survivor’ and ‘Dangerous_situation’. Again, instance of logical metonymy can be analysed in the same way. It is possible to leave the ‘Dangerous_situation’ implicit and highlight only one of its elements. This option gives us metonymical sentences in which only a core element in a CS is

304 According to FrameNet, a third core frame element of the “Expectation” frame is ‘Topic’, defined as “An entity that serves as the focus of a predicted Phenomenon” (http://framenet.icsi.berkeley.edu/index.php?option=com_wrapper&Itemid=118&frame=Expectation& [September 2011]). Since I am assuming that an event like ‘Phenomenon’ evokes its own frame, the ‘Topic’ is automatically incorporated into the main CS via the embedded CS, and we do not need to add it as a core element of the main structure (just as was the case with the ‘Focal_participant’).
highlighted. Since we know that to survive involves some ‘Dangerous_situation’, we have no trouble interpreting these concrete direct objects. BNC-examples (49) and (50) illustrate logical metonymy with survive.

(49) Another child, who survived the bug, was found to be carrying it on July 15.
(50) In order to survive the jungle and live to tell the tale it is important not only to have good companions, but also to have the best available equipment.

The dangerous events that must be survived are infection by some bug in a hospital and travelling through or living in the jungle, but only some part of these situations are highlighted, viz. in (49) the ‘Cause’ of the “Medical_conditions” frame and in (50) the ‘Area’ of the “Travel” frame or the ‘Location’ of the “Residence” frame. We are able to understand these sentences, because we know that bacteria may cause diseases and that the jungle is an area or location. In other words, we know that they can be the lexical units corresponding to the core elements of these CSs.

The verbs attempt and try in the intermediate group both belong to the “Attempt” frame, with the core frame elements ‘Agent’ and ‘Goal’. This ‘goal’ is also some kind of event; it is defined as “what the Agent attempts to achieve” (http://framenet.icsi.berkeley.edu, September 2011). If in a sentence the ‘Goal’ is left implicit, we can still understand it correctly, since we know that we have to interpret an event that is intended as a final ‘Goal’. We therefore understand that if someone tries the door, s/he tries to open it, if someone tries the sandwich, s/he tastes it and if someone attempts a summit or a difficult question, s/he actually attempts to reach this summit or answer the difficult question.

Various verbs that are said to appear with logically metonymical direct objects therefore form a single class in the sense that in each case some kind of event needs to be interpreted, and this event evokes its own CS. In the case of metonymy, core elements of the embedded structure are highlighted, and this causes the highlighted elements to be interpreted on the basis of something more than their literal meaning. This explanation does not deny the existence of a continuum of cases. On the contrary, since verbs vary in the specificity of the event that they require (their

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305 Sentence (50) again shows that the noun does not have to be coerced into a specific event. In order to understand the sentence, it is not necessary to decide which of the two events (i.e. ‘travelling through’ or ‘live in’) should be interpreted. It is even possible that they are both intended.

306 As for resist and miss, no frames have yet been developed in FrameNet for the relevant meanings: The verb resist only belongs to the “Repel” frame, miss to the “Succession_or_failure” and the “Hit_or_miss” frames, and master to the “Teaching_education” frame.

307 There are numerous examples of this, on the internet as well as in the BNC (e.g. “She tried the door”; “Rickie would not even try a sandwich”; “Carlos told her he would wait at Camp IV while she attempted the summit”; or “... that teachers will be advising ‘average’ pupils not to attempt the difficult questions”).
second core element), the continuum is accounted for. The requirement for an event is stronger in to begin a book than in to enjoy a book, since the former requires some activity in general, whereas the latter needs to be combined with an experience. Because the telic activity refers to the activity the object has been made for, this is often the way in which we experience the object.

We reach the boundaries of the continuum of logical metonymy at the point where an event is no longer required; the point, in other words, at which the frame no longer contains an eventive core element. An example is the emotive-evaluative verb choose in the “Choosing” frame. The second core frame element ‘Chosen’ may, but does not necessarily have to be, an event. It can be “either an item or a course of action”, that is, it “identifies the entity or the course of action which is selected” (http://framenet.icsi.berkeley.edu, September 2011). Choose therefore belongs to the periphery of verbs that can appear in logically metonymical verb-direct object combinations. This again reflects our intuition perfectly. Choosing something can simply mean selecting an object without having to infer any additional event in order to make the interpretation of the assertion complete.

4.4 Conclusions on MOCs of the type EVENT-OBJECT INVOLVED

There are two assumptions that underlie most research on logical metonymy of verb-concrete object combinations. The first is the implicit assumption that all combinations work in the same way, because all main verbs actually need to be combined with an event in direct object position. The second assumption, which is made explicit but is hardly ever explained, is that all combinations of these verbs with concrete direct objects are cases of metonymy. These two assumptions have never been questioned, probably because in most studies only prototypical verbs, or a limited number of data confirming the theory in advance, have been considered. In this chapter, however, I have challenged both assumptions by analysing the semantics of individual verbs and the metonymy involved.

Since an account of metonymical interpretations based on qualia structure is beset by too many problems and since it is not satisfactory to say that metonymy is involved just because “one phrase is used instead of another” (Verspoor 1997a: 166), an alternative, cognitive linguistic analysis has been presented in this chapter. Metonymy can be defined as a conceptual mechanism that makes some semantic traits of a word or phrase more important than they would normally be (cf. Croft 1993; Croft 2006; Moerdijk 1989). I have argued that this shift in importance results from the fact that a core element in a particular conceptual structure (CS) is explicitly highlighted in a sentence (cf. chapter II).

The metonymy involved in examples of logical metonymy is therefore explained as a conceptual mechanism that highlights a core element in a conceptual structure (CS) or frame. Each verb that can occur in a logically metonymical combination has some eventive core element in the knowledge structure that it evokes (e.g. ‘event’, ‘experience’, ‘phenomenon’, ‘dangerous situation’ and so on). Since these eventive elements evoke their own CSs, which in their turn include their own core elements,
there are several possible ways to refer to the same situation in reality. A speaker may choose to make the eventive core element of the main CS explicit, a speaker may choose to express the eventive core element of the main CS together with a core element related to this event (a core element of the embedded CS), or a speaker may choose to leave the eventive element of the main CS implicit, expressing only a core element of the embedded eventive CS. These three options correspond to (51)-(53).

(51) Mary began reading / to read.

(52) Mary began to read the book / reading the book.

(53) Mary began the book.

In (53) a core element of the required activity CS is highlighted; therefore this example can be considered an instance of metonymy. Since we know that we have to interpret some event (or eventive element) in (53), we can infer event-CSs with book as their core element. In this way, the onomasiological highlighting of the concrete object semasiologically causes an enriched interpretation of the verb-direct object combination.

This analysis does not need to make use of the notion of “coercion” in the sense that the object is changed into an event. The direct object seems to keep its literal meaning and only in addition gives mental access to the event (cf. Kövecses & Radden 1998: 39). The intended event can be interpreted in this way, without having to assume that the direct object noun really changes its meaning (its type).

Also, the logical metonymy of all these verb-direct object combinations can be given a uniform explanation, while at the same time the fact that they form a continuum of cases is supported. The underlying mechanism is the same, but not all verbs require an event in the same way. All verbs that allow logical metonymy have an eventive core element in their conceptual structure, but there are differences in the type of eventive core element specified in their CSs. All aspectual verbs have an ‘agent’ and an ‘activity’ as their core elements; they therefore leave completely open which activity needs to be interpreted. Other verbs have more specific eventive elements, such as a future event (‘phenomenon’), a ‘dangerous situation’ or, as for most evaluative verbs, an ‘experience’. A better description of the event required (based on FrameNet) results in a much more precise analysis of logical metonymy than the simple statement that all verbs require an event. Because the type of the eventive core element is taken into account, the continuum of cases is incorporated and demarcated in this analysis.

An account along these lines is much more useful in the handling of linguistic data. Because the enrichment is based on the required eventive core element in the main frame and also on the connection between concrete objects and CSs that have these objects as their core elements, the interpretation can remain vague. This analysis provides a straightforward explanation for the fact that, for example, to
finish our house can involve several actions (cf. sentence (35)), since it is not assumed that house coerces into one specific activity nor that this activity can be made explicit on the basis of the NP only. The activity involving a house in the context of to finish our house can simply be filled in with something like creating. The use of CSs allows this flexibility: In interpreting finish our house a hearer simply searches for an activity in which the lexical unit house can be a core element. Embedding an (implicit) Creating CS fulfils this requirement, since house can be a linguistic realisation of its core element ‘created entity’ (http://framenet.icsi.berkeley.edu, September 2011).

The fact that the enriched interpretation is not only based on the concrete object but also on the eventive core element of the verb, also explains why a specific kind of shift occurs with different concrete direct objects. An illustrative example is to want something, which is often interpreted as to want to become the possessor of something (cf. sentences (36)-(38)). The desired state does not need to be very specific; it can simply be specified as the desire to obtain/get something. The possible concrete objects fit into the interpreted Getting CS, since they can be interpreted as the realisations of the elements that comes into one’s possession (the core element ‘theme’) (http://framenet.icsi.berkeley.edu, September 2011).

The ‘theme’ core element of the Getting frame can even be an event in itself, which explains why want a nice life can be spelled out as ‘want to get a nice life’ (cf. also (38)). In a comparable way, the direct object of to begin a lecture can be interpreted as a highlighted element of an implicit activity, such as ‘giving’ or ‘attending’. In other words, this more subtle picture explains why EVENT-EVENT shifts are possible, because an event can also be a highlighted core element of an embedded frame.

Furthermore, this account can handle the pragmatic dimension of metonymy. Because the interpretation arises from the combination of semantic restrictions on the main verb (the main CS) with semantic restrictions on the interpreted event (the embedded CS), an interpretation is only possible if all core elements fit together (cf. Figure 9). This requirement explains how one default interpretation can be preferred over another and how default interpretations can be blocked by contextual knowledge.

If we know that John is an author, an implicit writing structure for book will be more plausible than a reading structure, because the writing structure combines a book with an author-agent. In a more radical example, in which Mary is a goat, a Reading or Writing structure cannot be inferred due to a mismatch with the first core element of these CSs (cf. Figure 8). The Reading and Writing CSs have two core elements, a ‘text’ and a ‘reader’ or ‘writer’ respectively, and since the agent (Mary the goat) can neither read nor write, both CSs are blocked.308 The sentence is reinterpreted by searching for an activity that can be performed by a goat with a book.

308 In fairytales goats can sometimes read or write, and in such contexts both interpretations are not necessarily blocked. This is correct, since in a fairytale Mary the goat began the book can mean that she began a reading or writing activity.
Properties of the object itself can block interpretations in a similar way. If we know that a particular book is made of marzipan, it is not possible to get a Reading or Writing interpretation for *John began the book*, since not all elements fit into these evoked structures. The *book* is conceptually no longer a ‘text’ and cannot be the second core element of a Reading or Writing CS. Thanks to the knowledge language users have about the direct object *book*, they will infer that an Activity CS involving some type of ‘food’ as a core element is required. We thus end up with the Eating CS, and correctly understand that Mary began to eat the marzipan book.

Since two CSs are combined, all core elements play a role in inferring the correct interpretation. It is essential that all elements should fit. Therefore properties of the direct object (e.g. the marzipan book) as well as properties of the subject (such as a goat, an author or a literary student) may block the interpretations of particular CSs (like Reading and Writing in the goat-example) or make the hearer prefer an agentive or a telic interpretation. The type of embedded activity structure varies among verbs, which explains why lexical differences can be found across verbs. In this way, the present analysis is able to account for language data in a better way than previous accounts.

In addition, the present account provides an answer to the question of which concrete objects can be used metonymically: In the case of MOCs, core frame elements of an embedded CS can be highlighted. The metonymical association between the concrete object and the inferred event is still based on lexical information, though on being a core element of a conceptual structure rather than on a rich representation like qualia structure. This analysis puts logical metonymy in line with other forms of metonymy, such as using the name of an author for his work (*I am reading Goethe*) or metonymical polysemy (the metonymically related meanings of *newspaper* as the paper itself, the company, the people working there, etc. cf. Croft 1993). In each of these examples the metonymical link, a ‘real world’ relation, is established due to the fact that the source concept and the target concept are connected in frames.

To summarise, the approach taken in this chapter is compatible with Godard and Jayez’ linguistic tests (cf. chapter III); it analyses the metonymy involved and it explains the variety among verbs, it also accounts for vague examples and EVENT-EVENT shifts, allows for more flexibility than previous accounts and explains why certain contextual information (such as properties of the subject or object) can generate non-default interpretations, since all elements have to fit together. Furthermore, it explains why logical metonymy is an instance of metonymy (a process driven by frame-internal highlighting), and also explains how the metonymical link is established. In the next section I will discuss one further advantage of this approach over other ones.

**4.5 Another kind of logical metonymy: EVENT-AGENT contiguity**

The analysis of this chapter does not exclude the possibility of core elements other than the second core element of the embedded CS being highlighted. In other words,
the question can be raised whether it is possible to highlight the first core element of an embedded CS if this core element is not co-referential with the subject of the main verb. This will result in a logical metonymy which does not follow the contiguity OBJECT-ACTION IN WHICH THE OBJECT IS INVOLVED but rather the contiguity PARTICIPANT (AGENT)-ACTION.

As far as I know, examples of this type are not discussed in the literature on logical metonymy. These cases are probably analysed because they follow a different metonymical pattern than the examples discussed above, and cannot be explained in terms of qualia structure. In the present account, which explains logical metonymy as highlighting elements of incorporated frames, they can be analysed in the same way as the other instances of logical metonymy.

Although modern studies have not paid any attention to predicative metonymies based on an AGENT-ACTION contiguity, their existence is not in any doubt. Some main verbs which require an event from a strictly semantic point of view, allow the agent or another crucial participant of the event as their direct object. We saw above (cf. chapter V, §7.4) that Dutch lexicographers recognise them as instances of metonymy, labelling them “metonymisch” (‘metonymical’) or “objectsverwisseling” (‘object change’).

A clear example of a verb that can be combined with a first core element instead of an event is Dutch onderbreken (‘to interrupt’) or also English to interrupt. Strictly speaking, it is only possible to interrupt events (activities or processes), such as conversations or presentations. It is, however, also possible to use the combination to interrupt someone/the speaker. Since there exists an obvious real world relation between the speaker and the presentation (or conversation), we understand that the presentation by the speaker was interrupted.

This example has to be regarded as an instance of metonymy in the sense that the interpretation involves more than the literal meaning, since the expression used (the vehicle or source) gives mental access to the event (the target). This mental access, or conceptual mapping, is possible on the basis of a contiguity relation. The example is an instance of logical metonymy because the metonymical shift is based on an eventive gestalt; the noun referring to a concrete person who is involved in the event is used as the direct object of the verb rather than the interrupted event.

To see how a similar analysis as for OBJECT-ACTION applies to these examples, consider (54).

(54) Mary interrupted John’s talk.

The main verb in (54) evokes the “Interrupt_process” frame. The core frame elements of this frame are a ‘Cause’ (with a related ‘Actor’) and a ‘Process’ “that goes into the paused state due to the Cause or Actor” (http://framenet.icsi.berkeley.edu, September 2011). Both of the core frame elements are realised in the sentence above: Mary is the ‘Actor’ who interrupts a ‘Process’ or event, in this case the talk.
Since a talk is an event in itself, it evokes its own frame. FrameNet assigns the word *talk* to the “Discussion” frame, which has a ‘Topic’ and possibly several ‘interlocutors’ as frame elements (http://framenet.icsi.berkeley.edu, September 2011). This combination of CSs is schematically represented in Figure 12.

Metonymical sentences, such as (55), are interpreted on the basis of conceptual knowledge as represented in Figure 12.

(55) Mary interrupted John.

Since Mary cannot literally interrupt a person (this does not make sense), we understand that she interrupted what John was doing, in this case talking. The combination with *John* is metonymical, since it is a highlighted core element of the implied event. If (55) is used to express the state of affairs as represented in the CSs of Figure 12, John is one of the highlighted interlocutors of the talk that was interrupted. Other interpretations are similarly possible. If John is interrupted by Mary while giving a lecture, we understand that John, whom we know to be the speaker, is the highlighted agent of the lecture.309

Figure 12 also suggest that it should be possible to highlight the topic core element. In Dutch, this does occasionally seem to be the case, cf. internet examples such as “De winkeleigenaar onderbrak het onderwerp waarmee hij bezig was en gaf een puntig commentaar in het dialect” (“The shop owner interrupted the topic in which he was engaged and gave a sharp comment in the dialect”) (http://www.epenaren.nl/marktplein/index.php?itemid=216); “George rolde zijn ogen en onderbrak het onderwerp,” (“George rolled his eyes and interrupted the topic,”) (http://www.fanfic.nl/chapters/21608/chapitre-01/) “Na zijn onderwerp onderbroken te hebben gaat hij verder met de woorden:” (“After having interrupted his topic, he continues

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Another verb that may combine with direct objects in a logically metonymical way is the Dutch verb *afvlaggen* (lit.: “off-flag”, ‘to flag down’). Strictly speaking, events like races are flagged down, but since races are executed by race-drivers, it is possible to highlight the driver and mention him in the direct object slot. Apart from *de race afvlaggen* (‘flag down the racing’) one can use *de coureurs afvlaggen* (‘to flag down the racing drivers’). Van Dale classifies the latter combination as metonymical.

Another example is not provided by dictionaries, but discussed by Van Brederode (1995). Van Brederode examines how certain verbs with a metaphorical meaning are combined with subjects and direct objects. As in this analysis, frames provide a coherent structure based on experiences, i.e. a gestalt, (cf. Van Brederore 1995: 35, 66), which causes variety in the possible direct objects. However, the term frame is used by Van Brederode in a slightly different sense than by FrameNet, referring to an information structure with many listed categories which can be filled in for specific words (1995: 42-43).

Among other verbs, Van Brederode analyses the frame-based combinatorial possibilities of *to suppress* (1995: 68-72). Like *to interrupt*, this verb allows different types of direct objects such as actions which are suppressed (*to suppress the rebellion*) and suppressed actors involved in these actions (*to suppress the rebels*). Whereas Van Brederode lists all these participants in the *suppress*-frame (1995: 70), I would argue that these possible direct objects are based on frame-like information structures comparable to Figure 9 or Figure 12. This analysis is in line with Van Brederode’s observation that the two types of objects are possible because there is a relationship “between [...] the activity and [...] those agentively involved in the mutiny, the revolution, the riot, etc.” (1995: 69). In my view, the reason agents can be highlighted in the DO-position is not that they directly belong to the *suppress*-frame but rather that “The words referring to the agents [...] directly indicate what threat is involved” (Van Brederode 1995: 69). Combined frames like those in Figure 12 (with different frames for this example), make this clear.

Last but not least, Dutch dictionaries tag the verb *bestraffen* as allowing MOC. This verb displays a similar shift between an act or action and the performers of this action. This shift is most common with *bestraffen* (lit.: “be-punish”, i.e. ‘to punish’), with the words:’)

(310) This example shows that there are cross-linguistic differences. Although the latter expression is intelligible in English, it is not correct. German behaves in a similar manner as Dutch, since it does allow this kind of metonymical shift (*Rennen/Rennfahrer abwinken*). Metonymies are thus constrained differently in different languages. Although some studies on this topic have been published (cf. Godard & Jayez 1993, Horacek 1996, Peters 2003, Waltereit 1998) more research needs to be done.

(311) Unfortunately, the verb *to suppress* is not yet incorporated within the database of FrameNet.

(312) This example of “objectverwisseling” has also been discussed by the Dutch popular scientific magazine *Onze Taal*, 2010 79.6: p. 167.
but also occurs with the simplex verb *straffen* (‘to punish’). The ANW-examples (56)-(59) illustrate the shifts with both verbs.\(^{313}\)

(56) Als ...., dan zal de scheidsrechter de speler bestraffen.
If..., then will the referee the player be-punish
‘If..., (then) the referee punishes the player.’

(57) De scheidsrechter bestraft de overtredingen.
the referee be-punishes the fouls.
‘The referee is punishing the fouls.’

(58) En zodat echte misdadigers wél kunnen worden gestraft.
and so-that real criminals (really) can be punished
‘And in order to be able to punish real criminals.’

(59) Misdaad moet gestraft worden.
crime must punished be
‘Crime must be punished.’

German and English display similar behaviour, as shown in the deWac-examples (60)-(63) and the BNC-examples (64)-(67).

(60) Nur Verbrecher kann man bestrafen,
only criminals can one be-punish,
‘Only criminals can/may be punished,’

(61) Aus ihr heraus [...] bestraft man Verbrechen,
out this there-out be-punishes one crimes,
‘Based on this [JS: referring to ‘experience’], crimes are punished,’

(62) Gott straft den Sünder
god punishes the sinner
‘God punishes the sinner’

(63) Die kleinen Sünden straft Gott sofort
the little sins punishes god directly
‘God punishes little sins directly’

(64) Criminals must be punished

(65) he should punish crime

(66) I fear we've come too late [...] to punish his murderer

(67) Murder has to be punished.

\(^{313}\) The subjects of sentences in the passive voice are used to illustrate that the verb allows two different types of direct objects.
Although these shifts with (be)straffen, (be)strafen and to punish fit into the pattern of to interrupt shifting between an action and the agent of this action, the shift is tagged in the opposite direction in Dutch dictionaries, i.e. from agent to action. Etymologically, this explanation is very plausible. Therefore, this shift must be treated slightly differently from the one with to interrupt.

In fact, the difference between a logical metonymy following the ACTION-AGENT contiguity and the MOC with bestraffen / to punish is reflected by FrameNet. The verb to punish belongs to the “Rewards_and_punishments” frame, which includes as its core elements an ‘Agent’, an ‘Evaluatee’ (i.e. the punished person), and a ‘Reason’ (i.e. the action or property which is the reason for the punishment) (cf. http://framenet.icsi.berkeley.edu, September 2011). So, in examples with to punish the ‘Evaluatee’ is not a focal participant embedded in the action of punishing, but instead a core element of the punish-frame. The fact that, from a synchronic point of view, the punish-examples can also be explained in the same way as the examples with to interrupt illustrates the continuum between logical metonymies (shifting from events to concrete entities) and other predicative metonymies (such as locative alternations) which shift between two contiguous entities involved in the frame corresponding to the verbal action.

5. Constraints on MOCs

Although this chapter has shown that an analysis of MOCs in terms of highlighting in FrameNet-like frames provides a good explanation of some subtleties in languages, the explanation overgeneralises. Not all core elements in every frame can be used as a direct object. Some constraints, restrictions and preferences that were revealed in chapters VI and VII operate simultaneously in choosing a direct object.

First of all, as I discussed above (cf. chapter VI, §3), highlighting is only possible if the two frame elements clearly form a single gestalt. For concrete examples this may differ in a single frame, depending on the specific participants involved. This explains why to weed a garden is perfect, to weed the terrace is odd and to weed tiles infelicitous. Similar differences have been illustrated with Dutch smeren and German schmieren, with German abziehen and with Dutch laden.

Furthermore, the requirement that the gestalt is highly relevant in the frame restricts object changes to core frame elements. Non-core elements do not occur as alternate direct objects.

Chapter VIII argued that for eventive shifts some gestalts are clearer than others and that some gestalts are more important for a verb than others. Chapter VII showed that texts are most prominently connected to writing and pieces of music to playing (the agentive roles), whereas food is strongly connected to eating and games to playing (the telic roles). In the frame semantic approach advocated in this chapter, this could be explained as meaning that a text is most clearly a core element of writing, a piece of music is most prominently a core element of making music, games of playing and food of eating (Ingestion frame). Also, some concrete objects, such as texts, music, companies and food, are considered more easily interpretable,
and therefore more directly involved in an aspectual action evoked by the main verb, than others. Preferences of this kind caused by the direct object work together with the eventive element required: A verb such as *to enjoy* is more often interpreted in a telic way than *to begin* or *to finish*, because the activity which has to be interpreted must be some kind of experience.

With spatial and causal gestalts, both parts, i.e. both core frame elements, should be of equal importance in the verbal action. In other words, the two frame elements should form a gestalt which is relevant by itself in the frame. Whereas Dutch *insmeren* (*to rub in*), for instance, can be combined both with cream and the location to which this cream is applied (such as a face), the verb *smeren* (*to rub*), which involves the same elements, does not alternate (cf. chapter VI, §3). The difference between *insmeren* and *smeren* is that in the case of *smeren* the location is only relevant, if it is noticeably affected by the substance that is applied. This may be true for *een boterham smeren* (*to spread a slice of bread*) or *een ketting smeren* (*to grease a chain*), but not for *je gezicht smeren* (*‘to rub your face’, meaning ‘to put some cream on your face’). These requirements are different for *insmeren*, because this verb describes an action with x and y as a single gestalt, with both parts directly involved; the verb therefore endorses the contiguity relation between x and y.

In chapter VI we saw that with *to fill* and Dutch *vullen* one frame element is also far more important than another. In these cases, the frame evoked by the verb is an action with respect to a container. This is different for verbs such as *to load*, *to pack* or *to inject*, which FrameNet all classifies as belonging to the Filling frame as well as to the Placing frame. I argued that these verbs are instantiations of the Placing scenario, which allow combinations with different types of direct objects. Together with a direct object, they can refer to the Placing or Filling frame. The container-oriented verbs such as *to fill* and *vullen* do not evoke this general scenario and therefore do not allow the alternation.

Chapter VI also showed that this can differ cross-linguistically. Supported by the combination *voll füllen*, I showed that German *füllen* does not refer to a container-oriented action. In terms of frames, this means that *füllen* does not, as does *to fill*, belong to a Filling frame, but rather to the Placing scenario. This idea accounts for the fact that *voll füllen* can be used, and that *füllen* occurs with shifted objects.

The fact that *to pour*, *gießen* and *schenken* only alternate in specific contexts can also be inferred from the frame involved.314 In contrast to *to fill*, both content and container are important in the frame, but in these cases not one but two containers are involved. As explained in chapter VI, the double gestalt involved restricts the MOC, because in a general pouring-context a container noun in direct object position would be confusing.

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314 At the moment, *to pour* (in fact *to pour in*) only belongs to the Mass_motion frame, which represents a different meaning, referring to a subject of individuals moving, as in *Fans poured in by boat and train* (http://framenet.icsi.berkeley.edu/ [September 2011]).
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Figure 13: Schematic Frame of *to pour*, showing the two container-gestalts

The comparable restriction of the ‘avoidance-of-ambiguity-of-DO-type’ (cf. chapter VI, §4.3) can also be clarified by means of frames. Words corresponding to frame elements can only be used in the direct object slot, if they are interpreted as the right frame element. In the Removing scenario, for instance, a source can only occur in direct object position if it cannot accidentally be interpreted as the theme. This explains why *to remove a table* cannot be used for *to clear a table*, even though both express some kind of removal.

These semantic-pragmatic preferences work in and on frames. For instance, the fact that *beginnen aan* is more often combined with concrete objects is not directly visible in the frame itself, but can be explained on the basis of this frame: Because the syntax directly indicates that the eventive core element cannot additionally be realised, a hearer immediately understands that only a core element of the embedded event is realised. In this way, the event is ‘projected’ more strongly than is the case for the direct object of *beginnen*. Also, the semantics of certain *met/-mit*-objects, as in Dutch *beginnen met*, German *beginnen mit* or *anfangen mit* and Dutch *eindigen met* can be modelled in frames. These combinations of a verb and a prepositional object evoke a frame with not one but two eventive core elements. The pragmatic fact that, if one of these events is contextually known, the other can be more easily inferred (as I explained in detail in chapter VII) is not evident in the frame itself, but can be explained on the basis of it. At the moment, the frames in the FrameNet database do not allow subtleties of this kind. Therefore, further research and more work in FrameNet is needed in order to further model such complex constraints.

6. Conclusions

Predicative metonymies changing the direct object, i.e. metonymical object changes (MOCs), are contiguity-based shifts of a verb’s argument slot (the direct object). All predicative metonymies can be analysed as an onomasiological highlighting of related core elements in frames. From a semasiological perspective, this does not have the consequence that either the verb or the direct object noun on their own is metonymically shifted or enriched; the effect is rather on the combination of the two. The frame-semantic analysis advocated in this chapter shows how this works and provides a uniform analysis of different types of predicative metonymies, without ignoring the semantic differences between them.

The frames involved have been analysed with the help of FrameNet (https://framenet.icsi.berkeley.edu/ [October 2011]). This analysis has several advantages.
The first theoretical gain is that this chapter has illustrated that logical metonymy and alternations between two concrete objects can be analysed similarly. Logical metonymy is based on an eventive gestalt, which can be analysed as a highlighting effect in an embedded frame. The shifts can follow the contiguity pattern OBJECT INVOLVED-ACTION or AGENT-ACTION. Other predicative metonymies are based on spatial or causal gestalts, shifting between two entities connected within a verb frame, for instance by LOCATION-LOCATUM, CONTAINER-CONTENT, WHOLE-PART, OBJECT-DAMAGE or AFFECTED-EFFECTED relations. As a consequence, logical metonymies only differ from other predicative metonymies in that an eventive gestalt, i.e. an event-frame, is embedded in the frame evoked by the main verb. With other predicative metonymies a spatial or material gestalt of two core frame elements is present in the frame evoked by the main verb. The underlying mechanism is the same for all predicative metonymies, be it in an incorporated eventive gestalt or in a spatial-material gestalt.

The second theoretical advantage is that, as this chapter has shown, an approach of this kind reveals many insights into logical metonymy. Logical metonymy should not be analysed as a metonymical shift from VPs to NPs, but as a specific type of predicative metonymy with a shift between an event and a concrete object. Also, it is not sufficiently insightful to say that metonymy is involved in an example because “one phrase is used instead of another” (Verspoor 1997a: 166), while an account of metonymical interpretations on the basis of qualia structure is beset with too many problems. The frame semantic analysis proposed in this chapter is an alternative analysis in a cognitive linguistic framework. Metonymy is explained as a conceptual mechanism that highlights a core element in a frame or conceptual structure (CS). Each verb that can occur in a logically metonymical combination contains in the conceptual structure it evokes (its frame) some eventive core element (‘event’, ‘experience’, ‘phenomenon’, ‘dangerous situation’ and so on), which is embedded in the main structure as another conceptual structure. Rather than the eventive structure itself, core elements of this embedded structure can be metonymically used in the sentence.

This more subtle analysis explains why EVENT-EVENT shifts are possible (an event can also be a highlighted element of an embedded frame). It also explains which objects can be used metonymically (core elements) and how it is possible that contextual information blocks default interpretations (all elements have to fit together).

This analysis provides a uniform treatment of different instances of logical metonymy, without ignoring the semantic differences between them. In the approach presented in this chapter, the continuum of cases is incorporated (as well as demarcated) by taking into account the type of the eventive core element.

This analysis also accounts for another kind of logical metonymy. This type of eventive predicative metonymy cannot be characterised by the contiguity pattern OBJECT-ACTION IN WHICH THE OBJECT IS INVOLVED but rather by the pattern AGENT-ACTION. Although these combinations of verbs and direct objects are labelled by dictionaries as instances of metonymy and although they involve a shift in type, they cannot be explained in terms of qualia structure and therefore they probably have
never been discussed in previous studies. The present analysis, however, accounts for these shifts in exactly the same way as for other instances of logical metonymy. In all examples of logical metonymy a core element of an incorporated eventive conceptual structure is highlighted.

Thirdly, restrictions on MOC, which were discussed in chapters VI and VII, can be modelled in this approach. MOC is only possible if two objects form a single gestalt. This is possible in two different ways: Either a concrete object is a core element of an incorporated frame, thereby forming an eventive gestalt, or both direct objects are conceptualised as a spatial-material unit within the frame evoked by the verb. Therefore, only core elements of conceptual structures, which are conceptualised as a gestalt, can be highlighted.

Also, all parts of a spatial-material gestalt have to be equally important in the verbal action. Some cross-linguistic differences can be modelled in this way. The German verb *füllen*, for example, has a slightly different conceptual structure from the English and Dutch verbs *to fill* and *vullen*. Cross-linguistic differences can be explained as that only in the frame evoked by *füllen* the content is included as a core element with a comparable contribution to the frame as the container.

The embedded frames involved in eventive shifts explain why one interpretation can be preferred over another, as was shown in chapter VII. Verbs such as *to begin* and *to finish* prefer an agentive interpretation, because they express the end or start of an activity performed by an agent. A verb such as *to enjoy*, on the other hand, needs to be interpreted relative to an experience and telic interpretations are prototypical experiences of objects.

A last advantage of this frame semantic approach is that this account brings predicative metonymies in line with other examples of metonymy. Metonymy can be defined as a conceptual mechanism that makes some semantic traits of a word more important than they would normally be (cf. Croft 1993, Croft 2006, Moerdijk 1989). In this chapter, I have argued that this shift in importance results from a core element within a certain CS being explicitly highlighted. In a sentence such as *I am reading Goethe* the Author core frame element of the *book* concept is explicitly highlighted, whereby specific semantic elements of ‘the author Goethe’ have become more important than they would ordinarily be. In the same way, in a sentence such as *Mary begins the book* an element of an activity is highlighted thereby enriching (cf. Jackendoff 1997: 49) the interpretation of the VP. The metonymical link, a real world relation, is not accounted for by a rich lexical interpretation of the noun (its qualia structure), but by the fact that the word employed is a core element of the conceptual structure which is interpreted.

At the same time, the account elucidates the difference between predicative metonymies and nominal metonymies. Whereas in the case of nominal metonymies a related frame element is inserted in the place of another (cf. Waltereit 1998; 1999), thereby shifting the interpretation of the noun, in the case of predicative metonymies only different frame elements are realised. They are not inserted in the place of something else. Rather than shifting the interpretation of the noun, the combination of elements is shifted.
In the frame semantic approach it is unnecessary to assume either coercion of the direct object or verbal. All elements keep their literal meaning and only the combination of them is shifted. In other words, the onomasiological highlighting does not follow from a semasiological effect in the verb or direct object, but it is accommodated by a single underlying frame causing a semasiological effect on VP level.

In sum, the present account offers a detailed account of the reasons why logical metonymy and object alternations can be seen as MOCs; its shows how the metonymy involved actually works and how the possibilities of MOC and the restrictions on MOC can be modelled in an analysis of highlighting within FrameNet-like frames.
IX. SUMMARY AND CONCLUSIONS

1. The present dissertation in a nutshell

Metonymy is not a figure of speech, but rather a cognitive-linguistic mechanism. In chapter II, metonymy was described as a contiguity based figure/ground effect within a frame, which could also be defined as a frame-internal highlighting. This dissertation has shown that this highlighting effect should be analysed semasiologically, shifting meaning or perspective, as well as onomasiologically, shifting the expressions used.

Metonymy is a pervasive mechanism, visible on all linguistic levels. Chapter III disentangled the different metonymical effects and in chapter IV dictionary data were used to illustrate different types of metonymy. This chapter showed that lexicographers and lexicologists were ahead of their time in recognising many grammatical phenomena as metonymy-based. This especially applies to instances of so-called “objectsverwisseling” or “Objektsvertauschung”, i.e. Metonymical Object Changes (MOCs).

Chapters V-VIII analysed this specific type of metonymy. MOCs are metonymical, because they are contiguity-based shifts of a verb’s direct object slot. They are therefore predicative metonymies that affect the direct object slot.

Chapter V discussed a number of general characteristic of MOCs. It was argued that, in line with Dutch and German dictionaries, alternating syntactic patterns such as locative alternations, material-product alternations or logical metonymy should all be considered MOCs. They are all qualitative shifts of the direct object, based upon an underlying contiguity relation. To a large extent, the contiguity relations that were found correspond to Peirsman and Geeraerts’ prototypically structured category of contiguity relations. It was also shown that MOCs occur frequently with particle verbs and especially with those particle verbs that express some separation, because the particle endorses the contiguity relation between the two possible direct objects and their relevance in the verbal context. Apart from single objects and their constituent parts, other frequently occurring contiguity types are, for example, concrete objects and the holes in those objects and fire or objects that are on fire.

Chapter VI showed that MOCs should be analysed as shifts of the direct object slot of a single verb. MOCs must be analysed as contiguity-driven because they are restricted by the contiguity relations of the NPs, and MOCs form a continuum with all kinds of metonymical shifts.

Chapter VI also showed some reasons for using or avoiding MOCs. First of all, MOCs can only be used if both direct objects are equally important in the verbal action. If they are, there may be reasons to select one type of direct object over another. Besides affected objects, results of verbal actions are, for example, often selected as direct objects. This not only explains MATERIAL-PRODUCT MOCs but also some LOCATUM-LOCATION MOCs which often shift to an affected location serving as the goal of the verbal action. Secondly, MOCs are avoided when two comparable gestalts are relevant in the verbal action, as with to pour, schenken and
gießen. These verbs can only be used with a direct object referring to a container if it is clear which container is intended. Thirdly, confusion whether a certain thing is the location or the locatum should also be avoided. This explains why de tafel ruimen / den Tisch räumen cannot be used for de tafel afruimen / den Tisch abräumen and why to remove cannot be used with a location-object.

Chapter VII focussed on eventive MOCs, i.e. logical metonymy. Corpus data revealed that, as is also the case with other MOCs, logical metonymy results from the interaction of verb and direct object. Some categories of concrete objects occur more frequently in phrases exhibiting logical metonymy than others, and the interpretation is dependent on the types of object, which indicates that, in all probability, some metonymical associations are stronger than others.

Chapter VIII showed that MOCs could be considered to be highlighting particular parts of a frame. A verb allowing MOC either involves an embedded activity-element or evokes a general scenario, in which an onomasiological highlighting of a particular participant as a direct object semasiologically specifies the perspective of the VP.

2. MOCs: Object Changes involving Metonymy

This dissertation has demonstrated that the possibility of shifting a direct object depends on the contiguity relation between one direct object and another object, and the relevance of both of them in relation to the verb. In the case of logical metonymy, most scholars do not doubt the fact that contiguity underlies the shift. I have shown that for other shifts contiguity also constrains the possibility of using two types of direct objects. MOCs are only allowed, if both possible direct objects are conceivable as a single gestalt which is relevant to the verbal action, and MOCs cannot always be distinguished from other metonymical shifts (cf. chapter IV, §3.3 and chapter VI, §4.4).

Interestingly, even studies that do not analyse these shifts as involving metonymy describe the close relation between both direct objects. These studies sometimes even mention the exact contiguity patterns.

One of the first studies on the locative alternation, for instance, has the meaningful title The grammar of 'content' and 'container' (Schwartz-Norman 1976). In her discussion of the locative alternation, Levin refers to ‘locatum’ arguments (things and substances) and ‘location’ arguments (containers and surfaces), thereby implicitly pointing to the relationship between the direct objects (Levin 1993: 50). Dewell describes the contrast between German be-verbs and a morphologically simple verb with a location-DO in terms of a classical part-whole-relationship: He states that the simplex verbs with location-DO present the locatum “like a new component part of the transformed object rather than a set of alien intruders from outside” (2004: 33, emphasis in the original).

I have clarified that the PART-WHOLE relation is not just a matter of presentation, but that it actually applies in a more fundamental way: For instance, a locative alternation with a morphologically simple verb is only possible if the locatum is, or
SUMMARY AND CONCLUSIONS

will become, a real component part of the location. Two entities which are related before the verbal action has been accomplished in particular allow MOC, because the verbal action is conceptualised as applying to a single entity. This also explains why morphologically complex verbs with particles such as *af-* / *ab-* and *uit-* / *aus-* occur so frequently in MOCs (cf. chapter V, §6.5).

Mentioning contiguity relations is not the only implicit description of the metonymy involved. Some scholars use terminology that directly fits metonymy research. Dewell implicitly gives a description of the metonymy involved, when he writes about a shift of focal attention in a conceptual frame (2004: 31), which exactly matches Waltereit’s description of figure/ground effect based on contiguity within a verb’s frame (1999: 238).

The analysis presented in chapter VIII, which is supported by FrameNet, follows Waltereit’s analysis, without however adopting Waltereit’s claim that synchronically no metonymy but only verbal polysemy is involved. I have shown that the contiguity relations between the direct objects is still of crucial importance, and that there is no real difference between occasional MOCs and conventionalised ones. Polysemy does not have to be assumed, given that the verb refers to a single action. This is supported by the intransitive use of a verb, by examples with coordinated objects and by the combination of some verbs with their gestalts themselves. Regarding those verbs as polysemous poses difficulties, because it is problematic to know which of its assumed senses a verb is carrying in those examples.

Iwata also rejects the assumption that alternations have to lead to polysemy of the verb itself (Iwata 2005: 361), but he does not directly analyse locative alternations as metonymical. However, Iwata makes use of metonymical terminology: He speaks about gestalt shifts (Iwata 2005: 370) and highlighting effects (Iwata 2005: 381). Since Iwata applies these terms to the combination of verb and DO, his account is substantially agrees with the concept of predicative metonymy (a shift of the DO-slot) as expounded in this thesis. Although he does not explicitly describe the two objects as belonging to one gestalt, the gestalt-like character of the two verb-DO combinations (i.e. the two VPs) implicitly supports my assumption that the two possible objects can be seen as a conceptual unit.

Iwata also recognises the importance of the possible direct objects and the relationship between them. He remarks, for instance, that alternations are “effected by the contribution of NPs and PPs” (Iwata 2008: 20) and that “different configurations” of the objects involved lead to different possibilities for a direct object alternation (Iwata 2008: 72). Brinkmann also explicitly notes that some verbs only occur in alternations with certain types of nouns (cf. Brinkmann 1995: 56). Accounts which purely focus on the semantics of a verb run into problems explaining this.

Iwata notes, furthermore (2005: 370), that in line with his own account, even Pinker speaks about “the ability of a predicate to support this gestalt shift” (Pinker 1989: 79). Since Pinker analyses the locative alternation as a meaning extension of the predicate, he actually makes the paradoxical claim that the basic meaning of the predicate supports a lexical extension of this predicate. If the meaning is more precisely located in the combination of the verb and direct object (as Iwata does) and
not just in the verb, Pinker’s gestalt shift is in line with my analysis: the DO-slot of
the verb can be changed based on the fact that both types of direct object form one
gestalt (i.e. one conceptual entity) in the frame evoked by the verb.
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Metaphor in Grammar. Amsterdam / Philadelphia: John Benjamins, 1-44.


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# APPENDIX

Appendix list 1: Tagged verbs *(metonymisch)* in Adelung (cf. Ch. V §2)

<table>
<thead>
<tr>
<th>verb</th>
<th>Adelung</th>
<th>cf. above</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 abblasen</td>
<td>IV.4.3</td>
<td></td>
</tr>
<tr>
<td>2 abbrennen</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>3 abbrühen</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>4 abbüsten</td>
<td>IV.4.3</td>
<td></td>
</tr>
<tr>
<td>5 abdecken</td>
<td>cf. <em>aufdecken</em> table 8; fn. 163; cf. <em>decken</em> in VIII.1</td>
<td></td>
</tr>
<tr>
<td>6 abdrucken</td>
<td>IV.4.3</td>
<td>table 8</td>
</tr>
<tr>
<td>7 abfüllen</td>
<td></td>
<td>table 8; VI.4.1</td>
</tr>
<tr>
<td>8 abgürten</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>9 abhütten</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>10 abkehren</td>
<td>IV.2.1; cf. <em>kehren</em> in V.6.3; V.6.5</td>
<td></td>
</tr>
<tr>
<td>11 abklappen</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>12 abmähen</td>
<td>IV.2.1; IV.3.1; IV.4.3; V.6.3; V.7.2; table 8</td>
<td></td>
</tr>
<tr>
<td>13 abnagen</td>
<td>IV.3.1; table 8; cf. also <em>afknagen</em> V.7.3</td>
<td></td>
</tr>
<tr>
<td>14 abnehmen</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>15 abputzen</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>16 abschießen</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>17 abschindlen</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>18 abschwitzen</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>19 abseihen</td>
<td>IV.4.3; cf. <em>to sieve</em> V.6.1; V.7.3; VI.3</td>
<td></td>
</tr>
<tr>
<td>20 abspannen</td>
<td></td>
<td>table 8</td>
</tr>
<tr>
<td>21 abspülen</td>
<td>IV.4.3; V.6.4; table 7; fn. 161; fn. 162</td>
<td></td>
</tr>
<tr>
<td>22 abstäuben</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>23 abstechen</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>24 abstoßen (2x)</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>25 abstechen (2x)</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>26 abstreifen (2x)</td>
<td>IV.4.3</td>
<td></td>
</tr>
<tr>
<td>27 abtreten</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>28 abwaschen (2x)</td>
<td>cf. <em>wassen</em></td>
<td></td>
</tr>
<tr>
<td>29 abweiden</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>30 abweifen</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>31 abwetzen</td>
<td>IV.4.3</td>
<td></td>
</tr>
<tr>
<td>32 abwickeln</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>33 abwinden</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>34 abwirken</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>35 abwischen</td>
<td>IV.4.3; V.4; cf. <em>wischen</em> in VI.2.2</td>
<td></td>
</tr>
<tr>
<td>36 abzapfen</td>
<td>cf. <em>altappen</em></td>
<td></td>
</tr>
<tr>
<td>37 abziehen</td>
<td>V.3; VI.3; table 8; VIII.5</td>
<td></td>
</tr>
<tr>
<td>38 abzupfen</td>
<td>cf. <em>zupfen</em> in VI.3 (; V.7.1)</td>
<td></td>
</tr>
<tr>
<td>39 anlassen</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>40 ansetzen</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>41 anspannen</td>
<td></td>
<td>table 8; fn. 164</td>
</tr>
<tr>
<td>42 anziehen</td>
<td></td>
<td>table 8; fn. 164</td>
</tr>
<tr>
<td>43 aufblasen</td>
<td>V.7.1; table 8; fn. 163</td>
<td></td>
</tr>
<tr>
<td>44 aufdecken</td>
<td>table 8; fn. 163; cf. <em>decken</em> in VIII.1</td>
<td></td>
</tr>
<tr>
<td>45 auffliechten</td>
<td>V.4; fn. 163; cf. <em>flechten</em> in V.6.3</td>
<td></td>
</tr>
</tbody>
</table>
verb Adelung  cf. above

46  auffüllen  VI.4.1; fn. 163
47  aufgürteln  fn. 163
48  aufknöpfeln  fn. 163
49  aufräumen  IV.2.1; IV.4.1; V.6.3; fn. 163, 186; cf. ausräumen; cf. afrüimen
50  aufruhren  fn. 163
51  aufschnürlen  fn. 163
52  aufschürzen  fn. 163
53  aufsetzeln  fn. 163
54  aufstreifen  fn. 163
55  aufwindeln  fn. 163
56  ausblasen  IV.3.3; IV.4.3
57  ausbracken  -
58  ausbrechen  -
59  ausbrennen  -
60  ausbrüten  IV.4.1; V.7.1; table 8
61  ausbügeln  -
62  ausbürsten  IV.4.3
63  ausdreschen  -
64  ausdrücken  IV.2.1
65  ausfegen  IV.2.1
66  ausforschen  -
67  ausfressen  cf. ausessen in IV.4.3
68  ausführen  -
69  auskehren  IV.2.1; IV.4.1; cf. kehren in V.6.3; V.6.5
70  auskeltern  IV.2.1; cf. cf. keltern in IV.4.1; VI.4.4
71  auskipfen  IV.2.1; V.7.1; IV.4.3; V.4
72  ausladen  IV.2.1; V.6.3; table 8; V.8; VI.1; cf. laden in VI.4.3; table 10; (& löschen) cf. löschen in IV.2.1; (V.4) V.6.3; V.6.5; (V.7.1); table 8; VI.2.2
73  auslassen  -
74  auslaufen  -
75  auslocken  -
76  ausmahlen  -
77  ausmerzen  -
78  auspauken  -
79  auspressen  IV.2.1; V.4; V.7.1; cf. pressen in IV.4.1; VI.4.4
80  auspumpen  -
81  ausräumen  IV.2.1; V.6.3; cf. räumen in VI.2.2; VI.2.3; VI.4.3; VI.5; VIII.1
82  ausreiben  -
83  ausringen  -
84  ausrüheln  -
85  ausschlagen  -
86  ausschmelzen  -
87  ausschnäuzeln  -
88  ausschneiden  V.4
89  ausschütten  -
90  ausschwemmeln  -
91  ausschwingen  -
92  ausseihen  cf. to sieve in V.6.1; V.7.3; VI.3
93  aussondern  -
94  ausspringen  -
Appendix list 2: Relevant tagged verbs in the DWB (cf. Ch. V §2)

<table>
<thead>
<tr>
<th>verb DWB</th>
<th>cf. above</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 gichten</td>
<td>V.2; fn. 147; cf. <em>heilen</em> V.2; table 8; cf. <em>to heal/cure</em> table 1; <strong>III.5.3</strong>; V.2; V.4; V.6.1; table 4; V.6.3; <strong>VIII.3</strong></td>
</tr>
<tr>
<td>2 gießen</td>
<td>V.2; table 8; <strong>VI.2.2</strong>; <strong>VI.4.2</strong>; VIII.4; cf. <em>eingießen</em> <strong>IV.4.1</strong>; V.6.4</td>
</tr>
<tr>
<td>3 impfen</td>
<td>V.2; V.6.3; cf. <em>to inject</em> V.6.1; <strong>VIII.5</strong></td>
</tr>
<tr>
<td>4 lösen</td>
<td><strong>IV.3.1</strong>; IV.4.3; V.2; V.6.3; table 8; cf. <em>abfeuern</em> IV.4.2</td>
</tr>
<tr>
<td>5 mähen</td>
<td>V.2; V.6.3; V.6.5; cf. <em>abmähen</em></td>
</tr>
<tr>
<td>6 pflanzen</td>
<td>V.2; V.4; V.6.3; V.6.5; table 8; cf. <em>to plant</em> V.6.1; VI.3.1; <strong>VIII.3</strong></td>
</tr>
<tr>
<td>7 träufen</td>
<td><strong>IV.3.1</strong>; V.2; V.6.3; V.6.5</td>
</tr>
<tr>
<td>8 treiben</td>
<td>V.2; fn. 147</td>
</tr>
<tr>
<td>9 schießen</td>
<td>V.2</td>
</tr>
<tr>
<td>10 verschwätzen</td>
<td>V.2</td>
</tr>
<tr>
<td>11 versichern</td>
<td>V.2</td>
</tr>
<tr>
<td>Verb Van Dale</td>
<td>Cited as above</td>
</tr>
<tr>
<td>---------------</td>
<td>----------------</td>
</tr>
<tr>
<td>aanslaan</td>
<td>V.3; V.6.1; table 8</td>
</tr>
<tr>
<td>aansmeren</td>
<td>fn. 164; cf. I.3; V.7.1; VI.2.3; VI.3; VI.4.4; table 12; VIII.5</td>
</tr>
<tr>
<td>aanspelen</td>
<td>V.3; fn. 164; table 8</td>
</tr>
<tr>
<td>aanspreken</td>
<td>fn. 164</td>
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<tr>
<td>aanstampen</td>
<td>fn. 164</td>
</tr>
<tr>
<td>aansteken</td>
<td>IV.4.1; V.4; fn. 164; fn. 170; V.7.1; V.7.2; table 8; VIII.3</td>
</tr>
<tr>
<td>aanvullen</td>
<td>fn. 164, table 9; cf. vullen in V.6.3 / 6.5; VI.3; VI.4.1; VIII.5</td>
</tr>
<tr>
<td>afbeilten</td>
<td>-</td>
</tr>
<tr>
<td>afbeten</td>
<td>V.6.3; fn. 149</td>
</tr>
<tr>
<td>afbikken</td>
<td>-</td>
</tr>
<tr>
<td>afblakeren</td>
<td>-</td>
</tr>
<tr>
<td>afblazen</td>
<td>-</td>
</tr>
<tr>
<td>afboenen</td>
<td>-</td>
</tr>
<tr>
<td>afbranden</td>
<td>cf. branden in V.6.1; V.6.3 / 6.5; V.7.1; fn. 172</td>
</tr>
<tr>
<td>afdrukken</td>
<td>IV.4.1; V.6.2; V.6.3; V.8</td>
</tr>
<tr>
<td>afdweilen</td>
<td>-</td>
</tr>
<tr>
<td>affrezen</td>
<td>-</td>
</tr>
<tr>
<td>afhakken</td>
<td>-</td>
</tr>
<tr>
<td>afkappen</td>
<td>cf. kappen in V.6.3 / V.6.5</td>
</tr>
<tr>
<td>afkauwen</td>
<td>IV.3.1</td>
</tr>
<tr>
<td>afkloppen</td>
<td>-</td>
</tr>
<tr>
<td>afkuiven</td>
<td>IV.3.1; V.7.3</td>
</tr>
<tr>
<td>afknabbelen</td>
<td>IV.3.1</td>
</tr>
<tr>
<td>afknagen</td>
<td>IV.3.1; V.7.3</td>
</tr>
<tr>
<td>afkrabbeln</td>
<td>cf. afkrabben in WNT</td>
</tr>
<tr>
<td>afkrabben</td>
<td>table 8; cf. krabben in V.6.3 / V.6.5</td>
</tr>
<tr>
<td>afkrassen</td>
<td>cf. afkrabben in WNT</td>
</tr>
<tr>
<td>afkussen</td>
<td>fn. 181</td>
</tr>
<tr>
<td>aflezen</td>
<td>-</td>
</tr>
<tr>
<td>afmaaien</td>
<td>IV.2.1; IV.3.2; IV.4.3; V.7.2</td>
</tr>
<tr>
<td>afnemen</td>
<td>-</td>
</tr>
<tr>
<td>afvoegen</td>
<td>-</td>
</tr>
<tr>
<td>afpakken</td>
<td>cf. pakken in VI.4.3; table 11</td>
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<td>cf. afschrapen in WNT</td>
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<td>afschrapen</td>
<td>cf. afkrabben in WNT; cf. afschrapen in WNT</td>
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verb Van Dale  

47 afschrijven fn. 139
48 afschrobben -
49 afschroeien -
50 afschuieren -
51 afschuimen -
52 afschuren -
53 afslijten table 8
54 afsnoeien -
55 afsnuiten -
56 afsoffen -
57 afspoelen V.6.4; table 6; fn. 161; fn. 162
58 afsponzen -
59 afsteken -
60 afstoten -
61 afstrijken cf. strijken \(^\circ\) V.6.3 / 6.5
62 afstoppen cf. afvllen\(^\circ\); cf. vllen\(^\circ\) V.6.3; V.8 (; cf. abziehen\(^\circ\))
63 aftappen V.6.2; table 8 (2x)
64 aftappen -
65 aftreden -
66 aftrekken -
67 afvegen cf. vgen\(^\circ\) IV.2.1; V.4; V.6.3 / 6.5
68 afvijlen -
69 afzetten table 8
70 bestraf en table 8; V.7.4; VIII.4.5
71 bijspijkeren V.6.1; table 8; V.6.2
72 branden V.6.1; V.6.3 / 6.5; V.7.1; fn. 172
73 enten V.6.3 / 6.5
74 inbranden cf. branden\(^\circ\) V.7.1; fn. 172
75 indruppelen -
76 ingraven cf. antonym uitgraven\(^\circ\) V.6.4; fn. 156
77 inleggen V.6.5; fn. 166
78 inpakken cf. pakken\(^\circ\) VI.4.3; table 11
79 inspannen cf. anspannen\(^\circ\)
80 inspuiten fn. 166; cf. spuiten\(^\circ\) VI.6.3
81 inwerken V.6.2 (cf. inleggen\(^\circ\); cf. afdrukken\(^\circ\))
82 inketten cf. inleggen\(^\circ\); V.6.5; fn. 166
83 omladen fn. 165; cf. laden\(^\circ\) VI.4.3; table 10
84 onderbreken IV.4.1; V.6.1; table 8; V.7.4; VIII.4.5
85 opdoen fn. 163
86 opendoen V.3
87 opgieten fn. 163; cf. gieter\(^\circ\) VI.4.2; cf. schenken\(^\circ\)
88 opladen fn. 163; cf. laden\(^\circ\) VI.4.3; table 10
89 opruimen IV.2.1; IV.4.1; IV.4.2; V.6.3; cf. ruimen\(^\circ\); af-/in-/uit-ruimen\(^\circ\)
90 opschenken fn. 163; cf. schenken\(^\circ\) VI.3; VI.4.2; VI.5; VIII.5
91 opslaan V.3 (; fn.133)
92 opspuiten fn. 163; cf. spuiten\(^\circ\) VI.6.3
93 pakken V.6.3 / 6.5; table 8; VI.4.3; table 11
94 persen IV.2.1; IV.4.1; V.4; V.6.3 / 6.5; V.7.1; VI.4.4; VI.5
95 schenken V.6.3 / 6.5; VI.3; VI.4.2; VI.5; VIII.5
96 stuwen V.6.3 / 6.5
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Appendix list 4: Tagged verbs (*objectsverwisseling*) in the WNT (cf. Ch. V §2)

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<td>aanslaan</td>
<td>cf. <em>strijken</em>&lt;sup&gt;0&lt;/sup&gt; V.6.3 / 6.5; cf. <em>aansmeren</em>&lt;sup&gt;2&lt;/sup&gt;</td>
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<td>aantrekken</td>
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<td>aanvullen</td>
<td>fn. 164; table 9; cf. <em>vullen</em>&lt;sup&gt;2&lt;/sup&gt; V.6.3 / 6.5; VI.3; VI.4.1; VIII.5</td>
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<td>(cf. in other meaning antonym <em>afzetten</em>&lt;sup&gt;2&lt;/sup&gt; table 8)</td>
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<td>afdakken</td>
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<td>V.6.3; fn. 149</td>
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<td>cf. <em>afknagen</em>&lt;sup&gt;2&lt;/sup&gt;; <em>afvreten</em>&lt;sup&gt;2&lt;/sup&gt;</td>
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<td>cf. <em>borstelen</em>&lt;sup&gt;2&lt;/sup&gt; V.6.3 / 6.5</td>
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<td>cf. <em>branden</em>&lt;sup&gt;2&lt;/sup&gt; V.6.1; V.6.3 / 6.5; V.7.1; fn. 172</td>
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<td>afet</td>
<td>cf. <em>afvreten</em>&lt;sup&gt;2&lt;/sup&gt;; <em>afknagen</em>&lt;sup&gt;2&lt;/sup&gt;</td>
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<td>V.7.2; cf. <em>gieten</em>&lt;sup&gt;2&lt;/sup&gt; VI.4.2; cf. <em>schenken</em>&lt;sup&gt;2&lt;/sup&gt;</td>
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<td>53   afkluiven</td>
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<td>IV.3.1; V.7.3</td>
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<td>IV.3.1</td>
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<td>cf. afknabbelen²</td>
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<td>cf. afkrabben²</td>
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<td>table 8; cf. krabben² V.6.3 / V.6.5</td>
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<td>cf. afkrabben²</td>
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<td>64   afkussen</td>
<td>fn. 181</td>
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<td>65   afkwispelen</td>
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<td>66   afladen</td>
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<td>82   afvragen</td>
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<td>84   afrepelen</td>
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<td>86   afruimen</td>
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<td>95   afschrapen</td>
<td>cf. afschrappen²; cf. afschabben² in Van Dale</td>
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<td>96   afschrapen</td>
<td>cf. afkrabben²; cf. afschrapen²</td>
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<td>97   afschrijven</td>
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verb WNT | cf. above
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98  afschrobben  -
99  afschroeien  -
100 afschrooien  -
101 afschuuden  -
102 afschuieren  -
103 afschuimen  -
104 afschuren  -
105 afslaan  -
106 afslippen  -
107 afsmeren  cf. smeren I.3; V.7.1; VI.2.3; VI.3; VI.4.4; table 12; VIII.5
108 afsnijden  cf. afmaaien; cf. uitsnijden
109 afsnipperen  -
110 afsnoeien  -
111 afsnuiten  -
112 afsoppen  cf. afspoelen
113 afspiegelen  -
114 afsponeren  -
115 afsritten  -
116 afspuiten  cf. spuiten VI.6.3
117 afspoelen  V.6.4; table 6; fn. 161; fn. 162
118 afsponsen  -
119 afspreken  -
120 afspuiten  cf. spuiten VI.6.3
121 afsteken  -
122 afstempelen  IV.6.2; cf. afdrukken
123 afstoten  -
124 afstormen  -
125 afstrijken  cf. strijken V.6.3 / 6.5
126 afstromen  -
127 afstropen  cf. afvillen; cf. stropen V.6.3; V.8; (cf. abziehen)
128 aftappen  V.6.2; table 8 (2x)
129 aftarmen  -
130 aftappen  -
131 aftreden  -
132 aftrekken  -
133 aftrouwen  -
134 afvagen  cf. afvegen
135 afvegen  IV.2.1; VI.2.2; cf. vegen IV.2.1; V.4; V.6.3 / 6.5
136 afvenen  -
137 afvijlen  -
138 afvijlen  V.6.3; table 8; V.8; cf. villen IV.3.2; cf. abziehen
139 afvijlen  -
140 afvreten  IV.3.1
141 afvuren  table 8; cf. abfeuern IV.4.2; cf. lösen in IV.3.2
142 afwassen  cf. wassen V.6.3 / 6.5; VI.2.2
143 afweiden  -
144 afwetten  -
145 afwissen  cf. wissen V.6.3 / 6.5; VI.2.2
146 afwijzen  -
147 afzagen  -
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<td>V.6.3 / 6.5</td>
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<td>163 inbranden</td>
<td>cf. branden$^2$ V.7.1; fn. 172</td>
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<td>cf. to encrust$^3$ fn. 185</td>
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<td>V.6.5; fn. 166</td>
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<td>cf. pakken$^2$ VI.4.3; table 11</td>
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<td>169 inslaan</td>
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<td>170 inspannen</td>
<td>cf. anspannen$^2$</td>
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<td>172 instoppen</td>
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<td>173 inwerken</td>
<td>V.6.2 (cf. inleggen$^2$; cf. afduikken$^3$)</td>
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<td>cf. inleggen$^2$: V.6.5; fn. 166</td>
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<td>fn. 165; cf. gieter$^2$ VI.4.2; cf. omschenken$^5$</td>
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<td>fn. 165; cf. laden$^2$ VI.4.3; table 10</td>
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<td>fn. 165; cf. pakken$^2$ VI.4.3; table 11</td>
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</table>
SUMMARY

Some verbs can be combined with different types of direct objects, even though they refer to a single action. Examples in English are to load goods / a ship; to plant roses / a garden; to clear snow / the pavement; to pluck feathers / a duck; to spin yarn / wool; to continue writing / the book; to enjoy reading / the book. Some Dutch and German dictionaries classify these combinations as “objectsverwisseling” or “Objektsvertauschung”. I will refer to this as “Metonymical Object Changes” (MOCs).

MOC often occurs with verbs that refer to situations in which objects are separated or put together. It also occurs in cases in which something is made out of something else. The first set of object changes is known in linguistic literature as transitive locative alternations, the second as material-product alternations. A third set of object changes occurs with verbs that can be combined with either an activity or with an object that plays a role in this activity. Examples taken from Dutch dictionaries are het schrijven continueren / het boek continueren (‘to continue writing / the book’); de presentatie onderbreken / de spreker onderbreken (‘to interrupt the presentation / the speaker’) and de wedstrijd afvlaggen / de coureurs afvlaggen (‘to flag down the race’/ “to flag down the racing drivers”). Since the early nineties linguists have analysed these examples as “logical metonymy”.

The notion “metonymy” is interesting, because lexicographers define MOC as a specific instance of metonymy. However, transitive locative alternations and material-product alternations are seldom analysed by linguists as involving metonymy. Therefore, this dissertation attempts to answer the question of whether MOCs can be explained in terms of metonymy.

For this purpose, chapter II first gives an overview of how metonymy is defined by linguists. Metonymy was originally regarded as a rhetorical and literary figure of speech. However, metonymy is so pervasive in language that linguists no longer regard metonymy as a stylistic device. Everyday expressions like reading Shakespeare for ‘reading Shakespeare’s books’ or drinking a whole bottle for ‘drinking what is in the bottle’ support this view. In particular cognitive linguists analyse metonymy in normal language use. They describe metonymy as a cognitive-linguistic mechanism that leads to an association between two concepts. This association is based on ‘closeness in reality’, also referred to as contiguity. Metonymy influences language and language use. This influence is analysed as a so-called ‘figure-ground effect’ (a gestalt switch) or as ‘highlighting’ in a conceptual structure (such as a ‘frame’). I have argued that influence on language by metonymy must be analysed semasiologically as well as onomasiologically. A semasiological analysis of metonymy starts with a linguistic sign and analyses its meaning (from a given form to its meaning), while an onomasiological analysis takes as its starting point the communicative purpose and works towards the words selected (from
intended meaning to form). In reading Shakespeare this means that not only has the interpretation of “Shakespeare” been metonymically shifted to ‘books by Shakespeare’, but also the choice of the expression “Shakespeare” rather than “books by Shakespeare” is determined by metonymy.

**Chapter III** analyses in which ways metonymy precisely influences language and language use. Taken together chapters II and III form the theoretical basis of this study and they will be of interest to every linguist who is interested in metonymy in general. Table 1 on page 84 gives an overview of all types of metonymical influences on language. The classification in this table is solely based on past linguistic literature. The table shows that linguists also analyse grammatical structures, such as the particular type of direct object, as metonymy-based. These metonymies are called predicative metonymies (cf. table 1, page 84).

**Chapter IV** contains an analysis of which metonymical influences on languages are explicitly described in Dutch and German dictionaries. For this purpose, I have looked at the older German dictionaries by Adelung and by the Grimm brothers (Deutsches Wörterbuch). For Dutch the traditional WNT and the modern dictionary by Van Dale have been used. Almost every type of metonymy appears to be marked in these dictionaries (cf. table 2, page 97). In this chapter I also consider how dictionaries describe tagged metonymies that determine the combination of a verb and certain types of direct object (i.e. MOCs). It turns out that in the vast majority of cases lexicographers of these dictionaries treat an MOC under one general meaning description. This would make the verbs non-polysemous. Linguistic tests support this view.

From **chapter V** onwards MOCs are analysed in detail. In chapter V, I discuss which examples are labelled MOC in dictionaries. Lists of the verbs from the dictionaries are found in the appendix (page 341ff). On the basis of these examples I analyse some characteristics of MOCs which distinguish them from other semantic-syntactic phenomena. This analysis shows that not all examples in dictionaries are clear or even real examples of MOC. Also, the list of verbs taken from dictionaries is far from complete.

Therefore, I examine in this chapter which types of verbs allow MOC. Many linguists have argued that particle verbs often allow two different types of direct objects. I show that this is not caused by the particle itself, but by the meaning of the particle verb as a semantic unit. This view is supported by the fact that synonymous verbs, which do not contain a particle, exhibit the same MOCs.

In addition, I show that it is not only particular types of verbs but also particular types of direct objects that often occur in MOCs. A classification of verb classes is not sufficient; MOCs can also be classified according to the relationships between their possible direct objects. This classification shows that these relations are the same as in classical metonymies, as in the reading Shakespeare or drinking a whole bottle examples. Figure 5 on page 171 and table 8 on page 173 illustrate this.
The following chapters (VI-IX) contain the core of the analysis of MOCs. Chapter VI analyses the first two groups of MOCs, the transitive locative alternations and the material-product alternation. Chapter VII analyses eventive MOCs, i.e. examples of logical metonymy. Both chapters are based on corpus data.

These chapters also discuss some methodological issues. Firstly, chapter VI shows that it is important to determine whether the other object must be expressed in the sentence, for instance in a prepositional phrase (e.g. to load goods into the ship / the ship with goods). In clear examples of MOC, the other possible object does not have to be realised, it is optional. Secondly, chapter VI also shows that the comparison of shifted direct objects with two different verbs are misrepresentative. Surprisingly, some scholars contrast different verbs in Dutch and German in their research on MOC-structures, although real alternation are two different possible argument structures of a single verb. Thirdly, chapter VII discusses to what extent corpus data can be used in a linguistic analysis of these phenomena. It explains the notion “corpus-oriented” in the title.

Chapters VI and VII primarily analyse characteristics of MOCs themselves. In line with the arguments in chapter V, the data confirm first of all that MOCs are determined by contiguity. It is the relationship between both objects that determines whether MOC is possible or not. This is illustrated by the fact that some verbs do allow MOCs but not with all kinds of direct object nouns.

Secondly, I show that MOCs exist in a continuum with other kinds of metonymies. Although MOCs are not prototypical metonymies -in which the interpretation of a specific metonymical word is shifted-, they cannot always be distinguished from these cases of metonymy. This therefore supports the metonymical nature of MOCs. Also, MOCs are determined to the same extent by contiguity as classical metonymies.

Thirdly, I make clear that the meaning of the verb also plays an important role. The relevance of the contiguity relation with respect to the meaning of the verb determines MOC.

The meaning of some verbs is therefore discussed in detail. Table 9 on page 214 provides an overview of Dutch vullen, German füllen and the morphologically derived particle verbs; table 10 on page 227 illustrates the meaning and use of Dutch laden and German laden; table 11 on page 229 does the same for Dutch pakken and German packen; and table 12 on page 232 for Dutch smeren and German schmieren. These tables confirm that the contiguity relation between the direct object nouns within a particular meaning of the verb is crucial.

The same point is made clear in the discussion of logical metonymies. Table 16 on page 274 shows that certain types of concrete direct object nouns occur frequently in combination with verbs that, from a semantic point of view, require an event as their direct object. Also, the interpretation of the verb and the concrete direct object noun depends on both: The verb and the concrete object noun determine together which events are often inferred. This again shows that MOCs depend on an interplay between verb and direct object noun.

Fourthly, I discuss some reasons for opting for a particular type of direct object. I also discuss some restrictions on MOC. Many object changes occur with a direct
object noun that refers to the result of the action expressed by the verb. This makes sense, because our actions are in general intentional and therefore they are focussed on a result. The change between a certain direct object and a result is immediately clear in the material-product alternation, but also in locative alternations results often occur as direct objects. For example, in to pack a suitcase the suitcase is not only an object which refers to the location of the things packed; the suitcase which is being packed is also the goal of the ‘packing’. It is even often difficult to tell whether we are dealing with a locative alternation or material-product alternation, as is the case with to press (out). Also the third group of MOCs, which shift between a concrete object and an event, often focusses on the result. In most cases, the additional event which is interpreted is a so-called agentive action (cf. page 237 and table 16 on page 274). In those cases the concrete object is the end result.

Contiguity between the concepts of the direct object nouns is not the only restriction on MOC; the two potential objects should also be equally important in the action referred to by the verb. This explains, for example, why the verb to fill and also the Dutch verb vullen do not allow a noun denoting the content of a container as its direct object: Because to fill means ‘to cause a container to become full’ the container is more important than its content. The behaviour of German füllen is different, which is in line with the fact that in German also the verb voll füllen (‘to fill full’) exists: The non-redundancy of voll füllen shows that füllen has a slightly different meaning than ‘to cause a container to become full’. The focus of füllen is not entirely on the container, which explains why füllen can be combined with a direct object noun denoting content.

Languages generally avoid the use of a direct object when it can be interpreted as the wrong type. I refer to this principle as “avoidance of ambiguity-of-DO-type”. This principle explains, for instance, why we cannot use to remove the table for ‘to remove things from the table’, even though we can use to clear the table for ‘to clear things from the table’. The phrase to remove the table would be interpreted as meaning that the table itself is removed. The object change is less problematic with to clear, because this verb is frequently used for taking objects away from a table. In this context, the table will therefore not be interpreted as the object that is taken away. The different possible objects with Dutch ruimen and afruimen and with German räumen and abräumen illustrate this principle even better: The verbs ruimen and räumen allow MOC with, for instance, snow and the location of the snow but not with the things on a table and the table. Phrases such as de tafel ruimen in Dutch and den Tisch räumen in German would be interpreted as removing the table itself. The object change is unproblematic with Dutch afruimen and German abräumen, because these verbs are always used in the context of taking objects away from a table.

Objects that may cause confusion are also avoided with verbs such as schenken, gießen or to pour. These verbs refer to the action of pouring some liquid from one container into another. They are therefore hardly ever combined with a noun denoting a container as their direct object, because in most cases it will not be clear whether this is the container which is poured out or the one which is filled by the ‘pouring’-action. If there is a clear focus on one of the two containers, the verb can
be used with a container as a direct object, as is the case in *to pour someone another cup*.

**Chapter VIII** models the analysis of chapters II-VI in a frame semantic approach. This chapter shows that the definition of metonymy in chapter II as a 'highlighting'-effect gives a good account of MOCs. Every type of MOC, including logical metonymy, can be explained in the same way, viz. as a highlighting effect in a frame. In addition to this, it turns out that a number of predictions on the basis of this model fit the actual data. An example of this is that logical metonymy should not only be possible between an event and an object involved in this event, but also between an event and the agent of this event. Examples such as *de presentatie onderbreken / de spreker onderbreken* ("to interrupt the presentation / the speaker") and *de wedstrijd afvlaggen / de coureurs afvlaggen* ("to flag down the race"/ "to flag down the racing drivers") are exactly of this type.

**Chapter IX** gives an overview of the findings of this study. In this dissertation I have shown in a cognitive linguistic way that MOCs are of a metonymical nature.
SAMENVATTING

SUMMARY IN DUTCH

Sommige werkwoorden kunnen gecombineerd worden met verschillende klassen van lijdend voorwerpen, terwijl ze toch eenzelfde handeling uitdrukken. Nederlandse voorbeelden hiervoor zijn combinaties als *bloemen afknippen / de bloemstelen afknippen; water afgieten / de pan afgieten; een komkommer snijden / schijfjes snijden; een uil afpellen / de schil afpellen; borden afspoelen / vet afspoelen; thee inschenken / een kopje inschenken; deeg bakken / brood bakken*. Sommige Nederlandse en Duitse woordenboeken classificeren deze combinaties als “objectsverwisseling” of “Objektsvertauschung”.

Objectsverwisseling treedt vaak op bij werkwoorden als gerefereerd wordt aan situaties waarin twee objecten van elkaar worden gescheiden of juist bij elkaar worden gebracht en in gevallen waarin iets uit iets anders gemaakt wordt. In de wetenschappelijke literatuur staat de eerste groep verwisselingen bekend als transitieve locatieve alternanties en de tweede als materiaal-product alternanties. Een derde groep objectsverwisselingen treedt op bij werkwoorden die gecombineerd kunnen worden met een activiteit of met een object dat in deze activiteit een rol speelt. Voorbeelden in Nederlandse woordenboeken hiervan zijn *het schrijven / het boek schrijven; de presentatie onderbreken / de spreker onderbreken; de wedstrijd afvlaggen / de coureurs afvlaggen*. Sinds de vroege jaren ’90 wordt deze vorm van objectsverwisseling door taalkundigen ook wel “logische metonymie” genoemd.

De term “metonymie” is in dit opzicht interessant, omdat het lexicografische label “objectsverwisseling” of “Objektsvertauschung” als een specifieke vorm van metonymie gedefinieerd wordt. De transitieve locatieve alternanties en de materiaal-product alternanties worden echter zelden als metonymisch geanalyseerd in de linguistische vakliteratuur. In dit proefschrift heb ik daarom de vraag beantwoord of voorbeelden die geclassificeerd zijn als objectsverwisselingen met behulp van metonymie verklard kunnen worden. De term “objectsverwisseling” is hierbij in het Engels vertaald als “**Metonymical Object Change**”, kortweg MOC.

Om na te gaan of objectsverwisselingen een metonymisch karakter hebben, heb ik allereerst in hoofdstuk II geanalyseerd hoe metonymie door taalkundigen gedefinieerd wordt. Van oorsprong is metonymie namelijk een stijlfiguur uit de retorica en de literatuurwetenschap. Metonymieën blijken echter zo veelvuldig in taalgebruik voor te komen dat taalkundigen dit niet als een stilistisch verschijnsel zien. Frases als *Goethe lezen* voor ‘werk van Goethe lezen’ of *de hele fles opdrinken* voor ‘de gehele inhoud van de fles opdrinken’ zijn immers heel alledaagse uitdrukkingen. Vooral cognitieve taalkundigen hebben metonymie in normaal taalgebruik geanalyseerd. Zij beschrijven metonymie als een cognitief-taalkundig mechanisme dat leidt tot een associatie tussen twee concepten. Deze associatie is
SAMENVATTING (summary in Dutch)

gebaseerd op ‘nabijheid in de werkelijkheid’, oftewel op contiguïteit. Metonymie beïnvloedt het taalsysteem en het taalgebruik. Deze invloed wordt beschreven als een zogenaamd ‘figure-ground effect’ (een soort gestaltswitch) of een vorm van ‘highlighting’ binnen een conceptuele structuur (zoals een ‘frame’). Ik beargumenteer dat invloed door metonymie op de taal zowel semasiologisch als onomasiologisch geanalyseerd moet worden. Een onomasiologische studie van metonymie analyseert hoe een letterlijk uitgedrukt concept metonymisch geïnterpreteerd wordt (dus geredeneerd van woord naar betekenis), terwijl een onomasiologische analyse vertrekt vanuit datgene wat je wilt uitdrukken naar de woordkeus (van betekenis naar woord). Toegepast op het bovenstaande Goethe-voorbeeld betekent dit niet alleen dat de interpretatie van Goethe voor ‘diens werk’ metonymisch beïnvloed wordt, maar ook de keuze voor de metonymische uitdrukking Goethe in plaats van Goethes werk.

Hoofdstuk III analyseert aansluitend op hoofdstuk II op wat voor manieren metonymie taal en taalgebruik beïnvloedt. Hoofdstuk II en III vormen samen de theoretische basis van dit onderzoek en deze hoofdstukken zijn interessant voor iedere taalkundige die in metonymie in het algemeen geïnteresseerd is. Tabel 1 op bladzijde 84 geeft een overzicht van metonymische invloeden op taal. Deze classificatie is tot stand gekomen op basis van wetenschappelijke, taalkundige literatuur. Hierbij blijkt dat ook grammaticale structuren, zoals de keuze van het soort lijdend voorwerp, volgens taalkundigen inderdaad door metonymie bepaald kunnen worden. Zulke metonymieën worden predicatieve metonymieën genoemd (vgl. tabel 1, blz. 84).


Vanaf hoofdstuk V worden objectsverwisselingen meer in detail geanalyseerd. Ik bespreek welke voorbeelden woordenboeken met expliciete labels geven. Een overzicht van de werkwoorden in woordenboeken is in de appendix te vinden (blz. 341 en verder). Op basis van dit materiaal analyseer ik enkele eigenschappen die objectsverwisselingen van andere semantisch-syntactische verschijnselen afgrenzen. Uit deze analyse blijkt dat niet alle voorbeelden uit het woordenboekmateriaal even
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duidelijk of goed zijn. Ook wordt duidelijk dat de lijsten met werkwoorden uit de woordenboeken verre van compleet zijn.


Bovendien blijkt dat niet alleen bepaalde klassen werkwoorden, maar juist ook bepaalde klassen lijdend voorwerpen vaak voorkomen bij objectsverwisselingen. Alleen een indeling in werkwoordklassen is dus niet genoeg; objectsverwisselingen moeten ook ingedeeld worden naar de relaties tussen de lijdend voorwerpen. Het blijkt bovendien dat deze relaties dezelfde zijn als die die bij prototypische metonymieën, zoals de bovenstaande Goethe- en fles-voorbeelden, een rol spelen. **Figuur 5** op bladzijde 171 en **tabel 8** op bladzijde 173 geven hiervan een overzicht.

De hierop volgende hoofdstukken vormen het eigenlijke hart van de analyse. **Hoofdstuk VI** analyseert de eerste twee groepen van objectsverwisselingen, de transitieve locatieve alternanties en de product-materiaal alternanties. **Hoofdstuk VII** analyseert de eventieve objectsverwisselingen, d.w.z. de voorbeelden van logische metonymie. De analyses in beide hoofdstukken baseren zich op corpusdata.

Naast eigenschappen van objectsverwisselingen komen in deze twee hoofdstukken ook enkele methodologische punten aan bod. Ten eerste laat hoofdstuk VI zien dat het belangrijk is om te bepalen in hoeverre het andere mogelijke lijdend voorwerp in de zin gerealiseerd moet worden, bijvoorbeeld in een voorzetselbepaling (zoals goederen in een schip / een schip met goederen laden). Het maakt verschil of dit optioneel is of niet; bij echte objectsverwisselingen is het andere object optioneel. Ten tweede toont hoofdstuk VI aan dat een analyse een verkeerd beeld geeft wanneer verschillende werkwoorden met elkaar vergeleken worden. Vreemd genoeg wordt dit door sommige wetenschappers wel eens gedaan, terwijl het idee van een echte alternantie juist is dat deze bij één en hetzelfde werkwoord plaatsvindt. Ten derde bespreekt hoofdstuk VII in hoeverre corpusdata eigenlijk voor een taalkundige analyse van zulke fenomenen gebruikt kunnen worden. Hier komt ook de notie “corpusgeoriënteerd” (“corpus-oriented”) uit de titel terug.

De twee hoofdstukken analyseren echter vooral eigenschappen van de objectsverwisselingen zelf. Ten eerste blijkt, in lijn met bevindingen uit hoofdstuk V, dat objectsverwisselingen inderdaad bepaald worden door contiguïteit. Het is de relatie tussen de beide objecten die bepaalt of een objectsverwisseling mogelijk is of niet. Dit blijkt bijvoorbeeld uit het feit dat een werkwoord vaak wel de alternantie toestaat, maar niet met allerlei soorten lijdend voorwerpen.

Ten tweede laat ik zien dat objectsverwisselingen in een continuüm met allerlei andere metonymieën staan. Ook dit bevestigt hun metonymische karakter, want hoewel ze geen voorbeelden van klassieke metonymie zijn, waarbij het
metonymisch gebruikte woord wezenlijk anders geïnterpreteerd wordt, zijn ze daar niet altijd van te onderscheiden en worden ze bovendien in dezelfde mate door contiguïteit bepaald.

Ten derde maak ik duidelijk dat naast de contiguïteitsrelatie tussen de mogelijke lijdend voorwerpen uiteraard ook de werkwoordbetekenis van belang is. Het gaat om de contiguïteitsrelatie tegen de achtergrond van de werkwoordbetekenis.

Ik behandel dan ook van bepaalde werkwoorden tamelijk gedetailleerd hun betekenis. Overzichten hiervan zijn te vinden voor *vullen* en *füllen* en partikelwerkwoorden die daarvan zijn afgeleid in tabel 9 op bladzijde 214, voor *laden* en *luden* in tabel 10 op bladzijde 227, voor *pachten* en *packen* in tabel 11 op bladzijde 229 en voor *smeren* en *schmieren* in tabel 12 op bladzijde 232. Deze tabellen bevestigen dat het gaat om de contiguïteitsrelatie tussen de objecten binnen een specifieke werkwoordbetekenis.

Hetzelfde wordt duidelijk bij de behandeling van logische metonymieën. *Tabel 16* op bladzijde 274 laat zien dat bepaalde soorten concrete lijdend voorwerpen frequent voorkomen bij werkwoorden die met een gebeurtenis geïnterpreteerd worden en dat de interpretatie van het werkwoord en lijdend voorwerp afhangt van zowel het type werkwoord als het type lijdend voorwerp. Dit toont dus opnieuw aan dat het telkens om een samenspel tussen de werkwoordbetekenis en de contiguïteitsrelatie van de objecten gaat.

Ten vierde behandel ik redenen om te kiezen voor een bepaald lijdend voorwerp. Ook ga ik na welke restricties er op objectsverwisselingen bestaan. Zeer veel verwisselingen vinden plaats met een lijdend voorwerp dat het resultaat van de werkwoordshandeling is. Dit is ook logisch, aangezien onze handelingen meestal intentioneel zijn en dus gericht zijn op een resultaat. Bij de materiaal-product alternanties is de verwisseling tussen het ene lijdend voorwerp en het resultaat direct duidelijk, maar ook bij locatieve alternanties wordt vaak het resultaat als lijdend voorwerp gebruikt. Zo is een koffer *pakken* niet alleen een verschuiving naar de locatie van de ingepakte spullen; de ingepakte koffer is ook het doel van het 'pakken'. Er zijn zelfs gevallen, waarin niet eens goed te zeggen is of we met een locatieve alternantie of een materiaal-product alternantie te maken hebben, zoals bij (uit)persen. Ook bij de derde groep objectsverwisselingen, die verwisselen tussen een concreet object en een handeling, ligt de focus vaak op het resultaat. In de meeste gevallen is de geïnterpreteerde handeling een zogenaamde agentieve handeling (vgl. blz. 237 en tabel 16 op blz. 274) en in die gevallen is het concreet object het eindresultaat.

Naast contiguïteit tussen beide objecten is een restrictie op objectsverwisseling dat beide objecten een even belangrijke rol binnen de door het werkwoord aangeduide handeling spelen. Dit verklaart bijvoorbeeld waarom het Nederlandse werkwoord *vullen* niet met de inhoud van een container als lijdend voorwerp kan voorkomen: Omdat *vullen* ‘veroorzaken dat iets vol wordt’ betekent, is de container veel belangrijker dan de inhoud. Voor het Duitse werkwoord *füllen* geldt dit niet. Het feit dat in het Duits naast *füllen* ook *voll füllen* voorkomt, laat zien dat de betekenis van *füllen* niet omschreven kan worden als ‘veroorzaken dat iets vol wordt’, want dit zou *voll füllen* dubbelop maken. De nadruk van de
werkwoordbetekenis ligt bij *füllen* dus niet per se op de inhoud, wat in overeenstemming is met het feit dat bij dit werkwoord de inhoud wel als lijdend voorwerp kan voorkomen.

Meestal vermijden talen het gebruik van een lijdend voorwerp wanneer dat als het verkeerde type geïnterpreteerd kan worden. Dit verklaart bijvoorbeeld waarom een werkwoord als *ruimen* (en ook het Duitse *räumen*) wel tussen sneeuw en de plaats waar die sneeuw ligt kan wisselen, maar niet tussen een tafel en de spullen op die tafel. Net als *de tafel verwijderen* zou *de tafel ruimen* (of *den Tisch räumen*) geïnterpreteerd worden als het weghalen van de tafel zelf. Het lijdend voorwerp wordt dan dus niet geïnterpreteerd als het object waarvan spullen geruimd worden, maar als datgene dat zelf geruimd wordt. Bij *afruimen* of *abbräumen* is objectsverwisseling geen probleem, omdat je tafels nooit ergens vandaan afruimt. Dit principe dat ervoor zorgt dat *de tafel ruimen* niet voor ‘de borden van de tafel ruimen’ gebruikt kan worden, noem ik vermijding van een ambigu type lijdend voorwerp (“avoidance of ambiguity-of-DO-type”).

Het vermijden van een dubbelzinnig object gebeurt ook bij *schenken*, *gießen* of *to pour*. Deze werkwoorden hebben bijna nooit een container als lijdend voorwerp, omdat meestal niet duidelijk is of dit de container is waaruit men schenkt of die men inschenkt. Is dit wel duidelijk, dan is de verwisseling wel degelijk mogelijk, zoals bij *to pour someone another cup*.

**Hoofdstuk VIII** modelleert de analyse uit de hoofdstukken II-VII ten slotte met behulp van de frame semantiek. Dit hoofdstuk laat zien dat de definitie van metonymie als een ‘highlighting’-effect in een frame uit hoofdstuk II objectsverwisselingen zeer goed verklaart. Wanneer dit ‘highlighting’-effect met behulp van frames uitgewerkt wordt, kunnen alle soorten objectsverwisselingen, dus inclusief voorbeelden van logische metonymie, op eenzelfde manier verklaard worden. Bovendien blijken bepaalde voorspellingen in overeenstemming met de data. Een voorbeeld hiervoor is dat logische metonymie niet alleen mogelijk moet zijn tussen een gebeurtenis en een voorwerp dat een rol speelt in die gebeurtenis, maar ook tussen een gebeurtenis en degene die de gebeurtenis uitvoert (de agens). Voorbeelden als *de presentatie onderbreken / de spreker onderbreken* en *de wedstrijd afvlaggen / de coureurs afvlaggen* zijn exact van dit type.

In **hoofdstuk IX** worden de bevindingen uit dit proefschrift samengevat. In dit proefschrift heb ik vanuit een cognitief-taalkundig perspectief laten zien dat objectsverwisselingen een metonymisch karakter hebben.
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