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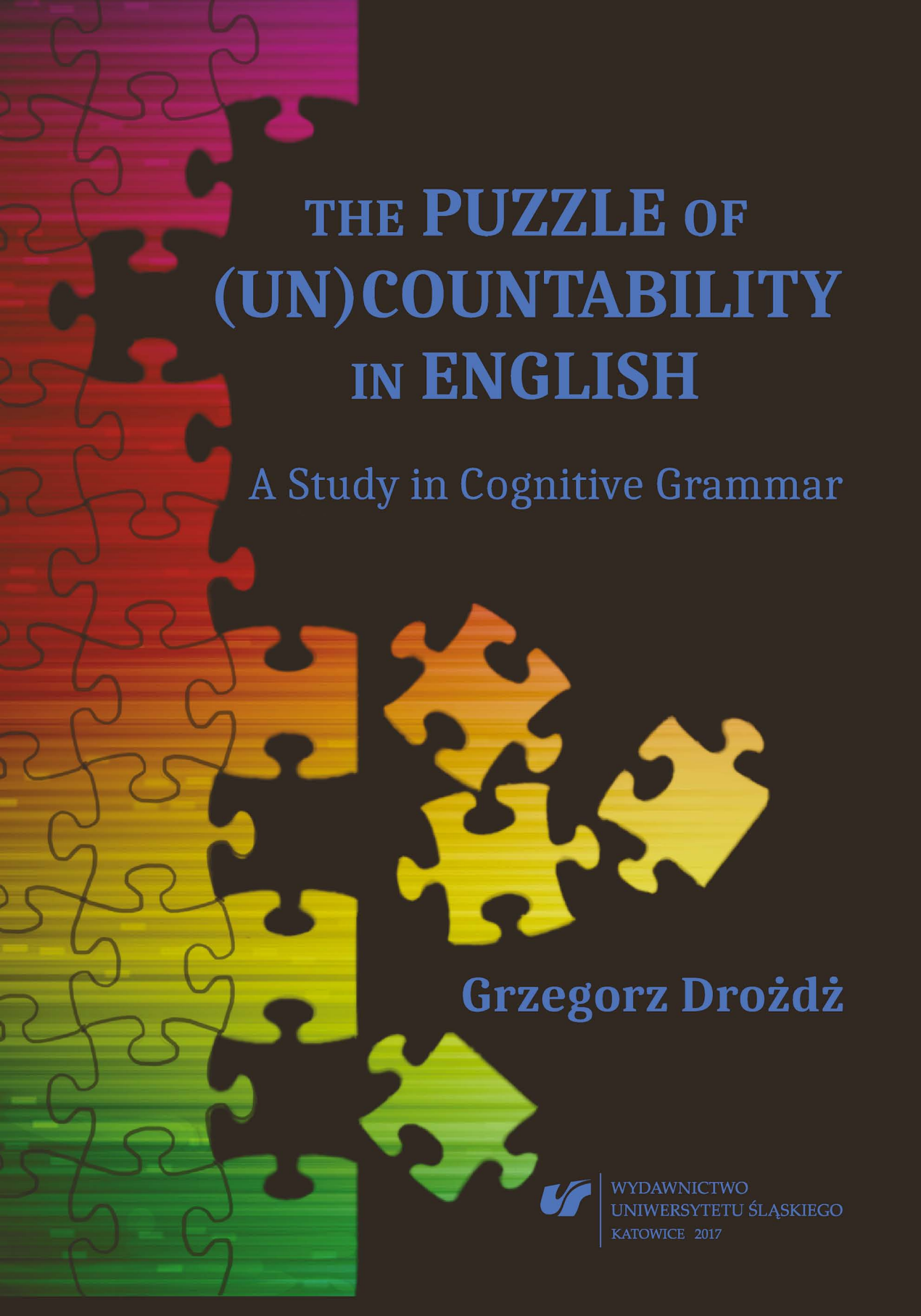
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THE PUZZLE OF (UN)COUNTABILITY IN ENGLISH

A Study in Cognitive Grammar

Grzegorz Drożdż



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The Puzzle of (Un)Countability in English

A Study in Cognitive Grammar

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**The Puzzle
of (Un)Countability in English**
A Study in Cognitive Grammar

Grzegorz Drożdż

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Preface

All projects begin with a flash of inspiration. Mine came quite unexpectedly, while reading a passage where Ron Langacker was scrutinising count and mass properties of nouns. After a detailed analysis of these properties, Ron came to a conclusion that was perfectly natural within the discussed framework – that probably all English nouns can be used in a count and mass manner. This claim shattered not only the peace of my mind but also the received knowledge that I had scrupulously gathered over the previous decades. As a consequence, a determination and drive appeared to put the shattered pieces together and to see the picture of the English language that emerges once the puzzle is done. The present book is a result of the work that followed.

At the outset, writing this book seemed just a trip. However, the further I went with the writing, the more I recognised that this trip metaphor should in fact be reformulated as a journey into an unfamiliar territory of metaphor. What is more, I realised the accuracy of several, more specific metaphors instantiating it: Cognitive Grammar was a compass in the jungle of theories and the great people I had the privilege to discuss my ideas with were signposts that indicated where I could go on and whether the route I had taken made sense.

At this juncture, I wish to express my warm thanks and deep appreciation to Dirk Geeraerts, Professor Elżbieta Tabakowska, and Ron Langacker for their insightful and friendly discussions, encouragement, and comments on different aspects of the research. My special thanks go to Adam Głaz for his thoughtful review that ultimately led to the present form of the text and the ideas included in it. Naturally, all the flaws that are still there remain my own responsibility.

Taking a broader perspective, I want to express my gratitude to the people who supported me on my journey. Klaus Uwe-Panther and Linda Thornburg motivated me not to give up while crossing troubled waters. Rafał Molenciki, a supervisor, colleague, and friend, was always there when I needed him. I also highly value all the comments and the positive feedback from my colleagues from the Institute of English (University of Silesia in Katowice). Last

but not least, I wish to thank sincerely my two wonderful companions: my wife, who not only inspired me in the work but also spent immeasurable time with me discussing various details of linguistics, and my son, who encouraged me to proceed against all odds. Without all this, the book would not have been possible.



Introduction

When confronted with the title *The Puzzle of (Un)Countability in English*, someone's first reaction might be: Why write another book on a topic that is so well-described? The answer to such a question is not simple, for it is undoubtedly true that much has been written about this issue. At the same time, perhaps, a more important question is whether the explanations that have been provided are exhaustive or satisfactory. And this is where a more complex facet of the problem of countability appears.

Actually, this problem resembles a situation that can be observed in a seemingly much easier and much better described grammatical problem – the number in English. However, under scrutiny the intuitive simplicity of this problem quickly disappears:

[T]here are nouns that normally do not have an s-plural (*tea, cotton*) unless different types or quantities are referred to, many have a zero plural only, unless different species are intended (*trout, salmon*), others are always plural, but with the zero ending (*cattle, vermin*), while still others have two plurals, one in zero and one in -s, e.g., *bear(s), million(s)* and *staff(s)*. Also, many substantives occur only with the s-ending. According to Quirk et al., some are singular (*measles, phonetics*), whereas others are plural (*scissors, outskirts*). A number of these s-nouns can take the indefinite article (*a scissors, a shambles*), and in a few cases, there is an opposition, for example, *a wood* versus *a woods*. Finally, certain nouns are sometimes countables (*a cake/two cakes*), sometimes uncountables (*eat cake*). (WICKENS, 1992: 4)

And what do linguists say about countability and uncountability? A cursory look at grammar books reveals that the dominant view of the issue can be summarised as follows: “apart from a tendency for concrete nouns to be count and for abstract nouns to be noncount, there is no necessary connection between the classes of nouns and the entities to which they refer” (QUIRK et al., 1985: 251; cf. also, e.g., GLEASON, 1955; PALMER, 1983). When this is complemented by comments similar to WARE's ([1975] 1979: 15), that “the distinction between

count nouns and mass nouns is notoriously difficult to make,” one is almost forced to conclude that countability and uncountability are irregular and unpredictable.

This type of conclusion might have been acceptable had it not been for dissenting voices that have been insisting for the past five decades that the situation in English is in fact radically different. Such scholars as GLEASON (1965), PELLETIER (1975), BAUER (1983), WICKENS (1992) and, more recently, LANGACKER (2008) keep showing a contrary vision of English – one in which “a noun may have a count sense in one case and a mass sense in another, depending on how the speaker conceptualizes the notion” (WICKENS, 1992: 22).

What is more, there is a growing body of evidence that nouns do have senses that exceed standard expectations and accounts, and that such senses are far more frequent than many scholars would like to believe. Actually, more recent grammar books, for example, HUDDLESTON and PULLUM (2002), take a considerable step towards this alternative picture of countability and uncountability. Still, their view is quite distant from Wickens’s stance. At this juncture, the considerable amount of research and observations made by Polish scholars into this body of evidence needs to be noted, such as TWARDZISZ (1998), BEREZOWSKI (1999, 2009), WILLIM (2006), GŁAZ (2012), WOŻNY (2012), BLOCH-TROJNAR (2012), BIERWIACZONEK (2013, 2016), and DROŻDŹ (2014a, 2014b, 2016). And although the data gathered so far are still inconclusive, the vision of grammar presented, among others, by QUIRK et al. (1985) or PALMER (1983) is seriously undermined.

The question that remains to be settled, then, is which of these two extreme views is more accurate for English. The aspect of countability and uncountability that we are concerned with is the already mentioned claim about the possibility of using every noun in English in count and mass senses. We want to check whether this claim is valid and, while investigating this issue, we aim to determine the semantic regularities that accompany such grammatical changes. The theory that we want to apply for this purpose is Ronald LANGACKER’s Cognitive Grammar (1987a, 1990, 1991, 2000a, 2000b, 2007, 2008, etc.), one of the prominent theories of grammar within the cognitive linguistics enterprise.

The book is divided into two main parts: theoretical and analytical. In the theoretical part, there are three main chapters. In the first one, we make an overview of the major views on countability and uncountability, indicate their major characteristics, point to the insights that each of them has made, and collect the regularities of count-to-mass and mass-to-count shifts that have been observed within them. The second chapter introduces Cognitive Grammar (CG) and its terminological apparatus. It discusses the major assumptions of CG: its approach to meaning, to the noun, and to countability and uncountability. The first part concludes with a chapter that compares the claims found in other branches of linguistics and those made within CG.

The analytical part is divided into four chapters. In the first one, we present the methodology of the analysis. In the second chapter, we present the schemas and patterns of semantic extension that we determined after an analysis of mass extensions of 30 count nouns. In the third chapter, we present the results of an analysis of count extensions of 30 mass nouns. The final chapter sums up the analysis and provides a discussion of the results.



Approaches to (un)countability - An overview

What strikes one about the topic of countability and uncountability is the number of competing viewpoints. What is more, in the course of their argumentation, different authors often come to conclusions that exclude other possibilities. That is why, in order to have a better panorama of countability and uncountability and thus to understand the reasons for such discrepancies, we decided to adopt a broader perspective on the issue. This, we hope, will provide a good basis for the analysis conducted in the second part of the book.

Generally, the discussion is based on the classification proposed by JOOSTEN (2003), who divided all approaches to countability and uncountability into four views: ontological, grammatical, (conceptual-) semantic, and contextual. While this generally reflects the order and the contents of the following subchapters, some modifications have been introduced. First, we begin the overview with a more fundamental issue – several insights from the work of FREGE ([1892] 1948), who has made a lasting impression on the development of linguistic thought and, therefore, on the ways of approaching the issue of countability and uncountability. The second modification concerns extending what Joosten calls the grammatical view by including in it both morphological and syntactic research. The other modifications are basically terminological: because from the cognitive perspective all semantics is conceptual, we call it the semantic view. Also, because context is just one of the elements of pragmatics, we use the more general term.

What must be stressed about this division, and probably about any other division of this type, is that it is anything but clear-cut. Actually, many scholars either explicitly point to problems with separating one view from another (e.g., NUNBERG, 1995: 116; PLAG, 2003: 114; DAVIS & GILLON, 2004: 78), or combine several views in order to arrive at more exhaustive and accurate accounts (e.g., LEECH, 1981; BUNT, 1985; QUIRK et al., 1985; COPESTAKE & BRISCOE, 1995; PELLETIER, 2012). Still, for the clarity of presentation, we try to keep the views apart.

The overview presents the theoretical frames within which the phenomenon of nouns occurring in count and mass senses is located. This chapter consists of three major subchapters. The first is an overview of the literature on countability and uncountability, the second presents the theoretical framework of Cognitive Grammar, and the third compares the main insights of all the approaches.

1.1 The major directions of exploration of countability and uncountability

What must be stressed about the first part of this overview is that it does not focus specifically on cognitive linguistics literature but reaches far beyond it to address also philosophical, formal, and generative literature. This kind of account has two basic aims. First, we want to achieve a comprehensive account of the phenomenon of countability and uncountability in English. Second, we want to produce a maximally exhaustive list of regularities of count-to-mass and mass-to-count extensions that have been discovered and discussed in English. In relation to this list, we compare the results of our analysis.

1.1.1 The philosophical heritage

The overview begins with the philosophical contribution that keeps recurring both directly and indirectly in the literature devoted to the count-mass distinction – that of Gottlob FREGE ([1892] 1948). Its influence on the linguistic community is judged variously. On the one hand, LAKOFF & JOHNSON (1999: 98–99) reject Frege's approach as totally inadequate. On the other hand, VERKUYL (2005: 19) claims that Frege's views became the common ground for the philosophical-logical tradition started in the seventies.

The key point of controversy, as LAKOFF & JOHNSON (1999: 250) see it, was the relation established by FREGE (1948: 211–213) between the referent, the mental representation of the referent, and the sense. To illustrate this relation, Frege introduced the metaphor of a person looking at the moon through a telescope. The moon corresponds to the referent, that is, the object that we can perceive by means of the senses. The image on the retina of the observer corresponds to the conception of the moon – this is an internal image that arises from the previous experience of the sense and from our previous activities. Finally, the moon's image projected onto the telescope lens, which lies between the moon and the observer, corresponds to the sense.

This classification established several distinctions, the pivotal one being that between the sense and the conception. As for the conception, Frege describes it as subjective – it differs from person to person, it is saturated with feeling and,

as a consequence, it is not clear or stable. From this, it also follows that the same sense can be associated with several conceptions, even for the same person.

The sense, by contrast, is characterised as the real image. It is objective and common for all people, because even if different people look at the moon, the reflection in the telescope stays the same. In language, this means that each expression has a definite sense and a referent. At the same time, one sense (and one referent) can be expressed by means of several different expressions both within the same and in different languages, though, as FREGE (1948: 211) notes, “natural languages often do not satisfy this condition.”

At this stage, it suffices to indicate that the Fregean notion of sense – the objective image of the moon projected on the telescope lens – underlies the formal approaches to linguistic meaning. It is this kind of meaning that formal scholars try to describe and it is these specific dimensions of language that they tend to notice and describe. At the same time, cognitive linguistics is preoccupied with what Frege conceived as the conception, though a proper appreciation of this direction of analysis can only be achieved after a number of reservations and a long train of clarifications what conception and bodily perception really are, as discussed in Sections 1.1.4.3 and 1.3.

To conclude our discussion of Frege’s contribution, we would like to quote what is generally called the Principle of Contextuality, or Frege’s Principle (PELLETIER, 2001: 92): “only in the context of a sentence do words have meaning.” Putting aside the doubts about what Frege possibly meant by this, of which Pelletier gives an exhaustive review, we want to stress the principle’s importance. Numerous scholars of different provenances, including CHERCHIA & MCCONNELL-GINET (1990: 62), PEREGRIN (1994: 15), HUGLY & SAYWARD (1995: 419), or JACKENDOFF (2002: 314), have referred to it in an attempt to explain their focus on the syntax or context. At the same time, other scholars refer to it indirectly by stating, for instance, that “the count/mass distinction is not really a distinction among words, but a distinction among ways of using them” (BUNT, 1979: 249; cf. also PARSONS, 1970; ALLAN, 1980; KOSLICKI, 1999). As can be seen, we cannot disregard Frege’s work if we want to understand the reasons for the discrepancies between formal and cognitive approaches to language.

1.1.2 The grammatical view

The view that we begin with is called grammatical (JOOSTEN, 2003: 218–219) because it encompasses the two dimensions typically associated with grammar: morphology and syntax, and stresses the fact that these dimensions are not related to semantics. This kind of view was most explicitly expressed by BLOOMFIELD (1933), the founder of American structuralism. According to BLOOMFIELD (1933: 266–267), nouns possess class-meanings, which are “com-

posites” or “greatest common factors” of grammatical meanings. What is crucial about class-meanings is that they “do not coincide with the meanings of strictly-defined technical terms” (p. 266), which means that the plural and mass status of such nouns as, respectively, *oats* and *wheat* seems “to have little non-linguistic justification” (p. 271).

He also puts count and mass nouns in the class of common nouns, whose class-meaning is “species of object occurring in more than one specimen” (p. 205). Count nouns, which he calls bounded nouns, require a determiner in the singular form. Their class-meaning is “species of object occurring in more than one specimen, *such that the specimens cannot be subdivided or merged*” (p. 205). Mass nouns, which he classifies to a more general class of unbounded nouns, “never take *a* and have no plural”, and their class-meaning is “species of object occurring in more than one specimen, *such that the specimens can be subdivided or merged and exist independently*” (p. 205).

One of the issues that BLOOMFIELD (1933: 205) briefly mentions in relation to bounded and unbounded nouns is class-cleavage. He claims that class-cleavage results in increasing the number of the nouns’ functions and notes a high frequency of this phenomenon, which can be seen, for instance, in two uses of such a simple noun as *egg* (p. 265). On the one hand, the noun can be classified as bounded in such cases as *an egg* or *eggs*. On the other hand, it can also be mass, as in *he got egg on his necktie*. A different type of cleavage can be seen in *coffee*, which can be both mass, *coffee*, and bounded: *an expensive coffee*.

In other words, BLOOMFIELD (1933: 205) indicates two important properties of referents of count and mass nouns, which he also establishes as the definitional properties of these nouns. First, the referents of count nouns cannot be subdivided and merged, while the referents of mass nouns can. Naturally, this does not mean that, for example, a pen cannot be divided or broken. Rather, the point is that when it is broken, it is no longer a pen that can serve its typical functions – it is just some plastic. Likewise, we cannot merge two pens because these will continue to be two separate objects. By contrast, when we divide, for instance, some water, the result is the same thing, water, but in two portions. Also, when we merge two amounts of water, the resultant substance is unchanged – water. What changes is its amount, which is greater, but the referent remains the same. This kind of approach entails that the discussion concerning the difference between count and mass nouns shifts to the level of class-meanings rather than the senses of individual words.

A continuation of this approach can be seen, for example, in GLEASON (1955: 145), who points out that the distinction between count and mass nouns “is purely arbitrary.” As an illustration of this claim, he compares two nouns: *rice* and *beans*. Despite the fact that referents of both of them consist of numerous small particles, the former is mass, and the latter is count. A similar view is also aired by PALMER (1983: 34–35). According to him, “these distinctions are

grammatical and do not directly correspond to any categories of meaning,” which he illustrates with such pairs of nouns with contrasting properties as: *oats* (C) – *wheat* (U), *foliage* (U) – *leaves* (C), and *hair* (U) – *cheveux* (C).

This approach seems to be well-accommodated in morphological analysis; for instance, BAUER (1983: 189) assumes that some processes, such as nominalisation or adjectivisation, have purely grammatical meaning. Other processes, like the prefixation of *-un*, have only lexical meaning. At the same time, Bauer admits that the majority of word-formation processes reveal both types of meaning, as is the case with nominalisations in *-er*, which have grammatical meaning because they turn a verb into a noun and lexical meaning because they denote, for example, a specific type of person – one that is associated with the action encoded in the base (cf., e.g., CRYSTAL, 1967; LIPKA, 1971).

As for the morphological treatment of nouns with count and mass senses, the main issue concerns the process that leads to such a dual classification. This is actually a corollary of a more general question – whether or not a noun with a reversed grammatical property is a new word (cf. WARE, [1975] 1979, and his discussion of count and mass senses of *hamburger* or *candy*, which he calls homophones). Generally, in the morphological literature, such cases are treated as resulting from three different processes: derivation, conversion, and a grammatical process. Each of them is briefly outlined below.

Derivation is defined as the process that usually leads to the formation of a new word with a new meaning (BEARD, 1998: 44). In one of the types of derivation, zero derivation, “a certain stem is used for the formation of a categorically different word without a derivative element being added” (MARCHAND, 1969: 293). There are at least two arguments for using the term zero derivation for this type of process. The negative one is that the alternative term, conversion, is used in reference to various phenomena and, as a result, its meaning is unclear (MARCHAND, 1969). Actually, BALTEIRO (2007: 20) calls conversion “a ‘dumping ground’ in which almost any two elements with identical form but categorically different have been included” (cf. VALERA, 1999, 2005: 33). The positive argument is advanced by BEARD (1998: 61), who maintains that an account of forms like *to dry*, *to wet*, or *to empty* is simpler if one sticks to the term derivation rather than conversion (though KATAMBA, 1993: 55, and LIPKA, 1990, consider this to be a controversial decision).

As for the term conversion, an insightful analysis of possible approaches to it is provided by BALTEIRO (2007: 20–38). It is beyond the scope of the present overview to go into detail about the options discussed there or argue for any of them – we will just indicate that there are several distinct interpretations of this term. First, however, we begin with a well-known definition of the phenomenon: “conversion is the change in form class of a form without any corresponding change of form” (BAUER, 1983: 32). This definition also assumes that conversion, like derivation, leads to the formation of a new word. Still, as BAUER

(1983) notes, this process is at the same time often treated as either a synonym or a subtype of zero derivation (cf. the discussion by BAUER & VALERA, 2005: 8–11, or PLAG, 2003: 107–116). The term conversion can also be interpreted as leading to a change of the syntactic category (O’GRADY et al., 1996: 157), similar to derivation, “because of the change in category and meaning that it brings about.” A different possibility is that it creates a new lexeme (KATAMBA, 1993: 70; cf. VALERA, 2005: 35), or that it changes both the semantic and syntactic category (CETNAROWSKA, 1993: 11).

At the same time, semanticists seem to be less fastidious about the nature of the process. They tend to use the terms *derivation* and *conversion* in order to emphasise, respectively, that one sense serves as the basis for another, and that a sense changes its grammatical classification. OSTLER & ATKINS (1991: 79), for instance, stress in their account of Lexical Implication Rules (LIRs) that “the arrow in the LIR-schema makes it clear that LIRs are viewed as derivational processes, not as symmetrical relations.” This perspective is interesting because it leads to several observations that are crucial for our analysis: that derived words are semantically more complex than base words, and that they have a narrower range of meaning and are thus less frequently used than base words (PLAG, 2003: 111).

LEECH (1981: 216) chooses a different term, a *rule of conversion*, which he characterises as “a change of syntactic function without a change of morphological specification.” A still different option is to call the process of changing noun classes “minor conversion” (QUIRK et al., 1985: 1562) or “nonmajor conversion” (BAUER, 1983: 227).

BALTEIRO (2007: 52), in turn, rejects the term conversion on the grounds that a change within a word-class does not require an involvement of word-formation processes. Rather, she claims, these are cases of shifts of usage resulting from grammatical processes. Actually, this option is well-accommodated within a broader morphological approach to the classification of word-formation processes, which sees the formation of new words as a result of different procedures, with word-formation proper being just one of the possibilities (SCHÖNEFELD, 2005: 150). The other two possibilities are syntax and semantics, and the latter encompasses such phenomena as metaphor and metonymy (FLEISHER & BARZ, 1992: 6). While the impact of semantic research is more broadly discussed in Section 1.1.4, the following paragraphs discuss the contribution of the other dimension of grammar, syntax, to the problem of countability and uncountability of nouns.

The influence of syntax on word formation is overtly indicated, among others, by MARCHAND (1969: 293–294), who considers conversion to be “nothing but syntactic patterns.” A similar observation is also aired by BAUER (1983). In his comment on the change of the noun *tea* from *some tea* to *two teas*, BAUER (1983: 227) concludes: “changes of this type occur with such ease and so regularly that many scholars prefer to see them as matters of syntactic usage rather than as word-formation” (cf., e.g., Katamba’s remark on the significance of the context

on word formation; KATAMBA, 1993: 55). It is worth noting that BAUER (1983: 227) goes so far as to observe that: “given a suitable context, it is possible to use almost any noun in either way.”

The crux of the syntactic approach is that the noun does not possess the property of +count or +mass by itself because it is semantically neutral (or, as is also sometimes assumed, it possesses one of these properties by default; see, e.g., ALLAN, 1980, or BORER, 2005: 108). It is in the actual sentence, under the influence of the features that are assigned to such elements of the lexicon as determiners, articles, or quantifiers, that the noun acquires its ultimate property. Some of the scholars that have pursued this line of research are ALLAN (1980), BUNT (1985), JACKENDOFF (1991), or BORER (2005).

However, the theoretical basis of this approach appeared gradually. According to PELLETIER & SCHUBERT (2003: 264), the syntactic view, which they call the occurrence approach, began with VERKUYL (1972), PELLETIER (1974) and WARE (1975). BUNT (1985: 12; cf. BUNT, 2006: 5759) adds two more scholars to this list: PARSONS (1970) and ALLAN (1980). However, this list needs some refinement, for in several cases noting the importance of the syntactic element is a remark made in passing rather than a syntax-directed type of research.

While VERKUYL (1972: 59) does note that the category of COUNT appears in several elements of the analysed noun phrase, this is a result of an analysis that he basically conducted along the lines established by CHOMSKY (1965), so to Verkuyl, it is a somewhat puzzling conclusion. As for PARSONS (1970: 362–363), his major goal is to show how to translate sentences with mass nouns into “a logically perspicuous notation,” and just one of the types of nouns that he tackles is mass nouns with quantifiers (pp. 370–373). PELLETIER (1974), in turn, makes an overview of all kinds of approaches to the count-mass distinction, and only in one footnote does he make the comment that “it is *senses* of nouns or noun phrases (or something like that) which are mass” (p. 108). The first analysis entirely devoted to the syntactic elements is the one conducted by WARE ([1975] 1979: 15), whose guiding assumption is that “the distinction between count nouns and mass nouns is determined by the quantifiers and determiners that are appropriate to the noun.” However, his discussion focuses, for the most part, on all kinds of quantifiers and expressions in which nouns reveal specific grammatical properties, such as *much*, *little*, *less*, *many*, the plural *-s* morpheme, *strands of hair*, *a piece of newspaper*, or *the taste of banana* (p. 21).

As a result, the most important contribution that shows the consequences of shifting the focus of attention to the level of the noun phrase is the analysis conducted by ALLAN (1980). Although his analysis begins with the observation that there are innumerable cases when a noun is used countably and uncountably (p. 547), he claims that it is a contradiction for a lexical entry to be simultaneously count and mass. For him, marking a noun as count in one case and as

mass in another would lead to the claim that there exists a pair of homophonous and homographous, yet different nouns. Rather, he points out, the countability marking is determined by the feature of countability encoded in the construction that hosts the noun, that is, the NP. This leads him to the conclusion that countability must be a feature of the NP rather than of the noun.

Still, the noun may have certain *countability preferences*, as some nouns are more readily used in count NPs than mass NPs. In order to establish these preferences, Allan suggests setting up countability and uncountability environments in which nouns can be tried as NP head. He claims that on the basis of the sum of such judgements, it becomes possible to calculate countability preferences of the noun.

The result of his analysis is a scale of countability consisting of eight distinct levels represented by different nouns. At the top of Allan's scale, there is *car*, which is 100% countable. The next six levels are represented by nouns of smaller degrees of countability: *oak*, *cattle*, *Himalayas*, *scissors*, *mankind*, and *admiration*. At the bottom of the list is the noun *equipment*, which is 100% mass (ALLAN, 1980: 562–563). Allan concludes his analysis with a remark that most nouns can be used “either countably or uncountably” (p. 565). What is interesting, furthermore, is his observation that the noun *equipment*, which is solely mass in his classification, can only be used in the count sense in “African and Asian varieties of English” (p. 554). Incidentally, *equipment* is one of the nouns selected for the analysis in Chapter 2.3, where this claim is tested.

Two more dimensions of Allan's analysis are worth mentioning. First, he reduces the role of meaning to a phenomenon that is complementary to syntax. Few such radical analyses have been conducted since then. Rather, syntactic information tends to be treated as part of semantic and/or morphological information, as can be seen in later parts of this overview. Second, adhering to certain formal linguistics assumptions (cf., e.g., LINK, 1983; BUNT, 1985; KRIFKA, 1989; BORER, 2005), ALLAN (1980: 554) assumes that nouns are basically mass, and that the only question that should be investigated is to what extent they can become count. This can be seen in one of his claims – that all nouns can head uncountable NPs, but not all of them can head count NPs.

1.1.3 The ontological view

This view, according to JOOSTEN (2003: 219), is concerned with defining real-world entities, that is, nouns' referents. Although it was started by a philosopher, Willard Van Orman QUINE (1960), his work is very often referred to in linguistic as well as philosophical literature, for instance, PARSONS (1970), PELLETIER (1975), ALLAN (1980), LINK (1983), BUNT (1985), GILLON (1992), WIERZBICKA (1985), KOSLICKI (1999), or WISNIEWSKI (2010).

The observation that is most important for our considerations is that mass nouns, and not count nouns, have the property of cumulative reference. QUINE (1960: 91) explains this as follows: “any sum of parts which are water is water.” This means that if two items can be called water and we put them together, the item that we get is still called water. On the other hand, count nouns, but not mass nouns, “possess built in modes, however arbitrary, of dividing their reference” (p. 91). As a result, only referents of count nouns can be approached as individual entities, which means that a collection of books can be divided into separate and distinct objects.

Attempts to define referents of nouns do not stop there. Another definitional criterion has been proposed by CHENG (1973: 287), hence the name: Cheng’s Condition. This criterion, also dubbed the “divisibility of reference,” states that “any part of the whole of the mass object which is w is w ,” which means that any amount of water is water on human scale, while a piece of pen is not a pen.

This kind of reasoning leads to the third definitional property of mass nouns. Inspired by the Homogenous Reference Hypothesis proposed by BUNT (1976), TER MEULEN (1981: 67–68) formulates the property called The Property of Homogeneous Reference: “any parts of a quantity of x that are themselves quantities of x can become parts of another quantity of x .” This means that not only is *a part* of water still water, but *all parts* of water are the same and can be called *water*. And although today homogeneity is not enumerated among the major definitional criteria of mass nouns (e.g., GHOMESHI & MAS-SAM, 2012: 1), traces of it can be found both in general literature of the subject (e.g., PELLETIER, 2012: 12; WIESE, 2012: 54; GODDARD, 2010: 139; WISNIEWSKI, 2010: 169) as well as in Cognitive Grammar (e.g., LANGACKER, 1987a: 204–205, 1990: 70–72).

While these characterisations are definitely true for referents of many mass nouns, it has been noticed that such properties are in fact more general. Such scholars as LINK (1983: 128), BUNT (1985: 19), and GILLON (1992: 597; 1999: 51–52) have indicated that cumulativity of reference is also true for bare plurals, as illustrated by LINK’s (1983: 123) example: “if the animals in this camp are horses and the animals in that camp are horses, then the animals in the two camps are horses.” GILLON (1999: 52) also observes that referents of such nouns as, for example, *stone*, *rock*, *ash*, *string*, *cord*, *rope*, and *tile* can be divided, which means that these nouns satisfy the criterion that was supposed to be exclusively characteristic of mass nouns.

The last notion that might be mentioned in reference to an effort to distinguish count and mass nouns is *individuation* (MCCAWLEY, 1975). While the very notion comes from JESPERSEN (1933: 162), who applied it in reference to expressions that single out things that together form a mass, for example, *a piece of*, as in *a piece of furniture*, MCCAWLEY (1975: 314) modifies the sense of this term. He uses it to make an observation that is Fregean in spirit: there is no actual difference be-

tween the referents of such nouns as *spaghetti* and *noodles* or *footwear* and *shoes* (cf. PALMER, 1983: 34–35; CHIERCHIA, 1998: 56; PELLETIER & SCHUBERT, 2003: 268; DOETJES, 2012: 2574–2575). What distinguishes these nouns, McCawley claims, is that “the meaning of a count noun specifies an individuation, whereas the meaning of a mass noun is neutral as to individuation” (p. 314).

To sum up these ontological characterisations, three points need to be made. First, this view has produced a noteworthy result: three definitional characteristics of mass nouns and two of count nouns have been proposed. These are, respectively, cumulativity, divisivity, and homogeneity of reference, and the ability to divide the nouns’ reference and individuation.

The second point is that despite the debates, no ultimate definitions of mass noun referents have been established. In the literature of the subject, this has ultimately led to the general conviction that the count/mass distinction is independent of the structure of matter (CHIERCHIA, 1998: 56; cf. MCCAWLEY, 1975: 214; WARE, 1975: 23; PALMER, 1983: 35; QUIRK et al., 1985: 251; BORER, 2005: 102, etc.). For many scholars, this meant abandoning the reference to reality altogether.

Finally, despite the lapse of many years of linguistic research and unquestionable progress in research on countability and uncountability, some residues of the ontological and the grammatical view can still be found in grammars. An instance of this is HUDDLESTON & PULLUM’S (2002: 335–336) account of what is countable: “the individual entities are atomic in the sense that they cannot be divided into smaller parts of the same kind as the whole. A boy consists of parts – head, arms, legs, etc. – but these parts are not themselves boys.” What strikes one about this description is not only the structuralist approach of the account but also the dehumanised treatment of the boy – in terms of parts, unless the scholars meant parts of the body. A similar, denotation-based reasoning is provided for mass nouns: “water, milk, soil, silver, and hydrogen are not atomic. An amount of water can be divided arbitrarily into parts which are themselves (amounts of) water. There is no individuation by non-count nouns of this type, hence no basis for counting.”

1.1.4 The semantic view

1.1.4.1 The first accounts

The first observation is that the phenomenon of sense shifting can be accommodated within different theories and, as a result, receive very different names and notations. Some of these possibilities are presented after NUNBERG (2004: 350):

- regular polysemy (APRESJAN, 1973);
- semantic transfer rules (LEECH, 1974, 1981);

- deferred ostension (QUINE, 1969) and deferred reference (NUNBERG, 1979);
- sense extensions and logical metonymies (PUSTEJOVSKY, 1991, 1995; COPESTAKE & BRISCOE, 1995);
- lexical implication rules (OSTLER & ATKINS, 1991); and
- metonymy and metaphor (e.g., LAKOFF, 1987).

This is but a small sample of the approaches that have contributed to the development of thought on countability and uncountability. Still, this sample points to certain stages within the development of this thought, as presented in the following sections. However, semantic considerations started much earlier, they go back to the first modern accounts of English grammar – the works of JESPERSEN (1924, 1933) – and it is with them that we begin.

What may be surprising about JESPERSEN's (1924, 1933) account is that many of his remarks are still valid. From our perspective, the crucial point is that he introduced the distinction between what he calls “thing-words” – countables and “mass-words” – uncountables. While the former ones call up the idea of a thing with “a certain shape or precise limits,” that is, of something that can be counted, the latter ones denote a “substance in itself independent of form” and immaterial things that cannot be counted (JESPERSEN, 1924: 198; cf. also JESPERSEN, 1933: 160). At the same time, as he notes, the classification poses certain problems because “many words have several meanings” (JESPERSEN, 1924: 199) and, as a result, they “do duty now as a mass-word and now as a thing-word.” He also observes that the original signification of such problematic nouns may belong to either of the classes.

JESPERSEN (1924: 200) also indicates four regularities behind count uses of mass nouns and mass uses of count nouns:

- countable names of trees (and plant names, e.g., *barley* or *wheat*) may develop such senses as ‘wood from the tree,’ ‘trees looked upon as a mass,’ and ‘live plants,’ for example, *an oak – oak* and *beech began to take the place of willow and elm*;
- count-words like *fish* can develop the sense ‘edible part of fish’ and ‘an object for fishing’;
- mass-words, for instance, *tin*, can develop the sense ‘a receptacle made of tin’; and
- mass-words can also develop the sense ‘a kind of the mass,’ for instance, *this wine is different from the one we had yesterday*.

From today's perspective, we can point to several important aspects of Jespersen's contribution. First, as argued by BUNT (1985: 9), because JESPERSEN (1924: 98) suggests that words “call up” certain ideas, his contribution to the definition of count and mass nouns should be classified as conceptual. Second, Jespersen points to the fact that the things to which count nouns refer have a shape or precise limits, while the referents of mass nouns do not have a specific form. Third, one of the differences between count and mass nouns hinges on the

meaning of nouns, and this has to do with a shift from the original property of the noun. At the same time, he correlates the semantic change, a “change of signification” of a noun (JESPERSEN, 1924: 200), with the grammatical change – one that implies a change in the noun classification: “Mass-words may become thing-words” (p. 200).

The next important set of insights that we want to discuss has been provided by GLEASON (1965). Starting with the remark that the differences between count and mass nouns have to do with the meaning, GLEASON (1965: 136) argues that these semantic differences are of different degrees. On the one hand, they can be quite profound, as in the case of the difference between *iron* and *an iron*. On the other hand, some of the differences are subtle and almost undefinable, as with *education* and *an education*. He also points to an important regularity – that one of the uses occurs less frequently than the other, and in rather unusual circumstances. For example, the nouns *book* and *shelf* are typically count nouns. Still, in a story about a termite mother and her son, the mother may say: *Johnny is very choosy about his food. He will eat book, but he won't touch shelf*. Although, as GLEASON (1965: 137) admits, this example is far-fetched, it is still possible. In other words, albeit rare and unusual, this kind of use is well-formed and can be found in standard language.

GLEASON (1965: 136) also claims that such differences between count and mass uses are fairly systematic and productive, and indicates three such regularities:

- most nouns referring to substances can be used as count nouns when they refer to ‘a portion of that substance,’ for instance, *beer – a beer (one glass of beer)*;
- most nouns referring to substances can also refer to specific types of these substances, as in *I don't care; one ice-cream is as good as another*; and
- nouns referring to typically count nouns can be made into mass nouns that mean ‘the substance of which the object is made,’ for instance, *if you eat an egg, you may get egg on your tie*.

These reflections have led GLEASON (1965: 136) to formulate one of the most radical views concerning the countability and uncountability of the noun, similar in spirit to the leitmotif of the present book: “every noun, given the right context, can occur in either type of usage, count or mass” (p. 137). What is interesting is the fact that this claim has never been refuted. On the contrary, more or less direct confirmations of it have cropped up here and there, for example, PELLETIER (1975: 457) agrees that “there is a *prima facie* reason to believe that every noun must have (perhaps hidden) both a count and a mass sense,” or assumes that “(almost?) every expression which can be used in one of the mass or count ways can be used in the other way” (PELLETIER & SCHUBERT, 2003: 267).

However, despite the incontestable linguistic arguments, none of the linguistic theories available at that time endorsed this claim. Actually, the first attempts

to confirm it, at least partially, were philosophical in nature. PELLETIER (1975: 456), for instance, suggests a thought experiment, which he calls the Universal Grinder (following David Lewis's suggestion, though Lewis has never used the term in writing). This machine is supposed to resemble a meat grinder in that something is introduced into one end, the grinder grinds it, and spews it from the other end. Its working can be seen with a steak, which is originally a countable item. At the same time, after it goes through the grinder, what we get is *steak all over the floor*. The universality of the grinder was stressed by PELLETIER (1975: 457) in the comment that "nothing is immune from the grinder treatment."

A similar machine, though with the reverse direction of conversion, from mass to count, was suggested by Pelletier in 1975, though it is later that he called it the Universal Packager (PELLETIER, 2012: 14). It converts any mass into "a standardized amount of M that is employed in some use," for example, an amount of beer can be called *a beer*, and an amount of ice-cream – *an ice-cream*.

Concluding, it is worth noting that these first descriptions are not overloaded with theory, that is, they either discuss certain linguistic facts without an attempt to impose on them any theoretical frames or propose thought experiments. The analyses that are discussed in the next section are different in this respect – they represent the top-down approach, that is, linguistic data are approached with a set of theoretical assumptions, and these assumptions are simply checked against the data.

1.1.4.2 The formal approaches to language

The present chapter marks the beginnings of two formal approaches to language: formal semantics and generative linguistics. Although distinct, they share a number of common characteristics, for example, a common root that can be traced back to Frege – the assumption that the sense should be described in an objective, human-independent manner. According to PELLETIER (1975: 451), some of the theories that were believed to provide an account of language and linguistic phenomena in terms of a "logically perspicuous notation" were, among others, ordinary first-order predicate logic, higher-order predicate logic, intensional logic, and transformational grammar. In time, these notational systems were enriched with a more or less explicitly articulated postulate: "separating off language and natural language semantics from 'general cognition'" (CHIERCHIA, 2010: 103).

Another similarity between the two approaches is a reliance on (or explicit rejection of) the definitions of matter propounded by QUINE (1960), which is seen as a necessary element of analysis: "an Account of the truth conditions of sentences usually entails certain ontological commitments regarding the logical structure of mass noun denotations" (BUNT, 1985: 5). Finally, many a time these views are convergent and even complementary (e.g., CHIERCHIA, 2010;

GILLON, 1999), or focus on similar issues, such as type-shifting rules or coercion (GROENENDIJK & STOKHOF, 1989; PUSTEJOVSKY & BOGURAEV, 1993; PUSTEJOVSKY, 1995). Because the generative framework has provided more insights into the topic of countability and uncountability, the framework of formal semantics is treated rather as an introduction to the more extensive and multidimensional generative approach.

The first analysis that we wish to mention is an example of model-theoretic semantics (BUNT, 1985). That this type of research is quite specific can be seen from the aims of the analysis, which are as follows:

- specify “the truth conditions of sentences, expressed in terms of the denotations of their constituents” (p. 4);
- account for “some of the most obvious logical properties of sentences containing mass nouns” (p. 25);
- “give a logical form to the intuition that mass nouns differ from count nouns in that they refer to something ‘without individuating’”; and
- “describe how the meaning of a complex expression containing a mass term is built up from the meaning of the constituents” (p. 43).

From our perspective, however, an important facet of this analysis is that BUNT (1985: 10–11) tries to account for the fact that “almost any mass noun can be used as a count noun with the reading ‘a kind of.’” As a result, he postulates the existence of a machine comparable to the Universal Grinder and the Universal Packager, which he calls the Universal Sorter (and PELLETIER & SCHUBERT, 2003: 269, call the Universal Objectifier). This machine would take any substance, inspect it according to such dimensions as colour, strength, etc., and issue qualification, such as: *This is an excellent wine* or *This is a strong linen*. In other words, this approach would provide the third universal machine for changing the physical structure of entities and, at the same time, sanctioning the grammatical variations of nouns designating them.

Because this basically exhausts the most important insights that can be derived from the area of formal semantics, it is worth signalling that this direction of analysis has continued to develop. Although the observations that it provides are not directly relevant for our analysis, it is worth noting that the semantic distinction between count and mass nouns that it offers can be approached in three ways (ROTHSTEIN, 2010: 344):

- a) proposed by LINK (1983), who argues “that mass nouns and count nouns have their denotations in different domains”;
- b) proposed by KRIFKA (1989), who derives “count nouns from mass meanings and suggests that count nouns denote extensive measure functions on entities in the mass domain”; and
- c) represented by CHERCHIA (1998), who argues “that mass nouns and count nouns are not distinguished typically and have their denotations in the same domain but that count nouns make a set of atoms lexically accessible.”

Finally, though formal semantics cannot answer the big question why some nouns have count and mass forms, there are certain pragmatic clues that suggest the answer:

We have been assuming that when COUNT applies to a nominal root predicate, the root nominal is no longer available in the active lexicon, and thus, for example, *boy* and *fence* do not have mass forms lexically available. Flexible nouns such as *stone*, *rope* and *brick*, which have mass and count forms, are an exception to this in English since the root nominal is still available in the active lexicon as a mass noun even after the count predicate has been derived. (ROTHSTEIN, 2010: 393)

Before discussing the details of the generative approach, three introductory remarks are needed. First, although we mainly focus on the generative observations concerning countability and uncountability, most of them can be accommodated within two models: the Generative Lexicon by PUSTEJOVSKY (e.g., 1995) and Conceptual Semantics (e.g., JACKENDOFF, 1983).

Second, an important characteristic of the generative account of language is the split between lexicon and syntax and, consequently, locating the discussed elements in either of them (e.g., PLAG, 2003; BORER, 2005: 3). Since the idea of the Generative Lexicon was to produce rules that productively derive extensions from basic word senses (e.g., PUSTEJOVSKY, 1993, 1995), two alternative methods of accounting for polysemy have been proposed.

On the one hand, COPESTAKE & BRISCOE (1995: 18) suggest that *sense extensions* take place at the level of the lexicon and require lexical rules, for instance, the grinding rule or portioning rule, which are seen as lexical operations that link count and mass senses (e.g., PUSTEJOVSKY, 1995: 224–225). These sense extension rules “are semi-productive and susceptible to processes such as blocking or preemption by synonymy, and are, we argue, formally identical to other rules of conversion and derivational morphology.”

On the other hand, COPESTAKE & BRISCOE (1995: 18) postulate *constructional polysemy*, where departures from the basic word senses result from the word’s local syntactic and semantic context within the sentence. However, as they stress, “in constructional polysemy, the polysemy is more apparent than real, because lexically there is only one sense and it is the process of syntagmatic co-composition (PUSTEJOVSKY, 1991) which causes sense modulation” (COPESTAKE & BRISCOE, 1995: 18; cf., e.g., GEERAERTS, 2010: 147–156; WECHSLER, 2015: 20–24). It is also during the discussion of constructional polysemy that PUSTEJOVSKY (1993, 1995) introduces such terms as *logical metonymy* and *coercion*.

Finally, as for the generative approach to language, one more issue needs elaboration. The generative accounts assume that the meanings of particular nouns are composed from primitive semantic elements – features (KATZ &

FODOR, 1963). From the perspective of our overview, this means that count and mass nouns are described as possessing, respectively, the feature +bounded or –bounded (or, alternatively, +C/ –C or +C/ +U, depending on the convention). This, in turn, enables a description of the differences between the articles and quantifiers characteristic of each type of noun (KATZ & FODOR, 1963: 209).

Our starting point are some remarks concerning the level of lexicon, and the first of them come from LEECH (1981: 204), who indicates that apart from lexical entries that carry the body of phonological, syntactic, and semantic information in the lexicon, there are also lexical rules that enable a creative use of the entries. However, these rules cannot operate in the lexicon in an unconstrained manner. LEECH (1981: 212–215) insists that the results of their workings can receive different grades of acceptability – from well-established senses, through dubious formations, to those that are outside the standard usage, though not inconceivable. At the same time, he stresses the rules’ partial productivity (pp. 220–227).

What is of interest for us is that LEECH (1981: 216–219) distinguishes between two such rules: a *rule of conversion* and a *rule of semantic transfer*. The former changes “the syntactic function (and usually the meaning) of an item without a corresponding change in morphological form” (p. 216). The latter, by contrast, is a specific kind of lexical rule “in which the morphological and syntactic specifications of the item remain the same, and only the semantic specification changes” (p. 217). This rule also includes rules of metaphoric and metonymic extension.

In this context, the count-to-mass and mass-to-count changes are presented as instances of the rule of conversion. The first of the rules is illustrated with *an embarrassment*, *two teas*, and *how many sugars?*, which are strongly reminiscent of the Universal Packager or Universal Sorter. However, in the case of the count → mass rule, LEECH (1981: 217) provides such examples as *an area of table* and *an inch of cigarette*, which are clearly distinct from cases produced by the Universal Grinder. Although Leech does not characterise these examples in any way, GILLON (1999: 58) explains this regularity as follows: “common count nouns for products can be used to denote parts which contribute to the enlargement or enhancement of the product,” which is another regularity of the count-to-mass type.

Lexical rules are further discussed by OSTLER & ATKINS (1991). They also postulate a list of regularities of semantic extension, Lexical Implication Rules (LIR), which they see as rules that generate derived lexical entries from base lexical entries (p. 76). The authors observe three important properties of these rules. First, they are not syntactic and are not derived as generalisations over world knowledge, but are primarily semantic, which the scholars equal with conceptual. Second, the rules are language- and dialect-specific. Finally, Ostler and Atkins also stress the fact that these rules can be blocked “by the pre-existing topography of the lexicon,” which they call “pre-emption” (p. 79).

Although OSTLER & ATKINS (1991: 77–79) enumerate the rules due to which they classify over 100 lexical and semantic alternations, we limit their presentation to those that are directly relevant for our analysis, that is, those that refer to the countability and uncountability of nouns designating concrete entities:

- LIR Hunting Plural, which alters a count noun, an animal, to a mass noun that denotes an animal in a hunting context, as in *I can see an elephant/ They've gone out after elephant*; this rule is also valid for such nouns as *tiger, shark, shrimp, partridge, pigeon*, etc.
- LIR Animal – Meat, which alters a count noun for an animal into a mass noun that means the meat from that animal, as in *Mary had a little lamb/ He won't touch lamb any more*, also applicable to *chicken, goose, monkey, dog, swordfish, shark*, etc.
- LIR Container – Amount/Contents, which changes a count noun that denotes a purpose-built container into a mass noun that designates the amount that it contains or its contents, as in *The glass broke/ Add a glass of wine/ Don't drink the whole glass*. This rule is also adequate for all purpose-built containers, such as *trunk, tank, jug, hamper, bucket, basket*, etc.
- LIR Food Item – Mass, which changes a count noun that denotes a food item into a mass noun that designates food substance, as in *Here's an egg/ He won't eat egg*. This rule is also obligatory for such nouns as *potato, lettuce, banana, coconut, haggis, sausage, pie*, etc.
- LIR Tree – Wood, which alters count nouns for trees into mass nouns that denote the wood from these trees, as exemplified by *oak, maple, birch, cedar* (cf. GILLON, 1999: 58).
- LIR Animal – Fur, which changes count nouns for animals into mass nouns that designate the fur of these animals (cf. APRESJAN, 1973).

Summing up these rules, it must be noted that although they are a result of an actual analysis and form the longest list compiled till the date, for the most part, they conform to what has already been noted by JESPERSEN (1924), GLEASON (1965), and APRESJAN (1973). In fact, the only novel regularity is the Container – Amount/ Contents rule.

A further set of regularities has been proposed by GILLON (1999). The conversion rules that he postulates are an attempt to combine morphology, syntax, and semantics. First, he has established that morphological features, \pm CT (count), are assigned to lexical entries – senses of count and mass nouns. These features, in turn, constrain the assignment of such morpho-syntactic features as \pm PL (plural). The assignment of these features basically conforms to syntactic restrictions, such as agreement between the grammatical number of the determiner and the noun that it modifies (pp. 53–54). These features impose certain semantic conditions, which basically means that, for example, *desk* is a count noun, thus having the feature +CT, while *machinery* is a mass nouns, so it has the feature –CT. Consequently, “its denotation is the set whose sole element is the greatest ag-

gregate of machinery formed from the universe of discourse.” Specifically, what the conversion rules do is change the features assigned to the noun.

GILLON (1999: 57) also complements the list proposed by OSTLER & ATKINS (1991) with the rule ‘mass-to-count conversion of food substance to the count unit of fabrication of this food,’ and illustrates it as *I ordered a pizza, not a slice of pizza*. He also indicates that one of the rules proposed by OSTLER & ATKINS (1991), ‘a change of a count food item to mass,’ encompasses a considerable subclass of nouns – names of plants, which are converted into nouns denoting parts of these plants that are “considered suitable for human consumption,” such as *potato, turnip, carrot, and rutabaga* (GILLON, 1999: 58).

A different dimension of the lexicon-syntax interface, constructional polysemy, is the focus of PUSTEJOVSKY’s analysis. Although most of his examples concern verbs and adjectives, for example, *enjoy: Bill enjoyed the movie vs. Mary enjoyed her cigarette or fast: a fast typist vs. a fast book* (PUSTEJOVSKY & BOGURAEV, 1993: 198; PUSTEJOVSKY, 1998: 325), we discuss this approach because it also involves what PUSTEJOVSKY (1991: 432) calls Count/Mass Alternations.

The issue that needs to be stressed about constructional polysemy is that such subtle sense modifications are not only systematic in language – they are “pervasive throughout language,” and even ubiquitous (PUSTEJOVSKY & BOGURAEV, 1993: 216; cf. also PUSTEJOVSKY & JEZEK, 2008: 181). It is also worth noting that one of the sources of inspiration for this approach to meaning was APRESJAN’S (1973: 16) idea of *regular polysemy*, adopted on the generative grounds under the name *systematic polysemy* (cf., e.g., OSTLER & ATKINS, 1991; NUNBERG & ZAENEN, 1992; PUSTEJOVSKY, 1995; COPESTAKE & BRISCOE, 1995):

Polysemy of a word A with the meaning a_i and a_j is called regular if, in the given language, there exists at least one other word B with the meaning b_i and b_j , which are semantically distinguished from each other in exactly the same way as a_i and a_j and if a_i and b_j , a_j and b_i are non-synonymous.

Furthermore, what also needs to be stressed is that APRESJAN (1973) provides some examples of this type of polysemy in Russian, and his examples are compatible with those suggested by JESPERSEN (1924) and GLEASON (1965):

- plant – food product made of it (e.g., *mustard*);
- tree – its wood (e.g., *fir*);
- animal – its fur (e.g., *squirrel*); and
- animal – its meat (e.g., *goose*).

However, in generative linguistics such cases are not treated in terms of standard polysemy. PUSTEJOVSKY (1991: 416) relaxes “the conditions on how the meaning of a complex expression is derived from its parts” and postulates a treatment of the phenomenon in terms of *logical polysemy*. He illustrates it on the basis of such nouns as *book* or *tunnel* (*Mary enjoyed the book and Thatcher*

vetoed the channel tunnel; PUSTEJOVSKY, 1991: 424). To account for the senses ‘the contents of the book’ and ‘a proposal related to the channel tunnel,’ Pustejovsky applies the notion of metonymy, clearly derived from the work of LAKOFF & JOHNSON (1980: 36): a relationship in which “a subpart or related part of an object ‘stands for’ the object itself.” Because it is the structure of the noun that seems to specify how the nouns should ultimately be interpreted, Pustejovsky concludes that such senses result from *logical metonymy*.

In general, however, he treats such examples as instances of a more general process – *type coercion*. By this, he means “a semantic operation that converts an argument to the type that is expected by a function, where it would otherwise result in a type error” (PUSTEJOVSKY, 1993: 83; cf. also PUSTEJOVSKY, 1995: 59). An illustration of such a seeming error is the sentence *Midwestern fish farmers are preferring catfish this year* (PUSTEJOVSKY, 1995: 88–89), which does not mean that fish farmers are more likely to eat catfish this year. The example should rather be interpreted as indicating that the fish farmers are raising the fish, which is the information encoded in the type rather than a specific quale role of the noun. More recently (e.g., PUSTEJOVSKY & JEZEK, 2008: 185–186), coercion has come to be seen as a mechanism of selection that underlies the workings of constructional polysemy. This means that lexical items, which are inherently complex in their meaning, assume the interpretation adequate to the context in which they appear (for recent approaches to coercion, e.g., coercing constructions, see ASHER, 2011).

An important aspect of coercion or *modulation*, as PUSTEJOVSKY & JEZEK (2008; cf. also PUSTEJOVSKY, 1995: 152–155) also call it, is that it is a semantic transformation that “captures the semantic relatedness between syntactically distinct expressions” (PUSTEJOVSKY & BOGURAEV, 1993: 201). Also, in his discussion of such examples as *John baked the potato* vs. *John baked the cake*, PUSTEJOVSKY (1991: 422–423) observes that both a verb can select its argument-type, and “an argument is itself able to select the predicates that govern it” (cf. PUSTEJOVSKY, 1998: 108–109). What is more, the change in meaning does not come from the meaning of the verb, but “in composition with the complement of the verb, at the level of the entire verb phrase,” which is a clear reference to syntax as the source of semantic change.

Further insights concerning constructional polysemy come from COPESTAKE & BRISCOE (1991: 88–89). First, they indicate that sense extensions involve metaphor and metonymy. Second, extensions are triggered by “grammatical mismatches” between what the predicate typically requires and what it actually selects. Third, certain lexical operations are not possible – they undergo blocking by entries that are semantically and syntactically identical with the extended senses, but which were present in the lexicon before and do not require a reference to the lexical rule. An example of such an entry may be *pork*, which seems to block the extension of the noun *pig* to the sense ‘pig meat’ (p. 99; cf.,

e.g., NUNBERG & ZAENEN, 1992: 394; NUNBERG, 2004: 352). And even if it is actually possible to use *pig* in the sense of ‘pig meat,’ this is not synonymous to *pork* – it conveys additional entailments (COPESTAKE & BRISCOE, 1995: 33). Finally, COPESTAKE & BRISCOE (1991: 90) stress the significance of a broader context – ultimate interpretations of extended senses do not flow from lexical organisation, because these can be overridden by contextual information based on pragmatic inference.

A still different perspective on count and mass polysemy has been adopted by Nunberg (e.g., NUNBERG, 1979, 1995, 2004; NUNBERG & ZAENEN, 1992). First of all, he stresses the gradation between semantics and pragmatics (NUNBERG, 1979: 143, 2004: 350–355) and, consequently, the problem with classifying whether certain uses result from one or the other. Actually, NUNBERG & ZAENEN (1992: 393) insist that “polysemy ranges from a completely pragmatic to a highly lexicalized phenomenon.” Still, the discussed examples are classified as cases of polysemy rather than pragmatics.

NUNBERG (1979: 149) distinguishes three distinct types of phenomena that fall within the category of semantic extension. The one closest to pragmatics is, for instance, *The ham sandwich is sitting at table 20*. Basing on QUINE’s (1969: 195) notion of *deferred ostension*, he classifies such examples as derived through *deferred reference*, where much depends on the context; indeed, outside this specific context, the sentence would make little sense. NUNBERG (1979: 150) also claims that “separate conventions should not be postulated to explain all normal word-uses.”

Second, NUNBERG & ZAENEN (1992: 393) refer to certain derived uses as based on lexical licences (rather than rules), for example, *Stay away from rabbit imported from the Chernobyl region* or *The hutch smells of rabbit* (p. 390). The applicability of licences that sanction such uses exceeds the context. Rather, as Nunberg and Zaenen claim, they depend entirely on background beliefs or encyclopaedic assumptions, for instance, that under normal circumstances, people eat rather than wear chicken or rabbit stuff. Illustrations of such licences are, according to Nunberg and Zaenen, the lexical implication rules proposed by OSTLER & ATKINS (1991) or COPESTAKE & BRISCOE (1991).

The last type of principles enumerated by NUNBERG & ZAENEN (1992: 393) are highly general semantic principles based on “schemas of knowledge organization or conceptual organization.” Their crucial property is that they may appear universally.

What is worth stressing about the stance adopted by Nunberg is that he sees the phenomenon as regular – “systematic” (NUNBERG & ZAENEN, 1992). This means that *The table is made of oak* or *That’s a lot of shopping center for a small town* (p. 388) concern not only such nouns as *oak* and *shopping center* but also many other types of trees or shops. At the same time, the process underlying the formation of such senses is called *transfer of meaning* and, according to

NUNBERG (1995: 109), it encompasses such processes as metonymy, metaphor, synaesthesia, and synecdoche.

To conclude the discussion of the contribution that the formal approaches to language have made to the study of countability and uncountability, we review some aspects of JACKENDOFF's (1983, 1991, 1997) Conceptual Semantics. One of these aspects is a more general proposal to incorporate the conceptual structure into the account of language (JACKENDOFF, 1983: 3–22). However, the notion *conceptual* is understood by Jackendoff (pp. 19–20) in a specific manner: as a separate level of mental representation that is characterised by “an innate system of conceptual well-formedness rules” with numerous mappings between conceptual category and syntactic category (cf. JACKENDOFF, 1997: 34). Actually, JACKENDOFF (1991: 10) describes the function of the conceptual system as the “syntax of thought.”

The next aspect of JACKENDOFF's (1991: 25–26) work is the proposal to describe such cases as *I'll have a coffee! Three coffees, please* or *There was dog all over the street* in terms of, respectively, the COMP (component) function and GR (grinding) function (based on the Universal Packager and the Universal Grinder). Importantly, these functions may remain unexpressed in syntax – they may be introduced to the conceptual structure of a phrase by *rules of construal*, where *construal* means the way in which the speaker invites the hearer to view the world (p. 12).

A further development indicates the workings of the *coercing function* in modifying the meaning and the grammatical property of *rabbit* in *We're having rabbit for dinner* (JACKENDOFF, 1997: 51–54). Actually, it is considered to be parallel to the function that works in the case of verbal coercions, which Jackendoff (pp. 52–53) explains as follows:

simple composition would produce a function-argument structure $F(X)$, where F is the function expressed by the syntactic head and X is the argument expressed by the syntactic complement. However, [there are cases when] X does not serve as a suitable argument for F . Hence the process of composition interpolates a “coercing function” G to create instead the structure $F(G(X))$, where X is a suitable argument for G , and $G(X)$ is a suitable argument for F .

Still, as JACKENDOFF (1997: 54) concludes, such senses do not lead to polysemy but, rather, “the correspondence rules in the CS-SS [conceptual structure – syntactic structure; GD] interface permit conceptual structure to contain these specialized bits of content that are unexpressed in syntax.” At the same time, Jackendoff questions the level of generality of the principles. Because he indicates certain possible exceptions to them, he suggests that they should be treated as more specialised principles.

Naturally, this does not exhaust all the nuances that have been noted about countability and uncountability within the generative framework. Still, the

general position concerning the semantic status of coercion adopted in most of the research discussed thus far seems to be well-founded. First, the indicated regularities are systematic, regular, and present in numerous languages (see, e.g., APRESJAN, 1973, for Russian; WILLIM, 2006, and BLOCH-TROJNAR, 2012, for Polish; WIESE & MALING, 2005, for Icelandic and German; ALEXIADOU, 2011, for Greek; MASSAM, 2012, and SRINIVASAN & RABAGLIATI, 2015, for a variety of languages; and AIKHENVALD, 2000, for a general overview of classifier languages). Second, certain possibilities of innovative uses seem to be pre-empted, to use CLARK & CLARK's (1979: 798) notion, by the presence of synonymous or nearly-synonymous terms. Finally, in some languages (e.g., Polish and Spanish), coercion affects syntactic behaviour.

Two observations conclude our overview of the formal approaches to the regularities of shifts between count and mass senses. First, the count-mass distinction can be seen as rooted in a specific feature of natural language – vagueness (e.g., CHIERCHIA, 2010). While CHIERCHIA (2010: 99) admits that actually any concept can be vague, he maintains that “mass nouns/concepts are vague in a way that systematically impairs their use in counting.” Second, despite so many years of research, CHIERCHIA (2010: 106) concludes that the Universal Packager and the Universal Sorter “seem to pretty much exhaust M→C shifts.” At the same time, the last of the universal thought experiments, the Universal Grinder, allows us to massify any count noun, though some of such uses are “decidedly more marked,” for example, *There was table/ bicycle all over the floor.*

1.1.4.3 The cognitive turn

The distinct character of the approach to language observed in cognitive linguistics (CL) does not stem from the terminology, for many notions that are used in the present section have already appeared in the discussion of generative grammar. Rather, these are specific philosophical, theoretical, and methodological assumptions that guide the analysis. For the coherence of argumentation, some of them are discussed in Section 1.2.1 devoted to Cognitive Grammar.

The cognitive linguistics enterprise is based on one general assumption: the formal structures of language are treated as “reflections of general conceptual organization, categorization principles, processing mechanisms, and experiential and environmental influences” (GEERAERTS & CUYCKENS, 2007: 3). This enables cognitive linguists to adopt a specific perspective on the analysed phenomena – a perspective focused on semantics. More specifically, linguists bring into focus such dimensions of language as the encyclopaedic nature of linguistic meaning and the perspectival nature of linguistic meaning (LANGACKER, 1987a: 56–96, 154–158; CROFT & CRUSE, 2004: 1–4; GEERAERTS & CUYCKENS, 2007: 5–7; for

a more detailed treatment of these issues and a more extensive list of concerns, see, e.g., TAYLOR, 2002: 8–16, or EVANS & GREEN, 2006: 27–50).

The notion that we wish to begin with, *embodiment*, can be seen in terms of a reinterpretation of the Fregean metaphor of a person looking at the moon (cf. Section 1.1.1). As LAKOFF & JOHNSON (1999: 97) indicate, the origins of the notion of embodiment can be traced down to MERLEAU-PONTY ([1945] 2001). Although today the term is interpreted in many different ways, most generally, embodiment means that “people’s subjective, felt experiences of their bodies in action provide part of the fundamental grounding for language and thought” (GIBBS, 2003: 2; cf., e.g., CRUSE, 2000; WILSON, 2002; TYLER & EVANS, 2003; GIBBS, 2006; ROHRER, 2006; JOHNSON & ROHRER, 2006). It is, among others, a reliance on embodiment that triggered the formation of many notions used in CG, such as *construal* or *reference point* (see Section 1.2.1 for a more detailed treatment).

The second dimension of CL that needs to be stressed here is the *encyclopaedic nature of linguistic meaning* or *encyclopaedic semantics* (e.g., LANGACKER, 1987a: 154–166). Again, this means not only that linguists can go beyond the dictionary or the context. In fact, to describe the meaning adequately, they should make a reference to “an open-ended body of knowledge pertaining to a certain type of entity” (LANGACKER, 2008: 39). Naturally, this does not entail that each time linguists want to analyse a lexical item, they should describe *everything* that is possibly known about the item’s referent – the extent of the account depends on the objectives of the specific analysis.

It must be noted that not everyone agrees with this postulate and there are voices that, indeed, there is a non-arbitrary distinction between linguistic and non-linguistic knowledge, as maintained, for example, by WIERZBICKA (1995: 289). However, under close scrutiny, such claims turn out to be far-fetched, as shown by GEERAERTS (2010: 127–137) in his insightful discussion of WIERZBICKA’s claims. Still, because of WIERZBICKA’s (1985, 1988) insistence on semantics and conceptualisation, two of the cognitive cornerstones, we discuss her analyses in the present subchapter. We also sketch the most significant observations concerning count and mass nouns made within what has come to be broadly called the Conceptual Metonymy Theory (CMYT) (DIRVEN & RUIZ DE MENDOZA, 2010: 39) and conclude with the insights concerning countability and uncountability provided by constructional approaches to grammar (GISBORNE & TROUSDALE, 2008).

As for Wierzbicka, she assumes that the names of objects, substances, fruits, or vegetables are not based on referents but on their conceptualisations (WIERZBICKA, 1985: 313). This has two important implications for the countability and uncountability of nouns. The first is that there seems to be a certain general tendency: in the food domain, nouns that designate objects above and below a certain size tend to be mass; while nouns with referents of average size

tend to be count (cf. BEREZOWSKI, 1999: 167). Such vegetables as *pumpkin* or *cabbage* are mass in English because we rarely see them as whole vegetables – they are too big to be served as separate food items (WIERZBICKA, 1985: 14–15). Rather, what is normally eaten is their pulp, that is, despite their bounded character as vegetables, we typically encounter them as processed portions of a particular substance. As for relatively small items, the smaller the object, the more it is likely to be mass (WIERZBICKA, 1988: 527–535). This can be seen with, for example, *flour*, *salt*, or *sugar*, whose referents consist of such tiny particles that they do not attract much attention while eating, which is a good basis for ascribing to these nouns the mass property. The third category consists of nouns that refer to medium-sized items, such as *apple* or *egg*. Because their referents are relatively clearly perceivable, these nouns are primarily count.

The second important implication flowing from conceptualising an object is that there are nouns that designate items of similar size and structure, but one of them is count and the other is mass, as in the case of, for instance, *olives* and *garlic* (WIERZBICKA, 1985: 313–314). If it is not the size, what, then, determines their grammatical properties? Pointing to the fact that conceptualisation is culture-specific, Wierzbicka indicates several such determinants.

One of them is the differences in eating habits or behaviours; for example, garlic, which is normally bigger than olives, is typically chopped and used as an additive to other food, while olives are basically eaten as individual things. Another determinant can be the situations in which primarily count nouns become mass because, for instance, the original form of the object is destroyed, as in *Add more apple/ egg to the salad* (WIERZBICKA, 1988: 521). A still different determinant can be the person that handles the given fruit at a specific point in time, as seen from the Polish perspective. *Maliny* ‘raspberries,’ *truskawki* ‘strawberries,’ or *śliwki* ‘plums’ are, as Wierzbicka maintains, count because they are picked (and often eaten) one by one (p. 526). However, when farmers sell them in the marketplace, they refer to them as mass because they are brought and handled not as individual items but as masses.

The climax of WIERZBICKA’S (1985: 337–341; cf. also WIERZBICKA, 1988: 555–560) study is a fourteen-element scale of countability – from countables only, through countables and singularia mostly, to different types of singularia and pluralia only. From our perspective, this scale is interesting because four of the nouns that she enumerates in different “only” classes are scrutinised in the present analysis for the possibility of alternative construals that they can adopt. These are: *book* (countables only), *butter* and *water* (singularia only – names of homogenous substances), and *sand* (singularia only – names of substances with a minimal unit). Consequently, whether or not these nouns are really only count or mass can be seen in the second part of the present work.

Two correlated aspects of Wierzbicka’s research have been developed by linguists and psycholinguists: “the size of the referent and the way it is per-

ceived by the speaker” (BEREZOWSKI, 1999: 166). As for the former, Berezowski indicates that such nouns as, for example, *tree*, *bush*, *plant*, and *flower* refer to things that are relatively big and typically given count interpretations (though mass interpretations are also possible in appropriate contexts). At the same time, the individual units designated by *grass*, *clover*, *hay*, and *moss* are relatively small and, as a result, receive the mass interpretation.

The latter aspect, human perception, can be seen in that trees, bushes, blades of grass and grains of sand are perfectly bounded, but it is only *tree* and *bush* that are primarily count. This, as BEREZOWSKI (1999: 167) claims, is caused by the fact that the referents of *grass* and *sand* are often “too small to the human eye to matter” (cf. such criteria as: “too many blades for anyone to be able to count them” and “not significant enough for anybody to want to count them,” proposed by WIERZBICKA, 1988: 531, 535).

Berezowski’s line of reasoning is put to test by WOŻNY (2012), who analyses three groups of nouns: 1) *stones*, *pebbles*, *gravel*, and *sand*; 2) *plants*, *flowers*, *grass*, and *clover*; and 3) *beans*, *peas*, *maize*, and *wheat*. The rationale behind such a classification is that the nouns from each group refer to items of similar type and comparable sizes though, at the same time, these sizes are different from group to group. From Wierzbicka’s perspective, it should be expected that the referents of the nouns from each group appear in different quantities, and are exposed to different patterns of interaction with people. This should entail different patterns of grammatical behaviour and different degrees of likelihood of occurrence in count and mass uses. On the basis of a BNC analysis, Woźny establishes the frequency of occurrence of these nouns in contexts favouring count and mass interpretations, which enables him both to determine the tendencies with which each noun is interpreted as count or mass and to calculate the average perceived referent sizes. Without going into the details of this linguistic-mathematical analysis, it must be concluded that Wierzbicka’s intuitions have gained solid statistical grounds.

Moreover, two of Wierzbicka’s claims are also corroborated by psycholinguistic research: the correlation between the size of an object and the countability of the noun naming it, and the fact that interaction patterns with people affect the property of countability of nouns. By themselves, such claims may seem controversial (e.g., PALMER, 1990), which may undermine their plausibility. However, psycholinguistic research is unequivocal at this point – it “provides direct evidence that how people interact with an aggregate affects their conceptualization of that aggregate as individuated or as nonindividuated” (WISNIEWSKI, 2010: 173; cf. also WISNIEWSKI et al., 2003; MIDDLETON et al., 2004, etc.). What is more, “small set sizes encourage the conceptualization of the entities in the set as individual bounded things, but large set sizes, in some way, encourage an alternative conceptualization” (CANTRELL & SMITH, 2013: 265).

Importantly, psycholinguistic research points to further dimensions of reality that have an impact on noun countability. They have been shown to influence

perception and, as a result, possibly also the count-mass classification. Among them, we can enumerate: the rigidity of the shape, the complexity of the shape, the narrative and linguistic frames that single out individuals, and the number of objects forming the set (e.g., LANDAU et al., 1988; SCHYNS, 1998; WALLIS & BÜLTHOFF, 1999; GELMAN & BLOOM, 2000; QUINN & SCHYNS, 2003; BARNER & SNEDEKER, 2005; BLAIR & SOMERVILLE, 2009; BARNER et al., 2010; CANTRELL & SMITH, 2013). The last of them seems especially important from the linguistic perspective, as it may be one of the factors behind the mass classification of such nouns as *sand*, *rice*, *sugar*, *salt*, etc., and behind the flexibility of the grammatical interpretation of, for instance, *grass*. In other words, psycholinguistic research confirms that even seemingly non-linguistic considerations may provide plausible explanations for certain linguistic classifications.

The next issue that we discuss within the present section is the type of insights provided by the Conceptual Metonymy Theory. Although numerous scholars have contributed to the development of this line of research, it boils down to one general observation: the semantic extension of nouns leading to a change of grammatical properties of nouns is motivated by conceptual metonymies (cf. an extensive discussion of this issue in DROŹDŹ, 2014b: 82–88). The major questions that need to be addressed from this perspective are: which metonymies motivate such extensions and whether or not there is a more general, guiding principle behind these metonymies.

As to the former question, the issue of nouns occurring with the reverse grammatical properties than their primary senses has been present since the theory's inception, that is, LAKOFF & JOHNSON's *Metaphors We Live By* ([1980] 2003: 38). Illustrating the workings of metonymy, these scholars discuss such examples as *We don't hire longhairs*, which they classify as motivated by the conceptual metonymy THE PART FOR THE WHOLE. Drawing on the extensive research conducted within CMYT, it is possible to indicate the following regularities (for a more detailed discussion of such conceptual metonymies, cf. DROŹDŹ, 2014b: 83–88):

- OBJECT FOR MATERIAL CONSTITUTING THE OBJECT, as in *I smell skunk* (RADDEN & KÖVECSES, 1999: 32) or *Putting powdered rhinoceros horn on his cereal failed to enhance his virility* (LANGACKER, 2008: 144);
- MATERIAL CONSTITUTING THE OBJECT FOR OBJECT, as in *This is a lot of garden for one man to do* (RADDEN & DIRVEN, 2007: 15), *Dip your silvers (jewellery, cutlery, etc.) in water used for boiling potatoes*, or *Now let's get a little picky as we go to the lumberyard to buy some oak* (BRDAR, 2007: 81, 83);
- CONTAINER FOR CONTENTS, as in *The bottle is sour* (RADDEN & KÖVECSES, 1999: 41) or *He has been drinking bottle after bottle* (RUIZ DE MENDOZA IBÁÑEZ & MAIRAL USÓN, 2007: 37);
- CONTENTS FOR CONTAINER, as in *The milk tipped over* (RADDEN & KÖVECSES, 1999: 41) or *I dropped the beer* (RADDEN, 2008: 402);

- CATEGORY FOR DEFINING PROPERTY, for example, *jerk* for stupidity (RADDEN & KÖVECSES, 1999: 35), which has also received two other formulations:
 - a) AN ENTITY FOR ONE OF ITS (HIGHLIGHTED) PROPERTIES, as in *There is a lot of America in what he does* (RUIZ DE MENDOZA IBÁÑEZ & PÉREZ HERNÁNDEZ, 2001: 337); and
 - b) ENTITY FOR CHARACTERISTIC, as in *Kodak* for a camera (PEIRSMAN & GEERAERTS, 2006: 307);
- DEFINING PROPERTY FOR CATEGORY, as in *blacks* for black people (RADDEN & KÖVECSES, 1999: 35):
 - a) AN INDIVIDUAL ENTITY FOR ONE OF ITS (HIGHLIGHTED) PROPERTIES, as in *He had too much heart in him to quit the game* (RUIZ DE MENDOZA IBÁÑEZ & PÉREZ HERNÁNDEZ, 2001: 337); and
 - b) CHARACTERISTIC FOR ENTITY, for example, *beauty* for a beautiful person (PEIRSMAN & GEERAERTS, 2006: 303); and
- POSSESSED FOR POSSESSOR, as in *He married money* (RADDEN & KÖVECSES, 1999: 40).

Naturally, such an enumeration of metonymies that motivate semantic extension of nouns and change their grammatical property does not solve all problems. First, the ultimate number of such metonymies is most probably impossible to establish – there are too many possible situations when a noun can undergo such extensions. What is more, despite almost two decades of intensive cognitive linguistics research, most of the metonymies that have been discussed here are variations of what was observed and described before, as pointed out by PEIRSMAN & GEERAERTS (2006: 276–277).

Secondly, the status of many of the above metonymies still seems to require further elaboration, for example, OBJECT FOR MATERIAL CONSTITUTING THE OBJECT. BRDAR & BRDAR-SZABÓ (2014: 329–330; cf. also BRDAR, 2009; BRDAR & BRDAR-SZABÓ, 2013) observe that *turkey* in *We did not always eat turkey for Christmas dinner* does not refer to the whole carcass but the parts of flesh that are considered to be suitable for consumption. By contrast, *cat* from LANGACKER'S (2008: 144) example *After a cat got in the way of our SUV, there was cat all over the driveway* highlights all the animal stuff that was on the driveway after it was hit by a vehicle. This suggests that the original metonymy should be rephrased and a sub-metonymy for it should be proposed: OBJECT FOR EDIBLE PARTS CONSTITUTING THE OBJECT and OBJECT FOR ALL MATERIAL CONSTITUTING THE OBJECT.

And this is where we come to the second major issue – whether or not it is possible to point to a large-scale principle that explains these metonymies. One such possibility is the reference-point phenomenon (LANGACKER, 1993, 2000a, 2008, etc.). At the same time, DROŹDŹ (2014a) proposes a classification of property-changing metonymies based on LANGACKER'S (2008: 143) idea of zooming in (as seen in *In my dream I attempt the winning shot and hit nothing*

but net). After an analysis of the extended senses of *beef*, *cow*, *fruit*, *apple*, *fish*, and *water*, DROŹDŹ (2014a: 126–130) proposes three types of regularities. The first one consists in analysing sense extension in terms of the figure-ground reversal (e.g., *apple* – from ‘a whole object’ to ‘the edible flesh of the apple’). The second one is zooming in – focusing on a particular part of the whole object (e.g., *apple* – from ‘a whole object’ to ‘a piece of apple’). Finally, Drożdź suggests the process that he calls zooming out, which resembles the change of construal experienced while moving away from the object (e.g. *fish* – from ‘a single creature’ to ‘a number of fish’).

The last cognitive contribution that we want to discuss is the object-substance continuum of things proposed by RADDEN & DIRVEN (2007: 71–74). The scholars establish two extreme categories: of (prototypical) objects and of (prototypical) substances, represented by such things as a car and water. Between the two extremes, they accommodate four consecutive categories: three types of extended senses of count nouns: ‘a portion’ (*a beer*), ‘a variety’ (*two wines*), and ‘the substance of the object’ (a lot of *car*), and an additional category of ‘superordinate terms’ (*furniture*). The four categories were classified as “blended categories,” and while the first two represent cases when a substance is seen as an object, the latter two are cases when objects are seen as substance (p. 74). What is crucial about this continuum is that it explicitly shows that even typically count things, such as cars, can be construed as a mass. At the same time, it is strongly suggested that such substances as water can be construed as objects when referred to as a portion or variety.

Moving on to the constructional perspective on countability and uncountability, we need to note two major assumptions that different construction grammars share. First, the units of grammar are symbolic, that is, “they are conventionalized relationships between form and meaning.” Second, all language is equally interesting and worth investigating, which means that there is no real difference between phenomena that are central and peripheral to grammar (GISBORNE & TROUSDALE, 2008: 1; for a more extensive discussion, cf. GOLDBERG, 2013: 15–17).

However, we want to begin with several observations that have provided the basis for these grammars. Among others, TALMY (2000: 51) notes that nouns can change their basic specifications (count or mass) to the opposite value. This means that nouns that are basically mass (or *unbounded*, to use Talmy’s terminology), can become bounded through the operation that he calls *bounding* or *portion excerpting*, as in the construction *body of water* or *some water*.

The opposite direction of change is possible through a cognitive operation of *debounding*. One of the debounding mechanisms that language has at its disposal is “to shift the grammatical category of the noun from count to mass” (p. 51). This is possible through the use of several types of constructions that turn nouns referring to intrinsically bounded entities into nouns that refer to unbounded

quantities. Among others, TALMY (2000: 52–53) discusses “shrubbery constructions,” which make use of certain grammatical elements, for example, –ery, to turn the count noun *shrub* into the mass *shrubbery*. He also indicates cat- and pencil-type constructions, as in *There is cat all over the driveway* and *There are probably (10) miles of pencil in that stationary store*. In such constructions, different dimensions of count objects can be affected. In the *cat* example, the affected dimension is the substance, in the *pencil* example – it is length. A still different dimension can be the extent of a surface, as in *There are probably (10) acres of movie screen in that old film studio* (p. 53).

In other words, Talmy sees a change in the grammatical properties of the noun as just one of the possible mechanisms of the more general processes of bounding or debounding. Also, he associates the change of grammatical properties of the noun with its occurrence in specific constructions. These are constructions that either construe the referent in a specific manner or describe actual situations in which the referent is debounded.

A parallel approach is adopted by GOLDBERG (1995: 159) in her *Construction Grammar or Cognitive Construction Grammar* (BOAS, 2013). Through the process that she calls *coercion*, the construction is able to coerce a noun into any possible reading (cf. TAYLOR, 1998: 194–196). GOLDBERG (1995: 159) stresses that coercion is not a pragmatic phenomenon, but it is licensed by particular constructions – “when a construction requires a particular interpretation that is not independently coded by particular lexical items.” Interestingly, Goldberg assumes that as long as a construction is able to coerce a lexical item into a different interpretation, “the entire expression will be judged grammatical.”

While Goldberg does not provide any examples of coerced interpretations of nouns, this was done by MICHAELIS (2004, 2006a, 2006b). Equipped with the *override principle*: “if a lexical item is semantically incompatible with its morphosyntactic context, the meaning of the lexical item conforms to the meaning of the structure in which it is embedded” (MICHAELIS, 2004: 25), she shows a coerced interpretation of, for instance, *a pudding* (p. 27). In brief, this rule entails that when the indefinite article appears with a mass noun, the article overrides the noun’s semantic features and forces an interpretation of a bounded entity, be it a portion of the substance or its kind (MICHAELIS, 2006b: 223). An example of the count-to-mass coercion is *Give me some blanket* (MICHAELIS, 2006a: 78), where the noun receives the mass construal because it appears with the unstressed *some*.

At the same time, another example of the same type, *You have apple on your shirt* (MICHAELIS, 2006a: 80), has to be explained differently due to the lack of quantifiers or articles. The shift is attributed to the verb phrase and the fact that type shifts are “conservative,” that is, on the one hand, they “replicate existing entries” and, on the other, they “are minimally distinct from the input entry.”

1.1.5 The pragmatic view

While the preceding discussion highlighted the semantic aspects of sense shifts, the present section focuses on the pragmatic ones, though it should be stressed that the difference between these approaches is anything but privative. As already indicated, examples like NUNBERG's (1979: 149) *ham sandwich* are only understood in specific contexts. Outside these contexts, such sentences would not be understood and would lose their referential adequacy (cf. the argument for a restaurant as a source of coercion; WIESE & MALING, 2005).

An interesting approach to the semantics-pragmatics interplay can be seen in the approach adopted by REID (1991). Although his study focuses on number, some of his examples, such as *The captain dropped Ø anchorØ* or *The table is made of Ø oakØ* (p. 77), and his observations are closely related to our analysis.

What Reid stresses is the relationship between semantics and pragmatics in terms of a certain semantic potential that only becomes clearly visible in certain communicative situations. On the one hand, he emphasises the semantic coherence of verb number by postulating, among others, the *notional concord*, which accounts for seeming violations of the subject-verb agreement (p. 197). On the other hand, he indicates two pragmatic principles that are present in communication (p. 37). The first is the "speaker's communicative intent," which may be stronger than the grammatical conventions. Naturally, this does not mean that whatever people say is correct, and REID (1991: 203–207) clearly indicates that there are many performance errors that are incorrect uses of language. However, when the communicative intent and grammar rules are in conflict, grammaticality judgements often become irrelevant and the speaker chooses to convey the intended message at the cost of grammatical correctness. The second pragmatic principle that Reid emphasises concerns "communicative pressures" – situations that favour certain interpretations rather than others, even if these lead to unconventional accounts of reality.

A compatible view of the role of pragmatics has been adopted in another study of the grammatical number of English nouns. Inspired by HIRTLE (1982), WICKENS (1992: 39, 87) analyses cases that are also of interest to us, for instance, a mass noun *measles* ('an ailment') and its count use *a measles* ('a kind of measles') or *writing* ('the process of writing') and its plural form *writings* ('results of writing'). Wickens admits that in his analysis he focuses on the precise characterisation of usages of the noun, but he treats these uses as "actualizations of its potential meaning in tongue" (p. 22). This means that speakers make use of grammatical signs in order to convey the meaning encoded in those signs. One of his observations is in fact parallel to GLEASON's (1965): "a noun may have a count sense in one case and a mass sense in another, depending on how the speaker conceptualizes the notion" (WICKENS, 1992: 22).

From this perspective, the research conducted by CLARK & CLARK (1979) is radically pragmatic in spirit. Although their analysis is confined to denominal verbs, the authors note that such innovations “pervade virtually every other construction in the language” (p. 809). What is more, the examples that they have collected strongly resemble the innovative types of extended senses that are the focus of the present analysis, for example, *They timbered off the hills in the 1880s*, *He wristed the ball over the net*, or *We all Wayned and Cagneyed* (p. 768). What is crucial about such nominalisations is that although they belong to the unified morphological family, their unified semantic description is impossible. This is how CLARK & CLARK (1979: 809) sum up the reasons:

What they mean depends on the time, place, and circumstances in which they are uttered, and must be accounted for by a convention about their use. This convention makes essential use of such notions as kinds of situations, rationality, ready computability, uniqueness, the speaker’s and listener’s mutual knowledge, and certain syntactic constraints.

The above list of the pragmatic dimensions found behind the innovative noun uses is long, but by no means exhaustive. Two further points have been indicated by NUNBERG (1995: 112–115), who calls them the conditions of transfer of the sense. First, he points to the necessity of *correspondence* between the two senses, despite the fact that sometimes such a correspondence is accidental or temporary. Second, he indicates that the aspect highlighted in the derived predicate must be somehow *noteworthy*, by which he means that either it is conversationally salient for the speakers or, for one reason or another, it simply matters.

Another point to the list comes from the analysis conducted by BEREZOWSKI (1999). Analysing innovative uses of count and mass nouns, he formulates a rule that explains why some uses of nouns are count and others are mass, and he based it on the concept of relevance (inspired by ALLAN, 1976: 108):

The use of the countability classifier is governed by the principle of relevance. The classifier is used only if the factors contributing to its meaning (referent size, number, shape, and collection structure) are judged by the speaker to be relevant for identifying the intended referent(s) of a noun used in an utterance.

This explains, among others, why we say *Reagan had a nice, oval office*, but *He was in office for eight years* (BEREZOWSKI, 1999: 172). As the author claims, the reader is directed towards adequate referents that comply with the relevant count/mass criteria from each sentence, that is, respectively, a room and the state of holding a position (cf., e.g., FALKUM, 2010, who also based his study on relevance theory by SPERBER & WILSON, 1986).

Two further pragmatic dimensions have been indicated by ALLAN (2011, 2012): graded salience and connotation. As for graded salience, ALLAN (2011:

165) claims that an account of meaning should be provided “together with an account of the probability and contextual conditions under which each aspect of the meaning is the preferred interpretation.” And it is these probabilistic meanings that Allan calls *grades of salience*. This gradation can be seen if we compare two pairs of sentences. On the one hand, *Jacqueline prefers leopard to fox* and *A plate of lamb can be worn by no-one* (ALLAN, 2012: 238–239) are quite straightforwardly interpretable as animal pelt and meat, respectively. On the other hand, the task of arriving at the appropriate readings can be more difficult, as in *The girl who wore mink was eating rabbit* and *Because she decided she preferred the lamb, Hetty put back the pigskin coat* (p. 239). The problem with the former example is that while *wore mink* clearly refers to apparel, the predicate in *eating rabbit* “coerces the reference to rabbit meat.” The latter example is even more complex, for the initial interpretation of *she preferred the lamb* as lamb meat turns out to be a garden-path misinterpretation – what *lamb* really means is a lambskin coat, as the second clause indicates.

Taking all this into consideration, ALLAN (2012) grades the probability of arriving at the adequate interpretations of the nouns *leopard* and *fox* as $CRED \geq 0.9$, *lamb* is graded as $CRED \geq 0.8$, and *rabbit*, as $CRED \geq 0.7$. At the same time, he stresses that these are his intuitions. To be objective, such rankings should be based on the frequency of interpretations obtained from large and diverse corpora.

The last important pragmatic dimension involved in the count-mass distinction that we discuss is connotation. The connotations that an expression may trigger can be characterised as “pragmatic effects that arise from encyclopaedic knowledge about its denotation (or reference) and also from experience, beliefs, and prejudices about the contexts in which the expression is typically used” (ALLAN, 2012: 247). This means that when such nouns as *bunny* or *doggie* are used, their denotations are the same as for *rabbit* or *dog*, respectively, but they additionally connote “endearment” or “childish language” (p. 248).

It is also worth noting that the notion of coercion, initially used to describe semantic phenomena, is also applied to pragmatic phenomena. This type of use is stressed, among others, by DE SWART (1998) in her discussion on verbal aspect, when she characterises coercion as follows: “coercion is governed by implicit contextual reinterpretation mechanisms triggered by the need to resolve aspectual conflicts” (p. 360).

Concluding this section, we would like to make two observations that define the two extreme approaches to the role of pragmatics. On the one hand, this role can be seen as so prominent that it can even affect grammatical categories. After showing the significance of the context in interpretations of such nonce uses as, for example, *There was a huge Buick there, just acres of car*, CROFT (1998: 165) comes to the conclusion that not only uses of nouns, but the very count and mass categories may be considered scalar because they “shift according to context and pragmatic use.”

On the other hand, what flows from the analysed studies is that although the context plays a prominent and sometimes even decisive role in the interpretation of some of the innovative uses, the role of semantics can never be dismissed altogether. It seems to extend from a grain of semantics (cf., e.g., FALKUM, 2010: 18) to a major sense contribution, turning pragmatics to what ALLAN (2011: 228) dubs as “largely an addition to the semantic specifications.”

1.1.6 The regularities of extension in linguistic research

As could be seen throughout the chapter, there is little disagreement on whether or not English nouns can reveal both count and mass properties. It is also uncontroversial that there are certain tendencies in noun extension that lead to count and mass properties. What is more, from time to time different scholars repeat the claim that all nouns have both count and mass properties. Problems begin when we try to establish more specific aspects of countability and uncountability, for example, how many such regularities exist and how they should be described.

One of the problems that we notice is that although grammarians have enumerated quite a number of regularities, only a few of them have actually found their way to such grammars of the English language as QUIRK et al. (1985) (henceforth QU) and HUDDLESTON & PULLUM (2002) (henceforth HP). Because they can be treated as a summary of the most up-to-date research on count and mass nouns and, at the same time, the most valid source of information about the English language, we analyse them in detail and compare this to the regularities that we have found in our overview of the literature.

We begin with a general observation that nouns with count and mass properties are not equally represented in QU's and HP's classifications. Although mass nouns constitute a minority of nouns of the English language (HP 2002: 240), they dominate both in discussions of nouns that change their grammatical properties and in any lists of such nouns.

As for the details of the two respective approaches, QU (1985: 1563–1564) claim that the process behind the reclassification of these nouns is minor conversion involving a semantic shift, and what is at issue is the uses of nouns. It is also important to note that reclassification is only considered to be “partially productive” (p. 1564), though it can be explained in terms of derivation. QU enumerate three types of extensions that cover the range of nouns considered in our analysis, that is, those that deal solely with concrete senses (p. 1564). For the sake of clarity, we also add information about the directionality of these reclassifications (U→C or C→U):

- A unit of N (U→C), as in *two (huge) cheeses*;
- A kind of N (U→C), as in *Some paints are more lasting than others*; and

- N viewed in terms of a measurable extent (normally only when accompanied by expressions of amount) (C→U), as in *an inch of pencil*.

HP (2002: 336–337) see the phenomenon differently. For them, the dual membership of nouns is a purely semantic phenomenon that results from polysemy, that is, the relationship between the associated senses of a noun. This, in turn, arises from the extension of meaning. HP (2002: 336) stress that in some cases the existence of a noun with a count and a mass sense is “entirely predictable,” and thus, the secondary sense does not need to be listed separately in a dictionary. What should also be noted about this approach is the gradable nature of the count or mass property: some nouns can be more countable than others, while there are nouns that are “only marginally countable” (p. 337). The limiting cases are somewhat contrived, nonce interpretations of basically count nouns.

Out of the extensions enumerated by HP, we focus on the four that are relevant for us. As in the case of QU’s classification, directionality has been added:

- drink/ food substances and servings (U→C): non-count names of drinks quite systematically allow interpretations in which the noun denotes a serving of the drink: a glass, bottle, cup, etc. This extension concerns also cases that can be metonymically called ‘a serving of...,’ which is a more restricted sense typically found in restaurant, bar, or café contexts; for example, *I don’t like beer* vs. *She offered me another beer* or *I’m going to have pork* vs. *That makes five porks and two turkeys, please*;
- foods and varieties (U→C): substances often extend to the sense ‘kind/ variety of substance’; for example, *We’re having cheese for lunch* vs. *These are two of my favourite cheeses*;
- animals and food (C→U): nouns that denote a particular type of animal extend to the food substance of this animal. This kind of extension applies generally to fish and can be found in association with poultry and lamb; for example, *I was lucky enough to catch a salmon today* vs. *We’re having salmon for dinner*; and
- nonce substance interpretations of primarily count nouns (C→U): sometimes it is possible that count nouns are “coerced” into a mass use, as in the case of count nouns that are reinterpreted as substance; for example, *The termite was living on a diet of book*.

What should be noted about these sets of extensions is that three of HP’s classes are comparable to the ones indicated by QU, that is, HP’s ‘drink/ food substances and servings,’ ‘animals and food,’ and ‘foods and varieties’ bring to mind, respectively, QU’s ‘A unit of N,’ ‘N viewed in terms of a measurable extent,’ and ‘A kind of N.’ However, certain differences between these extensions should also be observed. First of all, HP seem to aim at a very precise classification. This means that while QU use very general categories of count and noncount

nouns, HP narrow down the classification to very specific classes of drink and food substances. Although such a classification might seem more precise, this precision is achieved at a cost – the number of nouns to which HP’s extensions apply is considerably smaller; for instance, QU’s example of *paint* cannot be accommodated in HP’s classification.

At the same time, despite an obvious difference in the level of specificity, the notions used by QU and HP cannot be easily considered hyperonymous or hyponymous, because it is not certain whether QU’s notion of “a unit” encompasses HP’s examples of *beer* and *pork* (a glass of beer *is* a different type of unit than a serving of pork). Similarly, it is quite difficult to decide unanimously whether QU’s extension ‘N viewed in terms of a measurable extent’ is superordinate in relation to ‘animals and food.’ An exception to these discrepancies is the relationship between QU’s extension ‘A kind of N’ and HP’s ‘foods and varieties’ – in this case we assume that each variety of food is also a kind of noun and, consequently, apply QU’s terminology.

We should also observe that HP indicate a higher number of C→U extensions than QU. While QU propose just one, ‘N viewed in terms of a measurable extent,’ HP postulate two of them: ‘animals and food’ and ‘nonce substance interpretations of primarily count nouns.’

Finally, it should be noted that this last extension does not include nouns typically revealing a dual membership but “a somewhat contrived extension” (HP, 2002: 337) of otherwise countable senses. Thus, HP acknowledge that beside popular nouns with count and mass senses enumerated in dictionaries, there are also nouns that change their properties depending on the speaker’s interpretation. What is more, they note that this kind of extension is “in principle applicable quite generally” (p. 337), which means that despite their contrived character, such examples can be treated on a par with those from the previous categories.

To sum up the contribution of QU and HP, six distinct extensions of count-to-mass and mass-to-count changes are indicated:

- U→C: a unit of N;
- U→C: drink/ food substances and servings;
- U→C: a kind of N;
- C→U: N viewed in terms of a measurable extent;
- C→U: animals and food; and
- C→U: nonce substance interpretations of primarily count nouns.

It must be added that QU and HP have reduced the results of the previous decades of linguistic research to some of the regularities that can be found as early as in JESPERSEN (1924) and GLEASON (1965). At the same time, they have ignored quite a number of other regularities enumerated by those and other scholars, including the following:

- mass nouns, for example, *tin*, can develop the sense ‘a receptacle made of tin’ (JESPERSEN, 1924: 200);

- countable names of trees develop such senses as: ‘wood from the tree’ and ‘a mass of growing trees’ (p. 200);
- count nouns for animals that can be hunted or caught, for instance, *fish*, can develop the sense ‘an object for hunting/ fishing’ (p. 200);
- count nouns can develop the sense ‘the substance of which the object is made’ (GLEASON, 1965: 136);
- nouns referring to animals can extend to ‘animal fur’ (APRESJAN, 1973: 16);
- count nouns that denote a purpose-built container can be used in the mass sense: ‘the amount that it contains or its contents’ (OSTLER & ATKINS, 1991);
- nouns for products can be used in reference to parts which contribute to the enlargement or enhancement of the product (GILLON, 1999: 58);
- names of plants can denote ‘parts of these plants that are suitable for human consumption’ (p. 58); and
- food substances extend to the count unit of fabrication of this food (p. 57).

Actually, even this list does not exhaust all the possibilities; for example, NUNBERG & ZAENEN (1992: 388–390) mention two further examples that do not fall under any of the regularities: *That’s a lot of shopping center for a small town* and *The hutch smells of rabbit*. However, because the authors do not comment on the former sentence and interpret the latter one only in terms of “an undifferentiated ‘rabbit stuff’” (p. 390), we refrain from generalising about these extensions.

To conclude the overview, we provide its crucial findings – a total of 14 distinct regularities of mass-to-count and count-to-mass extensions, of which five are extensions of mass nouns and nine, of count nouns, thus reversing the proportions of mass and count nouns in QU’s and HP’s classifications:

C→U:

- nouns that designate objects extend to ‘a measurable extent of the object,’ as in *I just need a few pencils vs. an inch of pencil*;
- nouns for things extend to ‘parts of things that contribute to the enlargement or enhancement of the product,’ as in *We’ve just bought a table vs. an area of table*;
- nouns with ‘container’ senses can be used in the mass sense: ‘the amount that it contains or its contents,’ as in *The glass broke vs. Don’t drink the whole glass*;
- names of trees develop the sense ‘wood from the tree,’ as in *I’ve just cut down three oaks vs. The table is made of oak*;
- names of trees extend to the sense ‘a mass of growing trees,’ as in *Can you see those oaks? vs. Oak and beech began to take the place of willow and elm*;
- nouns designating objects develop nonce substance interpretations of these objects, as in *Put these books on the shelf vs. The termite was living on a diet of book*;
- nouns, including food items, animals, and plants (e.g., *egg, salmon, potato*, etc.), develop the sense ‘the edible part of the substance of which the object is

made,' as in *if you eat an egg, you may get egg on your tie; I was lucky enough to catch a salmon today* vs. *We're having salmon for dinner; and Can I cook potatoes with lamb? vs. mashed potato;*

- nouns referring to animals extend to 'animal pelt,' as in *Did you see the leopards in the zoo? vs. Jacqueline prefers leopard to fox;* and
- nouns for animals develop the sense 'animals to be hunted or caught,' as in *I can see an elephant vs. They've gone out after elephant.*

U→C:

- mass nouns designating a substance extend to 'a unit of the substance denoted by the noun,' as in *I like cheese vs. two (huge) cheeses;*
- mass nouns for food substances and drinks extend to servings of these substances and drinks, as in *I'm going to have pork vs. That makes five porks and two turkeys, please and I don't like beer vs. She offered me another beer;*
- mass nouns extend to the sense 'a kind of N' (e.g., *How much paint do you need for your room? vs. Some paints are more lasting than others*);
- mass nouns for a metal develop the sense 'a receptacle made of this metal,' as in *What can you use so much tin for? vs. What do you keep in those tins?*; and
- mass nouns for food substances extend to 'a unit of fabrication of this food,' as in *I ordered a pizza, not a slice of pizza.*

And this is where we conclude an overview of the literature. The 14 regularities show that the preceding discussion has provided not only important insights into the nature of countability but also allowed us to trace a number of principles according to which noun senses can change.

1.2 The Cognitive Grammar framework

The present subchapter discusses the details of the theory on the basis of which the analysis from Chapter 2 is conducted – Cognitive Grammar. Because of the complexity of the theory, the presentation starts with the most general claims made by Langacker: the nature of the CG approach to language, the notion of construal, and the CG view on the phenomenon of metonymy and metaphor. Then, a section is devoted to the definition of the noun and its properties, which is a starting point for the consequent presentation of the issue of countability and uncountability from the CG perspective. This, in turn, requires an elaboration on the conceptual foundations of the count-mass distinction and on the specific claims that CG makes on the countability and uncountability of nouns. The account finishes with a set of regularities of semantic change observed within CG.

1.2.1 General assumptions

Cognitive Grammar is one of the theories constituting the Cognitive Linguistics movement. As such, it shares the movement's foundational assumptions, such as the fact that "language is an integral facet of cognition which reflects the interaction of social, cultural, psychological, communicative and functional considerations." What is more, it seeks "to explicate language structure in terms of the other facets of cognition on which it draws as well as the communicative function it serves" (TAYLOR, 2002: 9; cf., e.g., CROFT & CRUSE, 2004: 1–4; EVANS & GREEN, 2006: 6–11; GEERAERTS & CUYCKENS, 2007: 5).

Another characteristic that it shares with the movement is that CG is usage-based (LANGACKER, 1988, 2000b, 2008, etc.). There are several facets of this claim. The most straightforward is that all linguistic units arise from usage events (LANGACKER, 2008: 220). Further, this means that CG is maximalist, non-reductive, and bottom-up (LANGACKER, 1988: 131–133; cf. TAYLOR, 2002: 27–28). The first of these postulates implies that conventional linguistic units form a gradation from fully general to idiosyncratic, at different levels of schematicity. This also means that no special significance is ascribed to any type of unit. As for the non-reductive dimension, Langacker recognises two different facets of linguistic knowledge: a schema and its instantiation (and neither reduces to the other). What is more, if they possess the status of units, they are both included in the grammar of a language. As a result, grammar is seen as an inventory that provides the speaker with a range of symbolic resources for constructing utterances. Finally, the bottom-up approach means that linguistic units arise from schematisations of specific usage events, and that CG attaches greater importance to low-level schemas than to the highly abstract ones.

At the same time, there are certain exceptional characteristics of CG, such as that an account of language requires three types of structures: symbolic, semantic, and phonological (e.g., LANGACKER, 1987a: 57, 2008: 15–16). More specifically, this means that the symbolic structure incorporates the other two as its poles. And thus, semantic structures are conceptualisations that function as the meanings of linguistic units, while phonological structures are sounds, gestures, and orthographic representations. One of the crucial characteristics of the two poles is that either is able to evoke the other, which reflects the basic semiological function of language: "permitting meanings to be symbolized phonologically" (LANGACKER, 2008: 15).

At this stage, it is also of crucial importance to explain the claim that meaning is the conceptualisation associated with linguistic units. Conceptualisation is a process of meaning construction that is grounded, on the one hand, in physical reality and, on the other hand, in social interaction (LANGACKER, 2008: 4; cf. also LANGACKER, 2008: 30). Thus, it is understood that linguistic units do

not carry or have a meaning but they “contribute to the process of meaning construction which takes place at the conceptual level” (EVANS, 2007: 38).

1.2.1.1 The conceptual content and construal

A specific feature of CG is its approach to meaning. LANGACKER (2008: 43, 2007: 435) highlights two complementary aspects of it: the conceptual content and the specific manner in which this content is construed. As for the former facet, a linguistic unit activates, as the basis of its meaning, a conceptual domain (any kind of conception or realm of experience); for example, *uncle* evokes the domain of kinship relations. A set of such domains, as it is often more than one domain, is collectively called a domain matrix; for instance, the noun *glass* evokes such domains as space, shape, typical orientation in space, function (as a container for liquid or its role in the process of drinking), material, size, etc. (LANGACKER, 2008: 47–48). These domains can be classified as basic (cognitively irreducible), such as the domain of space, or nonbasic, such as the other enumerated domains of *glass*.

What needs to be added is that the domains forming a matrix are not organised randomly, but on different occasions they are accorded specific degrees of centrality (LANGACKER, 2008: 47–48), as seen in Figure 1. The sentences *I’ve got a cat* and *The cat is chasing a mouse* highlight quite different domains associated with the cat, namely, possession and hunting. At the same time, some domains can be so crucial for the conception of the given entity that they are necessarily activated every time a linguistic unit is invoked. In the examples with the cat, the shape domain can be posited as such a necessary domain (LANGACKER, 1987a: 158–161).

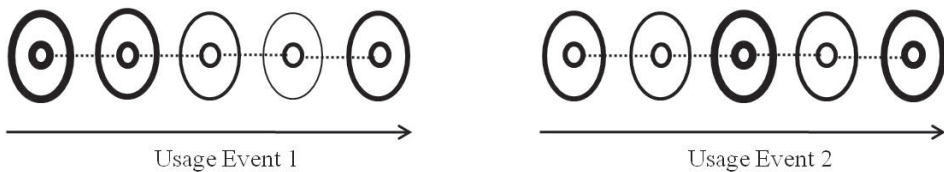


Fig. 1. The shifting degrees of centrality of domains on different occasions of use (LANGACKER, 2005: 18)

This leads to a further characteristic of meaning – meaning is dynamic. To stress this feature, Langacker formulated the catch-phrase “meaning is conceptualisation,” which means that meaning is not a static concept but an active process of forming conception. This dynamicity can be seen in a number of factors that have to do with both the nature of linguistic meaning and the dynamic character of the usage event. As for the nature of meaning, it is dependent on such factors as the probability of activation of the given domain, the type of context, and,

for example, the changes in the usage of the word (LANGACKER, 2008: 49–50). As for the usage event, Langacker stresses its dynamic character by pointing to such factors shaping the meaning as the physical, linguistic, social, and cultural context. What is more, conception develops through processing time, which means that the influence of particular factors may change within the same utterance. As a result, different aspects of meaning are not given or static but rather actively negotiated (LANGACKER, 2008: 30).

The second crucial notion inextricably related to meaning is construal. This notion is vital because, “as part of its conventional semantic value, every symbolic structure construes its content in a certain fashion” (LANGACKER, 2008: 55). Construal is one of the typically human cognitive abilities (TOMASELLO, 1999) due to which we can conceive and portray a situation in alternative ways (LANGACKER, 2007: 435, 2008: 43).¹ It is construal that is associated with the notion of grammar, that is, the same scene can be construed, for instance, as a process or as a thing, as in *He entered the room* and *His entrance took only a while*. While the conceptual content is exactly the same in both cases, and this is the process of entering the room, these alternative construals entail a reliance on different grammatical categories – respectively, a verb and a noun (e.g., LANGACKER 2008: 101–102).

Construal consists of several interrelated phenomena: specificity, focusing, prominence, and perspective.² In the case of count and mass nouns, the construal dimensions that are most relevant for a proper account of the phenomenon are specificity and focusing (with one of its aspects – scope; LANGACKER, 1990: 70). Besides, for the purposes of the analysis, it is useful to introduce briefly one more important construal phenomenon: prominence (p. 61). All of these are discussed below.

Specificity refers to the degree of precision in which a situation is described, alternatively referred to as *granularity*, *resolution*, or by means of a converse notion, *schematicity*. Schematisation, understood as “the process of extracting the commonality inherent in multiple experiences to arrive at a conception representing a higher level of abstraction” (LANGACKER, 2008: 17), is fundamental to cognition and pervasive in language. Schematisation can be observed, among others, in the relationship between a situation and a lexical item describing it, with the former being more specific than the latter. At the lexical level, we can note hierarchies of increasingly more schematic (or, conversely, more specific) items, for example, *do* → *act* → *move* → *run* → *lope* (LANGACKER, 2007: 435).

This kind of relationship also holds between different senses of a word, for instance, the basic sense of *ring*, a circular piece of jewelry worn on the fin-

¹ This ability was originally called *imagery* (e.g., in LANGACKER, 1987a), and was replaced by the term *construal* in later works (cf. LANGACKER, 2008: 43).

² This classification is most recent (LANGACKER, 2008, 2013), but by no means the only one possible (cf. the divisions in LANGACKER, 1987a, 2007, TALMY, 2000, or CROFT & CRUSE 2004; see a discussion of these classifications in VERHAGEN, 2007).

ger, and the conceptions of rings in specific contexts (LANGACKER, 2008: 17). However, schematisation does not arise hierarchically from one conception to another. Schematic senses are abstracted from actual expressions set in specific contexts (together with phonological units and symbolic units) and become units through “the progressive entrenchment of configurations that recur in a sufficient number of events to be established as cognitive routines” (LANGACKER, 2008: 220).

The process of schematisation leads to the emergence of schemas – structures representing higher levels of abstraction in relation to the commonalities inherent in multiple experiences. A crucial property of schemas is their categorising function. On the one hand, they capture what previous experiences share. On the other hand, schemas are used to decide whether or not a new experience is similar to what is already known. Actually, one of the pivotal claims of CG is that schematisation (or, conversely, elaboration) is crucial for the structure of language: “all linguistic generalizations arise via schematization from more specific structures” (LANGACKER, 2008: 56–57).

Schematisation can be observed in such symbolic assemblies as words, phrases, clauses, or sentences. This means that they can be represented at gradually more schematic levels of abstraction; for example, the sentence *kick my pet giraffe in the shin* can be represented as *kick X in the shin* and, at an even higher level of abstraction, as $V_s X$ in the N_b (LANGACKER, 2008: 20–21). The most schematic of these notations can be called a constructional schema.

Such schemas are invoked, for example, in order to produce or understand an expression, establishing what can be generally called a comparison or a categorising relationship between the schema and this expression (LANGACKER, 2000b: 4). More specifically, in a categorising relationship there are three structures: a *standard* of comparison, an established unit; the *target* of comparison, a novel expression; and the *schema* that relates the two. If an expression fully conforms to the structure of the schema, we say that the utterance *instantiates* the schema, and the relationship can be called *elaboration*: [SCHEMA] → [EXPRESSION] (LANGACKER, 2008: 170). In Figure 2(a), this kind of relationship can be observed between the schema (SCH) and the prototype (PT) and between the schema and the extended sense (EXT). In language, this can be seen between the schema $N_1 + \text{less } N_2$ and such expressions as *a moonless night*, *a hopeless situation*, or *a cordless phone*.

At the same time, if there is a discrepancy between an expression that functions as the prototype and another expression, the categorising relationship is one of *extension*, which in Figure 2(a) is represented in the relationship between the prototype (PT) and the extended sense (EXT). Formally, because the prototype is also schematic in nature, this relationship can be represented as: [PROTOTYPE] → [EXPRESSION] (LANGACKER, 2008: 170). This can also be observed between the schematically formulated prototype ‘do X’ (e.g., *drive*) and an expression derived

from it – ‘something that does X’ (e.g., *driver*), which enriches the standard verb with the *-er* suffix (LANGACKER, 2000b: 19). The latter type of relationship is typically found in sense extensions, as shown in Figure 2(b), which is why the issue of extension returns in Section 1.2.1.2 in the discussion of metaphor, metonymy, and the network model.

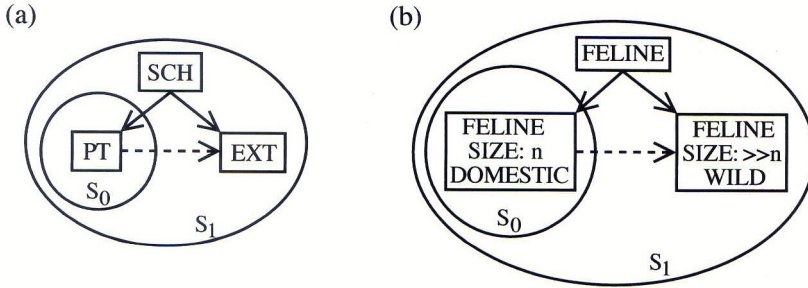


Fig. 2. (a) The elements involved in extension: PT – prototype, SCH – schema, and EXT – extension; (b) an example of extension from *domestic cat* to *wild cat* (LANGACKER, 2016: 46)

The next construal phenomenon stressed by LANGACKER (1990: 70) in the account of count and mass nouns is *focusing* and one of its aspects – *scope*. Scope has a clear experiential basis: at one time we can only embrace a limited part of the entire visual scene, hence a significant property of scope – it is limited in extent. Still, because people can adjust for distance, we can change the expanse of the area subtended by scope, so that it can be either a piece of paper from close-up or a distant mountain range (LANGACKER, 2008: 62–65; cf. also LANGACKER, 2000a: 205–207).

Sometimes it may be necessary to distinguish between an expression’s immediate and maximal scope. The former designates the part of reality that is directly relevant for particular purposes, characterised metaphorically as the onstage region (e.g., LANGACKER, 2000a: 205). By contrast, the latter refers to the full extent of an expression’s coverage (LANGACKER, 2008: 63). This can be seen

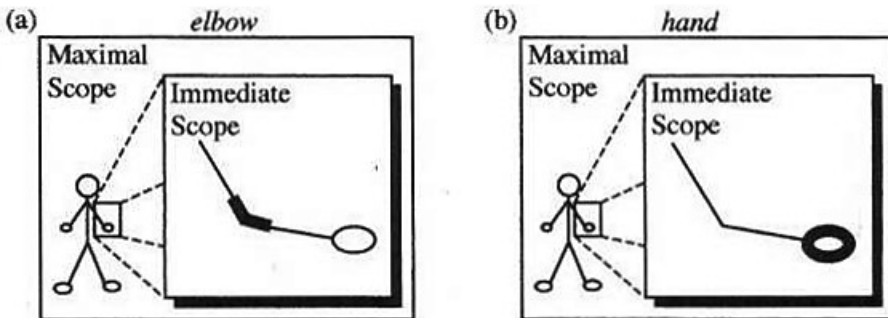


Fig. 3. The maximal and immediate scope for *elbow* and *hand* (LANGACKER, 2005: 29)

in words like *elbow* or *hand* (Figure 3). While an elbow and a hand are parts of the body, the part directly relevant for their characterisation is an arm. As a result, an arm functions as the immediate scope for both *elbow* and *hand*, and the body as their maximal scope.

Finally, we discuss the construal phenomenon called *prominence* and one of its dimensions – *profiling* (LANGACKER, 2008: 66–70). Profiling is about an asymmetry. More specifically, it is about the disparity in salience between the two elements evoked as the basis of an expression’s meaning. On the one hand, an expression evokes a body of conceptual content, the base, which can be defined either as the maximal scope in all domains of an expression’s matrix or the immediate scope in active domains (p. 66). On the other hand, out of this base, an expression selects a specific substructure, “what the expression is conceived as designating or referring to” (p. 66), which is the profile. An asymmetry between these elements can be seen in the relationship between the conception of a wheel and such terms as *hub*, *spoke*, and *rim*, all of which evoke the same conceptual base, but differ because they profile different substructures within this base (Figure 4). Similarly, *elbow* can be classified as a profile within the base constituted by the conception of the arm.

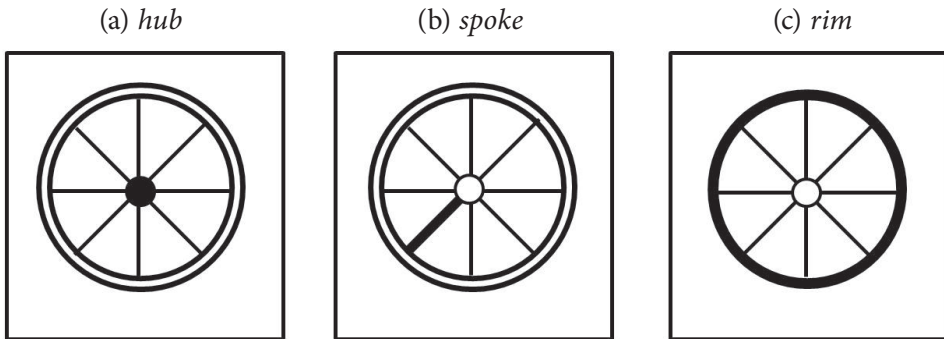


Fig. 4. The relationship between the base, that is, the conception of a wheel, and different substructures profiled within it: *hub* (a), *spoke* (b), and *rim* (c) (LANGACKER, 1995: 24)

1.2.1.2 Approaches to metonymy and metaphor

In the CG approach to metonymy, three notions need to be enumerated: active zone, reference point phenomenon, and shift in profile. Each of these concepts is discussed below.

As for the first of the notions, LANGACKER (1984) introduced it in his article “Active Zones,” later reprinted in *Concept, Image, and Symbol* (1990). However, at that time, it was characterised in terms of a discrepancy between the whole of the profiled entity and its active zone that directly takes part in the relation-

ship, as in the example *Your dog bit my cat* (LANGACKER, 1991: 190). Langacker indicates that, strictly speaking, it is not the whole dog that bit the cat but the dog's teeth, which directly took part in the action of biting. Also, not the whole cat was bitten but a part of its surface, and it can be rather safely assumed that other parts of the animal, such as, for example, its tail, remained untouched. It is these portions that directly participate in the relationship that are called the object's active zones.

The claim that active zone is related to metonymy and that, in fact, the two phenomena to a large extent overlap comes from one of Langacker's later papers (LANGACKER, 1993: 33–35). In time, LANGACKER (e.g., 2000a: 62) begins to assume that active zone is a kind of metonymy, and TAYLOR (2006: 56) establishes a specific relationship between the two by pointing out that “the active zone phenomenon gradually shades into the more general process of metonymy” (cf. DROŹDŹ, 2014c, for a more thorough treatment of metonymy in cognitive linguistics).

LANGACKER (2000a: 198) offers another characterisation of metonymy when he notes that “metonymy occurs when an expression that normally designates one entity is used instead to designate another, associated entity.” Quite readily he also points to the fact that metonymy can be accounted for in terms of the reference point phenomenon (Figure 5). This means that it allows us to reconcile two conflicting factors of communication, that is, on the one hand, the need to be accurate and the need to draw the listener's attention to a salient facet of the referent on the other (p. 199).

In general, the reference point relationship is about drawing someone's attention to a salient entity (reference point) in order to direct them to another, though less salient, entity (target). Because a single reference point affords access to many potential targets, a set of them is called the reference point's *dominion* (LANGACKER, 2008: 83–83). This can be seen in such examples as *The {vasectomy/ herniated disk} in room 304 needs a sleeping pill* (LANGACKER, 2000a: 199),

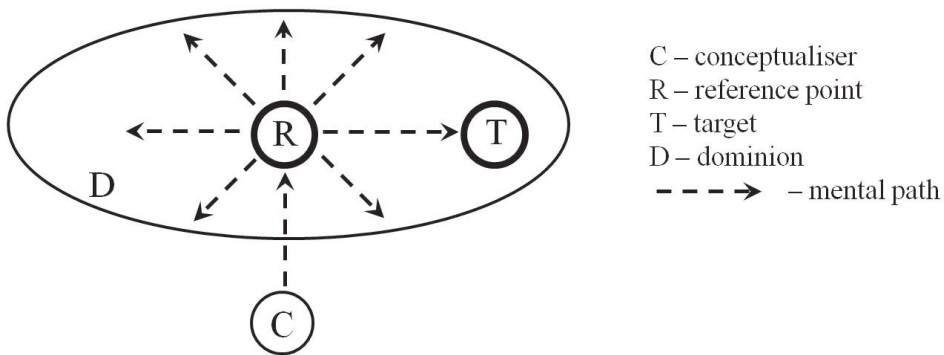


Fig. 5. The reference point relationship and its elements (LANGACKER, 2005: 98)

where the name of the medical problem, a salient piece of information about a patient in hospital, is a reference point that is supposed to direct a nurse's or doctor's attention to the target of utterance – the patient with the problem. This is also a good illustration of the fact that the standard of the categorising relationship does not necessarily have to be concrete or more familiar than the target of such a relationship – the crucial point about it is that it must be more salient (cf. DROŹDŹ, 2014b, for a more extensive discussion of the role of the reference point phenomenon in sense extensions that lead to a change of grammatical properties).

One of the properties of the target is that it provides access to its own dominion and, as a result, can also serve as a reference point to another target. In this way, it is possible to scan through the whole chain of successive reference points in order to reach a specific target, as can be seen, for example, in the following nested locative construction: *Your camera is upstairs, in the bedroom, in the closet, on the shelf* (LANGACKER, 2008: 81). In this case, each of the consecutive locative expressions is also a reference point that enables the interlocutor to locate the camera with a growing level of specificity. A different example can be a chain of possessives, such as *Harry's cousin's lawyer's therapist* (p. 85). To arrive at the point whose therapist the speaker has in mind, the listener needs to go through a sequence of reference points: Harry, his cousin, and the cousin's lawyer.

Finally, metonymy can be described in CG as a shift in profile (LANGACKER, 2008: 250). However, to comprehend this claim we need to return to the notion of categorising relationships and one of its types – extension. In the case of metonymy, extension takes place within one domain; for instance, the name of a place can be extended to a memorable or significant event that took place there. An example of such an extension can be seen between *Vietnam* and *war*. The relationship between the two is so strong that the name of the country is often used to designate the war and can be easily used to stand for it. Formally, this metonymic shift in profile can be formulated as follows: [[VIETNAM–WAR] → [VIETNAM–WAR]]. Because there are numerous other place names that undergo such metonymic sense extensions (e.g., Hiroshima, Chernobyl, Wounded Knee, etc.), through the process of schematisation, which extracts the commonalities inherent in these extensions, we can observe the emergence a pattern of metonymic extension: [[PLACE–EVENT] → [PLACE–EVENT]] (pp. 250–251).

Metaphor, also a type of the categorising relationship, is a phenomenon in which the standard and target represent two different domains of experience (LANGACKER 2000b: 39). While largely compatible with the Conceptual Metaphor Theory (e.g., LAKOFF & JOHNSON, 1980; LAKOFF, 1987, 1993; LAKOFF & TURNER, 1989; GIBBS, 1994, 1999, 2006; LAKOFF & JOHNSON, 1999; KÖVECSES, 2002, 2005.), CG stresses that “parallel categorizing relationships are themselves subject to abstraction and schematic representation” (LANGACKER, 2000b: 40). This means that CG posits schemas that capture the common properties of

specific metaphorical mappings, and these schemas are called patterns of metaphorical extension.

The emergence of such schemas can be observed in the case of extended senses of, for example, *pig* or *tiger*, which can be used in reference to specific types of people, that is, respectively, voracious eaters and fierce competitors. These two extensions can be represented as [[PIG] → [PERSON RESEMBLING PIG]] and [[TIGER] → [PERSON RESEMBLING TIGER]]. Through schematisation of these and many other extensions of this type, a schematic structure emerges. This is a structure that embodies the commonalities inherent in the extensions – a pattern of metaphorical extension [[ANIMAL] → [PERSON RESEMBLING ANIMAL]].³ What should be noted about this is the iconic character of this kind of formulation – metaphorical extensions take place between different conceptual domains (cf. a detailed account of possible schemas and patterns of metaphorical extension concerning LIGHT and the matrices of knowledge that they evoke in TARASZKA-DROŹDŹ, 2014a, 2014b).

When the process of semantic extension is repeated several times and more than one node achieves a certain degree of cognitive salience (determined, e.g., by entrenchment), a lexeme can be classified as polysemic. This means that the semantic pole of such a lexeme comes to be associated with “a highly complex network structure, with many levels of schematicity and chains of extension” (TAYLOR, 2002: 465; cf. LANGACKER, 1987a: 378–386). When approached from this perspective, not only metonymy (LANGACKER, 2008: 70), but also metaphor appears to be a regular source of polysemy.

1.2.2 The noun

The category of nouns can be characterised semantically on two levels: the prototype and the schema. The prototype for the noun category, which is valid for central instances of nouns, is the conception of a physical object: functioning primarily in space, composed of material substance, stable through time, and conceptually autonomous (LANGACKER, 2012: 194; cf. also LANGACKER, 2008: 104). More generally, this prototype consists of a conceptual archetype – an experientially grounded, basic concept that is fundamental in our everyday life (LANGACKER, 2008: 33–34).

The schematic characterisation, by contrast, is valid for all instances of nouns and is based on two cognitive abilities rather than physical entities. Thus, according to CG, the noun profiles a thing, which is defined as “any product of

³ This discussion is not intended as an exhaustive account of the CG stance on metaphorical extension. Rather, it focuses on the facets that are most adequate for the analytical purposes of the book.

grouping and reification” (p. 105). The ability of grouping is understood as the capacity to see contiguity, similarity, and interconnectedness between entities.⁴ The second ability, reification, is defined as the capacity thanks to which people can “manipulate a group as a unitary entity for higher-order cognitive purposes” (p. 105).

The workings of these abilities can be observed in the case of such nouns as, for instance, *recipe*. Although it can be written down, *recipe* basically designates a set of successive steps that have to be taken in order to prepare a dish. Although these are distinct steps taking place at different points in time, *recipe* is a noun due to the fact that these steps occur in a certain sequence (and are often contiguous), and they are consequently reified as a single procedure of creating a dish. Similarly, it is possible to refer to several people that may have never met in one place as a *committee*. These people, despite their different location in space, work together, have a common purpose and, as a result, can be referred to as a single thing (cf. LANGACKER, 1991: 201–202).

An additional issue to be noted is that even a typically discrete and individually recognised object can be described as having constitutive entities (LANGACKER, 2008: 107). For instance, if we consider a board, as a matter of fact it consists of a number of patches of wood that together form one coherent whole. The point is that an apprehension of this whole is central to the conception of a board, which makes a board and other physical objects prototypical for the category of nouns. In the case of such objects, grouping and reification are automatic – we only become aware of them in less prototypical cases.

At this stage, one more distinction needs to be made – that between *type* and *instance*, which is the basis for the distinction between a noun and a nominal (or, in traditional terms, a noun phrase; Figure 6). A noun designates “a type of thing” and specifies the properties (makes *type specifications*) that an entity must have in order to be classified as a proper instance of the type (LANGACKER, 2008: 134; cf. LANGACKER, 1991: 53–73, 2008: 264–272). By using a noun, speakers have access to the inventory of thing types that are available – recognised and easily expressed – in a language. These, in turn, provide the speaker with a set of linguistic possibilities that a language has for conceived entities. Thus, the function of types is classificatory – “they provide an established scheme for apprehending the world in terms of culturally sanctioned categories of proven relevance and utility” (LANGACKER, 2008: 264–265). For example, the lexeme *cat* is a noun because the properties that this noun specifies are characteristic of the noun. This means that through type specifications *cat* makes an initial selection among the possible referents and evokes a number of adequate cognitive domains necessary for the conception of a cat.

⁴ The term *entity* is understood in the maximally general sense – as “anything one might want to refer to for analytical purposes” (LANGACKER, 1991: 16; cf. LANGACKER, 1990: 68).

However, because people typically talk about specific things or events rather than general categories, in language there are means of shifting between the level of the type and instance. LANGACKER (2008: 265) posits that this is done by means of nominals, in which the noun is accompanied by grounding elements, such as articles or quantifiers. Nominals go beyond type specification and single out instances of the type – it is them that, together with the noun, enable us to indicate the adequate designation or referent in the context of the speech ongoing event.

There are several crucial differences between types and their instances. One of them is the level of specificity, that is, instances are generally more richly detailed than types. However, a more significant difference lies in the function – in contrast to the type, the instance’s primary function is referential, as it selects an entity that has a specific location in the domain of instantiation (the domain where the type’s instances are typically thought to reside; p. 268). This specific location distinguishes an instance from both another instance, which would occupy a different location in the same domain of instantiation, and the type. A type, by contrast, is not specified in any domain. An instance of *cat* can be, for example, *my cat*, which refers to a specific creature that is normally conceptualised as residing in a specific domain of instantiation, space, and whose exact location encompasses a more limited amount of this space – the space with the things related to me or those that are my property.

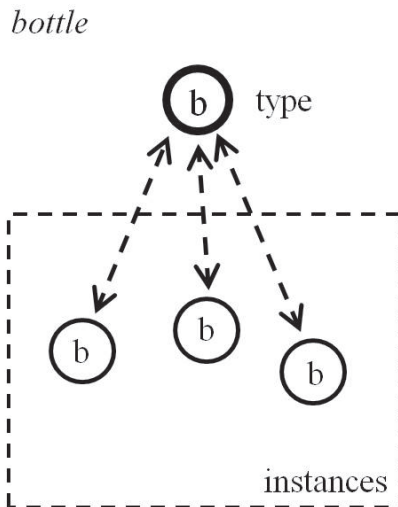


Fig. 6. The relation between type and its instances for the noun *bottle* (LANGACKER, 2016: 72)

The type-instance relationship overlaps conceptually the semantic function of grounding – “an aspect of conceptual organisation by which an expression

qualifies as a nominal or a finite clause” (LANGACKER, 2008: 272; Figure 7). Every language has certain elements that serve this function; for instance, there are such *overt* grounding elements as demonstratives, articles, and certain quantifiers, as in *that dog* (LANGACKER, 2016: 82). At the same time, grounding can be *covert*, with one of the elements of a set of oppositions being “zero” (often symbolised as \emptyset), as in *They drank \emptyset beer* (LANGACKER, 2008: 272).

The characteristic of grounding elements that is crucial for our analysis is that they provide relatively little actual information about the referent, and this information is very schematic. The definite article, for instance, indicates the status of the given noun as a discourse referent, \emptyset signals that the designated entity is unrestricted, while proportional quantifiers characterise the entity that they profile as some proportion of the designated entity – how close the profiled entity comes to covering the designated entity (pp. 285–292).

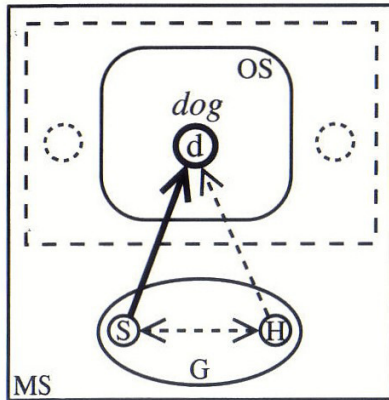


Fig. 7. The structure of the grounded nominal *that dog* (the speaker (S) and the hearer (H) are positioned in relation to the ground (G); the nominal evokes the maximal scope of awareness (MS) and one of its central elements – the objective scene (OS); LANGACKER, 2016: 83).

One more issue needs to be examined in order to provide a complete picture of the CG stance on constructions – elaboration (LANGACKER, 2008: 198–205). In brief, in a construction, one component structure contains a schematic sub-structure that the other component of the construction *elaborates*, that is, characterises in greater detail. This schematic element is called an *elaboration site* or *e-site*. In *tall giraffe*, for instance, the noun *giraffe*, the autonomous element, elaborates the schematic trajector of *tall*, the dependent element (cf. a discussion of autonomy and dependence in KARDELA, 2014: 54–56).

These considerations show that nouns can be instantiated in different domains. While space is the primary domain for many nouns, for example,

table, board, chair, or car, there are also numerous nouns that require other domains of instantiation (LANGACKER, 2008: 134–135; cf. also LANGACKER, 1987a: 203–207). Such domains include time (e.g., *beep, flash, birth, explosion*, or *earthquake*), elaborate frameworks used for measuring time (e.g., *minute, hour, month, or year*), colour space (e.g., *yellow, orange, or white*), or quality (as in *We need a strong glue to fix the cabinet*). What is more, because each word evokes a matrix of domains, the same noun can invoke different domains on different occasions, for instance, *walk* can be defined against the domain of space (*It's a five-mile uphill walk*), time (*I took a walk*), as well as quality (*His walk is peculiar*).

To get a more accurate picture of countability and uncountability, the characterisation against domains should be complemented by the already discussed type-instance distinction. As TAYLOR (2002: 379) notes, types of things are unspecified for the count-mass distinction, that is, the type reveals both count *and* mass properties. Actually, TUGGY (2005: 241) even claims that the type encompasses the plural/ mass schema as well as the singular conception. At the instance level, by contrast, nouns acquire count or mass properties and, when they are accompanied by grounding elements, they elaborate these elements' schematic e-sites.

To conclude the discussion on nouns, it must also be noted that LANGACKER (2008: 130–131) sees a strong similarity between mass nouns and plural countable nouns (cf. Figure 9c–d). Despite the obvious differences, these two categories reveal quite a number of conceptual and formal similarities. In fact, Langacker classifies plural nouns, which he calls plural mass nouns (e.g., *diamonds*), under a more general category of mass nouns (together with what he calls non-plural mass nouns, e.g., *gold*).

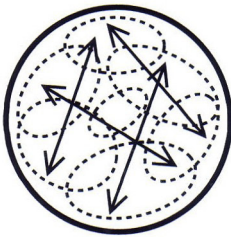
1.2.3 Countability and uncountability

While in CG the grammatical criteria of this division are the same as in other approaches to language, CG stresses the fact that this grammatical behaviour is only symptomatic of the conceptual opposition that underlies it. That is why the present chapter begins with a discussion of the conceptual approach to the count-mass distinction, which is followed by a more specific CG claim concerning countability and uncountability of English nouns. The section is concluded with a discussion of a set of regularities of count-to-mass and mass-to-count extensions noted in CG.

1.2.3.1 Conceptual foundations

The definitional property of countable nouns is that they are “bounded within the immediate scope in the domain of instantiation” (LANGACKER, 2008: 132; cf. also LANGACKER, 1987a: 198). There are several consequences of such an approach to bounding (LANGACKER, 1987a: 198–213, 2008: 133–142, 2016: 85–88). First, this means that the boundary, together with the shape that it defines, constitutes an essential part of an instance of a countable physical entity (cf. Figure 8a). Second, within the immediate scope, there is a limit to the set of interconnected entities that the thing comprises, that is, the entity does not extend indefinitely. The alphabet, among others, is bounded because it has an initial and a final letter. Third, the elements constituting a thing reveal an internal configuration. In other words, a set of stars is only recognised as a constellation on the basis of the internal relationship between the constituent stars, as seen in Figure 8b.⁵ Fourth, which can also be seen in the designation of *constellation*, a bounded entity contrasts with its surroundings. The stars constituting a constellation may be very similar and spatially proximate to the stars beyond it. Still, because the stars beyond the constellation do not conform to the specific shape associated with it, they stand out as different. Finally, the count noun referent serves a specific function. This means that while the introduction to an article may not be typographically distinct from the rest of the text, it can be distinguished due to its specific textual function.

(a) Object Noun



(b) Group Noun

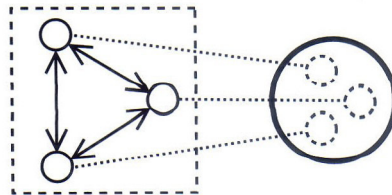


Fig. 8. Two of the types of nouns under discussion: (a) a bounded count noun (object noun) and (b) a bounded collection of elements (group noun) (LANGACKER, 2016: 67)

Another important issue is the nature of the boundary or, more specifically, the fact that it does not have to be precise or clearly discernible (LANGACKER, 1990: 65, 2008: 138). There are two reasons for this. First, the reality that lan-

⁵ An important dimension of conceptual grouping is spatial contiguity (LANGACKER, 2008: 139). Although it is not a definitional characteristic of things (e.g., the stars constituting a constellation do not need to be proximate), it nevertheless plays a significant role in the way people conceive things.

guage refers to is not always discrete. On the contrary, object boundaries are often fuzzy, as can be seen, for instance, with a shoulder – while the shoulder as a part of the body is definitely bounded, it is impossible to draw a line that delimits it. The second reason is that bounding is in fact a function of how the given entity is construed rather than objectively perceived. And although there is always some kind of motivation behind imposing a boundary on a count noun referent, the socioculturally recognised function or significance behind this motivation is a matter of degree.

That the boundary is often conceptually imposed is even more evident in cases where some part of the boundary is virtual in nature, as in a bin, cup, or fish tank. These containers are thought of as having an upper boundary, though this boundary is in fact non-material. At the extreme, the whole boundary can be virtual, as in the case of referents of such nouns as *swarm*, *archipelago*, *herd*, *forest*, or *mob*.

By contrast, while the mass designated by an uncountable noun can be bounded, this boundary is not necessary for an identification of this mass, which means that substances are not bounded within the immediate scope. Rather, a substance is distinguished from other substances by means of various qualitative factors.

This, however, does not mean that substances are unbounded (LANGACKER, 1987a: 204). Quite the contrary, it is often the case that they are bounded, as in *There's a lot of black in this picture*. Since a specific picture is meant and, by nature, it must be bounded, so is the amount of black in it. Beside pragmatic factors, many quantifiers impose a boundary, for example, *a little*, *some*, or *much*. In other words, apart from fully generic cases, as in *Ice cream is a dairy product*, bounding of mass nouns is a perfectly natural situation. The point is that bounding is not in focus in such nouns (Figure 9c).

Substances and bounded objects can be distinguished on the basis of three more factors: homogeneity, contractibility, and replicability (LANGACKER, 2008: 139–142; cf. also LANGACKER, 1987a: 204–205, 1990: 70–72). In discussing these factors, one thing needs to be stressed: they are conceptual rather than actual, which means that they are found in the prototypical representatives of a category and extend conceptually to its other members, irrespective of the objects' actual properties.

As for homogeneity, it is typically ascribed to substances, and its converse – heterogeneity – is typically associated with bounded objects. Water, for instance, designates a substance that is characterised by a particular set of qualities or, more specifically, is construed as “qualitatively the same throughout” (LANGACKER, 2008: 140). A pencil, by contrast, consists of different parts made of different substances. However, while homogeneity and heterogeneity can be clearly seen in prototypical substances and objects, more peripheral members of the respective categories are less consistent with these characteristics.

Actually, a gradation of homogeneity should be postulated (LANGACKER, 1990: 70–71). Two particles of a substance are almost indistinguishable in substances designated by such nouns as *water*, *glue*, *glass*, *air*, etc. At the same time, there are many kinds of substances where this is not the case, but whose particles are almost identical (e.g., dust, sand, rice, or corn), whose elements are bigger and more diverse (e.g., grass, gravel, or tile), or whose elements are not only quite large, but also diverse in character (e.g., equipment, livestock, furniture). This is illustrated in Figure 9(c), where the dotted line of the elements designated by non-plural mass nouns signals that these elements can sometimes be distinguishable and sometimes not, forming a homogeneous mass.

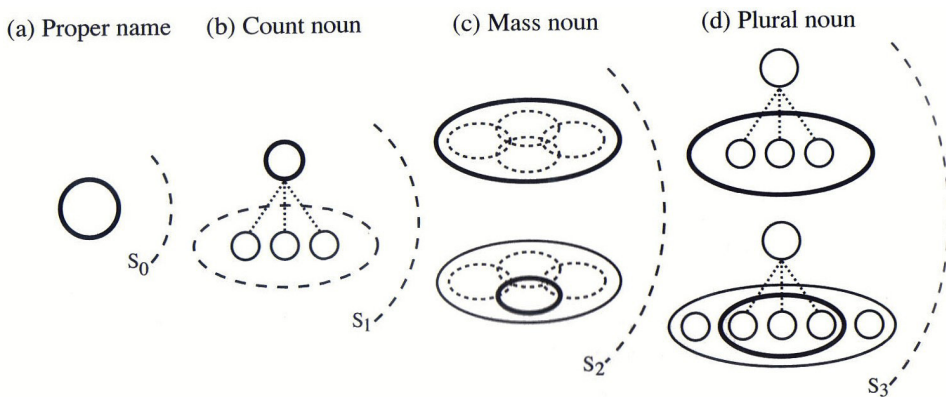


Fig. 9. Schematic profiles of four of the types of nouns: a proper name (a), a singular count noun (b), a mass noun (non-plural mass noun) (c), and a plural noun (plural mass noun) (d) (LANGACKER, 2016: 88)

Still, because the nouns that designate such substances are uncountable, people seem to ignore the differences between their constituents. At the same time, this kind of conception is not necessarily objective. Homogeneity of the designated substance is achieved due to its specific construal – assuming a specific level of schematicity, which neutralises the differences between the constituents.

A similar remark can be made about the referents of countable nouns (LANGACKER, 1990: 70; cf. Figures 8a and 9b). Nouns such as *beep*, *pond*, or *bump* designate regions (in the temporal and spatial domains) that are internally uniform, despite a converse initial characterisation. What in fact distinguishes such regions from, for example, a bicycle, cat, or pencil is that it is not the internal configuration that determines the region's boundary. Rather, it is the contrast with its surroundings – a beep can be classified as a bounded region because it contrasts with the silence before and after it (cf. LANGACKER, 1987a: 202, 2008: 141).

The next property that distinguishes substances from bounded objects is contractibility. This means that “any portion of a mass of a given type is itself

a valid instance of that type” (LANGACKER, 2008: 141), as can be seen in the case of water. If we consider a drop, a gallon, or any amount of it, it is still water.⁶ By contrast, this is not the case with count nouns and their referents – a part of a bike, such as a pedal, is not a bicycle, a piece of pencil lead is not a pencil, and the tail of a cat is not a cat (cf. LANGACKER, 1990: 71).

Finally, we can talk about a property converse to contractibility – expansibility (LANGACKER, 1987a: 204–205, 1990: 72, 2008: 142). This characteristic means that when two instances of a mass are combined, the result is a larger instance of the same type; for instance, when two amounts of flour are added, the result can be called *more flour* rather than **those two flours*. In the case of count nouns, the parallel property is called replicability, for combining two instances of an object results in multiple instances, and not in a single but larger instance. And thus, when we add one hammer to another, we get *two hammers* rather than **more hammer*.

1.2.3.2 The claim concerning countability and uncountability of nouns

The most important claim concerning countability and uncountability that LANGACKER (2008: 142) makes is that due to our capacity for construing reality, “in one way or another, probably every noun can be used in either manner.” Naturally, this does not mean that nouns’ senses depend on the speaker’s fancy. On the contrary, such changes follow strict regularities that are well established in linguistic convention, as can be seen in the case of the count noun *lake* and the mass noun *water*. These nouns can be used with the reversed grammatical properties in such sentences as *You need a lot of lake for a speedboat race* and *I want two lemonades and a water*. However, beside the grammatical change, we must observe that their referents have changed as well. In these extended senses, the nouns designate, respectively, an unbounded stretch of lake and a bounded amount of water (a bottle or a glass).

This leads to another important point – the process that underlies such a reversal of properties. LANGACKER (e.g., 1987a: 206–207, 1990: 72, 2008: 143) indicates that this is semantic extension, that is, one sense with a specific grammatical property is primary, while the sense with the reverse property constitutes its extension. In the case of *lake* and *water*, their respective count and mass senses are primary.

It should be noted that such sense extensions are accompanied by at least two additional processes: a reranking of domains and a shift in profiling and

⁶ This property, however, has a limit – a particle of water can only be considered water as long as it consists of a combination of hydrogen and oxygen. A single atom of hydrogen is no longer water.

scope (LANGACKER, 1987a: 206, 1990: 73–74, 2008: 144–145). The former process is illustrated in one of the extensions of *wine*. This noun activates an extensive matrix of domains. In the basic sense, as a kind of alcoholic drink, *wine* is defined against its primary domain of instantiation, space, where it profiles an unbounded amount of substance. At the same time, since *wine* refers to a substance and substances are identified by various qualities, it also activates the domain of quality. When *wine* is used in the sense ‘a kind of wine,’ as in *a fine wine*, we can observe a reranking of the domains: the domain of space is backgrounded, while the quality domain is foregrounded – it is ascribed the central status. And because the range of values that *a fine wine* profiles in this domain is bounded – only a limited number of values of wine qualify the substance as a fine wine – this sense is countable.

As for the shift in profiling and scope, it can be illustrated with the already mentioned extension of the noun *lake* (LANGACKER, 2008: 143–144). In the basic sense, the scope encompasses the overall contour of the lake, while in the extended sense only a part of the lake is put onstage. As a result, the boundaries of the lake are excluded from focused awareness. This shift can be described in terms of imposing a limited immediate scope. At the same time, this extension entails a change in profile – from the bounded contour of the lake to an unbounded portion of the lake’s surface.

At this juncture, two general parameters of meaning must be added: entrenchment and conventionalisation. The reason is that from the CG perspective, the senses of a lexical unit that constitute the full array of its semantic potential are not equal. In order to be recognised as part of a language, meanings must be entrenched in the minds of individual speakers and must be conventional for members of a speech community (LANGACKER, 2008: 38). And since both of these dimensions are inherently gradable, only a limited number of actual uses of a lexical unit can be recognised as part of the unit’s meaning. As a result, Langacker posits a gradation between the senses that have and those that lack the status of established units (p. 38). This gradation extends from novel interpretations of a unit, through incipient senses, to established linguistic meanings.

1.2.3.3 Regularities of semantic extension

To complete the discussion of this specific type of semantic extension, one more dimension needs to be mentioned – the scale of this phenomenon. For many linguistic units, a variable construal of the referent is well-established, and both senses can have a comparable status, as can be seen, for instance, in *rock*. On the one hand, this noun designates an unbounded amount of substance. On the other hand, it also refers to a bounded object made of this substance. The same relationship can be observed between the senses of *brick*, *stone*, *fur*, *hide*, *glass*,

cloth, rope, wire, cake, and many others (LANGACKER, 1990: 72; cf. also TAYLOR, 2002: 377–379).

It is also quite common that one sense with a grammatical property is more entrenched than another, with the reverse property. A case in point is the noun *diamond*, which is countable in its primary sense and mass in the extended one (LANGACKER, 2008: 143). Some other examples of this category are *water, lake, dog, cat, car, house, air*, and *sand*.

Finally, let us note one more possibility which follows from the above considerations: the conventionalised and entrenched sense(s) of a noun can reveal just one type of property – either count or mass (TAYLOR, 2002: 377–378). At the same time, due to the noun's potential, these senses may undergo a specific type of extension – an extension that leads to a sense with a reverse grammatical property. And although such senses are neither commonly acknowledged, nor very often used, they nevertheless exist and can be used at a convenient moment, as shown in the discussed example of the noun *lake*.

LANGACKER (2008: 143–144) indicates that this kind of extension is not accidental, but it follows certain general regularities, which he calls patterns. What is more, these patterns are not unique to senses that reveal one grammatical property while their extensions reveal the other one. Quite conversely, these are regularities that can also be traced in nouns with a dual categorisation (cf. LANGACKER, 1987a: 203–204; cf. also LANGACKER, 1990: 72).

One of these regularities is the pattern that construes a bounded entity as an unbounded mass, whose effect is the shifting of attention away from the contour of the given entity and focusing on a certain expanse of this entity (LANGACKER, 2008: 143). This pattern can be exemplified by the discussed noun *lake*, and such nouns as *net, bench*, or *blade*: *In my dream I attempt the winning shot and hit nothing but net*, *You'll have to stand – there's not enough bench for another big person*, and *After he dug through the wall with his knife, there was very little blade left* (p. 143).

The next general pattern construes a mass as a bounded entity, as in the already mentioned example *I want two lemonades and a water*. It is similar to the previous one, as it is also based on restricting the profile. This time, however, the pattern construes a mass sense as a count one or, more specifically, a primarily mass noun is used for a limited quantity of food or beverage (a serving of it). This pattern is instantiated by such nouns as *ice-cream, tiramisu, clam chowder, beer, whisky, soda*, etc. (LANGACKER, 2008: 144; cf. also LANGACKER, 1990: 73).

Another pattern reflects such everyday activities as grinding, mashing, crushing, or pulverizing discrete objects, which means that it represents situations in which people convert discrete objects into a homogeneous substance by destroying the objects' structural integrity. It is instantiated in extensions of such nouns as, for example, *potato* or *horn*: *By mashing a dozen potatoes, you get*

enough potato for this recipe and *Putting powdered rhinoceros horn on his cereal failed to enhance his virility*.

The last pattern discussed by LANGACKER (2008: 144–145; cf. also LANGACKER, 1987a: 206–207, 1990: 73–74) construes a mass noun in terms of a count property ‘brand or type of N’ (LANGACKER, 1987a: 206). An example of this regularity was mentioned while discussing one of its characteristics: a shift from the domain of space to the domain of quality, as in *We need a strong glue to fix the cabinet* (p. 206). Some other nouns that instantiate this pattern are *beer* (*a tasty beer*), *steel* (*a hard steel*), *yellow* (*a bright yellow*), as well as emotion terms, for example, *anxiety* (*a very intense anxiety*), and nominalisations, such as *walk* (*a peculiar walk*) (LANGACKER, 2008: 144–146).

These examples conclude the discussion of the way in which CG approaches the description of language. What follows is a brief comparison and discussion, from the CG perspective, of the points concerning countability and uncountability raised within other views of language.

1.3 Cognitive Grammar in the context of other theories

When we compare the insights and doubts concerning countability and uncountability aired throughout the decades of linguistic analyses with the claims formulated by Langacker, two observations come to mind. The first one was made by BROCCIAS (2006: 108): “Langacker’s theory is by far the most comprehensive theory of grammar available in the cognitive linguistic camp.” Although Broccias’ remark resulted from a comparison of CG with other cognitive theories of grammar, it remains true also in comparison with other linguistic theories. As can be seen in the overview of the literature, a large number of the issues raised by particular scholars from very different approaches to language are somehow accommodated in or relatively easily explained by CG. What is more, all these dimensions are put together within a coherent and logical theoretical framework.

To illustrate the point, consider the syntactic question whether or not the elements occurring with the noun have an influence on its grammatical properties. CG holds that there is a relationship between the elements of a construction. At the same time, it consists not in an imposition of grammatical properties on the noun but an elaboration, by the noun, of the schematic substructure in the other component(s) of the construction (cf. Section 1.2.2).

Another example of this type might be ALLAN’S (1980: 547) comment that “for the lexicon entry to be simultaneously countable and uncountable is a contradiction.” From the CG perspective, the problem looks different, and coping with this seeming contradiction is quite unproblematic because it only requires noting the difference between a type of a noun and its instance. As

an instance, in an actual utterance, a noun cannot be count and mass at the same time – it is either one or the other.⁷ By contrast, type specifications made by particular nouns are so schematic that types encompass both properties (cf. TUGGY, 2005).

Finally, a remark made by WARE (1975) is worth mentioning. It is a remark that CG would easily endorse, though providing it with a more general theoretical framework. WARE ([1975] 1979: 26) observes that “we always have the conceptual capabilities of regarding the parts of the world in at least two different ways.” In CG, this comment is accommodated within what LANGACKER (2007: 465, 2008: 55) calls *construal* – an ability due to which people can conceive and portray the same things in alternative ways. In other words, in CG, this can be a starting point for linguistic considerations.

The second general observation is LANGACKER’s (2008: vii) reflection: “CG may no longer seem so drastically different for the simple reason that the discipline has gradually evolved in its direction.” Actually, at the time of its first presentation in 1982, when doing linguistics was for the most part synonymous to doing generative linguistics (cf., e.g., TAYLOR, 2002: 1–8), Space Grammar was a radical alternative to the predominant trend. However, together with the development of cognitive linguistics, many of the claims, assumptions, and areas of interest became known and, as a consequence, adopted by other linguistic trends (and, in several cases, vice versa). Such notions are the figure-ground alignment, the prototype and family resemblance models, concept and conceptualisation, and many others (e.g., JACKENDOFF, 1983). Actually, even the notions of metaphor and metonymy, once considered linguistic deviations, have found their way to generative analyses (e.g., PUSTEJOVSKY, 1995).

Still, an interest in cognitive phenomena does not mean abandoning the formal background altogether, giving rise, for example, to the following characterisation of the conceptual structure:

I will assume that the possible conceptual structures attainable by a human being are characterized by a finite set of conceptual well-formedness rules. I will further assume that these rules are universal and innate that everyone has essentially the same capacity to develop concepts but that the concepts one actually develops must depend to some extent on experience. (JACKENDOFF, 1983: 17)

That is why the remaining part of this subchapter is devoted to identifying the areas of differences between CG and other approaches to language, as well as the

⁷ Alternatively, the context may be vague and, theoretically, both interpretations may be plausible. Still, this does not change the main idea – at a given time, the speaker most probably had only one of the possible construals in mind and simply did not signal it explicitly in the utterance.

consequences of such stances. Ultimately, this should enable a viable specification of CG claims and their appropriate presentation.

A convenient starting point for such a discussion is the metaphor proposed by Frege (cf. Section 1.1.1): of a person looking at the moon through the telescope. Actually, many a formal claim can be somehow traced back to the characteristics associated by Frege with what he conceived to be the meaning, namely, the objective and universal meaning that exists independently of people and thus does not require the human perspective in its account.

This is what can be implicitly seen, for example, in the syntax-based view, which focuses solely on the structure of the sentence and the fact that the grammatical meaning of the noun is determined by its neighbouring elements. This stance is also explicitly adopted by PUSTOJEVSKY & BOGURAYEV (1993: 195): “by shifting the focus to a level below that of words (or lexical concepts) we are now able to abstract the notion of lexical meaning away from world knowledge, as well as from other semantic influences such as discourse and pragmatic factors.”

Another claim whose roots could be sought in Fregean philosophy is stressing the universal character of the grammar proposed by generative linguistics (e.g., JACKENDOFF, 1983: 11). This, paired with the efforts directed at computational linguistics, has resulted in an insistence on the reduction of the lexicon, the need to predict the acceptability of a word and its semantic interpretation, and formal simplicity and generality (e.g., NUNBERG & ZAENEN, 1992: 389; PUSTEJOVSKY & BOGURAYEV, 1993: 216). It is significant that having enumerated such a set of goals, Nunberg and Zaenen conclude that all this should accord with the frequency of use and the intuitive categories of the general reader. What strikes one about this approach is the order in which these elements are put: certain assumptions should accord with the data. In a viable theory of language, it is the data that should accord with the theoretical assumptions. This shows the essence of the top-down approach – we construct a theory and then we check whether or not it works in actual language.

This perspective radically contrasts with the idea of *embodiment*, one of the cornerstones of cognitive linguistics. Actually, if we stay within Frege’s metaphor, cognitive linguistics is primarily preoccupied not with the meaning but with the conceptualisation – the reflection of the moon on the observer’s retina. However, from the cognitive linguistics perspective, the insistence on the psychological dimension of language has far-reaching consequences. First, as LANGACKER (2008: 14) stresses, psychological plausibility of the linguistic structure is a strong limitation. Second, psychology is the source of many insights and notions that may serve as starting points for research, such as association, schematisation, categorisation, and many others (LANGACKER, 2008: 16–18; cf. also LANGACKER, 1987a: 99–146). Actually, also the term *construal* is both a linguistic and a psychological notion, which TOMASELLO (1999: 8–9) characterises as follows:

in different communicative situations one and the same object may be construed as a dog, an animal, a pet, or a pest; one and the same event may be construed as running, moving, fleeing, or surviving; one and the same place may be construed as the coast, the shore, the beach, or the sand – all depending on the communicative goals of the speaker. As the child masters the linguistic symbols of her culture she thereby acquires the ability to adopt multiple perspectives simultaneously on one and the same perceptual situation.

As can be seen, construal figures prominently in our capability of using a noun in reference to both countable and uncountable dimensions of an entity and provides the conceptualiser with many flexible means of expression.

This kind of approach entails a different type of linguistic analysis. Psychology is not treated as an additional factor to formal machinery; it is the starting point of linguistic considerations, and their results must match those from other sciences, including psycholinguistics, psychology, and neurology. What is more, the psychological reality of account entails the claim that the factuality of account is more important than simplicity, and that the brevity of account cannot be equated with the capturing of significant generalisations (LANGACKER, 1987a: 42; cf., e.g., KARDELA, 2011: 45), which is actually a reversal of the generative assumptions.

Two more issues recurring in the overview are worth mentioning. First, it must be stressed that what CG focuses on is *not* reality but its conceptualisation – its mental representation. This distinction is especially visible in the manner in which various senses of nouns are described. HP (2002: 336), for instance, describe the sense of *crockery* in terms of actual objects: “plates, dishes, cups, saucers, etc. – united by their shared function with respect to food and drink.” Thus, one of the properties of mass nouns, homogeneity, does not apply to *crockery* because *crockery* applies to “a heterogeneous aggregate of parts” (p. 336). This problem does not exist in CG – once we accept that meaning is conceptualisation, we do not have to be primarily concerned with what reality is really like, as shown in our discussion in section 1.2.3.1.

The last radical difference between the formal approaches to language and CG is the way in which such terms as *productivity* and *rule* are understood. Let us start with the former one. What is clear from generative analyses is that the determined rules are to be productive. More specifically, this means that rules have to be absolutely predictable, that is, a list of criterial properties must concern all members of a class, and they have to possess all these properties (LANGACKER, 1987a: 49). As Langacker argues, such an expectation is not realistic (p. 49). A more adequate account of linguistic phenomena can be achieved through a reference to the prototype model (cf., e.g., TAYLOR, 1998, for a discussion of nouns and adjectives), but its crucial characteristic is that, for instance, class membership cannot be predicted in absolute terms. It is a matter of degree, and predictions offered by this model are statistical rather than absolute.

As for the term *rule*, formal linguists see it as a *constructive rule*, that is, as a kind of instruction to be followed in order to put together a correct expression (LANGACKER, 2008: 219). In generative linguistics, such rules take the form of phrase structure rules and transformations (e.g., CHOMSKY, 1965); hence, there is a fundamental difference between the rules and expressions created on the basis of these rules. CG, in turn, sees rules as *schemas*. As LANGACKER (2008: 219) stresses, this entails four important characteristics of rules. First, “schemas must resemble the expressions they characterize” because they arise as “recurring aspects of the processing activity that constitutes them” (p. 219). The second characteristic flows from the first one – rules are more schematic in relationship to the expressions that they characterise. Third, they are “abstracted from occurring expressions” (p. 219), that is, they are emergent from usage. Finally, schemas are not instructions. They are *templates* that we relate to when we construct and interpret new expressions (p. 220), which means that rules licence or sanction (or not) new expressions rather than generate them.

For us, all this leads to the conclusion that the CG approach to language is more adequate than the approaches that we have analysed so far. First of all, it is multidimensional, that is, it allows an in-depth analysis of the given phenomenon. It is also psychologically real – it both shows the whole complexity of human communication and provides adequate tools for its description. Finally, it is reassuring that linguistic findings are confirmed by, or at least convergent with, the findings from other branches of science.

What is more, the analytical notions that CG offers enable us to take a stand on certain infelicities detected in some of the reviewed analyses or approaches. By this we do not mean criticism of anything that is different from CG, for analyses that begin with different assumptions about language must produce different results. Rather, we wish to point to certain shortcomings that can be observed from the CG perspective. Had they been taken into consideration, they might have resulted in different observations or definitions of the discussed phenomena.

One such case is the accusation of “rampant polysemy” against cognitive linguistics (cf., e.g., CUYCKENS & ZAWADA, 2001: xv). However, as shown, among others, by TAYLOR (1992), this criticism does not really apply to cognitive linguistics but reflects just one of the theoretical approaches to it. Taylor illustrates this point with two contrary approaches to polysemy: by Lakoff and Searle. While Lakoff claims that, for example, the verb *open* in *open the door* and *open a wound* is polysemous, Searle maintains that it “makes exactly the same semantic contribution to each of the expressions” (TAYLOR, 1992: 135; cf. also the debate on *keep* between JACKENDOFF, 1992, and FODOR, 1998). At the same time, TAYLOR (2003: 640–641) argues that sometimes enumerating a number of senses of a word may be justified for analytical purposes. As a result, discrediting an author for detecting many senses of a word and classifying this kind of analysis as rampant polysemy is missing the point of the analysis.

The polysemy stance is also adopted by LANGACKER (2008: 37), who indicates that “a lexical item used with any frequency is almost invariably polysemous.” At the same time, because in CG the meaning of a word resides in accessing a body of knowledge that is open-ended, there have been voices that networks of senses may lead to postulating an uncontrolled number of senses. However, as LANGACKER (2008: 38–39) stresses, this is not the case. Because a meaning becomes part of a language when it is entrenched and conventional, only a limited number of possible uses of a word actually become established linguistic units.

Several objections can also be raised against the syntactic approach propounded by ALLAN (1980). One of the problems is that he disregards the possibility of alternative construals afforded by the analysed nouns and imposes his judgement about whether or not a noun is countable prior to the analysis. This can be seen in his approach to the test based on the plural form of the noun (the EX-PL Test), where he examines whether the *plural* form of *girl* governs an adequate form of *be* – *were* (p. 550). However, analysing *sugar* or *equipment*, he uses the *singular* forms of the nouns, which are clearly unusual when combined with a plural form of the verb. Were he to use the plural forms, *sugars* and *equipments*, the classification would not be that obvious, as it is possible to use, for instance, *sugars* in reference to different types of sugar (p. 551). What is more, by disregarding certain types of syntactic environments, such as undetermined singular generic NPs (p. 552), he disregards the fact that *car* can have mass readings, as in his own example: *Car is the best mode of transport*. This means that despite his claim that *car* is only count, he himself shows that it can also have a mass sense (ALLAN, 1980: 562).

Finally, Allan’s classification is based on the +/- scale, which, as has been mentioned, is not really adequate for linguistic analysis because the acceptability of a specific form is rarely absolute. Actually, it is unreasonable to expect absolute acceptability/unacceptability once we know that, for example, native speakers’ grammatical performance can differ considerably (e.g., DĄBROWSKA, 2012) and people judge as incorrect expressions or sentences that they frequently produce themselves (e.g., LABOV, 1996). In other words, when confectioners use *sugars* in reference to different types of sugar, is this correct or not? Can we judge this form just by means of the +/- scale? Naturally, *sugars* can be classified as rare or specialist, but does this make the plural form of the noun incorrect? What is more, the discussion about correctness shifts to the problem of frequency rather than correctness as such, and so leaves the problem unsolved, because it tacitly assumes that a form that is rare is not correct, which is not the case.

A similar objection can be raised against one of the proposals formulated within Construction Grammar, the *override principle* (MICHAELIS, 2004: 25). While it is clear that the purpose of this principle was to sanction certain unusual and unexpected combinations of words, such as the use of a typically mass noun with the indefinite article, this type of solution results in throwing out

the baby with the bathwater. As has already been mentioned, many linguistic phenomena are a matter of degree. However, the override principle assumes that the information encoded in the morphosyntactic context, for example, in the indefinite article, is *always* imposed on the noun. This, in turn, means that in Construction Grammar, the sentence **I have just received an advice to disregard the two news that came earlier this morning* is grammatical because the indefinite article overrides the mass property of *advice*, and *two* overrides the mass property of *news*. For us, it would be a fairly obvious signal of the speaker's lack of competence in English rather than of the power of the override principle.

Finally, from the perspective of cognitive linguistics, certain considerations must be judged as simply irrelevant to the discussion of countability and uncountability, such as the problem to what extent cat-atoms constitute cats and how this relates to the noun's grammatical property:

Consider again the number neutral property CAT that applies to individuals as well as to groups of cats. When we use it to count as in *three cats*, we count individuals, i.e. the cat-atoms (which constitute the smallest things to which CAT applies). Now, there are plenty of cat-atoms that are not vaguely specified. There are plenty of things that we (or the relevant experts) are sure fall under the cat concept, have the cat-property or however you want to put it. In other terms, the boundary of the property 'cat/s' is such that there definitely are x's that fall under it, such that no proper part of x does. We have a reasonably clear idea of what qualifies as a (more or less 'whole') cat atom. (CHIERCHIA, 2010: 117)

We conclude this brief comparison with a review of the dimensions of countability and uncountability that JOOSTEN (2003: 227) considers to be necessary in an "insightful discussion of the count-mass distinction." The first one is that "(non)countability is intimately connected with reality, though a plausible account for it can only be given when it is analysed in terms of a possible conceptual restructuring of that reality." We think that our account of CG makes it clear that the count-mass distinction is intimately related to reality, as conceptualisation stems from a perception of reality. At the same time, because CG is all about conceptualisation, the second part of Joosten's condition is also fully satisfied.

The next requirement states that "(non)countability is primarily a property of NPs, but nouns may differ in the degree that they occur in count or mass environments" (p. 227). Three points need to be made here. First, from the CG perspective, what is necessary for an account of grammatical properties of the noun is its semantics rather than the sequence of words that form the noun phrase, as it is the conceptualisation of the noun that triggers the selection of specific quantifiers or articles, and not the other way round. Consequently, as the preceding discussion shows, there are good reasons to assume that it is the noun rather than its surrounding elements that determines the noun's grammatical properties.

Second, in CG terms, the difference between the noun and the noun phrase is rendered by means of the difference between, respectively, the type and an instance (cf. Section 1.2.2). What this entails is that, to a certain extent, we do take the syntactic information into consideration – information about the semantic structure of the type comes from the noun's instantiations.

Third, the notion of degree requires a comment. By mentioning different degrees of (non)countability, JOOSTEN (2003: 563–564) makes a reference to ALLAN (1980) and his eight levels of countability that extend between *car*, which is 100% countable, and *equipment*, which is 0% countable. This kind of classification is unacceptable in CG. Since probably every noun can be used in either manner, such values as 0% or 100% countability are not possible. At the same time, the idea of gradable countability is to be expected – this is what actually constitutes the linguistic conventions that we become acquainted with while learning a language (cf. the discussion in Section 1.2.3.3).

The last requirement enumerated by JOOSTEN (2003) states that “when conceptualisation and reality do not match, this deviation may be (lexically/contextually) motivated or unmotivated. There is always a degree of arbitrariness in language.” To comment on this requirement, three issues need to be clarified.

First of all, the basic tenant of conceptualisation is that it is an interpretation of reality; thus, it does not have to match reality. In other words, there is nothing unusual about the fact that the two differ. It might be interesting to inquire which of the possible conceptualisations reflects the reality. When we refer to something as *foliage* or *leaves*, which name is more appropriate? Unfortunately, there is no correct answer to this question. From the CG perspective, both are perfectly adequate, but simply each of them encodes a different construal of the designated entity – in the latter case, this is a collection of single leaves, and in the former, a mass consisting of numerous, insignificant elements. Our stance is that reality is as it is – by means of language we are only able to construe it rather than arrive at its very nature.

The second point concerns the degree of motivation of linguistic units. There are two facets to this problem. The first one concerns the notion of the meaning, which LANGACKER (2008: 28) describes as dynamic and negotiated on the basis of the “physical, linguistic, social, and cultural context.” This means that each of these types of contexts may influence the ultimate construal of reality, and contextual motivation is an important aspect of meaning. Sitting in a local restaurant in China, Korea, or Taiwan, and knowing both the local eating habits and the types of dishes that one can get (a combination of the physical, social, and cultural contexts), one can plausibly say to the waiter: *Some dog for me, please*. This would definitely be a construal heavily influenced by the context, for dog is not a popular European or American dish.

Naturally, the semantic extension can also be motivated lexically. Such nouns as, for instance, *lawn* or *desert* (TAYLOR, 2002: 379) can be quite naturally

and frequently used in both count and mass senses. At the same time, it should also be expected that there are nouns that are less readily used in both types of senses, such as *cat* or *traffic*. Returning to LANGACKER's (2008: 143) example *You need a lot of lake for a speedboat race*, it is not the physical context that motivates the construal of the lake, because what the speakers may be looking at is a perfectly countable extent of lake. Rather, this is either the context of the conversation, which may be about boat racing, or another factor not mentioned by Joosten but stressed in CG – the conceptualiser.

A still different issue is whether or not a novel use can be unmotivated. Although it can only be speculated what Joosten means by an unmotivated use, in this case the answer is rather negative. As REID (1991) and NUNBERG (1995) have shown, normally, there is either communicative pressure, or the dimension that we focus on is somehow noteworthy.

Finally, we come to arbitrariness. The manner in which this notion is approached by Joosten is basically congruent with the stance adopted by cognitive linguistics and CG – there is an element of arbitrariness in every language. As LANGACKER (1987a: 48–52) explains, no language system is fully predictive, and it would be unreasonable to make such a requirement. At the same time, the extent of arbitrariness in language is easily overstated (cf. TAYLOR, 2002: 50, and his comments on arbitrariness). That is why we would like to outline the cognitive linguistics' stance on motivation. An important observation in this context comes from HEINE (1997: 19): “not infrequently, motivation is no longer accessible to the native speaker, nor even to the historical linguist. But this does not mean there is no motivation – it simply means there is a gap in our knowledge that remains to be filled.” It should be added, though, that some gaps will probably never be filled, while others require a considerable amount of analysis and consideration.

An example of the latter type of gap may be a pair of nouns quoted by BLOOMFIELD (1933: 271) as a proof of arbitrariness of language: *wheat* and *oats*, extensively discussed, among others, by WIERZBICKA (1985, 1988). At the same time, together with “filling the gap,” we also show the workings of conceptualisation. WIERZBICKA (1988: 532) argues (quite rightly) that conceptualisation depends on the way people perceive an entity. However, as proof of this, she refers to the opinion of “many native speakers of English” regarding her inquiry about the use of *wheat* and *oats*. This line of reasoning is mistaken, for contemporary native speakers have little influence on their conceptualisation of reality – to a large extent they remain under the influence of the construal encoded in their mother tongue and, for the most part, adjust their reception of reality to the way they talk about it in their language. This is what children do when they learn their native language. Because children do not know how to describe the reality that they see, they adjust their linguistic performance and the specific conception correlated with it to the linguistic information that they receive from

the people around them (cf. the psychological evidence discussed in TAYLOR, 1995: 239–256; GOPNIK & MELTZOFF, 1997; GOPNIK et al., 2001, 2004; GOPNIK & SCHULZ, 2007; GILLIS & RAVID, 2009). In other words, contemporary native speakers are not a good source of information on the *reasons* for conceptualising a piece of reality in one way or another.

Does this mean that the gap cannot be filled because those who first used the word with the specific grammatical property can no longer be asked about it? In fact, there is a solution – it is the actual words that encode the original conceptualisations. If these conceptualisations differ from what is expected, an effective option might be an attempt to determine these modifications, that is, look for the reasons for such departures in the physical, cultural, or social context. A prime example of this strategy is provided by WICKENS (1992). In his insightful discussion of *wheat* and *oats*, he refers to the physical context:

The solution to the difference in grammatical form may instead lie in the manner in which the different grains grow. Of those named above, only oats (the seeds) grow separately on rather thin branches from which they seem to dangle. The other grains form fairly tight, if not very compact, spikes. That is to say, in contrast to the other grains, there is with oats the perception of more or less isolated kernels occupying very distinct parcels of space. (WICKENS, 1992: 221–222)

In other words, if the names were motivated, and there is no reason to believe that at that time they were not, the motivation must have come from the way the respective cereals grow. Wheat is more compact and its grains are quite naturally perceived as an aggregate (cf., e.g., WISNIEWSKI et al., 2003; MIDDLETON et al., 2004; WISNIEWSKI, 2010). By contrast, the seeds of oats grow on separate branches and normally there are many separate grains on one stem, so the plural conceptualisation is perfectly motivated. To sum up, the *wheat/oats* problem, though the two nouns were for a long time considered to be arbitrary, their grammatical properties are in fact motivated, which may be also true of many seemingly arbitrary cases (cf. the arguments for motivation in language in HEINE, 1997; RADDEN & PANTHER, 2004; GIBBS, 2006; PANTHER & RADDEN, 2011, to name but a few).

To conclude, we hope that the discussion proves one point: CG *is* a suitable theory for an “insightful discussion of the count-mass distinction.” What follows in part two is a detailed presentation of the method of analysis (Section 2.1), an analysis of mass extensions of count nouns (Section 2.2), count extensions of mass nouns (Section 2.3), and conclusions with a general discussion of the findings (Section 2.4).



The analysis

At the start of the analytical part, we want to evoke one of the claims made by Ronald LANGACKER (2008: 142), which constitutes the basis of our approach to count and mass nouns: “in one way or another, probably every noun can be used in either manner.” Although similar claims have appeared in linguistics before (cf. Section 1.1), no large-scale attempts to assess the accuracy of these claims have been made. That is why we want to tackle the issue by means of the theoretical apparatus introduced by Cognitive Grammar.

At the same time, the overview of the literature on countability and uncountability shows that linguists have noted certain regularities of count-to-mass and mass-to-count extensions. However, depending on the adopted methodology, both the number of regularities and the manner in which they are formulated differ widely.

This has triggered the formulation of the following goals of our research:

- 1) to conduct an analysis of English nouns aimed at checking the accuracy of Langacker’s claim; and
- 2) to detect and describe the semantic regularities accompanying count-to-mass and mass-to-count extensions.

As a result, the analytical part is organised into the following subchapters: a presentation of the methodological issues (2.1), an analysis of mass extensions of count nouns (2.2), and an analysis of count extensions of mass nouns (2.3). The final subchapter of the work (2.4) sums up the findings and relates them to what is known about countability and uncountability in the linguistic literature.

2.1 The methodology of the research

The organisation of the present subchapter reflects the consecutive stages of preparation for the analysis. First, we specify the type of nouns that we analyse – which nouns these are, how many of them are taken into consideration, and how they were selected in order to provide a representative illustration of the proper-

ties of English nouns (Section 2.1.1). The next decision concerns the source of the data – the Internet (2.1.2). Then we discuss the grammatical criteria of countability and uncountability on the basis of which we formulated the constructions that we searched for on the Internet (Section 2.1.3). The methodological part is concluded with a brief explanation of the notations and terms used in the analysis (Section 2.1.4).

2.1.1 The type and number of nouns

We must begin with acknowledging that any analysis of this kind must be limited by nature – out of all nouns in English it is virtually impossible to scrutinise more than several dozen at a time. What is more, if we want to illustrate each noun with at least one example, purely spatial limitations appear. That is why we had to introduce several limitations concerning both the type of nouns that we analyse and their number, still making sure that the selected items are representative of the category of nouns.

First of all, the category of nouns is quite diversified – apart from concrete nouns, grammarians often indicate a distinct character of, for example, abstract nouns and structures parallel to nouns – nominalisations (e.g., JESPERSEN, 1933: 160; BLOOMFIELD, 1933: 206; QU, 1985: 247; LANGACKER, 1990: 97; BRINTON, 2000: 120; HP, 2002: 475; GRAMLEY & PÄTZOLD, 2004; CHIERCHIA, 2010: 101). Because analysing them together might give ambiguous results, we decided to focus only on one of these types – concrete nouns.

Because we refer to the notion *concrete* twice in the analysis, while collecting the nouns for analysis and while searching for the nouns' extended senses, we need to elaborate it in more detail. Concrete nouns refer to “entities that exist in the domain of three-dimensional space,” that is, “have weight and spatial extension and, mostly, can be touched and manipulated” (TAYLOR, 2002: 127). In other words, these referents not only function in physical space but can also be perceived by means of our senses.

In the case of the extended senses, this definition needs to be somewhat relaxed – the entities do not have to exist in three-dimensional space, for this would seriously limit the number of analysed senses. Still, they have to be perceived by at least one of the human senses, that is, we take into consideration such extended senses as ‘warmth’ or ‘sound.’ This also means that an action performed in space is also classified as concrete. However, there are extended senses that we reject, and these are the senses that are based on profiling an abstract characteristic of the referent, for example, when *honey* extends to the sense ‘a thing that causes pleasure,’ as in *West Seattle Bee Festival was a honey for the kids* (<http://www.westseattleherald.com/2015/05/16/news/slideshow-west-seattle-bee-festival-was-honey-kid>).

The only exception that we make in the case of extended senses is reference to the dimension of quality. This dimension is strongly emphasised by both philosophers and linguists in relation to substances (cf., e.g., BUNT, 1985, and his *Universal Sorter*; see also JESPERSEN, 1924: 200; GLEASON, 1965: 136; QU, 1985: 249). It is also stressed by LANGACKER (2008: 107) as characteristic of substances: “though a substance may be spatially manifested, its essential characterization is qualitative” (cf. LANGACKER, 2016: 85). For this reason, in the analysis, we also take into consideration the extended sense ‘a kind of substance/thing.’

This type of limitation brings two important advantages to the analysis. First, because relatively few regularities are provided in the literature of the subject, little can be predicted about the possible patterns of extension. As a consequence, concrete nouns should provide clearer results than an analysis of nominalisations or abstract nouns. What is more, since concrete nouns are prototypical for the category of nouns, certain regularities found among concrete nouns can be expected to occur in the other noun categories as well. A reverse order of analysis would not necessarily produce the same result.

We also need to make a comment about the number of nouns that we take into consideration. Because the pilot studies (DROŹDŹ, 2014a, 2016) show that a noun can develop quite many extended senses with the reverse grammatical property, to keep the analysis within reasonable limits, we decided to select 30 count and 30 mass nouns. The problem that is correlated with the number of nouns is the number of contexts that need to be found for each noun, which raises two further issues. On the one hand, this number cannot be too small because it may be difficult to distinguish regular extensions from contextual interpretations and prove that the former ones are not purely accidental uses. On the other hand, the number need not be too large, because at a certain stage of data accumulation, what we find is just a repetition of the already detected regularities. As a result, we decided to establish a limit for the number of contexts that we search for – 30 hits. That was also the number used in the pilot study (DROŹDŹ, 2016), and it appeared quite sufficient for the analytical purposes, that is, it allowed us to indicate clear tendencies in noun extensions and distinguish tendencies in extension from contextual interpretations. This means that the initial assumption was to find 1800 hits. Whether this aim was achieved is discussed in adequate analytical parts – 2.2 and 2.3.

Because it is not possible to analyse all nouns of a language (cf., e.g., VAN LIER & RIJKHOFF, 2013: 19; GIL, 2013: 115–116), in order to ensure the representativeness of the analysed nouns for English, we turned to the frequency of occurrence of nouns in the English language. By doing so, we gain two advantages: we gather a representative set of English nouns and avoid the objection that the discussed phenomenon only concerns words of a specific frequency – very frequent, very rare, or just of average frequency. One of the most representative frequency lists of English is the 100,000 frequency-based word list compiled on the basis of

the Corpus of Contemporary American English (COCA), a 450 million word corpus. On the basis of this list, a shorter version was created – a 5,000 list, available at <http://www.wordfrequency.info/free.asp>. Slightly over a half of the 5,000 words are nouns, and it is by going systematically through the list that the analysed concrete nouns were selected.

We started with the initial assumption that the nouns chosen for the analysis should be only count and only mass. That is why we checked the grammatical properties of every noun in five authoritative British dictionaries: *Oxford Dictionaries* (henceforth OD), *Cambridge Dictionaries Online* (CMD), *Longman Dictionary of Contemporary English* (LGD), *Macmillan Dictionary* (MMD), and *Collins English Dictionary* (CLD), and in two American dictionaries: *The American Heritage Dictionary of the English Language* (AHD) and *Merriam-Webster Dictionary* (MWD). The extent to which we succeeded in implementing this plan is discussed in Sections 2.2 and 2.3.

2.1.2. The corpus

The linguistic corpus must be mentioned once again in relation to the analysis, because the extended senses that we want to determine in the analysis require a reliable and diversified source. Actually, one of the guiding principles that we adhere to in our analysis is the fact that CG is usage-based. This means that the analysed examples come from actual and natural utterances produced by native speakers. However, such an assumption both requires a precise definition of the native speaker and imposes certain restrictions on the sources of data.

Let us begin with who we take to be a native speaker of English. Although today English is a global language, it does not mean that all speakers of it can be equally well qualified as native speakers, for many Englishes are under a strong influence of the native languages of the given area (e.g., MESTHRIE & BHATT, 2008: 17–32). As a consequence, to eliminate the possibility that the given sense is a result of interference from a local language or a nonstandard variety of English, we only selected the contexts that were produced by specific speakers – those that come from the United States, the United Kingdom, Australia, and Canada, that is, from what is called the “inner circle” of World Englishes (KACHRU, 1988: 5; cf. MESTHRIE & BHATT, 2008: 27–36; WOLF & POLZENHAGEN, 2009: 2–4). This means that we rejected all contexts whose authors come from Malaysia, Philippines, Singapore, India, or South Africa.

However, to establish someone’s country of origin is not always a simple matter. Sometimes, in the case of blogs, the information about the author’s nationality or the region that they come from can only be found in the Privacy Policy, which states that any legal actions against them can be taken in accordance with, for instance, the laws of the state of California. This indicates that the person is

most likely an American. Similarly, people taking part in blog conversations had to be traced through Facebook, Twitter, or LinkedIn, and their native speaker status was confirmed only by the information about their country of origin (e.g., the USA) or the information that they were raised in New York.

We also examined the areas that the texts concerned, as sometimes the contexts included the name of a local place, shop, or a celebrity visiting a city or town. Again, these were important clues that strongly suggested that the authors belonged to the community living in the given area; for example, we assumed that a person who asked a question at the website of a British mill about the places where their flour could be bought was British (<http://www.shipton-mill.com/baking/how-to-bake/which-flour-for-sourdough-and-white-bread.htm>), or that someone selling an oven, who was ready to deliver it within 150 miles of Indianapolis, was American (<http://indianapolis.ebayclassifieds.com>). In the same vein, a producer who put an advertisement on a British website and had an office in Birmingham was regarded as British (<https://www.shopontime.co.uk>), and a producer whose office was Boston-based, as American (<http://www.theshoppingmama.com>).

Naturally, the very fact of living in the given country does not make one a native speaker. That is why some additional things that we scrutinised were the style of the utterances and the authors' names. What typically distinguishes English native speakers from non-native speakers is that the former often write in a manner that is quite clearly distinct: they use abbreviations, slang, colloquial words, and specialist vocabulary, and they do not make simple grammatical mistakes that are so characteristic of non-native speakers (e.g., the lack of agreement between the number of the subject and the form of the verb). This was the decisive criterion while analysing, for example, the context in which bloggers discussed one of the methods of applying heroin – drawing the drug into the syringe through *a cotton*. There, for obvious reasons, the authors made every possible effort to hide their identity. Still, because their English was native-like and they used the noun *cotton* in the manner consistent with the other native speaker utterances that we had collected, we accepted it as a valid example of an extended sense of the noun.

As for names, the four countries can be generally classified as belonging to the Western world. This means that such names as Gwen Gyldenege, Rachel Atkinson, or Abby Glassenberg are much more suggestive of native speakers of English than Jigg Liui Puff or Hazirah Zee. However, when neither the identity of the blogger was possible to trace nor the utterance was produced in good English, the context was rejected. Finally, to assure that the texts were produced by native speakers, less clear cases were consulted with a competent native speaker with an academic background.

Another issue that we need to mention is the type of corpus that we decided to use. Among the numerous and unquestionable advantages of linguistic cor-

pora, we need to point to one problem that is crucial for the present analysis: ultimately, corpora do not (and actually cannot) reflect the proportions between, for example, spoken and written language (with an overwhelming dominance of the former), the diversity of both these types of language and, as a result, the whole gamut of the structures used in a language. In other words, corpora do not reflect a language with all its richness and diversity but show what has been collected in the corpus (e.g., GAST, 2006: 117; McENERY & WILSON, 2001: 71–81). Corpora give a hint of linguistic structures, constitute a major step towards describing them, but are not able to give an accurate representation of what actually appears in language. This can be seen even in the organisation of one of the best corpora – the British National Corpus, of which 90% consists of written language and only 10% of speech (cf., e.g., GAST, 2006: 117), which definitely does not reflect the actual proportions between these two types of language in everyday use.

Taking this into consideration, we decided to turn to what seems at present the source of linguistic data that is closest to actual language use – the World Wide Web. Although the utterances that we find there are for the most part written, they either reveal several important characteristics of spoken language (CRYSTAL, 2004: 24–61) or are directly called so (e.g., ELMER-DEWITT, 1994; HALE & SCANLON, 1999). From the perspective of our analysis, the crucial characteristics of such data are the diversification of language users and an unedited character of the utterances. This means that we can find utterances of car owners, mechanics, house owners, teenagers, carpenters, film critics, photographers, students, programmers, shoppers, golf players, hikers, etc. In other words, these are not professionals trained to write and express their thoughts clearly and eloquently, but speakers whose language does *not* typically constitute the bulk of standard corpora. What is more, their language is natural – those people focus on various dimensions of the world and describe them in the way they find most adequate, even if this might seem, at first sight, to be unusual or even incorrect.

Naturally, this does not mean that we ignored the sources of language written by professionals. Actually, we referred to both ordinary language users and professionals, which, to our mind, shows the analysed phenomenon as a disregarded rather than non-existent dimension of language. There is no point in enumerating all the professional sources of data – we just focus on a handful of them. As for books, we have collected samples from R. Mollise's *Choosing and Using a New CAT: Getting the Most from Your Schmidt Cassegrain or Any Catadioptric Telescope*, W. Howard's *Perchance to Dream (Star Trek: The Next Generation, No. 19)*, P. G. Woodhouse's *Mike and Psmith (EasyRead Comfort Edition)*, and H. Hiscoe's *Appalachian Passage*. Some of the newspapers, journals, and magazines that we referred to are: *The Wall Street Journal*, *The Washington Post*, *The Herald Journal*, and *Scientific American*. At the same time, we also sought data

on the websites of televisions, news services and agencies, and in government publications, including BBC (<http://news.bbc.co.uk>), TVTropes (TVTropes.org), U.S. Food and Drug Administration (<http://www.accessdata.fda.gov>), and 13abc Action News (<http://www.13abc.com>) (a more extensive list of the professional sources can be found in the Appendix).

As a result, the discussion is richly illustrated with examples. Although it might be felt that there are too many of them, we believe that the use of so many genuine contexts is well justified. First, they are indispensable in order to provide evidence, permit specific interpretations, and confirm the accuracy of the interpretations of the collected senses. Second, they provide the necessary basis to demonstrate that the discussed phenomenon does not concern marginal oddities, some random, peripheral uses of nouns, or highly non-standard varieties of English but is in fact common, though largely unnoticed. Finally, such a number should convince any sceptical reader that the phenomenon in question must be taken seriously and, ultimately, explained.

2.1.3 The grammatical criteria of selection

The basic distinction that needs to be made in the present analysis is the distinction between count and mass nouns. At the start, we need to reassert the CG claim about the conceptual approach to language, which means that the discussed grammatical properties of nouns are treated as symptomatic of an underlying conceptual opposition (cf. Section 1.2.1). Still, these properties are vital for our analysis, as it is on their basis that we can make inferences about the count or mass construal of the designated entities.

There are several significant structural differences between the two types of nouns (cf. LANGACKER, 1987b, 2008: 128–132; QU, 1985: 245–246; CHIERCHIA, 1998: 55–57; BIBER et al., 1999: 241–245; GILLON, 1999: 51; HP, 2002: 334–340; PELLETIER, 2012: 10). First of all, as the name suggests, the entities designated by count nouns can be counted, that is, we can see that there is one or more entities. This also means that count nouns have their singular and plural forms (though in CG, plural nouns are classified as a type of mass nouns; LANGACKER, 2008: 130–131), which entails two correlated properties: count nouns appear with cardinal numerals, and when they designate more than one entity, they take the plural suffix (e.g., –s): *one table*, *two tables*, *three tables*, etc. Mass nouns do not possess such properties: **one milk*, **two milk*, **two milks*, etc.

The next property is syntactic in nature – count and mass nouns appear with different determiners. Count nouns permit the indefinite article, as in *a table*, whereas mass nouns do not: **a milk*. At the same time, if we contrast singular count nouns and mass nouns, it is only mass nouns that occur with such quantifiers as *most*, *much*, or *a lot of*: *most milk*, *much milk*, and *a lot of milk* vs.

**most table*, **much table*, and **a lot of table*. Also, only mass nouns can function without a determiner, as in *They bought milk* vs. **They bought table*.

Finally, we need to mention two types of agreement characteristic of count and mass nouns: the pronoun-antecedent and the subject-verb agreement. The former type means that both the singular form of a count noun and a mass noun can be substituted by a pronoun that agrees with them in number, for example, the pronoun *it*, as in *I've bought the milk. Where to put it?* and *I've bought the table. Where to put it?* The latter agreement entails that both types of nouns are followed by the third person singular form of the verb: *The milk is good* and *The table looks modern*. By contrast, plural nouns are substituted by different pronouns, namely, the third person plural pronoun *them*: *I've brought two tables. Where to put them?* Also, plural nouns are typically followed by different verb forms than the third person singular, as in *The tables are expensive*.

This brief overview of count and mass properties of nouns was necessary in order to move to the vital stage of the analysis preparation – the manner in which we sought the extended senses whose grammatical property was reverse in relation to the standard of extension. While it is fairly obvious that there are nouns with count and mass senses, a problem arises when we want to look for them systematically. That is why we started with establishing constructions that are characteristic of the nouns from each of the two categories of nouns and insert into them nouns from the other category. This meant that count nouns were put into constructions characteristic of mass nouns, and mass nouns were put into constructions typical of count nouns.

In the case of mass extensions of count nouns, we basically relied on the fact that mass nouns are typically modified by the quantifier *much* (cf., e.g., JESPERSEN, 1924: 198; GILLON, 1999: 51; HP, 2002: 339; RADDEN & DIRVEN, 2007: 67). Consequently, we used it to create a construction characteristic of mass nouns that combined *much* and a mass noun. After replacing the mass noun with a count one, we arrived at the schematic construction MUCH + NOUN.SG, which is instantiated in, for example, *much belt* or *much sleeve*. Seemingly, then, this construction is comparable to what RUIZ DE MENDOZA IBÁÑEZ & PÉREZ (2001: 337) dub as “too much + count noun” construction. However, contrary to RUIZ DE MENDOZA IBÁÑEZ & PÉREZ, we do not claim that the extended sense arises from the construction. To us, a mass sense of a typically count noun arises from the semantic potential of the noun, and a construction of this type is just one of the possible cases where this count sense can be observed (cf. the discussion in Section 1.2.1).

To detect count senses of typically mass nouns, we formulated three constructions characteristic of count nouns, each of which highlighted a different property of this type of nouns. In the first one, based on the syntactic property, the noun is modified by the indefinite article, which requires the singular form of the noun: A/AN + NOUN.SG. When the count noun is replaced with mass,

the resultant construction is instantiated by such expressions as, for example, *a fat* or *a sand*.

The second construction is based on the morphological property of the noun, possibly accompanied by one of its syntactic properties – the fact that count nouns can take the plural morpheme –s and can be preceded by such quantifiers as *many*. This resulted in the construction (MANY) + NOUN.PL. When filled with mass nouns, the construction produced, among others, the following expressions: (*many*) *muds* or (*many*) *silks*.

The third construction is more complex, for it is based on one of the remarks made by QU (1985: 249) about quality partitioning of mass nouns. This kind of partitioning results in a reclassification of nouns; for example, uncountable *coffee* can be used in a count sense *a nice coffee*. What is more, such cases can be observed not only in the case of premodified nouns, but also postmodified ones, as in *She played the oboe with a sensitivity that delighted the critics* (QU, 1985: 287). To check the accuracy of these observations, we formed the construction A/AN + ADJECTIVE + NOUN.SG, which can be filled with mass nouns, as in *a good food* or *a fine tobacco*.

Although such a diversification of constructions for the detection of count senses of mass nouns might seem unnecessary, it should also be noted that thanks to them we can make several additional observations concerning the nouns' senses. And since this kind of research produces results that are far from common grammatical knowledge, any additional information that we can draw from the analysis is important. First of all, then, we can learn whether or not the constructions are equally productive. Second, we can check whether they lead to the same types of extensions. Finally, we can also check if all the mass nouns have developed the 'kind of' sense, as can be expected from QU's observation. What followed assembling the constructions was a search for their uses on the Internet.

At this stage, we should add one more comment concerning the searched constructions. The pilot studies conducted so far (DROŹDŹ, 2014a, 2016) show that the Internet search is sensitive to one more piece of syntactic information: what follows the analysed noun. If we just seek the expression *much guitar*, a likely outcome will be contexts in which someone asks *How much guitar practice?* (<https://www.classicalguitarshed.com/how-much-guitar-practice/>) or *How much guitar string action affect your fretting hand?* (<https://www.quora.com/How-much-guitar-string-action-affect-your-fretting-hand>). In these cases, despite the fact that *much* precedes *guitar*, the quantifier does not refer to it but to the second noun of the compound, that is, respectively, *practice* and *action*, which misses the point of the search.

That is why, in order to improve the efficiency of the search and arrive at more adequate results from both the qualitative and quantitative perspective, it is a good practice to add, after the analysed noun, a preposition, a verb that agrees

with the noun in number, an article, or a pronoun. Because this eliminates the majority of possible compound nouns, the accuracy of the results significantly improves. This also limits the results, which is why we made a list of 50 most frequent and natural words that can possibly follow a verb. After we have collected all the relevant contexts that appear with one such word or a construction produced no hits, we exchanged the word and repeated the search. This meant that one noun could appear in up to 50 different constructions, for example, *much page for*, *much page about*, *much page as*, *much page is*, *much page that*, or *much page she*. Despite such a divergence, the pilot analyses show that the type of word following the noun is not correlated with the extended sense.

To conclude, we want to outline briefly the CG perspective on the discussed procedure. First and foremost, each lexical unit evokes a number of domains as the basis of its meaning. Because not all domains are activated every time a noun is used, it is useful to make a distinction between a noun's maximal scope and its immediate scope. While the former refers to all the domains in a noun's matrix, the latter limits this number to those domains that are directly relevant for the comprehension of the given use. In other words, since we deal with interpretations of actual utterances, we are concerned with the nouns' immediate scope (cf. Section 1.2.1.1).

Still, the conceptual content that constitutes the immediate scope can be construed differently, that is, different aspects of the content can be focused on. That is why, in order to conduct a more detailed analysis, we need to make use of a further construal phenomenon, prominence (cf. Section 1.2.1.1). The distinction between the base and profile that it introduces allows us to see the difference between the body of conceptual content and a specific substructure that the given noun actually selects within this conceptual content. In the case of count senses, profiling means focusing on the portions of conceptions that form bounded entities, with those that form unbounded masses constituting the background. In the case of mass senses, the profile-base relationship is reversed. This also means that when the conceptualiser wants to use a noun with the reverse grammatical property, he or she can change the construal of the conceptual content by shifting the profile from, for instance, the boundary of an entity to the mass that constitutes this entity. As can be seen, then, it is a change in the profile that most directly results in a change of the grammatical properties of the noun.

2.1.4 Notation and terminology

In this section, we clarify several issues concerning the notation and terminology used in the analysis. First of all, we need to stress that the regularities that we seek in the analysis are schemas (cf. Section 1.2.1.1). This entails two impor-

tant properties of the structures that we are going to examine. First, the process that we are concerned with is extension, and, as such, it involves a comparison between two structures: standard (S) and target (T). In our case, the standard is the primary sense of the nouns and the target is the extended sense. The second important property of schemas is that they arise through capturing the commonalities inherent in the schema's instantiations. This means that the consequent levels of schematicity at which we formulate the structures are not accidental but arise from generalisations of the similarities inherent in lower-level structures.

Another crucial dimension of the adopted notation is that it encodes grammatical information. More specifically, three such dimensions need to be highlighted. The first one concerns the fact that the standard and target of extension arise as schematic representations of different grammatical categories: count and mass nouns. While this is often quite straightforward from the very notion used – for example, it does not require much explanation that OBJECT is prototypically count – PART OF THE OBJECT can be ascribed both count and mass properties. Similarly, ACTION can be ascribed both properties and, in fact, in our analysis it adopts both count and mass interpretations. That is why, to emphasise the fact that grammar plays an important role in the detected schemas and patterns, both the standard and target receive additional notations C and U, as in $[[\text{SUBSTANCE/ AGGREGATE OF THINGS}]_U \rightarrow [\text{ACTION ASSOCIATED WITH THE SUBSTANCE/ THE AGGREGATE OF THINGS}]_C]$ or $[[\text{OBJECT}]_C \rightarrow [\text{ACTION ASSOCIATED WITH THE OBJECT}]_U]$.

The second grammatical dimension concerns the target of extension and is related to the question whether the extended sense refers to a specific dimension of the target or one of many possible aspects of it. This divergence can be seen in such cases as an extended sense of *book*, which can be defined as ‘substance that the book is made of,’ where the substance of the book is clearly discernible. As a result, the definite article should be used. On the other hand, when OBJECT extends to the ‘property of the object,’ it should be clear that the property is just one of several and, to signal this, the indefinite article should be used. However, because this would influence the length of the schemas and would make the notations less readable, we omit this information and formulate the schemas as follows: $[[\text{BOOK}]_C \rightarrow [\text{SUBSTANCE THAT THE BOOK IS MADE OF}]_U]$ or $[[\text{OBJECT}]_C \rightarrow [\text{PROPERTY OF THE OBJECT}]_U]$. Still, it should be emphasised that the status of the target is not uniform.

The last piece of grammar can also be seen in the target. It must be noted that extended senses are based on the primary senses and, as a result, refer to them. This means that when, for instance, SUBSTANCE extends to a thing that has a specific property, this is not a property of any possible type of substance but of the one that appeared in the standard. As a result, the definite article is used, as in $[[\text{SUBSTANCE}]_U \rightarrow [\text{THING THAT HAS A PROPERTY OF THE SUBSTANCE}]_C]$. Also, when OBJECT extends to another object that is contiguous to it, the distinction

between the objects is marked by means of adequate articles: $[[\text{OBJECT}]_c \rightarrow [\text{PART OF AN OBJECT CONTIGUOUS TO THE OBJECT}]_v]$ (cf., e.g., KÖVECSES, 2010: 154, for diverse approaches to the way in which conceptual metonymies are formulated: ACTION FOR AGENT and ACTION FOR OBJECT INVOLVED IN THE ACTION).

Another issue that needs some attention is the distinction between the two crucial phenomena involved in semantic extension: metonymy and metaphor. Langacker (cf. Section 1.2.1.2.) uses different notations for each of them; thus, $[[\text{VIETNAM-WAR}] \rightarrow [\text{VIETNAM-WAR}]]$ is an instance of a metonymic pattern (LANGACKER, 2008: 250–251), and $[[\text{ANIMAL}] \rightarrow [\text{PERSON RESEMBLING ANIMAL}]]$ is a pattern of metaphorical extension (LANGACKER, 2000b: 40). While this distinction is crucial from the theoretical perspective, in the analysis we are not so much focused on the type of process that underlies the extensions but the uniformity of the resulting schemas. What is more, although the dominant process determined in the analysis is metonymic extension, we also encounter metaphorical shifts across different matrices. As a result, to indicate certain regularities of extension irrespectively of the process involved, in the analysis we use unified notations that we call schemas of semantic extension, for example, $[[\text{SUBSTANCE}]_v \rightarrow [\text{CONTAINER THAT HOLDS A PORTION OF THE SUBSTANCE}]_c]$.

In the analysis, we also make a distinction between two terms: *schema of semantic extension* and *pattern of semantic extension*. While LANGACKER (2000b) uses both terms interchangeably, and it is definitely true that a pattern of semantic extension is one of the possible types of schemas, we feel that the analysis will profit from distinguishing the two. As a consequence, *schema of semantic extension* is used for any type of schematic regularity, most notably for the regularity arising from a relationship between a concrete and extended sense, for instance, $[[\text{WATER}]_v \rightarrow [\text{BOTTLE OF WATER}]_c]$. We also use *schema* for the higher-level formulation that arises from several categorising relationships of this kind, as in $[[\text{SUBSTANCE}]_v \rightarrow [\text{CONTAINER THAT HOLDS A PORTION OF THE SUBSTANCE}]_c]$. However, in the case of higher-level schemas we use the term *subpattern* and *pattern*. The latter describes the highest level of schematicity and the former – the level directly below it: $[[\text{SUBSTANCE/ AGGREGATE OF THINGS}]_v \rightarrow [\text{CONTAINER THAT HOLDS A LIMITED AMOUNT OF THE SUBSTANCE/ A NUMBER OF THINGS}]_c]$ and $[[\text{SUBSTANCE/ AGGREGATE OF THINGS}]_v \rightarrow [\text{BOUNDED AMOUNT OF THE SUBSTANCE/ LIMITED NUMBER OF INDIVIDUAL THINGS}]_c]$.

We also need to make a comment on three of the schematic notions that are used in the analysis. First and foremost, in selecting them we tried to profit from the semantic potential of the English language, which is why we use the term *object* in the sense characterised by LGD as “a solid thing that you can hold, touch, or see but that is not alive.” In other words, *object* designates what is physical, countable, and inanimate.

The next schematic term, *thing*, also reflects its dictionary definitions, that is: “an object that you are talking about without saying its name, or whose

name you do not know” (LGD), “a living creature or plant” (OD), “an action, event, thought, or utterance” (OD), and “an abstract entity, quality, or concept” (OD). In the analysis, this means that *thing* is used to characterise any type of countable entity, be it an object, living creature, action, or abstract concept.

We also use the term *part* when we characterise mass extensions of count nouns because, unlike, for instance, *piece*, it designates “something that together with other things forms a whole” (LGD). What is more, as the dictionary indicates, it can designate both count and mass entities. By contrast, *piece* designates “one of several different parts that you join together to make something” (LGD), that is, a distinct entity that is clearly bounded and thus countable.

This is where the methodological considerations are concluded. What follows is an application of all these guidelines in an analysis of the linguistic data found on the Internet.

2.2 Mass extensions of count nouns

The present chapter opens a controversial part of the analysis, as it focuses on senses that, if we were to trust authoritative dictionaries and grammars, should not exist in English – mass extended senses of the nouns that are classified as solely count. The 30 count nouns that we have selected from the COCA frequency list are as follows: *book, door, star, page, stage, bag, client, guest, classroom, photograph, branch, tie, roof, jacket, belt, clock, telescope, oven, tent, shower, tunnel, elbow, guitar, belly, chin, barn, jar, dam, sleeve, and bulb*.

The objects designated by these nouns come from very different ontological categories. Among them are a written or printed work and its elements (book and page), a ball of burning gas in space and its graphic representation (star), a platform (stage), different types of containers (bag and jar), types of people (client and guest), a type of room (classroom), a picture obtained by using a camera (photograph), a part of a tree (branch), different pieces of clothing and their parts (belt, tie, jacket, and sleeve), a type of building and its parts (barn, door, and roof), instruments with different functions (clock, and telescope), appliances (oven, shower, and bulb), a piece of equipment (tent), parts of the body (elbow, belly, and chin), constructions (dam and tunnel), and a musical instrument (guitar). Such a diversity of categories allows us to assume that the results of the analysis should be applicable to all English nouns.

Before the analysis proper, four methodological remarks are needed. First, all the data analysed in the book come from the Internet search conducted between 15 June 2015 and 2 October 2016. The search was done by means of the Google browser, the linguistic material was analysed and classified, and what we present below is a result of this classification.

Second, as was assumed in Section 2.1.1, the original intention was to find 30 examples illustrating mass senses of each of the selected nouns, which meant that we were to collect as many as 1800 Internet hits. However, in the case of eight nouns: *star*, *photograph*, *branch*, *oven*, *shower*, *barn*, *jar*, and *dam*, this proved impossible, and ultimately 1709 contexts were found.

Three explanations of this deficiency can be advanced. First, there seems to be a slight tendency for lower frequency nouns to occur somewhat less frequently in mass senses than frequent nouns. Two of the eight nouns appeared in the first ten of the most frequent nouns, three nouns in the second ten, and another three in the third ten. Second, it can be claimed that certain topics are less common on the Internet, and possibly also in life, than others. That is, Internet users may simply be less concerned with barns, jars, and dams than with topics that have to do with, for instance, *bag*, *jacket*, or *guitar*. Actually, this may reflect the age structure of Internet users – young people will be more interested in fashion and health rather than barns or jars. Finally, it cannot be excluded that some count nouns are less likely to have mass extensions than others. Or, more specifically, there are fewer possible situations in which people can use these nouns with mass senses. Naturally, a combination of these factors is also possible, but without a more in-depth analysis, which is beyond the scope of the present book, determining this is impossible.

The last methodological issue is that, as noted in Section 2.1.1, both the standard and target of extension are concrete. This means that they refer to entities that exist in three-dimensional space, which often entails that the standard is the primary sense of the noun. To make sure no doubts appear as for the definition of this standard, we enumerate them in the list below according to their frequency of occurrence in English (Section 2.1.1). However, in quite a number of cases the extended sense clearly indicated that the standard was not the primary sense of the noun but its extended, but still count and concrete, sense. These are also included in the list and are marked as senses “b”, “c”, or “d”.

book

“A written or printed work consisting of pages glued or sewn together along one side and bound in covers” (OD)

door

“The large flat piece of wood, glass etc that you open and close when you go into or out of a building, room, vehicle etc” (LGD)

star

- a) “A large ball of burning gas in space that can be seen at night as a point of light in the sky” (LGD)
- b) “A shape with four or more points, which represents the way a star looks in the sky” (LGD)

page

- a) “One side of a piece of paper in a book, newspaper, document etc, or the sheet of paper itself” (LGD)
- b) (web page) “A hypertext document connected to the World Wide Web” (OD)

stage

“A raised floor or platform, typically in a theatre, on which actors, entertainers, or speakers perform” (OD)

bag

- a) “A flexible container with an opening at the top, used for carrying things” (OD)
- b) “A woman’s handbag” (OD)

client

“Someone who gets services or advice from a professional person, company, or organization” (LGD)

guest

- a) “A person who is invited to visit someone’s home or attend a particular social occasion” (OD)
- b) “A person invited to participate in an official event” (OD)
- c) “A person invited to take part in a radio or television programme or other entertainment” (OD)
- d) “A person staying at a hotel or guest house” (OD)

classroom

“A room that you have lessons in at a school or college” (LGD)

photograph

“A picture obtained by using a camera and film that is sensitive to light” (LGD)

branch

“A part of a tree which grows out from the trunk or from a bough” (OD)

tie

“A long narrow piece of cloth tied in a knot around the neck, worn by men” (LGD)

roof

“The structure that covers or forms the top of a building, vehicle, tent, etc” (LGD)

jacket

“An outer garment extending either to the waist or the hips, typically having sleeves and a fastening down the front” (OD)

belt

- a) “A strip of leather or other material worn, typically round the waist, to support or hold in clothes or to carry weapons” (OD)
- b) “A circular band of something such as rubber that connects or moves parts of a machine” (LGD)

clock

“A mechanical or electrical device for measuring time, indicating hours, minutes, and sometimes seconds by hands on a round dial or by displayed figures” (OD)

telescope

“An optical instrument designed to make distant objects appear nearer, containing an arrangement of lenses, or of curved mirrors and lenses, by which rays of light are collected and focused and the resulting image magnified” (OD)

oven

“An enclosed compartment, usually part of a cooker, for cooking and heating food” (OD)

tent

“A shelter consisting of a sheet of cloth supported by poles and ropes, used especially for camping” (LGD)

shower

a) “A cubicle or bath in which a person stands under a spray of water to wash” (OD)

b) “The apparatus in a shower that produces the spray of water” (OD)

tunnel

a) “A passage that has been dug under the ground for cars, trains etc to go through” (LGD)

b) “An underground passage made by animals” (MMD)

elbow

a) “The joint between the forearm and the upper arm” (OD)

b) “A thing resembling an elbow, in particular a piece of piping bent through an angle” (OD)

guitar

“A musical instrument, usually made of wood, with six strings and a long neck, played with the fingers or a plectrum” (CMD)

belly

a) “The stomach, especially as representing the body’s need for food” (OD)

b) “The front part of your body between your chest and your legs” (LGD)

c) “The rounded or curved part of an object” (CMD)

chin

“The front part of your face below your mouth” (LGD)

barn

“A large building on a farm where animals, crops, or machines are kept” (MMD)

jar

“A glass container with a wide top and a lid, used for storing food such as jam or honey, or the amount it contains” (LGD)

dam

a) “A special wall built across a river or stream to stop the water from flowing, especially in order to make a lake or produce electricity” (LGD)

- b) “*South African* An artificial pond or reservoir where rain or spring water is collected for storage” (OD)

sleeve

“The part of a garment that wholly or partly covers a person’s arm” (OD)

bulb

“The glass part of an electric light, that the light shines from” (LGD)

A noteworthy property of our discussion is that we do not conduct an analysis of extended senses of one noun after another. Rather, we show the detected schemas of semantic extension as instantiations of the general patterns of semantic extension that we have determined in the analysis. In the course of the discussion we gradually show how several lower-level schemas give rise to the formation of a higher-level schema or a pattern.

The analysis allowed us to detect as many as 100 mass extended senses, which have been classified under three patterns: $[[\text{OBJECT}]_c \rightarrow [\text{MASS DIMENSION OF THE OBJECT}]_v]$, $[[\text{OBJECT}]_c \rightarrow [\text{MASS DIMENSION ASSOCIATED WITH THE OBJECT}]_v]$, and $[[\text{OBJECT}]_c \rightarrow [\text{AGGREGATE OF OBJECTS}]_v]$. It must be stressed that these patterns are not equal as for the number of schemas instantiating them. The first of the patterns is most numerous – it has as many as 72 lowest-level schemas that instantiate it. The second of the patterns is only instantiated by eight schemas, and the last pattern – by 17. After a detailed presentation of each of these patterns we also discuss a special finding of the analysis – three mass extensions through chains of reference points.

2.2.1 The pattern $[[\text{OBJECT}]_c \rightarrow [\text{MASS DIMENSION OF THE OBJECT}]_v]$

The first of the discussed patterns is also the most complex one, because its thorough description requires taking into consideration four levels of schematicity. The pattern is instantiated by five subpatterns, fifteen medium-level schemas and, at the lowest level of schematicity, by as many as 72 lowest-level schemas, which is almost three-fourths of the total number of schemas detected among the extensions of the analysed count nouns. At the same time, this pattern seems to provide very common dimensions of extension – we can find here extended senses of 27 out of 30 analysed nouns.

The subpatterns that instantiate this pattern are as follows: $[[\text{OBJECT}]_c \rightarrow [\text{A SPATIAL DIMENSION OF THE OBJECT}]_v]$, $[[\text{OBJECT}]_c \rightarrow [\text{THE SUBSTANCE THAT THE OBJECT IS MADE OF}]_v]$, $[[\text{OBJECT}]_c \rightarrow [\text{PART OF THE OBJECT}]_v]$, $[[\text{OBJECT}]_c \rightarrow [\text{PROPERTY OF THE OBJECT}]_v]$, and $[[\text{OBJECT}]_c \rightarrow [\text{CAPABILITY OF THE OBJECT}]_v]$. Each of them is respectively discussed.

2.2.1.1 [[OBJECT]_c] → [SPATIAL DIMENSION OF THE OBJECT]_v]

This subpattern is abstracted from nine spatial dimensions of the object: **some extent of the object's surface, an amount of space on the object, the object's size, capacity, length, width, thickness, extent, and diameter.** This is the most common of the five subpatterns instantiating the MASS DIMENSION OF THE OBJECT pattern – at the lowest level of schematicity it encompasses 40 lowest-level schemas formed on the basis of extensions of as many as 25 nouns (out of the 27 that have extended senses to this pattern).

The first of these schematic dimensions, **some extent of the object's surface**, arises from 15 extended senses of 14 nouns: *door, page, stage, branch, tie, belt, telescope, shower, elbow, belly, chin, dam (x2), sleeve, and bulb (1–15).*

- (1) *A good way to showcase your sliding glass doors is to use a window treatment that extends past the sides of the door. Showing as **much door** as possible gives the room a very bright appearance as more light shines through. Straight drapes on each side gives an elegant appearance.*¹
(<http://snippets.com/what-are-some-good-ideas-for-window-treatments-for-sliding-glass.htm>)
- (2) *Hey guys. My site displays a big footer which I like on most pages, but some I don't want it there. It's a call to action element by my theme developers and it takes up too **much page** on my Q/A page.*
(<https://wordpress.org/support/topic/how-to-remove-a-footer-element-from-certain-pages-only>)
- (3) *Building your own portable stage with modular platforms and columns from 2-by-4 lumber and ¾-inch plywood is a project that most DIYers can complete successfully. Start by asking the director of the event how **much stage** they need and breaking that into 4-by-8-foot sections to determine your material needs.*
(http://www.ehow.com/way_5689646_diy-portable-stage.html)
- (4) *When shooting wildlife like this the key is killer focus on the animal the rest can be off focus - this is close but not on target. I am a firm believer that little things make or break the photo. This is good but nothing great, based on the owl soft focus. Plus way too **much branch** for my taste, maybe a crop would help – but then again it may magnify the soft focus.*
(<http://photography-onthe.net/forum/showthread.php?p=17601812&i=i217653906>)

¹ All examples retain their original spelling and punctuation.

- (5) *Place the tape around the back of the neck, below the shirt collar and run it around the front, bringing it together representing the desired opening. Take this measurement and divide by 2. Tips: Consider with the customer how **much tie** he wishes to show. Consider the line of the jacket lapel (single breasted 1, 2, 3 or 4)*
(<http://www.lambtontailoring.co.uk/Files/LambtonMensFolio.pdf>)
- (6) *Get twice as **much belt** for your buck with this pure leather reversible number. The lighter side is great for the weekend while the darker is more subtle to wear with a suit.*
(<http://www.tedbaker.com/row/Mens/Accessories/Belts/BLUEZ-Smart-reversible-belt-Chocolate/p/114353-22-CHOCOLATE>)
- (7) *So, Flexitube 130P owners, what do you use in addition, or to replace the RDF. I've checked with FLO to see if I could get the Skywatcher 9x50 RACI finder to fit, but that ain't happening unfortunately. So, has anyone got any suggestions. Photos would help, as there isn't **much telescope** to attach a finder to in place of the RDF.*
(<http://stargazerslounge.com/topic/228626-replacing-the-red-dot-finder-on-heritage-130p-flexitube/>)
- (8) *You can purchase the sealant in aerosol cans meant for a single shower, or you can buy larger bottles that can be poured into individual spray bottles in order to take care of several different showers. It all depends on how **much shower** you actually need to seal up that will affect your decision.*
(<http://www.onlinetips.org/shower-sealant-application/>)
- (9) *Mirrors are okay, and while they are not too blurry at speed, they show too **much elbow** for my liking. Not uncommon, and as far as motorcycle development has come, no one has been able to remove the arms from the rear-view picture.*
(<http://www.motorcycle-usa.com/2007/01/article/2007-triumph-tiger-first-ride/>)
- (10) *The design of the top is hi-lo hem with elbow length sleeves and binding around the neckline. The bottom flares out a bit and falls beautifully. The only thing I wasn't too happy with was the height of the front bodice hemline. It shows a bit too **much belly** for me. I should have lengthened it a bit, I will do next time.*
(<http://www.patterns-and-projects.com/2014/05/>)

- (11) *There is just so **much chin** in this shot. All I see is jaw and chin... But at least she looks nice... Her cheekbones look good from the side and her hair blowing behind her is very feminine.*
(<https://euphoria027.wordpress.com/2009/05/01/the-top-5-photos/>)
- (12) *Gibraltar actually looks to have filled quite a bit. Look at the water line around the edge and how **much dam** is exposed. There's at least several feet of change.*
(<http://www.edhat.com/site/tidbit.cfm?nid=130828&showcomments=T>)
- (13) *James Wahry and Ash Anderson (who used their voucher won for "Best Misc Fish" in the 2006 Brisbane River Classic), were also onto a respectable school of fish in the bay. However, true to form these guys applied the "So **much dam** so little time" approach and left these fish biting in search of greener pastures. Also true to form, they found them!*
(<http://www.australianfishing.com.au/site-rules/16-af0/213-brisbane-fishing-online-hits-hinze>)
- (14) *They changed the logo upon arriving in KC, have toggled between white and red road pants over the years, painted the facemasks white in the mid-1970s – and this past year they finally moved the small player numbers from the sleeves to the shoulders because – well, there isn't **much sleeve** on football jerseys these days.*
(<http://www.midwestsportsfans.com/2013/01/kansas-city-chiefs-ultimate-franchise-player/>)
- (15) *One little project was the dining table chandelier. The shades were brittle, dingy and drab. I finally found replacements but they were a little smaller and too **much bulb** was exposed.*
(<http://kelleysbuzz.blogspot.com/2010/01/starting-new-year-with-bang.html>)

Putting together the standard of extension – the count senses of the collected nouns – and the target of extension – the extended mass senses, we can formulate the following lowest-level schemas of semantic extension:

- [[DOOR]_C → [PART OF THE SURFACE OF THE DOOR]_V],
- [[PAGE]_C → [PART OF THE SURFACE OF THE PAGE]_V],
- [[STAGE]_C → [PART OF THE SURFACE OF THE STAGE]_V],
- [[BRANCH]_C → [PART OF THE SURFACE OF THE BRANCH]_V],
- [[TIE]_C → [PART OF THE SURFACE OF THE TIE]_V],
- [[BELT]_C → [PART OF THE SURFACE OF THE BELT]_V],
- [[TELESCOPE]_C → [PART OF THE SURFACE OF THE TELESCOPE]_V],
- [[SHOWER]_C → [PART OF THE SURFACE OF THE SHOWER]_V],

- $[[\text{ELBOW}]_c \rightarrow [\text{PART OF THE SURFACE OF THE ELBOW}]_v]$,
- $[[\text{BELLY}]_c \rightarrow [\text{PART OF THE SURFACE OF THE BELLY}]_v]$,
- $[[\text{CHIN}]_c \rightarrow [\text{PART OF THE SURFACE OF THE CHIN}]_v]$,
- $[[\text{DAM}]_c \rightarrow [\text{PART OF THE SURFACE OF THE DAM}]_v]$,
- $[[\text{DAM}]_c \rightarrow [\text{PART OF THE SURFACE OF THE WATER RESERVOIR}]_v]$,
- $[[\text{SLEEVE}]_c \rightarrow [\text{PART OF THE SURFACE OF THE SLEEVE}]_v]$,
- $[[\text{BULB}]_c \rightarrow [\text{PART OF THE SURFACE OF THE BULB}]_v]$.

From the CG perspective, the extensions that the schemas describe can be characterised as based on a reranking of domains. However, this reranking is quite specific because while in the count sense each of the nouns is defined in relation to space, in the mass sense the nouns refer to a substructure of the count object – its surface. In other words, the reranking takes place between the domain of space against which the count object is defined and that constituted by the given object. This entails a change of the immediate scope, which is best described as a whole-part relation. In the count sense, the scope encompasses the whole object, and in the mass sense, a part of its surface.

At a higher level of abstraction, we can postulate the schema that can be formulated as: $[[\text{OBJECT}]_c \rightarrow [\text{SOME EXTENT OF THE OBJECT'S SURFACE}]_v]$. This is how the first of the schematic accounts of the object's spatial dimension arises. Because the lowest-level schemas of the analysed nouns typically capture the same type of regularity between the standard and target of extension, they are only enumerated in the discussion of the first few schemas and in more complex cases. In the other situations, to avoid simple enumerations, we only provide illustrative examples.

A similar shift in domain reranking can be observed in the extended sense concerning **an amount of space on the object**, found in *stage* (16):

- (16) *Civello's occasional tendency to overreach – to sing to the last rows of the balcony in a club that doesn't even have one – might've been attributable to nerves. Once she settled in and got a sense of just how **much stage** she was working with, her tone regained its burnished patina, as evidenced by a lovely, partially a capella rendition of Joni Mitchell's "In France They Kiss on Main Street" that proved to be one of the set's highlights.*
(<http://variety.com/2005/music/reviews/chiara-civello-1200527606/>)

The schema that directly arises from it should be phrased as $[[\text{STAGE}]_c \rightarrow [\text{AMOUNT OF SPACE ON THE STAGE}]_v]$. Although in the analysis this extension is represented by one noun only, there should be little doubt that such a dimension can also be found among extended senses of other nouns, especially those that profile the surface of an object. As a result, a more adequate account of this direction of extension should be formulated at a higher level of schematicity: $[[\text{OBJECT}]_c \rightarrow [\text{AMOUNT OF SPACE ON THE OBJECT}]_v]$.

The next two dimensions should be described together, for they are often contiguous in accounts of certain objects and containers: **size** and **capacity**. The former refers to an external dimension of objects, whereas the latter is internal – how much the given container can hold. This contiguity is especially clear in the case of containers whose larger size implies a larger capacity (and vice versa). That these dimensions are correlated can also be seen in the fact that as many as four nouns, *bag*, *oven*, *tent*, and *barn*, appear in both schemas. An important characteristic of these nouns is that they select a different substructure of their conceptions as their profiles, while the conceptual base remains the same in both cases.

Naturally, size and capacity can also be distinct dimensions. Under the schema that characterises the object's size, apart from the already mentioned four nouns (17–20), there are also three nouns that only refer to this dimension: *star*, *jacket*, and *clock* (21–23). What they profile is the spatial extent of the designated objects: of the star on a car's grill, of a jacket, and of clocks.

- (17) *The size is also perfect for me. Large enough to get everything I need to carry into it without overwhelming me. I am a smaller person at 5'4" and 108 pounds and some shopper totes were just too **much bag** for my size.*
(<http://www.zappos.com/dooney-bourke-charleston-shopper>)
- (18) *We recommend that you purchase as **much oven** as you have room for, and can afford. Oven price and installation cost increase only marginally for the larger ovens, and you will enjoy the size. We carry residential ovens that are 31", 35", 39" and 43" round, and a 44" x 64" oval, and commercial ovens up to 72."*
(http://www.fornobravo.com/pizza_oven_selection/oven_guide.html)
- (19) *I was really tempted by the California Highway as you get so **much tent** for your money, it's huge.*
(<http://www.vwt4forum.co.uk/archive/index.php/t-263373.html>)
- (20) *I grew up with plenty of barn-roof DQ's in Colorado Springs, but they were large, and constructed that way from day-one. I have begun to think these smaller ones had the barn roof added later, to bring them into line with the larger stores. But it looks over-sized. "Too **much barn** for too little Dairy Queen."*
(<https://www.flickr.com/photos/10073060@N00/3884192157>)
- (21) *I mean, if I paint my grill (black BTW) and botch the job or don't like the look, I can always make the "upgrade" to a CL style piece. QUESTION: Does anybody ever get a grill style with a star AND keep their*

ornament? Too **much star**? I was debating the look. I think I would have to see it to decide though.

(<http://mbworld.org/forums/c-class-w203/234347-cl-style-grille-discussion-thread-21.html>)

- (22) *BTW all of the Biking gear Jackets i.e. Pedal Power Rain Jacket and the Coco Softshell are NOT flattering and way too **much jacket** for a female body, (and I'm very athletic build), they are WAY over-priced and to tell you the truth you can get a much cuter jacket and one that will get much more use from ANN TAYLOR. Dont waste your money.*

(<http://www.luluaddict.com/2012/08/new-track-time-jacket.html>)

- (23) *Fe-fi-fo-fum, we been upsetting giants again! They happened to leave their watches lying around and we thought that they'd make amazing wall clocks. So quicker than you can say 'magic beans' we nabbed them. Trouble is the giants are pretty upset so we need to get rid of them sharpish. That's why you can get so **much clock** for so little pennies! The Big Time Wall Clocks are a perfect addition to a bedroom or even office, and will give it an almost sporty feel to the room.*

(<http://www.geekalerts.com/big-time-wall-clock/>)

The resulting schemas can be formulated as:

- [[BAG]_c → [BAG'S SIZE]_u],
- [[OVEN]_c → [OVEN'S SIZE]_v],
- [[TENT]_c → [TENT'S SIZE]_v],
- [[BARN]_c → [BARN'S SIZE]_v],
- [[STAR]_c → [STAR'S SIZE]_v],
- [[JACKET]_c → [JACKET'S SIZE]_v],
- [[CLOCK]_c → [CLOCK'S SIZE]_v].

When we generalise these schemas, we arrive at a schematic description of another dimension of the object: [[OBJECT]_c → [OBJECT'S SIZE]_v].

As for **the object's capacity**, all the nouns whose senses extend to this dimension have referents that can be classified as containers: *bag*, *oven*, *tent*, *tunnel*, *belly*, *barn*, and *jar* (24–30). What might surprise is that three of them, *tunnel*, *belly*, and *jar*, do not appear as instantiations of the OBJECT'S SIZE schema. However, it must be remembered that the present analysis does not aim to *exhaust* the nouns' semantic potential but to *establish* certain *regularities* of noun extensions. Consequently, it is absolutely conceivable that such extensions exist but they simply have not been found, either because more contexts would have to be analysed or because a different type of corpus, for example, spoken corpus, would have to be taken into consideration.

- (24) *It was around this time last year that I fell in love with the ECBC Hercules backpack a versatile laptop pack with more than enough room for all my stuff. Still, with its zip-apart, TSA-compliant laptop compartment and spacious interior, it sometimes felt like a little too **much bag** for my daily commute.*
(<http://geekdad.com/tag/backpack/>)
- (25) *It is like the gemini stove but only the oven part. It uses 30" of space but offers two ovens. It would be perfect for a small family---sheets of stuff or smaller items could go on top and you don't heat up as **much oven** for smaller items.*
(<http://community.cookinglight.com/showthread.php?137686-Built-in-Gas-Cooktop-vs-Range>)
- (26) *Go big...14x16 isnt too **much tent** for extended hunts with 3-4 guys. Make sure to have a window in the back of the tent, its great to have when the weather is hot.*
(<http://onyourownadventures.com/hunttalk/archive/index.php/t-245495.html>)
- (27) *You are correct in that the lawn will eventually sag over the tunnels. Other than digging a small hole every 3 feet (for access) or so along the tunnel path I have not found a good way to fill them in. If you use a probe it is not too hard to follow the tunnel path.
It is important to fill as **much tunnel** as you can find, otherwise you are making it easy for the next gopher...*
(<http://forums.gardenweb.com/discussions/1806195/after-gopher-dead-what-to-do-about-tunnels>)
- (28) *I had an ultrasound recently, and my cervix looked good... but there my LO one was, hanging out wa-ay down low. I don't understand how I have so **much belly** for him to twist around in, and he decides to hang out by my cervix.*
(<http://www.whattoexpect.com/forums/november-2010-babies/topic/baby-kicks-way-too-low.html>)
- (29) *Regardless of what type of structure you choose to offer your flock it's important to consider the size of your flock of sheep now and its potential to grow. It's always better to have too **much barn** than not enough as overcrowding of sheep can lead to health problems, cleanliness issues and discomfort for your animals.*
(<http://www.raisingssheep.net/raising-sheep-housing-options-for-sheep.html>)

(30) *How **much jar** do you use?*

When you have a jar, do most of you fill the jar all the way to the neck, so to speak, or do you leave room at the top like the candles you see in the store?

(<http://pub31.bravenet.com/forum/static/show.php?usernum=2630965693&frmid=127&msgid=568685&cmd=show>)

The discussed examples can be schematically represented as follows:

- [[BAG]_c → [BAG'S CAPACITY]_v],
- [[OVEN]_c → [OVEN'S CAPACITY]_v],
- [[TENT]_c → [TENT'S CAPACITY]_v],
- [[TUNNEL]_c → [TUNNEL'S CAPACITY]_v],
- [[BELLY]_c → [BELLY'S CAPACITY]_v],
- [[BARN]_c → [BARN'S CAPACITY]_v],
- [[JAR]_c → [JAR'S CAPACITY]_v].

On this basis, a higher-level schema can be formulated: [[OBJECT]_c → [OBJECT'S CAPACITY]_v].

Another schematic dimension subsumed under the SPATIAL DIMENSION OF THE OBJECT subpattern is **the object's length**. It arises from the schematically described extended senses of such nouns as *tie*, *belt*, *telescope*, *tunnel*, and *sleeve* (31–35).

(31) *This is my favorite knot. I'm 6'5 and I love the Windsor and half Windsor but they use so **much tie** for the knot, this gives you symmetry, a very nice dimple, excellent shape and size, and uses less tie for taller guys like me.*

(https://www.youtube.com/all_comments?v=VJ4Rb_mYKS0&lc=vCNgu0zhNcwlmkEyFV5Gu5-5N4TucFdvZc8Hs-A0pyE)

(32) *Guys, keep in mind that GM has always had a “feature” that did this to keep the occupants from jerking forward and back in the case of an accident. The first jolt from the accident (and also extending the seatbelt almost fully out) will engage the safety lock. once engaged it is designed to rewind as **much belt** as it can and hold it until the belt is released and allowed to fully retract. I think the real issue here is that the seat belt is either short so the feature is engaging too soon or the locking latch is too sensitive.*

(<http://www.gmtruckclub.com/forum/threads/seat-belt-problem-in-my-02-trailblazer.3309/>)

(33) *Were the planets so small because nobody was using any real magnification that everything looked so small? Even on the 20” observatory one? What size and clarity can you get on Mars and Jupiter to the unaided eye?*

*While I understand that DSO's require astrophotography and extended exposures to see Nebulas and rich colors, how **much telescope** do I need to meet*

my wife's requirements before she would be willing to plunk down a few grand for a telescope?

(<http://www.astronomyforum.net/astronomy-beginners-forum/178895-how-much-telescope-get-jupiter-size-orange-mars-golfball.html>)

(34) *After leaving the gorgeous Lake Lucerne we drove to Lake Como and passed through the 17km St. Gotthard Tunnel, which was far too **much tunnel** for my liking and I could have done without J telling me its recent history.*

(<http://livingthenapkinplan.com/2013/10/09/lake-como-to-bormio-road-trip-5/>)

(35) *Now this leads the discussion – how **much sleeve** is appropriate? Some feel that anything less than 3/4 length is not enough. I am fine with short sleeves, as long as I'm not seeing someone's bare armpits when they reach forward for the hymnal.*

(<http://forums.catholic.com/showthread.php?t=368801>)

In all the schemas arising from the above examples the target refers to the same domain evoked by the designated object: LENGTH, for instance, $[[TIE]_c \rightarrow [TIE'S LENGTH]_v]$ or $[[BELT]_c \rightarrow [BELT'S LENGTH]_v]$.

Consequently, at a still higher level of abstraction, the schemas can be captured by means of a single structure: $[[OBJECT]_c \rightarrow [OBJECT'S LENGTH]_v]$.

There are four remaining dimensions of the object that we detected in our analysis: width, thickness, extent, and diameter. As to **the object's width**, it is represented by the extended senses of two nouns: *belt* and *belly*, as illustrated by (36–37):

(36) *I wear a tapered because I'm tiny. A full-size is just too **much belt** for me. I can breathe better in a tapered.*

(http://tnation.t-nation.com/free_online_forum/sports_body_training_performance_bodybuilding_strength/depth_check_good_for_usapl)

(37) *For me the perfect woodcarving knife is not too deep so you can cut concaves (most scandis fail on this one for me) and have not too **much belly**, just a nice flowing curve from handle to tip.*

(<http://www.bushcraftuk.com/forum/archive/index.php/t-31193.html>)

In (36), the belt's width is indicated by means of the adjective *tapered*, which is contrasted with *full-size*. *Tapered* implies that the belt is narrower at the beginning and at the end, due to which the person can breathe more easily. In (37), the width of the described knife is implied by the contrast with *a nice flowing curve from handle to tip*, which is typically described by means of the adjective *wide*

(leading cutlery companies, e.g., Wusthof or Zwilling, use it to describe this facet of their knives). These senses form two schemas: $[[\text{BELT}]_c \rightarrow [\text{BELT'S WIDTH}]_v]$ and $[[\text{BELLY}]_c \rightarrow [\text{BELLY'S WIDTH}]_v]$. By extracting the commonality inherent in them, we arrive at a conception representing a higher level of schematicity: $[[\text{OBJECT}]_c \rightarrow [\text{OBJECT'S WIDTH}]_v]$.

The next dimension, **the object's thickness**, is only represented by an extended sense of the noun *belt*, as shown in (38):

(38) *I think a lot of people are getting talked into going 10mm. They get told that 13mm is for heavy guys or big weights, and it's too **much belt** for their little bodies. Like I said, most girls use 13mm, shorties included (belt is still 4" wide), so a guy under 181 would have no problem.*

(<http://forum.bodybuilding.com/showthread.php?t=146571283>)

If we considered the occurrences of the sense of *belt* only, the schema that arises from them would have to be phrased as $[[\text{BELT}]_c \rightarrow [\text{BELT'S THICKNESS}]_v]$. However, because thickness is characteristic of a number of different items, and they are simply not taken into account in the present analysis, it is more adequate to formulate the schema as: $[[\text{OBJECT}]_c \rightarrow [\text{OBJECT'S THICKNESS}]_v]$.

Another dimension that we discuss, **the object's extent**, is closely related to the previous one – the object's thickness. More specifically, both refer to “the distance through an object” (OD), though at the same time an important difference between them should be noted. While *thickness* refers to the distance between “two opposite surfaces or sides” (LGD), *extent* profiles the degree to which one of the limiting surfaces of the object stretches out (OD, CD), without explicitly indicating the other surface. We can see this subtle difference in *belly* (39):

(39) *How **much belly** for a small wave board?*

I'm about to start shaping my first longboard board and want to shape a rolled belly into the bottom, with soft round rails for small wave riding. I've got the template together for the plan shape, but I havent managed to find a board with a good traditional rolled bottom that I can template from. Can anyone give me any ideas / tips on a belly bottom profile?, how deep should it be? (is say the depth of an inch at the stirnger deeper than the rail creating too much of a roll?)

(<http://www.swaylocks.com/groups/how-much-belly-small-wave-board>)

In other words, the author of the question does not mean the thickness of the surfing board, but the extent to which the board's belly should stretch out from the rail. Schematically, this direction of extension should be phrased as $[[\text{BELLY}]_c \rightarrow [\text{BELLY'S EXTENT}]_c]$. However, as in the case of the other schemas that encompass extended senses of single nouns only, it is necessary to realise that there are more

objects for which the extent is a significant dimension. Consequently, at a higher level of account we postulate the schema $[[\text{OBJECT}]_c \rightarrow [\text{OBJECT'S EXTENT}]_v]$.

The last spatial dimension of the object determined in the analysis is **the object's diameter**. This dimension can be seen in an extended sense of the noun *telescope* (40):

- (40) *The most common size of aperture among commercial reflectors is a 400mm aperture. However, larger sized apertures can become too **much telescope** for an average astronomy observer. With 300mm sized aperture commercial reflectors, you have to consider the importance of mounting to minimize vibration.*

(<http://telescopes.lifetips.com//cat/63999/reflecting-telescopes/index.html>)

It needs to be noted that the term that is used in accounts of telescopes is *aperture* rather than *diameter*, which means that the schema arising from the relationship between the two senses of *telescope* should be $[[\text{TELESCOPE}]_c \rightarrow [\text{TELESCOPE'S APERTURE}]_v]$. However, *aperture* is a technical term used, for example, by astronomy hobbyists and, as a result, it is not the most suitable term to be used in a schema. At the same time, taking into consideration analyses of other nouns with a similar dimension, such as *pipe* (cf. DROŹDŹ, 2016), it is more adequate to formulate this regularity at a higher level of schematicity: $[[\text{OBJECT}]_c \rightarrow [\text{OBJECT'S DIAMETER}]_v]$.

A question that naturally arises is why the last four dimensions are so rare among the extended senses. Among many possible reasons why this is so, three seem to be especially prominent. First, such object dimensions may be less salient from the human perspective. Although many objects possess them, they may be less crucial for people using these objects; for example, the surface of a piece of paper is more important than its thickness, as paper is typically used to write on. Naturally, this does not mean that the thickness of a piece of paper is irrelevant altogether, for there are situations when it comes to the fore, especially when it fails to meet certain default standards. We may realise, for instance, that a piece of paper is too thin when the print from one side of a page becomes visible on the reverse side. Still, such cases are rather few and generally people pay attention to the space that a piece of paper provides rather than its thickness.

This human perspective can also be reduced to specific occupations, as may be the case with diameter. Despite the fact that many roundish objects have it, for example, trees, pens, barrels, or plant stems, the diameter of a tree is likely to be crucial for the woodcutter, the diameter of a pen for the pen manufacturer, and the diameter of a barrel for the winemaker that stores barrels. Customers, by contrast, will not pay much attention to it, because other dimensions of the objects are in focus for them. As for the tree, what probably matters more for an average onlooker is the tree's size, kind, or foliage. In the case of the pen, what

draws people's attention is rather the shape, colour, or the substance that the pen is made of. With barrels, people concentrate on the type of tree that the barrel is made of, its age, or condition. This means that a relatively small number of speakers will talk about these dimensions and, as a result, such expressions are rare and relatively difficult to find.

Finally, the representativeness of the collected nouns cannot be disregarded. Because we focus on 30 count nouns only, it cannot be excluded that an analysis of a larger or more diversified sample would produce different results. However, the accuracy of any of these possibilities can only be tested in further analysis.

2.2.1.2 [[OBJECT]_c → [SUBSTANCE THAT THE OBJECT IS MADE OF]_v]

The subpattern discussed in the present section shares a considerable degree of similarity with the next subpattern, [[OBJECT]_c → [PART OF THE OBJECT]_v]. In both cases the extended senses select a specific immediate scope – the domain of the substance that the given object is made of. The main difference between the two subpatterns is that the senses that instantiate the present one profile *all* the substance that constitutes the object, and those that instantiate the next schema profile part of it.

Four nouns instantiate this schema: *belly*, *dam*, *sleeve*, and *book*. Because *book* requires a more detailed discussion, we begin with the extended senses of *belly*, *dam*, and *sleeve* (41–43). It is perhaps worth noting that of the three nouns, *dam* is the one with the fewest number of contexts illustrating the mass senses, that is, for native speakers its mass sense profiles an unusual dimension of the dam. This is clearly seen in the fact that the speaker uses quotation marks to talk about it. Still, from the perspective of the present approach, despite its originality and unconventional character, the sense is an instance of a perfectly regular direction of extension.

(41) *In the title role of Adrián Biniez's quietly engaging "Gigante" Horacio Camandule's Jara is pretty gigantic: a nice-looking, massive guy whose solid build is marred by too much belly for even his large frame.*
(<http://articles.latimes.com/2010/jan/01/entertainment/la-et-gigante1-2010-jan01>)

(42) *It's also interesting that due to vast differences in depths, the shortest possible length of 9 miles of dam proposed would require 4 times as much 'dam' as a 20 mile long dam proposed where water is 3 times shallower. And the width of the 'underwater base' of the taller dam would be over a mile wide (east/west), even though the dam would cross north/south.*
(<https://www.youtube.com/watch?v=CNW5vyC6wms>)

- (43) *This weekend I was really motivated to finish the knitted t-shirt. All that was left was a sleeve, the ribbing around the neckline, and sewing it all up. I sewed one sleeve in and realized there was just too **much sleeve** for the armhole. When I tried it on, it was very obvious by the way the sleeve had puckered.*
(<http://homespunliving.blogspot.com/2007/03/back-to-drawing-board.html>)

The peculiarity of the noun *book* is that it has two quite distinct mass senses. On the one hand, the noun activates one of the physical domains associated with the book – thickness. This may entail either a reference to the amount of paper that makes the book or, more directly, to the number of pages (44–45). On the other hand, *book* can also be defined as “a written work” (MMD), which means that another domain that figures prominently in the book’s domain matrix is the words that make the text of the book (46), as indicated by some of the collected contexts.

- (44) *I was extremely disappointed when I received this book. To start with it is very very thin – not **much book** for the money.*
(<http://www.amazon.co.uk/DCC-Made-Easy-Railroad-Railroader/dp/0890246165>)
- (45) *Because, boy, this book is big (about 900 pages). To be honest, it’s too big. I rarely complain about getting too **much book** for my money, but the likes of GoF, PoEAA and PoSA I manage to come in between 400-500ish pages, so there’s no reason XTP couldn’t. The advantage is that the patterns in the catalogue, which take up most of the space, stand alone, without requiring too much flicking backwards and forwards between patterns.*
(<http://www.amazon.ca/xUnit-Test-Patterns-Refactoring-Code/dp/0131495054>)
- (46) *If you’d like to see for yourself, there’s a free sample available here that gives you the first twenty-three chapters. Note, however, that the average chapter length is maybe 1000 words (see “artificial pacing” above), so it’s not like you’re getting all that **much book** for your no money.*
(<http://www.schlockmercenary.com/blog/zoo-book-review>)

These two domains are intimately related and can be easily treated together, as is shown in (47). What is more, together they form a more general domain that can be contrasted with a still different dimension of the book – the content (48):

- (47) *The Corliss Column or A Generic Suicide Note, is 119,000 words or about 500 pages long. Too **much book** for a first novel.*
(http://monroeanderson.typepad.com/my_weblog/page/2/)

- (48) *Books by the kilogramme is a bit of a fact of life, I still recall reading Battle-field Earth on a ferry trip (3 hours) and being disgruntled that there was so **much book** for so little content.*
 (<http://www.antipope.org/charlie/blog-static/2010/03/cmap-5-why-books-are-the-lengt.html>)

As a result, despite their contiguity, we postulate two distinct schemas that characterise extensions to different domains of the book:

- $[[\text{BOOK}]_c \rightarrow [\text{PAGES THAT CONSTITUTE THE BOOK}]_v]$,
- $[[\text{BOOK}]_c \rightarrow [\text{WORDS THAT CONSTITUTE THE BOOK}]_v]$.

At the same time, we can formulate them at a higher level of schematicity: $[[\text{BOOK}]_c \rightarrow [\text{SUBSTANCE THAT THE BOOK IS MADE OF}]_v]$. When we extract the similarity inherent in this schema and the schemas arising from *belly*, *dam*, and *sleeve*, we can postulate the emergence of a more general subpattern of semantic extension: $[[\text{OBJECT}]_c \rightarrow [\text{SUBSTANCE THAT THE OBJECT IS MADE OF}]_v]$.

2.2.1.3 $[[\text{OBJECT}]_c \rightarrow [\text{PART OF THE OBJECT}]_v]$

This subpattern concerns another mass dimension of the object, that is, “some but not all of something” (OD). This means that when we use the mass senses of nine nouns: *door*, *photograph*, *branch*, *roof*, *shower*, *elbow*, *chin*, *barn*, and *bulb* (49–57), we again shift the nouns’ profiles from the spatial domain to a nonbasic domain – the domain of the object’s substance.

- (49) *Usually what i do is hold a wood shim to the flooring and use a thick carpenter pencil to mark the door dragging both across the floor. This will give you both the thickness of the shim and pencil. if you trim off to **much door** and get into the void area of the panel all you have to do is shave off the fall off piece and re glue it to the bottom inside of the door.*
 (<https://answers.yahoo.com/question/index?qid=20061001180022AAEI0UM>)
- (50) *when I go to place a print order, if I do not crop the photos to that size, I lose so **much photograph** when I order, you know, they cut off a great bit if I don’t crop them down.*
 (<https://www.flickr.com/groups/naturallightchild/discuss/72157624676856269/>)
- (51) *It is critical to make the cut just beyond the branch collar; cutting into and damaging the collar, or leaving too **much branch**, will render this healing process ineffective. For larger branches, a 3 step cut should be made: a small score on the bottom of the branch (a foot or so from the trunk), a full cut just*

beyond the score to drop the branch, and finally a clean cut at the branch collar.

(<http://nei-lex.com/blog/tree-pruning-done-right/>)

- (52) *Here are some of the mistakes that I have seen that could result in costly repairs now or even years from now.*

*Tearing off too **much roof** – Inexperienced crews uncover too much roof at improper times. When rains come, they may be unable to cover the roof in time.*

(http://www.colonyroofingandexteriors.com/installing-roof-its-meets-eye/?fdx_switcher=mobile)

- (53) *Unfortunately, I didn't do that — moving the camera to the right would have wrecked the composition, revealing too **much shower**, and leaving out too much tub. In retrospect, I could probably have moved the camera and shot a bit wider, planning to crop back in later...but...I didn't think of that. And I don't like to shoot that wide, either.*

(<https://scotthargisphoto.wordpress.com/2011/01/31/smoke-mirrors/>)

- (54) *Literally I was on an airplane last week, you know, the ones where children have trouble fitting themselves into the seats, and there was a guy next to me. I have never had so **much elbow** in my side before and there was a good 5 inches of his knee over my side. He got surprised when I, for after a couple of hours, put my own arm on my arm rest.*

(https://www.youtube.com/all_comments?v=nbZONSIVQU)

- (55) *Can/could open mouth right after surgery to fit in a grape that be 1/2" right? Surgeon discussed with me not to take off too **much chin** for aesthetic reasons, so not to look like some birth-defect, fleeting chin... and so I ought to have smallish scar under the chin, and not 3 days liquid food to follow, for much longer scar inside mouth and lots more swelling.*

(<https://www.susans.org/forums/index.php?topic=122585.55;imode>)

- (56) *My barn roof fell down a week ago and the cold weather has been causing havoc with my LP gas regulator causing my furnace to go out during this record cold snap. Not **much barn** has been dismantled (well, actually none has been dismantled).*

(<http://k-schwabs.blogspot.com/2014/01/every-day-is-blessing.html>)

- (57) *that's what I'd do. Break off as **much bulb** as you can, oil it up and use the nose of the pliers to turn what's left, or grab an edge and pull. You need to push to get it in but to get it out you mostly need just turning.*

(<http://www.fordmuscleforums.com/galaxie-pages/512200-64-galaxie-turn-signal-bulbs.html>)

Through schematisation of the schemas that arise from the above senses, such as $[[\text{DOOR}]_c \rightarrow [\text{PART OF THE DOOR}]_v]$, we can observe the emergence of a more general schema: $[[\text{OBJECT}]_c \rightarrow [\text{PART OF THE OBJECT}]_v]$.

2.2.1.4 $[[\text{OBJECT}]_c \rightarrow [\text{PROPERTY OF THE OBJECT}]_v]$

The senses that constitute the target of extension in the present and the next subpattern no longer refer to the kind reality that is readily comparable to an extent of surface of an object or part of an object. Still, such dimensions as weight or temperature are perceived by means of our sense of touch (BRESCIANI et al., 2008: 66) and, as a result, they do fall within the range of basic domains (cf. Section 2.1.1). The present subpattern focuses on such domains associated with an object as a set of its **features, weight, and warmth**.

The nouns whose extended senses profile **a set of features of the object** are: *jacket, belt, clock, telescope, oven, and tent* (58–63). What is interesting about this type of extension is that what speakers often do is not mention one count or mass feature of an object but enumerate a number of them and treat them collectively as something uncountable. This approach can be seen, for instance, in one of the contexts of the noun *jacket* (58). The jacket in question has: the ergonomic fit, weatherproof zippers, a large, adjustable hood, pit zip vents, an interior pocket with a gasket, and a locator. Having enumerated these, the author concludes his description with a comment that all this *is too much jacket for the bunny hill*. In other words, a number of characteristics are seen not as a set of individual properties but as an aggregate of them. In order to show how many characteristics the accounts include, we provide more extensive quotations than in the case of the other schemas.

- (58) *Given the ergonomic fit, the jacket is packed with features: weatherproof zippers, an adjustable hood large enough to fit over a ski or climbing helmet, pit zip vents, and an interior pocket with a gasket for your earbud cord. If off-piste is more your style, the removable snow skirt snaps into Aether's Apex pants (\$375), available separately. And if you truly live on the (cornice) edge, the garment has a Recco locator/reflector which responds to transmitters carried by avalanche rescue teams for finding your snow-buried self. All together, this is too **much jacket** for the bunny hill, so if stem Christies are more familiar than short-radius carved, maybe it's time for a couple lessons before clicking buy.*
(<http://gearpatrol.com/2012/10/26/aether-altitude-jacket/>)

- (59) *Solid value for the money...a very sturdy belt. It is exactly what it is purported to be, the perfect work belt or for wearing with jeans. It is really*

*heavy and stiff and the holes are a bit tight, however. The holes should stretch with use or are easily expanded and it should become a bit more supple with age. I've sure paid twice as much money for half as **much belt** in the past. Not terribly dressy, just a darn honest no bull**** belt!*

(<http://www.amazon.com/Joes-Solid-Leather-Uniform-Genuine/dp/B00BZXQDXY>)

- (60) *An elegant mid-19th century mantel clock of small size, with a round topped engraved silvered brass dial with floral engraving below the chapter, in an ebonised case with a pointed four centred arched top, the fusee movement striking on a bell. Total height = 11"*

Price: £3,800

Stock No. 3081

*Few bracket clocks manage to contain so **much clock** in a small space, and continue to look so elegant.*

(<http://www.edwardburdCLOCKS.com/bracket-mantel/2014/1/15/adams-36-lombard-st-london-c1850-stock-no-3081.html>)

- (61) *A powerful and capable telescope, the Orion SkyQuest XT8 Classic Dobsonian is one of our most popular reflectors due to its elegant combination of precision optics, mechanical simplicity, and rock-solid stability. You and your whole family will appreciate the bright, clear views of the night sky provided by the XT8 Classic. The Moon and planets of our solar system like Jupiter, Saturn, and Mars shine brightly in the SkyQuest XT8 Classic, allowing you to inspect them in detail. The XT8's 8-inch aperture is also large enough to gather a significant amount of light from more distant celestial objects for great views of sparkling star clusters, cloudy nebulas, and faraway galaxies. The XT8 Classic Dob is a tremendous value considering the high quality views it provides on such a wide variety of celestial objects. The point-and-view simplicity of the Dobsonian design is not as complicated as an equatorial (EQ) mount and tripod, so with a little practice, your whole family can scan the heavens just like experienced hobbyists. For any astronomer seeking serious adventure, the XT8 Classic Dob has it all!*

*A Note from Will about the Orion SkyQuest XT8 – This is simply an amazing value. You cannot get this **much telescope** for this price.*

(<http://www.telescopenerd.com/orion-telescopes/orion-telescopes.htm>)

- (62) *So **much oven** for the money!*

This is the first toaster oven we've ever owned. After living for years without one, now we wonder how we ever got along without it. This oven can do just about anything you need it to do in regards to baking small meals. Broil,

bake, convection bake, time bake, etc. It heats up rapidly, saving time and energy compared to using the main kitchen oven. Our college-aged daughter liked this oven so much when she came home that she went out and bought the exact same model for her apartment at school. This oven is surprisingly well-constructed considering the very affordable price.

(<http://www.amazon.com/review/R2DKLXXEFW81UJ>)

- (63) *This year we have introduced a new tent in Green Zone. Lempo 2 is a practical and easy-to-use 3-season tent with two entrances and two porch areas with plenty of space for gear. Easy to build, very good breathability and a very durable outer tent due to the Northtec PU 3000 UV 45+ fabric. Here you get **much tent** for an affordable amount of money: Robust and spacious with all the typical Nordisk details; quick connectors, clips for easy and fast set-up, red reflective tension lines and an optionally available footprint.*
(<http://www.nordisk.eu/press/news/news-detail-page/article/new-tent-in-the-nordisk-range-lempo-2/>)

These extended senses can be schematically represented as, for instance, $[[\text{JACKET}]_c \rightarrow [\text{JACKET'S COLLECTION OF FEATURES}]_v]$, which means that at a higher level of abstraction, we can postulate the emergence of: $[[\text{OBJECT}]_c \rightarrow [\text{OBJECT'S COLLECTION OF FEATURES}]_v]$.

The next dimension of the object, **weight**, is described by extended senses of such nouns as *door, bag, telescope, tent, guitar, and dam* (64–69):

- (64) *Are you sure the hinge you chose is suitable for the door(s) they are supporting? If there is too **much door** for the hinges they may not be strong enough to keep the door in position.*
(<http://www.quartertothree.com/game-talk/archive/index.php/t-71079.html>)
- (65) *I pulled my Steelwool out for the first ride of the season and attached my Arkel handlebar bag for the ride. I'll do a full review of the bag in another post, but suffice to say, it's a great bag but I don't think it works well on the Steelwool. (Too **much bag** for too light of a bike.)*
(<http://modalmom.com/training-for-bike-camping-and-riding-to-montreal/>)
- (66) *As you all probably know, Joni and I are (OK, I am) in the process of re-vamping our telescope collection. After months of fooling around with the Celestron 925 SGT that Joni purchased before the last Black Forest Star Party, I determined that it was too **much telescope** for either of us to be moving around. It is a chore for me to lift the OTA onto the mount and polar align it, let alone Joni doing so on nights that I am not around.*
(<http://umich.edu/~lowbrows/reflections/2005/bgrus.5.html>)

(67) *Too **much tent** for me!*

I thought I wanted a four season tent. I was wrong. This tent is expedition quality! Ruggedly made and solid, but I returned it because it was just too heavy. I felt I could have weathered any storm in it, but backcountry was kind enough to accept the return. I ordered a lighter weight (and better ventilated) tent from them.

(<http://www.backcountry.com/the-north-face-bastion-tent-4-person-4-season>)

(68) *The Guild 12 you are considering is a jumbo. Guild jumbo's, as wonderful as they are, tend to be very heavy instruments. I find them somewhat of a wrestling match. I used to own a Guild F-512 and a 1512. Both awesome sounding 12 strings but just to **much guitar** for me.*

(<http://www.acousticguitarforum.com/forums/archive/index.php/t-327367.html>)

(69) – *The dams probably so heavy that the land its wresting its weight on is sinking right? Or can't hold its weight up.*

One day it could all collapse into a huge sink hole and or bring the bearing land on each side of the dam with it!

– *If it's too **much dam** in one place, then they probably have no other option now than to build more dams.*

(<http://www.abovetopsecret.com/forum/thread706117/pg4>)

Again, the schema that encompasses them all is: [[OBJECT]_c → [OBJECT'S WEIGHT]_v].

Finally, we discuss the extended senses related to **warmth**, one of the domains forming a more general domain of temperature. Three nouns have extended senses to this dimension: *bulb*, *jacket*, and *tent*. At this stage, however, one reservation is required. Warmth as a “state of being warm in temperature” (MWD) is a property of the object rather than its capability. At the same time, the notion *warmth* appears to have two quite distinct, albeit related, senses, which can be seen in the following definition: “the heat something produces, or when you feel warm” (LGD). In other words, we talk about warmth not only when an object produces it but also when we feel it. This means that no direct source of heat must act upon us – we also use *warmth* when we are protected from cold, which leads us from the property of producing warmth to the capability of providing warmth by protecting against low temperatures. This discrepancy can actually be seen in the extended sense of *bulb* (70) when contrasted with the senses of *jacket* and *tent* (71–72). As a consequence, in order to avoid discussing warmth as a property and then as a capability, we analyse the senses under the schema related to the property of the object and acknowledge the observed split in meaning.

- (70) *But no temp for a juvenile sub adult male...do I just go with a basking temp of that 76–78?
I am also using a 160 watt bulb... I'm feeling that going to be to **much bulb** for him.. So I have it hung pretty high..
(<http://www.chameleonforums.com/my-veiled-chameleon-basking-temp-help-109453/>)*
- (71) *Superb piece of kit, a serious coat fully up to the berghaus standard, I sent it back because it was just altogether too good and **too much jacket** for the need I have and the relatively mild part of the world I live in (West Pembrokeshire).
(<http://www.amazon.co.uk/Berghaus-Mens-Ulvetanna-Parka-Jacket/dp/B00NV BXMKU>)*
- (72) *The Flying Diamond is a 4-season tent, and since most quality 3-season tents will take a light snow load, this is possibly too **much tent** for your actual needs.
(<http://www.campingforums.com/forum/showthread.php?5374-I-finally-bought-my-tent!!!-Opinions>)*

As a result, we postulate two contrasting formulations of the standard-target relationships, each focused on a different manner of providing warmth: $[[\text{BULB}]_c \rightarrow [\text{WARMTH PRODUCED BY THE BULB}]_v]$, $[[\text{JACKET}]_c \rightarrow [\text{WARMTH PROVIDED BY THE JACKET}]_v]$, and $[[\text{TENT}]_c \rightarrow [\text{WARMTH PROVIDED BY THE TENT}]_v]$. At a higher level of schematicity, we can propose the following characterisations: $[[\text{OBJECT}]_c \rightarrow [\text{WARMTH PRODUCED BY THE OBJECT}]_v]$ and $[[\text{OBJECT}]_c \rightarrow [\text{WARMTH PROVIDED BY THE OBJECT}]_v]$. However, because these two directions of extension can be found in the senses of the verb *generate*, “to produce or cause something” (LGD), we represent them more schematically as $[[\text{OBJECT}]_c \rightarrow [\text{WARMTH GENERATED BY THE OBJECT}]_v]$. In turn, by abstracting the commonalities inherent in the three schemas, $[[\text{OBJECT}]_c \rightarrow [\text{OBJECT'S WEIGHT}]_v]$, $[[\text{OBJECT}]_c \rightarrow [\text{OBJECT'S COLLECTION OF FEATURES}]_v]$, and $[[\text{OBJECT}]_c \rightarrow [\text{WARMTH GENERATED BY THE OBJECT}]_v]$, we can arrive at the subpattern $[[\text{OBJECT}]_c \rightarrow [\text{PROPERTY OF THE OBJECT}]_v]$.

2.2.1.5 $[[\text{OBJECT}]_c \rightarrow [\text{CAPABILITY OF THE OBJECT}]_v]$

The last of the subpatterns instantiating the MASS DIMENSION OF THE OBJECT pattern is concerned with the object's capability, that is, “the natural ability, skill, or power that makes a machine, person, or organization able to do something, especially something difficult” (LGD). Consequently, we approach the extended

senses of *elbow*, *bulb*, and *guitar* (73–75) as describing different kinds of ability or power of the respective referents. These are classified under three schematic notions: **force**, **the amount of power used by the object**, and **sound**.

As for the first type of capability, **force**, it appears in extended senses of just one noun – *elbow* (73). It designates the amount of force that is produced by the elbow:

(73) *Just tried to clean the Smoke Hollow and even after getting it as hot as I could and going at it with a scraper, the only thing I was able to get remotely clean was the bottom panel around the burner. Everything else is so caked and baked in, it is smooth and won't let the scraper bite into it, it just slides right over the surface. I don't want to put too **much elbow** in it because I don't want to scratch the metal of the cabinet. Guess I'll just say that I have an ultra seasoned smoker.*

(<http://www.smokingmeatforums.com/t/135343/cleaning-a-super-messy-smoke-hollow>)

Schematically, the relationship between the standard and target of this type of extension should be formulated as: $[[\text{ELBOW}]_c \rightarrow [\text{FORCE PRODUCED BY THE ELBOW}]_v]$. At a more schematic level, we should postulate the schema $[[\text{OBJECT}]_c \rightarrow [\text{FORCE PRODUCED BY THE OBJECT}]_v]$.

The next type of capability concerns **the number of watts** or, more generally, the amount of energy that a bulb requires, which can be observed in an extended sense of the noun *bulb* (74):

(74) *In inexpensive dimmers a triac disrupts the current, this can cause magnetic cycling, which can result in the filament vibrating and causing a buzz. Sometimes it can also be from having too **much bulb** on a dimmer. Most are rated for a max of 600 watts.*

(<http://ths.gardenweb.com/discussions/2655191/why-does-dimmer-buzz>)

The schema that arises directly from this kind of senses is $[[\text{BULB}]_c \rightarrow [\text{NUMBER OF WATTS CONSUMED BY THE BULB}]_v]$. However, because the term *watts* refers to electric power, which is only one of the types of power, at a more schematic level it seems appropriate to replace it with a more general one – *power*. As a result, this schema should be formulated as $[[\text{OBJECT}]_c \rightarrow [\text{AMOUNT OF POWER USED BY THE OBJECT}]_v]$.

The last domain of the object that we have determined in our analysis is **sound** or, more specifically, the sound of the guitar (75).

(75) *I tried to go for a more “hard rock” style for this one, but still keeping some elements from the original by mashing it up with a bit of electronica here*

*and there. [...] I've recorded so **much guitar** for this... I can't feel my fingers anymore.*

(<https://soundcloud.com/generaloffensive/tomoya-ohtani-deep-core-general-offensive-remix>)

This extension can be schematically put as $[[\text{GUITAR}]_c \rightarrow [\text{SOUND PRODUCED BY THE GUITAR}]_v]$ or, more generally, $[[\text{INSTRUMENT}]_c \rightarrow [\text{SOUND PRODUCED BY THE INSTRUMENT}]_v]$. Together with the schemas abstracted from the extensions of the other nouns considered in this section, $[[\text{OBJECT}]_c \rightarrow [\text{FORCE PRODUCED BY THE OBJECT}]_v]$ and $[[\text{OBJECT}]_c \rightarrow [\text{AMOUNT OF POWER USED BY THE OBJECT}]_v]$, we can postulate a formulation at a still higher level of abstraction: $[[\text{OBJECT}]_c \rightarrow [\text{CAPABILITY OF THE OBJECT}]_v]$.

2.2.2 The pattern $[[\text{OBJECT}]_c \rightarrow [\text{MASS DIMENSION ASSOCIATED WITH THE OBJECT}]_v]$

This pattern is significantly less representative than the first one – it is only described at three levels of schematicity, has three subpatterns, and is instantiated by eight lowest-level schemas. What is more, in our analysis only eight out of thirty nouns have extended senses that the pattern sanctions, which makes this type of extension a possible, but not really frequent choice.

From the CG perspective, an account of this pattern requires noting not only the importance of encyclopaedic semantics and the richness of the types of evoked domains but also the fact that the senses analysed in the present pattern change the ranking of the domains observed in the previous pattern. The domains that are now ranked very high are the domains that are typically peripheral for the characterisation of the nouns: entities contiguous to the object or action related to it. At the same time, the domains that are typically salient are now pushed into the background.

This significantly changes the immediate scope of each of the nouns and, as a consequence, their profiles. What the nouns designate in their extended senses are **the substance contained in the object, part of an entity contiguous to the object, and action related to the object.**

2.2.2.1 $[[\text{OBJECT}]_c \rightarrow [\text{SUBSTANCE CONTAINED IN THE OBJECT}]_v]$

The first subpattern encompasses an extended sense of just one noun – *jar*, which designates the amount of food kept in the jar (76):

(76) *My LO has been on the 7month+ jars since she was 6 and a half months, she is now 10 months old, she usually takes half a jar and a fruit pot for her*

*meals, how **much jar** would you give your 10 month old? Should I give her the full jar at 10 months?*

(<http://babyandbump.momtastic.com/weaning-nutrition/1603815-cow-gate-7month-jars.html>)

At the lowest level of schematicity, then, the relationship between the standard and target should be phrased as $[[\text{JAR}]_c \rightarrow [\text{AMOUNT OF FOOD IN THE JAR}]_v]$. However, as indicated by TAYLOR (1995: 122) in his discussion of *the kettle's boiling*, this kind of relationship is much more general. As a consequence, we postulate a more schematic account in the following terms: $[[\text{OBJECT}]_c \rightarrow [\text{SUBSTANCE CONTAINED IN THE OBJECT}]_v]$.

2.2.2.2 $[[\text{OBJECT}]_c \rightarrow [\text{PART OF AN OBJECT CONTIGUOUS TO THE OBJECT}]_v]$

The next subpattern is also instantiated by one noun only: *chin* (77). Its extended sense arises through the relationship characteristic of the classical definition of metonymy – contiguity, that is, a part of a hockey mask is called *chin* because this part is contiguous to this particular part of face. At the same time, it is not the whole chin of the mask that is in focus but some part of it, as shown in the example.

(77) *Wow, love the look of it. Unfortunatly as someone with a short neck that is way too **much chin** for me. But still a beautiful mask.*

Did you get a look at all the models before you purchased? I assume the Mason has a pretty long chin, the Quick looks to be the shortest.

(<http://goaliestore.com/board/forum/equipment/equipment-forum/33921-show-it-off-mask-version/page456>)

As a result, this extension should be formulated as: $[[\text{CHIN}]_c \rightarrow [\text{PART OF AN OBJECT CONTIGUOUS TO THE CHIN}]_v]$. At a higher level of schematicity, we can describe this categorising relationship as: $[[\text{OBJECT}]_c \rightarrow [\text{PART OF AN OBJECT CONTIGUOUS TO THE OBJECT}]_v]$.

2.2.2.3 $[[\text{OBJECT}]_c \rightarrow [\text{ACTION ASSOCIATED WITH THE OBJECT}]_v]$

The last of the subpatterns instantiating the pattern $[[\text{OBJECT}]_c \rightarrow [\text{MASS DIMENSION ASSOCIATED WITH THE OBJECT}]_v]$ is also the most numerous of the three – it is instantiated by seven extensions of six nouns. This seems quite a lot if one takes into consideration the fact that nouns, as LANGACKER (2008: 94–95) notes,

are not typically associated with action. Still, action is ranked high among the domains evoked by such nouns as *stage*, *classroom*, *photograph*, *oven*, *shower*, and *chin*. This means that, once again, we can see a reranking of domains, though this time this is a reranking between the default domains of instantiation of each noun and the domain of action.

An interesting grammatical feature of the analysed extended senses is that they designate two types of action: continuous and iterative. The first of the discussed nouns, *oven*, designates the former type (78), which can be interpreted as ‘baking in the oven’:

- (78) *The dish is visually very strong, and the contrast between sweet onion and sirloin provides a very pleasant feeling. You have to constantly watch the final stage of baking as it is very easy to burn the onion before reaching the desired point. Do not suffer about the meat, cause tenderloin is very soft, just watch the onion. **Too much oven** can spoil the recipe.*
(<http://mediterraneancooking.blogspot.com/>)

The resultant extension can be schematically described as $[[\text{OVEN}]_c \rightarrow [\text{ACTION OF BAKING IN THE OVEN}]_v]$.

On the other hand, there are also such nouns as *classroom*, *stage*, *photograph*, and *chin* (79–82), which designate teaching in the classroom, acting on the stage, taking photographs, and doing chin-ups, that is, a series of recurrent actions. A specific feature of these actions is the construal that they receive – an aggregate of single activities whose boundaries, for one reason or another, have been blurred.

As for *classroom*, it highlights the repeated, dull, and monotonous character of the process that takes place in the classroom. *Stage* profiles the similarity between all shows. Since there is a limited number of tricks one can do, at a certain point, all shows may seem alike. In *photograph*, the action of choosing objects to photograph and pressing the shutter button are also basically the same. As for *chin* and the action of doing chin-ups, the blurring of the boundaries is even more evident – the starting point below a horizontal bar is very general, and so is the final position of the body – with the chin either at the level of the bar, touching the bar, or above the bar.

- (79) *In Korean system, what largely happens is **too much classroom** and too little hands-on experience. Take a look at the pathetic leadership in Fukushima case, for example.*
(http://www.economist.com/blogs/banyan/2011/05/depressed_students_south_korea)

- (80) *I was just wondering how many people that do card magic also do stage. I do a lot of card magic, but not **much stage**. I was thinking about dropping my stage act and doing only cards.*
(<http://www.themagiccafe.com/forums/viewtopic.php?topic=76287&forum=2>)
- (81) *The harbor facing towards the sea was bald, not **much photograph** in that direction..but as I turned back towards the town, I remembered the falls. As I headed back towards them I noticed the brick library luminating in the dusk against the mountain. Getting to river falls I composed my shot of the fall rapids and library.*
(<http://fritzimages.com/blog/2014/dusky-camden/19220/>)
- (82) *He is lending me his TNT cable. So I can start doing standing chest press. I use to do it at the gym...the crossover station LOL
The rings look cool!
I will try to do as **much chin** as I would at the Kung Fu Class.*
(<http://www.veganfitness.net/viewtopic.php?f=4&t=18533&start=15>)

As a result, the standard-target relationships of the discussed nouns can be represented as follows:

- [[CLASSROOM]_c → [ACTION OF TEACHING GIVEN IN THE CLASSROOM]_v],
- [[STAGE]_c → [SET OF PERFORMANCES ON THE STAGE]_v],
- [[PHOTOGRAPH]_c → [SET OF ACTIONS OF TAKING PHOTOGRAPHS]_v],
- [[CHIN]_c → [SET OF CHIN-UPS]_v].

Apart from the two kinds of nouns that designate different types of action, in the analysis there is also a noun whose extended senses conflate quite different dimensions associated with action – *shower*. The collected contexts indicate three specific elements of this process: the amount of water used while taking a shower (83), the frequency of taking showers (84), and length of taking a shower (85), as well as cases when these dimensions are impossible to distinguish (86).

- (83) *A spa manager appeared and apologized profusely, offering me a complimentary 90-minute massage, since no one else trained in the hot-stone-scrub-shower treatment was around. As it happened, I loved the massage, and Michele said I didn't miss much with the other treatment, which was too **much shower** and not enough massage and scrub.*
(<http://www.wsj.com/articles/SB124182301636602295>)
- (84) *Showers are beneficial, but what does science actually tell us as to how **much shower** we truly need?*

*Study shows we should shower much less than we think
 Australians have the reputation for being the 'cleanest' population group on
 the planet. According to a report by SCA, a leading global hygiene company,
 90% of women and 80% of men either shower or bathe at least once a day.
 (<http://news.therawfoodworld.com/science-says-shower-less-often-healthier-skin-shower-keep-short/>)*

- (85) *It looks like she doesn't really get very wet at all--Is it just the way the video looks? Does she like to get soaked? My Budgie (RIP) loved showering with me, she'd close her eyes and lean her head up towards the shower head. I knew she'd had enough once she opened her eyes for more than a second and once she began to shift around from one foot to the other. So it became easy for me to gauge how **much shower** she was comfortable with. But she did like to get pretty soaked actually--Just not all at once and only by standing near the shower head (never directly under it!). She liked the temperature to be pretty much the same as I myself preferred.
 (<https://www.youtube.com/watch?v=SPO7NZ97In4>)*

- (86) *Depends on the person... there are some people in this world that is quite odorless you know... never needing any musking. Then there are some that no matter how **much shower** they take... they will still stink. Now these people needs to see a doctor because of some serious chemical imbalance that cause B/O.
 (<https://answers.yahoo.com/question/index?qid=20070418082338AAF6QBU>)*

Two observations follow. First, the schema $[[\text{SHOWER}]_c \rightarrow [\text{ACTION OF TAKING A SHOWER}]_v]$ should be seen as arising from three lower-level schemas:

- $[[\text{SHOWER}]_c \rightarrow [\text{AMOUNT OF WATER USED WHILE TAKING A SHOWER}]_v]$,
- $[[\text{SHOWER}]_c \rightarrow [\text{FREQUENCY OF TAKING A SHOWER}]_v]$,
- $[[\text{SHOWER}]_c \rightarrow [\text{TIME OF TAKING A SHOWER}]_v]$.

At the same time, the contexts suggest that that the domains activated by *shower* are many and their structure is quite unpredictable without a detailed analysis. When the profile is shifted from the shower to the action of taking it, this entails a significant shift in the scope and structure of the active domains, which turn out to contain such distinct elements as the amount of water, and frequency and time of use.

Summing up the pattern of ACTION ASSOCIATED WITH THE OBJECT, it must be noted that the range of action is quite broad: performed by the object, with the object, in relation to the object, or simply associated with the object. Definitely, depending on the object, the action may be more or less obvious, for example, *the time of taking a shower* is rather quite commonly associated with the shower.

At the same time, *a set of chin-ups* is less immediately associated with the chin. Still, they seem to be immanent in a detailed characterisation of the respective nouns. As a result, at a higher level of abstraction, all the schemas can be phrased as $[[\text{OBJECT}]_c \rightarrow [\text{ACTION ASSOCIATED WITH THE OBJECT}]_u]$.

2.2.3 The pattern $[[\text{OBJECT}]_c \rightarrow [\text{AGGREGATE OF OBJECTS}]_u]$

The last pattern found among count-to-mass extensions is also the least complex, because it can only be described at two levels of schematicity: the lowest-level schemas and the pattern. At the same time, this pattern invokes a specific domain forming the matrix of the respective nouns – the domain of a collection of the referents. While such a domain can actually be expected, because count nouns typically appear in singular and plural forms, that is, there should also be a conceptual basis for plurality, what is surprising is the type of construal imposed on this collection of referents. The most natural conception of a number of objects is an assembly of individual items, which is rendered through the plural form of the noun. Still, the items forming such collections may on occasion be difficult to distinguish, which may trigger an alternative, mass construal of the collection.

Twelve of the collected count nouns have such a mass sense: *star*, *page*, *client*, *guest*, *photograph*, *branch*, *belt*, *clock*, *elbow*, *jar*, *dam*, and *bulb* (87–103). Because some of them have more than one sense of this kind, altogether we can indicate as many as seventeen extensions that instantiate the pattern.

(87) *You don't find **much star** and or astrological lore in Norse myth and literature. I wonder if that had to do with something Other than their demanding climate etc.*

(<http://galacticchannelings.of-the-light.com/community/archive/index.php/thread-441.html>)

(88) *Catcher wants to catch all the falling star. How **much star** can you get?*

(<http://www.windowsphone.com/pl-pl/store/app/catch-the-star/a19a0843-976b-4af0-9a1d-db9a50f8f471>)

(89) *Spong, if you feared a big amount of the book to be about Wind Waker, you don't need to worry anymore. Wherever you read the review, it was wrong in a way. There is as **much page** about Wind Waker than there is about Oracles of Ages/Seasons or Spirit Tracks. In fact, there is 10 pages about Wind Waker and 30 on Twilight Princess (concept art related).*

(<http://www.tombrainerforums.com/archive/index.php/t-131483-p-4.html>)

- (90) *It's not like I hate creating more pages, it's just that there are only a few of us who are working on this wiki. It is already enough handling a few pages, but almost 60+ pages, is not. Once this community is stable enough that we can add as **much page** as we want, then yes, but as of now, not really.*
(<http://cubemc.wikia.com/wiki/Thread:3996>)
- (91) *Chandeliers bring elegance and romance to a bedroom. Being in an interior design business usually falls on freelancing, for them it is better to have a more free time to have as **much client** as they can unlike when you are tied in a company, your projects are limited making your compensation a little controlled also.*
(<http://www.shoowf.net/article.php?id=2283>)
- (92) *I never really got **much guest** for one of three reasons. My father would not allow it, I intimidated them, or. As I descended down the stairs I heard the voice of my father, mother, older sister, and another man?*
(<http://www.quotev.com/story/5038498/Runaway-Love-Damon-Klaus-and-Elijah/3/>)
- (93) *Elaine and her friends were very sweet and awesome to work with. Let me just add, I knew so **much guest** at this wedding that I felt like it was a reunion for me!*
(<http://scenemotionfilms.net/2012/06/#.VMjmYWwG-5M>)
- (94) *And I have to say that Jeff is the perfect guy to do that to - he delights in messing with other performers. So to see them razzing him back is great. Overall too **much guest** (as usual) and especially too much Helping Hands. But otherwise a funny ep, and the chair banter was superb. I think it also shows Aisha being more comfortable with the group, which is very good.*
(<http://forums.previously.tv/topic/8636-s10e12-robbie-amell/>)
- (95) *Do not forget about Happy Hour! This is an ideal opportunity to promote your cocktail menu! Select a time when usually you don't have **much guest** in your bar and give special discount on specific cocktails only to ladies.*
(<http://possector.com/en/blog/top-summer-cocktails-2014>)
- (96) *Sorry that i don't have **much photograph** as we were so excited to see the beach that no body was ready to shoot this and every body wanted to challenge the waves. We played beach volley as we took a volley ball with us and then we tried forming different human patterns to minimize the effect of the waves dragging us and hitting us.*
(<http://caravanparty.blogspot.com/2011/07/ganpatipule.html>)

- (97) *I'd like to have some advice to know where i should start because there is a lot of dead wood and a lot of sucker in the tree and the majority of apple that did grow was on the top portion of the tree and are completely impossible to reach so i'd like to reduce the height of the tree but there is so **much branch** in the tree and i dont know where to start????*
 (<http://www.smallkitchengarden.net/small-kitchen-garden/strategies-for-grafting-fruit-trees>)
- (98) *I got a brand new 2015 137" with 1.75" of track and I blew the 2 stock belts under 800km. I installed an extreme front shock tower vent and 7 Brp frog-skin vents on the side after the fist belt broke and maybe got 50km more on the second belt.
 Tonight I am changing from a 23 to a 22 top gear. If I blow another belt before the end of the winter I am going to buy a Clutch kit from Dynamoe Joe. It is the first time I dump 17 000\$ on a ski doo only to realise it uses more rubber then Gasoline.
 I think they Planned the Obsolescence and they want use to buy as **much belt** as they can. 10 years ago belts were like 80\$ and now I am paying 195\$ plus tax and I cant even use 100\$ of gas before it need a new one BS.*
 (<http://www.dootalk.com/forums/topic/728937-2014-freeride-137-blowing-belts/page-9>)
- (99) *Well i am going to be putting it in my living room with a hole cut in the floor to suspend the 9ft pendulum. Yah this was one of the cheapest clocks i have bought to date..Dont get **much clock** for under 10k now a days...*
 (<http://mb.nawcc.org/showthread.php?94350-My-1st-E-Howard-Clock-with-9ft-Pendulum>)
- (100) *What do you think guys? Do I use the outlet pipes with unsuitable diameters? Is there too **much elbow** in the plumbing? I should use a smaller diameter pipe for the pump? Or other issues with I forgot to figure it?*
 (<http://www.qldaf.com/forums/aquarium-projects-diy-journals-11/i-would-need-some-plumbing-help-help-other-issue-s-118562/>)
- (101) *Let's take for instance the story of the widow that God showed the miracle of turning ordinary jars to expensive jars of oil, God instructed her to gather as **much jar** as possible (note that the amount gathered now is left to her not God) and when she did so, all God could do was to work with what she provided and the outpour of oil ceased immediately there was no more jar to fill.*
 (<http://ojomike.blogspot.com/2015/03/you-are-your-own-limitation.html>)

- (102) – *Jimmy which river in North Wales should we dam. I think you will find that the source of the Severn is on Plynlimon, Mid Wales.*
 – *Why would you want to dam it as source? There wouldn't be **much dam** would there, surely you would want to dam it when there was more water around downstream?*
 (<http://www.shropshirestar.com/news/2011/01/17/river-severn-on-flood-alert/sd3695965sh17water-6/>)
- (103) *Thanks, guys – this put me over the top on the lights. I have no idea how **much bulb** is left in them, but if they power up and pass a basic test they're mine at noon.*
 (<http://www.harmonycentral.com/forum/forum/LivePerformanceCategory/acapella-34/394270->)

The lowest-level schemas share one crucial characteristic – the target refers to an aggregate, which is why at a higher level of schematicity we postulate the emergence of the following pattern: $[[\text{OBJECT}]_c \rightarrow [\text{AGGREGATE OF OBJECTS}]_v]$.

2.2.4 Chains of reference points

Thus far, the senses that we have analysed involved cases when the target sense was directly derived from the standard. However, it appears that the process of forming a new sense can be more complex than that. What we also find is that, in order to arrive at an extended sense of a lexical item, we may have to go through a chain of reference points invoked by the item (cf. Section 1.2.1.2). In our analysis, we have determined three such chains, all of them activated by the noun *classroom* (104–106).

- (104) *Before each piece was played, narrator Lappa directed us into the life of each composer with facts and bits of humor (and extremely readable and well-outlined slides) that gave each piece an awakening, a sharing of secrets. Informative and at times startling brilliant, this performance lecture presented ample evidence in the support of the power of classical music. Not a fault of the presenters, this program nevertheless would be better served by a Friday night or Sunday afternoon slot. Too **much classroom** for a Saturday night on the town.*
 (<http://www.jeansmagazines.org/JeansG/InkNotes/InkNotes2008.htm>)
- (105) *Without the chalk look (too **much classroom** at home!) and the other love quote in that song – there is a design an alignment a cry of my heart to see the beauty of love as it was made to be.*
 (<http://www.pinterest.com/abinette/bedrooms-and-bathrooms/>)

- (106) *Ms Hellaoui spoke of the suggestion to encourage teachers to use the foreign language in the classroom, whereas **much classroom** does not appear in the syllabus. Should this be tested – in listening comprehension?*
 (http://etheses.dur.ac.uk/6801/1/6801_4105.PDF?UkUDh:CyT)

What each sense assumes is a specific sequence of conceptual operations that allow us to interpret the extended senses. The first of these senses is rather straightforward. It builds upon the sense ‘the action of teaching given in the classroom,’ discussed in Section 2.2.2.3; that is, that sense is a reference point in relation to which another action is categorised – the instruction that resembles the teaching conducted in the classroom. This target action took place at a concert during which rather extensive explanations were provided by the composer. Because these were felt to be too long and too monotonous, they evoked an association with a similar type of experience from a different domain – the classroom. In other words, although the discussed sense arises from shifting the profile from a spatial room to the domain of action, it seems to have been evoked through an association with action.

This path of extension can be schematically illustrated as follows: [[CLASSROOM]_c → [UNINTERESTING TEACHING THAT TAKES PLACE IN THE CLASSROOM]_v → [UNINTERESTING TALK THAT RESEMBLES THE TEACHING IN THE CLASSROOM]_v]. What must be noted about the second stage of extension is a change of domains – from the domain of the classroom to the domain of the concert hall, which shows that the ultimate target sense is metaphorical. More specifically, this is an instance of what can be called metaphor derived from metonymy (cf., e.g., GOOSSENS, 1995: 168–169).

Consider the second example. It refers to a picture hung on the wall in the bedroom. The comment highlights the fact that the final look of the picture is the result of several preceding modifications, that is, the picture in the previous version must have had two love quotes and must have looked quite chalky. The actual picture looks like a school blackboard with a few lines written on it. The text is a love quote from the song “Sigh No More” by Mumford and Sons. The board-like frame, the board-like colour of the background, and the handwritten text give the impression of a text written on a school blackboard. However, according to the author, the picture does not have the chalk look that is so characteristic of real boards at school. If it did, this would result in too much classroom at home.

To arrive at the adequate interpretation of this sense of *classroom*, we need to go through a sequence of reference points, starting with the classroom as a spatial entity. This enables us to access a number of elements of the classroom’s dominion, the most salient of which is probably the function of the classroom as a place for teaching. Teaching, in turn, leads us to the numerous actions that are done in the course of teaching: reading things in books, taking notes in the

copybooks, listening to the teacher, and writing on the board. This last element is the next reference point, which invokes, for instance, different situations involving someone writing something on the board, possibly the squeaking noise of the chalk, and, most importantly from the perspective of the analysed context, the specific appearance of the board. Through this appearance, we access such dimensions as the texture of the letters, someone's handwriting, and the background knowledge that during a class, the board is cleaned several times, which leaves the surface of the board dusty. Because the picture that the context concerns has a perfectly even background, most probably, it is the chalky dimension that would make *too much classroom*.

Schematically, we propose the following chain of reference points that we go through to arrive at the adequate interpretation of the noun *classroom* (105): [[CLASSROOM]_c → [TEACHING THAT TAKES PLACE IN THE CLASSROOM]_v → [WRITING THAT TAKES PLACE WHILE TEACHING]_v → [APPEARANCE OF THE BOARD DURING CLASSES]_v → [CHALKY BACKGROUND OF THE LETTERS]_v]. As a consequence, the analysed sense of *classroom* should be defined as 'the degree of chalky appearance of the board.' At the same time, what is left implicit in the background is the information that this appearance is a result of writing with chalk on the board and cleaning it, that writing and cleaning take place while learning, and that learning is held in the classroom. This shows how much of the encyclopaedic knowledge related to things can be taken for granted in everyday communication, that is, what it sometimes takes to understand someone else's utterance.

The last of the examples is also quite complex, for its analysis requires indicating one more phenomenon – ellipsis of a compound construction. This, however, is necessary at the final stage of the analysis. Essentially, the first two reference points are the same as in the case of the previous sense of *classroom* – the spatial entity and the process of teaching that takes place there. However, the target that the second reference point affords is different, for it comprises situations during which certain repeated and predictable words or expressions are used, such as *sorry for coming late*, *open your books on page...*, or *what does X mean?* These words and expressions, in turn, direct us to the domain of foreign language teaching, where they are part of what is generally dubbed *classroom vocabulary*, which should be one of the elements of a good syllabus. This is where we reach the ultimate sense of the noun: 'the words and expression that are taught during foreign language classes and that are based on typical linguistic situations taking place during classes.' However, this is not the end of the processes leading to the formation of the detected sense of *classroom* (106).

What is also involved is ellipsis. *Classroom vocabulary* is a compound noun composed of the count noun *classroom* and the mass noun *vocabulary*. The status of these nouns is not equal, because the latter noun is the profile determinant – *classroom vocabulary* is a type of vocabulary, and not a kind of classroom.

As a profile determinant, the noun *vocabulary* imposes its grammatical property on the compound. However, this noun is not really distinctive out of the two, because a large part of foreign language teaching is teaching vocabulary. As a result, in order to stress which type of vocabulary is in question, it is quite convenient to use an ellipted form of the compound that is reduced to the more distinctive of its two elements – *classroom*. Since the ellipted noun inherits its meaning from the compound, *classroom vocabulary*, it also inherits the compound's profile and grammatical property. Schematically, the whole chain of referent points can be represented as follows: [[CLASSROOM]_C → [TEACHING THAT TAKES PLACE IN THE CLASSROOM]_V → [TEACHING SITUATIONS IN WHICH CERTAIN RECURRENT EXPRESSIONS ARE USED]_V → [RECURRENT VOCABULARY USED IN THE CLASSROOM]_V → [RECURRENT CLASSROOM VOCABULARY AS THE OBJECT OF TEACHING IN THE FOREIGN LANGUAGE CLASSROOM]_V].

To conclude, it must be observed that while the reference point phenomenon is not often used in linguistic analyses, it can lead to fascinating combinations of different phenomena, as seen in the noun *classroom*. First, new senses can adopt new grammatical properties. Second, we can observe a combination of metonymic and metaphorical senses. Finally, the reference point phenomenon can co-occur with the ellipting of the compound noun.

With these observations, we finish the first part of the analysis. What follows is an analysis of count extensions of primarily mass nouns.

2.3 Count extensions of mass nouns

The second part of the analysis is devoted to count extensions of the following thirty mass nouns: *water, money, food, blood, stuff, equipment, plastic, rain, salt, fat, sugar, snow, cream, sand, butter, mail, furniture, honey, tobacco, cotton, flesh, flour, mud, wildlife, silk, gasoline, jewelry, trash, wheat, and timber*.

However, it must be emphasised that the analysis of the mass nouns is more complex than the analysis of the count nouns in Chapter 2.2. First, because these nouns require an additional classification: into those that designate substances and those that designate aggregates of entities perceived as masses (cf. HP, 2002: 335–336).

AGGREGATE NOUNS:

money, food, stuff, equipment, rain, snow, mail, furniture, wildlife, jewelry, trash, wheat

SUBSTANCE NOUNS:

water, blood, plastic, salt, fat, sugar, cream, sand, butter, honey, tobacco, cotton, flesh, flour, mud, silk, gasoline, timber

This division was established on the basis of dictionary definitions – whether they made a reference to a coherent mass or explicitly indicated a number of constituent entities that form an aggregate. As a result, 12 nouns were classified as aggregate nouns, and 18 as substances, though this division also produced borderline cases, such as *rain* and *stuff*. As for the former, two different elements of our encyclopaedic knowledge are activated in its definition: that rain falls in the form of single drops and that a collection of these particles forms water. In the case of *stuff*, this seems more a matter of convention concerning what we agree to call stuff. Still, as dictionary definitions show, the set of potential referents includes both substances and groups of things.

The second reason that makes this part of analysis more complex is the fact that, unlike the count nouns, the mass nouns much more readily extend to senses with the reverse grammatical property. Actually, after a careful selection, we were only able to collect nine nouns (out of 30) that did not have countable senses, and these are: *stuff*, *butter*, *furniture*, *tobacco*, *flesh*, *flour*, *mud*, *wildlife*, and *jewelry*.

As for the remaining 21 nouns, at least one of the consulted dictionaries posited that they have countable, singular, or plural senses. At the same time, these single senses do not seem to influence the predominant property of the nouns, as shown, among others, in *Collins Cobuild English Grammar* (SINCLAIR, 1990). While discussing the notion of uncountability, the grammar provides a list of exemplary mass nouns; eight of these nouns, *flesh*, *food*, *rain*, *snow*, *stuff*, *water*, *furniture*, and *money* (p. 28), are also on our list of mass nouns. Still, only three out of these eight nouns are in fact solely mass: *flesh*, *stuff*, and *furniture*. The other five, in one way or another, turn out to have at least one count sense. In spite of this, they are given as instances of typical mass nouns.

As a result, below we provide two lists. In the first one, we enumerate the senses that are taken as the standard of extension in our analysis. Just as in the case of count nouns, we enumerate several mass senses that were used as standards. To indicate the substance/aggregate differences in classification, the nouns that somehow refer to aggregates of things are marked in block capitals and adequate information is provided – whether they are solely aggregate or defined in two different ways by dictionaries. Substance nouns are enumerated with no additional information. In the conclusions, this split is discussed in relation to the results of the analysis.

The second list contains the nouns whose extended count senses are already enumerated by the consulted dictionaries. These are also the senses that are adequate for the analysis – concrete. An unexpected though welcome advantage of such count senses is that thanks to them, we are able to relate the senses that we determine in the analysis to the well-established senses found in the dictionary, which is done in the conclusions (Sections 2.4.1.2 and 2.4.2). The lists are as follows:

water

“A colourless, transparent, odourless, liquid which forms the seas, lakes, rivers, and rain and is the basis of the fluids of living organisms” (OD)

MONEY – an aggregate noun:

“The official currency, in the form of banknotes, coins, etc, issued by a government or other authority” (CLD)

FOOD – two manners of classification: as a substance and an aggregate of things:

- “Any nutritious substance that people or animals eat or drink or that plants absorb in order to maintain life and growth” (OD)
- Things that people and animals eat, such as vegetables or meat” (LGD)

blood

“The red liquid that is sent around the body by the heart, and carries oxygen and important substances to organs and tissue, and removes waste products” (CMD)

STUFF – two manners of classification: as an aggregate of objects and a substance:

- “Used when you are talking about things such as substances, materials, or groups of objects when you do not know what they are called, or it is not important to say exactly what they are” (LG)
- “Things in which one is knowledgeable and experienced” (OD)

EQUIPMENT – an aggregate noun:

“The tools, machines, clothes etc that you need to do a particular job or activity” (LGD)

plastic

“A very common light, strong substance produced by a chemical process and used for making many different things” (MMD)

rain – two manners of classification: as a substance and an aggregate of objects:

- “Water that falls in drops from clouds in the sky” (MMD)
- “Drops of water from clouds” (CMD)

salt

“A white substance that is often added to food before or after cooking to improve its flavour. Salt is dug from the ground, or produced from sea water” (MMD)

fat

“A substance that is stored under the skin of people and animals, that helps to keep them warm” (LGD)

sugar

“A sweet white or brown substance that is obtained from plants and used to make food and drinks sweet” (LGD)

SNOW – two manners of classification: as a substance and an aggregate of things:

- “Atmospheric water vapour frozen into ice crystals and falling in light white flakes or lying on the ground as a white layer” (OD)

- “Soft white pieces of frozen water that fall from the sky in cold weather and cover the ground” (LGD)

cream

“A thick smooth substance that you put on your skin to make it feel soft, treat a medical condition etc” (LGD)

sand

“Loose material consisting of rock or mineral grains, esp rounded grains of quartz, between 0.05 and 2 mm in diameter” (CLD)

butter

- a) “A solid yellow food made from milk or cream that you spread on bread or use in cooking” (LGD)
- b) “Any substance with a butter-like consistency, such as peanut butter or vegetable butter” (CLD)

MAIL – an aggregate noun:

“The letters and packages that are delivered to you” (LGD)

FURNITURE – an aggregate noun:

“The chairs, tables, beds, cupboards etc that you put in a room or house so that you can live in it” (MMD)

honey

“A sweet, sticky, yellow substance made by bees and used as food” (CMD)

tobacco

- a) “The dried brown leaves that are smoked in cigarettes, pipes etc” (LGD)
- b) “The plant that produces these leaves” (LGD)

cotton

- a) “A soft white fibrous substance which surrounds the seeds of the cotton plant and is made into textile fibre and thread for sewing” (OD)
- b) “Textile fabric made from cotton fibre” (OD)
- c) “Thread made from cotton fibre” (OD)
- d) “Cotton plants collectively, as a cultivated crop” (CLD)

flesh

- a) “The soft part of the body of a person or animal that is between the skin and the bones” (LGD)
- b) “The flesh of an animal, regarded as food” (OD)
- c) “The soft part of a fruit or vegetable that can be eaten” (LGD)

flour

“A powder that is made by crushing wheat or other grain and is used for making bread, cakes etc” (LGD)

mud

“A fine-grained soft wet deposit that occurs on the ground after rain, at the bottom of ponds, lakes, etc” (CLD)

WILDLIFE – an aggregate noun:

“Animals and plants growing in natural conditions” (LGD)

silk

- a) “Thread or fabric made from the fibre produced by the silkworm” (OD)
- b) “A garment made of this” (CLD)
- c) “The brightly coloured shirts worn by jockeys” (CMD)

gasoline

“A liquid obtained from petroleum, used mainly for producing power in the engines of cars, trucks etc” (LGD)

JEWELRY – an aggregate noun:

“Ornaments such as rings, brooches, bracelets, etc, collectively” (CLD)

TRASH – two manners of classification: as a substance and an aggregate of objects:

“Useless or unwanted matter or objects” (CLD)

wheat – two manners of classification: as a single object (plant) and an aggregate of objects (grains); these can be combined in one definition (CMD) or put in two separate senses (MMD):

- “A plant whose yellowish-brown grain is used for making flour, or the grain itself” (CMD)
- “A tall plant that produces grain for making bread and other foods” and “wheat grains, or food made from them” (MMD)

timber

“wood used for building or making things” (LGD)

The list below presents the concrete count senses of the analysed mass nouns.

water

- a) “The water of a particular sea, river, or lake” (OD)
- b) “The surface of a lake or the sea” (MMD)
- c) “An area of water that belongs to a particular place, state, country, etc.” (MMD)
- d) “The amniotic fluid surrounding a fetus in the womb, especially as discharged in a flow shortly before birth” (OD)

money

“Sums of money” (OD)

food

“A particular type of food” (MMD)

blood

“Blood samples or tests” (OD)

plastic

“A very common light, strong substance produced by a chemical process and used for making many different things” (LGD) or:

no definition of the count sense, just an illustration: “bottles can be made from a variety of plastics” (OD)

rain

- a) "Falls of rain" (OD)
- b) "The large amounts of rain that fall in tropical regions during a particular season" (MMD)
- c) "A large or overwhelming quantity of things that fall or descend" (OD)

salt

- a) "A chemical substance formed from an acid" (MMD)
- b) "A substance or medicine that looks like ordinary salt, used for a particular purpose" (MMD)

fat

- a) "An oily substance contained in certain foods" (LGD)
- b) "An oily substance taken from animals or plants and used in cooking" (LGD)

sugar

- a) "A lump or teaspoonful of sugar, used to sweeten tea or coffee" (OD)
- b) "One of several sweet substances formed in plants" (LGD)

snow

- a) "Falls of snow" (OD)
- b) "A period of time in which snow falls" (LGD)
- c) "A large amount of snow that has fallen at different times during the winter" (LGD)
- d) "The snow that falls over a period of time" (MMD)

cream

- a) "A sweet of a specified flavour which is creamy in texture" (OD)
- b) "A biscuit with a creamy filling" (OD)
- c) "Used in the names of foods containing cream or something similar to it" (LGD)
- d) "A thick liquid or semi-solid cosmetic or medical preparation applied to the skin" (OD)

sand

- a) "An expanse of sand, typically along a shore" (OD)
- b) "An area of beach" (LGD)
- c) "A stratum of sandstone or compacted sand" (OD)

cotton

"A material or piece of clothing made of cotton" (MMD)

silk

- a) "A Queen's (or King's) Counsel" (OD)
- b) "The bright coloured shirt worn by a jockey" (MMD)
- c) "A cover worn over a riding hat made from a silk-like fabric" (OD)
- d) "Clothes and accessories worn for sports and leisure" (MMD)
- e) "The silky styles of the female maize flower" (OD)

trash

"A container where people put things that are being thrown away" (MWD)

wheat

“The grain of wheat,” illustrated with a count form of the noun (OD)

timber

“A wooden beam or board used in building a house or ship” (OD)

The analysis of the mass nouns allowed us to determine two highly schematic patterns of semantic extension: $[[\text{SUBSTANCE/ AGGREGATE OF THINGS}]_U \rightarrow [\text{BOUNDED AMOUNT OF THE SUBSTANCE/ LIMITED NUMBER OF INDIVIDUAL THINGS}]_C]$ and $[[\text{SUBSTANCE/ AGGREGATE OF THINGS}]_U \rightarrow [\text{KIND OF THE SUBSTANCE/ AGGREGATE OF THINGS}]_C]$. At lower levels of schematicity, we pointed to eight subpatterns and as many as 97 lowest-level schemas.

2.3.1 The pattern $[[\text{SUBSTANCE/ AGGREGATE OF THINGS}]_U \rightarrow [\text{BOUNDED AMOUNT OF THE SUBSTANCE/ LIMITED NUMBER OF INDIVIDUAL THINGS}]_C]$

We begin with a few comments on the manner in which the pattern is formulated, as it is quite different from the patterns arising from extensions of count nouns. First, the standard of extension encompasses two types of nouns: those that designate substances and those that designate aggregates of things. This distinction was necessary for the clarity of account, because nouns of each type have extended senses both to the same, and to different domains. Consequences of this distinction can also be seen in the formulation of the target of extension, where we distinguish between a bounded amount of substance and a limited number of individual things. The second factor that makes the pattern complex is the fact that some nouns have extensions to both inanimate things and living creatures. As a result, the schema that arises from them encompasses all these characteristics. To formulate this schema, we postulate the phrase *INDIVIDUAL THINGS*, which, as noted in Section 2.1.4, should be interpreted as *INDIVIDUAL THINGS (INCLUDING LIVING CREATURES)*.

The present pattern illustrates an interesting shift of domains. Apart from the domain of space, in which mass nouns are typically instantiated, within its matrix each of the nouns has a domain where it designates a bounded amount of the substance, be it a thing made of the substance, a container that holds an amount of it, or a bounded action. When the conceptualiser changes the noun’s construal from mass to count, he or she also reverses the degree of centrality of these two types of domain – the domain of space is backgrounded and the domain of the bounded amount of it is foregrounded. This can be done, among others, through shifting along the conceptual hierarchies consisting of successive whole-part relations. An illustration can be the noun *blood*, whose referent in the mass sense is not bounded within the immediate scope. On the other

hand, when *blood* is used in the count sense ‘an amount of blood,’ the immediate scope is shifted to a bounded amount of blood drawn at a single taking, which is just a small part of all the blood in the human body.

As for the very pattern, it encompasses 67 extended senses, which is over two thirds of all the detected senses. Still, it does not encompass the extended senses of all 30 mass nouns – four of them are not represented: *food*, *salt*, *cream*, and *flour*. At the same time, the pattern is quite extensive as it is instantiated by as many as eight subpatterns. These are discussed in detail in the consecutive sections.

2.3.1.1 [[SUBSTANCE]_U → [THING MADE OF THE SUBSTANCE]_C]

The first of the subpatterns refers to objects that are typically made of one type of substance, which may be the reason why all the nouns that instantiate this schema designate substances in their primary senses – there are no aggregate nouns. In the analysis, we have determined five such nouns: *plastic*, *cotton*, *flesh*, *silk*, and *timber* (107–115), whose nine count senses designate, respectively, a plastic container, a piece of clothing made of cotton, a growth of flesh, a jockey shirt made of silk, a silk band, a silk scarf, a silk cover worn over the riding hat, and a timber board.

Among the extended senses, we have determined three that are based on ellipsis – these are the senses of *silk*: ‘the silk aerial band,’ ‘a silk scarf,’ and ‘a sheet of silk fibre made by webspinners.’ In all these cases, the singular form of *silk* is preceded by full names of the designated objects, which suggests that these senses are not yet conventionalised. For the clarity of presentation, we put these names in bold. A discussion of the contribution of ellipsis to sense extension is summarised in Section 2.4.1.2.

(107) *Humans produce 300 million tonnes of plastic per year and recycle only about 3 percent, according to Harvard University’s Wyss Institute. The remaining 97 percent is dumped in landfills and left to rot in oceans, harming the food chain and the environment.*

*In 2012, the Americas alone generated almost 14 million tonnes of **plastics** as containers and packaging, according to the U.S. government’s Environmental Protection Agency.*

(<http://www.reuters.com/article/2015/01/13/us-food-climatechange-packaging-idUSKBN0KM22720150113>)

(108) *I’d try to do laundry at least once and wear as much of the same clothing on both safari and the beach. Finding versatile clothing is a must!*

*Packing light is all in the fabrics so avoid **cottons** for safari but lightweight **cottons** are okay for beach. For safari think athletic materials that are easy*

to rewear and don't absorb scents/sweat. Read our ultimate guide for travel fabrics!

(<http://travelfashiongirl.com/what-to-pack-for-africa-serengeti-zanzibar/>)

- (109) *i have a throat condition as well. a little different. i always feel that there is something in my throat. i feel **a flesh** at the back of my tongue. don't think its normal. no pains but feel as u feel.*

(<http://ehealthforum.com/health/topic109335.html>)

- (110) *Tabitha Webb is renowned for her eminently feminine and modern designs. Inspired by vintage prints and classic iconic cuts with a high calibre list of celebrity followers; her elegant pieces are considered a must have for glamorous women and Tabitha has now added Jockey Silk Designer to her fashion belt commenting; 'I was thrilled to have been asked to design **a silk** for the Magnolia Cup. My design is inspired by the main attraction at the races – the horses! I wanted to reflect the magic they generate racing round the track and settled on a colourful funfair themed caracole. I can't wait to soak up the atmosphere on the day and see my design in the flesh!'*

(<https://www.goodwood.com/horse-racing/news/articles/silk-designs-are-revealed.aspx#kb7IpELbJdrHe6wg.97>)

- (111) ***Aerial silks** are also known as tissuus, tissue or aerial fabrics. Silks has become one of the most popular aerial circus disciplines and we stock an array of good value but fully safety tested aerial fabrics in a range of lengths and the whole spectrum of colours. We stock low and medium stretch **silks** with our own fabrics being slightly wider than the Voltige at 1.6m. We also stock extra wide **silks** for aerial yoga over here.*

(<http://www.firetoys.co.uk/aerial-acrobatics/aerial-silks.html>)

- (112) *Silk from the embiopteran species *Antipaluria urichi* and *Aposthonia ceylonica* were studied using SEM, TEM, FT-IR, WAXD and NMR spectroscopy to characterize the molecular-level protein structure as well as a hydrophobic surface coating rich in long-chain lipids and alkanes. Fig. 1 shows both optical and SEM images of insects and silk produced from *An. urichi*. The insects produce silk out of their tarsal organs, or forelimbs, creating very thin **sheets of silk** protecting the colonies. An example of **a silk** in a natural, arboreal setting can be seen in Fig. 1A.*

(<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4222186/>)

- (113) *To fix the dyes on **scarf** after it is finished I have to steam it for several hours in steamer. I know that there are options to make a steamer from regular*

large pot, but I never did it. I personally use this stove top steamer. Also blank newsprint paper sheets are needed to wrap a silk for steaming.
(<http://www.craftstylish.com/item/98751/how-to-paint-a-scarf-floral-dream-in-sky-blue-and-ocher>)

- (114) *Skull Cap or Jockey Cap: A peak less helmet. These are usually decorated with a peaked cover called a silk, like the ones worn by horse racing jockeys. The skull cap is a great choice for children since the child can have a number of decorative silks with all kinds of cool designs. A new silk for a kid's skull cap makes a great present!*
(<http://www.horsemart.co.uk/tack-and-equipment/horse-riding-hats-for-kids/1467#boebopQYqZEpz11A.97>)
- (115) *Edge rule grew out of the logic of pre-Industrial Revolution standardization and "dumbing down" the process of building with timbers. It may have even started in the commercial shipyards of the era, yet did not take off there as it did in other timber building crafts.*
(<http://www.permies.com/t/42793/timber/Line-Rule-methods-layout-Timber>)

The most polysemic of the four nouns, *silk*, has as many as five count senses, which can be formulated as follows:

- [[SILK]_v → [SILK JOCKEY SHIRT]_c],
- [[SILK]_v → [SILK EXERCISE BAND]_c],
- [[SILK]_v → [SILK SCARF]_c],
- [[SILK]_v → [SILK COVER WORN OVER THE RIDING HAT]_c],
- [[SILK]_v → [SHEET OF SILK FIBRE]_c].

The other four extensions can be formulated in a parallel fashion:

- [[PLASTIC]_v → [PLASTIC CONTAINER]_c],
- [[COTTON]_v → [COTTON PIECE OF CLOTHING]_c],
- [[FLESH]_v → [GROWTH OF FLESH]_c],
- [[TIMBER]_v → [TIMBER BUILDING BOARD]_c].

At a higher level of schematicity, they can be described as sharing one inherent element: the fact that all these nouns extend to things made of respective substances. That is why, by extracting this commonality, we arrive at the formulation: [[SUBSTANCE]_v → [THING MADE OF THE SUBSTANCE]_c].

2.3.1.2 [[SUBSTANCE]_v → [THING FOR WHICH THE SUBSTANCE IS A SALIENT COMPONENT]_c

The nouns that instantiate this schema, *sugar*, *tobacco*, *flesh*, *silk*, and *gasoline* (116–121), are quite similar – in their primary senses, just as in the previous sub-

pattern, they only designate substances. As for their extended senses, however, they designate quite a varied range of objects. What is more, the constitutive substance that is in focus in the present subpattern plays its role in very different ways. In *sugar*, for instance, its extended sense refers to a cake for which the substance – sugar – is a vital ingredient. This means that sugar is found in the substance of the cake and, as a result, it is one of several elements forming the cake. Similar properties of the substance can be observed in referents of the extended senses of *flesh* – a human being and an animal.

A different type of the substance-thing relationship can be observed in the case of referents of count senses of *tobacco* and *silk*. As for the former noun, the substance – the leaves of the tobacco plant prepared, for instance, for smoking – is a processed product that is made from leaves of the tobacco plant – the referent of *tobacco*'s extended sense. Although leaves are also one of the elements of the plant and are integral to its structure, they are easily distinguishable as separate parts and can be easily removed. Similar observations can be made about the referent of *silk*'s extended sense – a toy made of wood and silk.

Finally, the noun *gasoline* needs to be mentioned. In the analysed sense, it refers to the car that is fuelled by gasoline. However, this reference is indirect and is in fact achieved through a short chain of reference points. The author begins his utterance with a reference to different types of diesel engines: Duramax, Cummins, and Powerstroke, for which fuel is a salient component. However, as the example shows, the author does not really mean engines. Actually, from the perspective of an ordinary user, the domain of the engine is so strongly ingrained in the conception of the car that a reference to it easily affords an almost immediate access to the notion of the car. That such an access actually took place can be seen in the fact that despite the use of the term *engine*, the conceptualiser refers to the number of miles, to driving downhill, and to insurance, which definitely characterise the car.

This schema also includes two extensions based on ellipsis – the senses of *sugar* and *silk*. While the latter is introduced just as in the previous subpattern, with the whole name provided first, the former is different. The reading concerning a specific type of cake is introduced indirectly, in two stages. First, the author evokes the domain of a shop selling food – her comment concerns a specific shop. Then she zooms in to a specific type of product that she bought – a black and white cookie. Since *a sugar* is used in the same sentence, together with the black and white cookie, the interpretation leaves no doubt as for the kind of referent. Especially that in the next sentence the author explicitly confirms what she means: *I love cookies*.

(116) *Famous 4th Street Delicatessen*

*I'm so disappointed. I bought a black and white **cookie** for my sister and a **sugar** for me. I love cookies. They have to be terrible for me to not eat*

them and they were. The sugar cookie is gigantic and covered in tons of sugar.

*The **sugar cookie** was hard and tasteless. I wish I had inspected them before I purchased them but they looked fine in the case.*

(<http://www.yelp.com/biz/famous-4th-street-delicatessen-philadelphia>)

(117) *Flowering **Tobaccos** Light Up the Garden*

*I quit smoking years ago, but I still don't plan to give up tobacco. Not flowering tobacco, anyway. This hard-working genus (*Nicotiana* spp. and cvs.) adds so much to my garden that I can't imagine being without it.*

(<http://www.finegardening.com/flowering-tobaccos-light-garden>)

(118) *In my case it wasn't the honeymoon, but after our first child was born. However the result is the same. My wife thinks it's my problem and not hers, and she is not the least bit interested in changing the circumstances. In her eyes I'm the one who needs to change.*

*As a husband it's hard not to feel deceived. You read in the bible about the two becoming one, **one flesh**. Yeah right. Marriage is the combination of **two fleshes** that remain **two fleshes**. Or they become **one flesh** during the spring of their marriage, and then revert to the natural state of **two fleshes** for the duration.*

(<http://intimacyinmarriage.com/2013/12/02/is-sex-marriages-biggest-lie/>)

(119) *Another fact that is unknown to most of us that carnivorous animals like 'shark' can shed their old teeth and can have new teeth in the place of the old one. They had different layers of teeth arranged one after another. After using their teeth for chewing **fleshes** for months, those teeth lost their sharpness. When one tooth lost its sharpness they used to replace it with the next one standing right behind it.*

(<http://articlescad.com/article/show/32727#>)

(120) ***Silk and Wood Teethers***

*Baby's first **silks**! These 'teething' toys are made of a maple wood ring with a 21" playsilk securely knotted on to it. Our toy testing babies were able to grasp the ring easliy and enjoyed the different textures of silk and wood.*

(<http://sarahssilks.com/silk-and-wood-teethers>)

(121) *DuraMax, Cummins, Power Stroke diesel's? Sure they are strong powerful engines. Cant afford to use them. 8 to 10 miles per gallon. Maybe 12 if you drive down hill a lot. Insurance nearly twice the cost of **a gasoline** in the same class.*

(<http://nature.gardenweb.com/discussions/2234464/dodge-or-chevy-2500>)

At the schematic level, all the extended senses share an inherent element: **THING FOR WHICH THE SUBSTANCE IS A SALIENT COMPONENT**. That is why, at a more abstract level, they can be described by means of one structure: $[[\text{SUBSTANCE}]_u \rightarrow [\text{THING FOR WHICH THE SUBSTANCE IS A SALIENT COMPONENT}]_c]$.

2.3.1.3 $[[\text{SUBSTANCE/ AGGREGATE OF THINGS}]_u \rightarrow [\text{THING THAT HAS A PROPERTY OF THE SUBSTANCE/ THE AGGREGATE OF THINGS}]_c]$

This is the first subpattern in which we come across both nouns that refer in their primary senses to substances and those that refer to aggregates of things: *blood*, *rain*, *snow*, *honey*, and *mud* (122–128). They designate, respectively, the blood python, a large collection of things, the pattern on the TV screen that resembles falling snow, a kind of synthesiser with a basically white finish (Access Virus Ti Snow), a kind of mushroom of a honey-like colour (honey mushroom/stump mushroom), a kind of fish that is honey-like in colour (Honey Gourami), and an abusive term for a black person.

Semantically, this subpattern subsumes nouns whose referents are even more loosely related to the referent of the nouns' primary mass sense than it is the case in the previous subpatterns. Additionally, for the first time in the analysis, we had to introduce a dual standard of extension – consisting of a substance and an aggregate of things. Although all the standards of extension might seem to consist of substances only (*blood*, *rain*, *snow*, *honey*, and *mud*), the extended senses of *rain* and *snow* indicate that the two nouns should be more adequately approached as designating collections of single elements. This is also suggested by the nouns' definitions (cf. Section 2.3).

One of *rain*'s count senses recorded by OD is “a large or overwhelming quantity of things that fall or descend.” At the same time, *rain* can be used for emphatic purposes – to stress that the number of objects is large, as can be seen in *A Rain of Bombs in the Nuba Mountains* (http://www.nytimes.com/2015/06/21/opinion/sunday/nicholas-kristof-a-rain-of-bombs-in-the-nuba-mountains.html?_r=0). Emphasis can also be found in a metaphorical sense: *A rain of tournaments* (<https://scrolls.com/2015/03/a-rain-of-tournaments>). Interestingly, the examples show a gradual loss of the attributes found in the definition: a rain of tournaments cannot designate an “overwhelming number,” and tournaments do not “fall or descend.” Still, the conceptualiser decided to use the noun *rain*.

Also, the discussed pattern subsumes more extended senses based on ellipsis than the previous patterns – as many as five. These are: one sense of *blood*, two senses of *snow*, and two senses of *honey*. The majority of these nouns appear in response to quite specific thread starters. As a result, the person joining such a thread usually knows which domain is under discussion and may be acquainted with the specific issue concerning it; for example, the expression

a blood appeared in a thread whose starter was *New snake – blood python!!!!* What is more, the author of the analysed utterance started his response with two specialist terms, showing that he/she is well acquainted with zoology and its jargon: *morph* and *Axanthics*. The ellipted name of the python was mentioned later. A parallel structure of the utterance can be observed in the case of both the two senses of *honey* and the ‘synthesiser’ sense of *snow*. As for the sense of *snow* that refers to the pattern on the TV screen, the thread starter evokes a general domain of computer games and possible problems while playing them, but does not name the issue in question.

- (122) *Wow! Lessers have got to be my favorite **morph**. They’re amazing. **Axanthics**, too. Well, good luck with your collection!
It’s not just you; I thought he was **a blood** at first. Then I found this.
<http://www.bloodpythons.com/cms/>
They are pretty much the same, just different colors/markings.
(<https://www.beardeddragon.org/forums/viewtopic.php?f=28&t=105642&start=15>)*
- (123) *You have a firing line of armed mooks; again, you’ll see the gun smoke but not the bullets. Being cooler collectively than individually, a group (or a single!) archer can cause **a rain** of arrows to descend upon their foes like Death from Above.
(<http://tvtropes.org/pmwiki/pmwiki.php/Main/RainOfArrows>)*
- (124) ***Played** on it yesterday, when I was in **XMb** (PS3 menu) I got **a snow** for a sec, then back to normal, went on to play for about 2 hours and everything was fine!?!? go figure.
(<http://forums.afterdawn.com/threads/ps3-slim-loosing-video-screen-goes-black-for-a-second.704669/>)*
- (125) *interested in picking up **a snow** for my **mobile setup**. granted, its probably not the most IDEAL **interface**, but the added bonus of the synth and one less piece of equipment to haul around has me interested.
anyone using it in this manner? if so let me know what you think and how its running on l8 or l9. any
(<http://www.logicprohelp.com/forum/viewtopic.php?t=52069>)*
- (126) *Yeah the nicknames are troublesome. We may call em something but others call em something different. I used to call the **honeys stumpers** but **honeys** seems to be the widely accepted name. There is a stump mushroom also that is like the **honeys** but later in the season.
(<http://www.michigan-sportsman.com/forum/threads/honeys-are-most-definitely-up.251204/>)*

(127) *I made that comment due to the small **tank** size (10) that you were referring to. In a 20gl I still think a pair of **honeys** might be pushing it. I know that gouramis are territorial and I'm not sure if 20gl gives them enough real estate to be comfortable. Then again, **honeys** are considered one of the more mellow gouramis. If the tank was heavily planted it would probably be ok.*
(<http://www.tropicalfishkeeping.com/freshwater-tropical-fish/honey-gourami-peacock-gudgeon-32430/>)

(128) *Obviously very good, I think the war of the **muds** should be encouraged in any ways possible.*
Of note here is there sure does not seem to be any rush to push the PC cherished "hate crimes" when it involved mud against mud. The logic seems to be that it is perfectly natural for one race to want to kill another to remove it from their territory except of course if it involves a white.
(<http://vnnforum.com/showthread.php?t=59872>)

The schematic formulations of these extensions are quite diverse:

- $[[\text{BLOOD}]_v \rightarrow [\text{PYTHON WHOSE BLOTCHES ARE BLOOD-RED IN COLOUR}]_c]$,
- $[[\text{RAIN}]_v \rightarrow [\text{LARGE AMOUNT OF FALLING OBJECTS}]_c]$,
- $[[\text{SNOW}]_v \rightarrow [\text{PATTERN ON A TV SCREEN SEEN AS A RANDOM FLICKER OF DOTS}]_c]$,
- $[[\text{SNOW}]_v \rightarrow [\text{WHITE SYNTHESIZER}]_c]$,
- $[[\text{HONEY}]_v \rightarrow [\text{KIND OF MUSHROOM THAT YELLOW IN COLOUR}]_c]$,
- $[[\text{HONEY}]_v \rightarrow [\text{KIND OF FISH THAT YELLOW IN COLOUR}]_c]$,
- $[[\text{MUD}]_v \rightarrow [\text{PERSON OF A SPECIFIC COLOUR OF THE SKIN}]_c]$,

All of the enumerated characteristics can be reduced to two physical properties of the referents of the nouns' primary senses: colour and multiplicity. Consequently, we can postulate a more schematic characterisation for them: $[[\text{SUBSTANCE/ AGGREGATE OF THINGS}]_v \rightarrow [\text{THING THAT HAS A PROPERTY OF THE SUBSTANCE/ THE AGGREGATE OF THINGS}]_c]$.

2.3.1.4 $[[\text{SUBSTANCE/ AGGREGATE OF THINGS}]_v \rightarrow [\text{LIMITED AMOUNT OF THE SUBSTANCE/ LIMITED NUMBER OF ELEMENTS OF THE AGGREGATE}]_c]$

This is the second most extensive of the subpatterns detected among count extensions of mass nouns – it encompasses as many as 14 nouns with 19 senses, and requires three levels of schematicity for its account. One of the reasons for its complexity is probably the fact that it concerns a very broad category of denotations: a bounded amount of substance/ aggregate of things. The subpattern is instantiated by two general schemas: one concerning nouns that designate substances and the other – aggregates of things: $[[\text{SUBSTANCE}]_v \rightarrow [\text{LIMITED AMOUNT$

OF THE SUBSTANCE]_c] and [[AGGREGATE OF THINGS]_v → [LIMITED NUMBER OF ELEMENTS OF THE AGGREGATE]_c]. This latter schema is still further instantiated by two more specific schemas: [[AGGREGATE OF THINGS]_v → [SINGLE ELEMENT OF THE AGGREGATE]_c], and [[AGGREGATE OF THINGS]_v → [SET OF ELEMENTS OF THE AGGREGATE]_c].

We have determined 14 nouns that instantiate this subpattern: *water, money, blood, stuff, fat, sugar, snow, sand, butter, cotton, mud, silk, gasoline, and wheat* (129–147). What is common for the 19 senses that the nouns have is that they refer to a certain amount of substance that does not form any specific object. This amount is conceived as countable simply because it can be singled out as a separate piece. In several cases, this amount has a name; for instance, an amount of mud is called a puddle of mud.’ In the other cases, however, the only characterisation that can be provided is ‘an amount of’ or ‘a piece of,’ as in the case of the amount of butter that is put on top of apple stuffing, which was called *a butter*.

It can be hypothesised that what we observe in these cases is the working of ellipsis and what the authors really mean is *a piece of X*, which is reduced in the utterances to *a/an X*. This makes ellipsis one of the mechanisms of sense extension. As a consequence, even if some of the quoted examples may look unusual, they may be simply a signal of a semantic change under way. At the same time, in the majority of the cases, the senses seem to be conventionalised as they are used in the contexts without any preceding full forms.

There are also two semantic observations that we would like to make. First, three of the nouns: *mud, cotton, and silk* are quite prolific in “the amount of” senses. *Mud* has four such senses: ‘a puddle of mud,’ ‘a bog,’ ‘an amount of mud,’ and ‘an amount of substance resembling mud’; *cotton* has two of them: ‘a piece of cotton fabric’ and ‘a piece of cotton thread’; while *silk* – two: ‘an amount of silk fabric’ and ‘a ball of silk yarn/ thread.’

Also, the noun *blood* deserves an additional comment. The collected contexts show that in the sense ‘an amount of blood,’ the noun is used in forms that can be classified as count, mass, and plurale tantum, that is, it is possible to say *give a blood, take blood, and take bloods* in reference to a single taking. And while the context that we quote refers to one patient and, as a result, the sense is clearly interpretable as count, it must also be noted that both the singular use and plurale tantum seem to have arisen through ellipsis. More specifically, they probably come from the expression *a blood sample*, because it is a standard practice that even one patient can have either one or several blood samples taken for testing in the laboratory (cf. Section 2.3.1.7).

- (129) *The dishwasher connected to hot water will use the minimal amount of electricity to heat water to the preset temperature. You do not need to be a rocket scientist to work out that heating a water from 50 C to 65 C is*

*much faster than heating a **water** from let's say 17 C to 65 C. Think about the hot water already stored in you hot water boiler, do not waste the money heating the water again but this time for the different purposes.*

(<http://www.whitegoodshelp.co.uk/can-you-connect-a-dishwasher-to-the-hot-water-supply/>)

- (130) *If the Committee approves the Governor's budget recommendation relative to prohibiting the use of state **moneys** for CSS elements, it could decide to make either of the following biennial funding reductions to the state highway program: (a) \$104,200 SEG, which is related to projects for which no signed CSS agreement is anticipated; or (b) \$1,845,800 SEG, which reflects DOT's estimate of the funding associated with CSS agreements for which the status is uncertain and for those CSS agreements that will not be signed by July 1, 2015.* (<http://legis.wisconsin.gov/lfb/publications/budget/201517%20Budget/Documents/Budget%20Papers/656.pdf>)
- (131) *Are you willing for your child to have a **fasting/(non-fasting) blood sample** taken?*
 1 Yes
 2 No
 3 Unable "Respondent unable to give a **blood** for reason other than refusal (please specify at next question)"
 (https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/216492/dh_128541.pdf)
- (132) *We only include fresh **stuffs** for cooking and bring changes in our menus seasonally. There are many seasonal dishes which attracts our customers a lot.* (<http://flanaganspub57.com/services/specialty-pizza/>)
- (133) *When you are selecting your oils and fats, try to get them as close to their natural form and as little altered by the food industry. Your serving size should be 1 tsp of oil, 2 tsp of butter, 12-15 nuts, 1 tbsp of nut butter and ¼ of an avocado. Remember eating a **fat** at each meal will keep you more full!* (<http://www.ironsidefitness.com/your-grocery-store-guide/>)
- (134) *It is also a huge help to be doing all this on your bike using a proper Work-stand, even if it's just the no-frills basic Raleigh Maintenance Stand, or a more professional and versatile Park Tool PCS9.*
*Now go and put the kettle on (tea, milk, **two sugars** for me please), clear some space, lock the kids out of the house for a few hours and let's get started... So where do we begin?*
 (<http://www.wheelies.co.uk/blog/spoilt-for-choice-custom-building-a-bike-for-you-part-4-the-build/>)

- (135) *Two boys trapped in the snow for hours survive thanks to an air pocket*
 TWO boys have been rescued after being trapped under **a snow** for seven hours. Cousins, Elijah Martinez, 11, and Jason Rivera, 9, were building a snow fort when a plough machine unknowingly pushed snow over them.
 (<http://www.news.com.au/world/north-america/two-boys-trapped-in-the-snow-for-hours-survive-thanks-to-an-air-pocket/story-fnh81jut-1227139666893>)
- (136) *An old friend of mine in California is a professional geologist and an arenophile; when he learned that I was working on this book, he sent me samples of his collection, set out in a pill-organizing container, **a sand** for each day of the week (Plate 1). These **sands** are samples from his travels in Florida, Sumatra, Algeria, Mexico, Tahiti, Bali, and the Galapagos. To this palette could be added sparkling green, deep red, true yellow, purple – a spectrum to gladden William Blake’s eye. They are all sand, regardless of color, shape, composition, or origin, simply because the grains fall within the size range that defines sand.*
 (<http://www.ucpress.edu/content/chapters/10955.ch01.pdf>)
- (137) *The stuffing was then given a little fall sweetness with pure maple syrup, then topped with **a butter** for some extra fat insurance to get moist, tender innards.*
 (<http://www.meatwave.com/blog/grilling-recipe-sausage-stuffed-apples>)
- (138) *An effective and very well priced sock*
*The foot/ankle transition is a bit simplistic and quite a few loose or long **cottons** to remove. The soft top certainly seems to work well and whilst I’ve not had them long they seem durable. Take note when washing – certainly on the first wash the colour ran freely – best to wash them before wearing them in truth!*
 (<http://www.amazon.co.uk/Cotton-Non-Elastic-Loose-Socks-Black/dp/B008I3C2CU>)
- (139) *From the cotton, cut four 15½” x 15½” pieces. 2. From the leftover fabric, choose two pieces for the hood. Place fabrics right sides together and cut a 10” square. Cut this layered square in half along the diagonal. Choose **a cotton** for the outside and flannel for the inside. Make the hood by stitching the two pieces together along the diagonal (Diagram A). Press seam in the direction of the fabric chosen for the inside.*
 (<http://www.joann.com/on/demandware.static/Sites-JoAnn-Site/Sites-joann-project-catalog/-/images/hi-res/project/pdf/143251P14HoodedReceivingBlanket.pdf>)

- (140) *If there are 345,238 versions of me out there that means there are 345,238 versions of my grandma. She is ordinary, she isn't unique, but I would lie-down in **a mud** for that lady.*
(<http://fuckpolarbears.com/post/92246516463/you-are-especially-ordinary>)
- (141) *Brave woman saved her 18years old Horse strapped in the Mud Nicole Graham comfort a member of the US Country Fire Authority (CFA) and the State Emergency Services (SES) made an attempt to free her 18-year-old, 500kg horse (called Astro) that was strapped in **a mud** for about 3hours.*
(http://citigist.blogspot.com/2012/03/brave-woman-saved-her-18years-old-horse_6155.html#.V79Qc5iLS00)
- (142) *Currently we are preparing the installation for a forthcoming exhibition on theme of Synthetic Biology at Ars Electronica center. Organizers already have collected **a mud** for us from the dirt in the streets of Linz city after the recent flood. This Summer we also will be continuing experiments in pond. We will install several cells, which will be connected to the Internet, streaming live images and data from electricity generation process.*
(<http://we-make-money-not-art.com/archives/2013/06/bacteria-battery.php#.Vcb4U Pntmko>)
- (143) *Apply Jewelweed squeezings to acne and blemishes with good results. Boil Jewelweed stems and leaves and use the water to clean out minor cuts and prevent infection when they can't be washed with natural soap and water. Make an insecticide from Jewelweed juice (see Combinations). Make **a mud** for removing bee stingers using Jewelweed – not only does it soothe the sore and remove the stinger, but it cuts down on the burning.*
(<http://oliviasrockinblog.blogspot.com/2012/03/jewelweed-materia-medica.html>)
- (144) *A book light is a type of lighting setup that starts with a specular source, turns it into a broad one, and then diffuses it even further. It looks great for anything you might be lighting, but it's especially perfect for portraiture. It gets its name from the arrangement of the diffusion and the broad source, which are positioned in such a way as to resemble an open book. Working backwards from your subject, position diffusion (**a silk** in a frame, for instance) wherever you might normally position a softbox in relation to the subject. Forty-five degrees from the camera, or even a true sidelight position, are both a good place to start.*
(<http://www.dpmag.com/how-to/tip-of-the-week/how-to-build-a-book-light>)

- (145) *The last Easter tradition what I wanted to share is what we use in our baskets: **silks**. When Jack was not even 1, I bought that plastic Easter grass that they sell in every store, and that I always had as a kid. It ended up all over the house, and it was impossible to keep out of Jack's mouth. I felt like I found small pieces of it for at least 6 months after Easter. I knew I never wanted to buy that stuff again, but I wasn't sure what to use as a replacement. I think this inspiration may have also come from my friend Kara, but we started using brightly colored silks from Sarah's Silks. We have them in at least a dozen colors. The first few years, the Easter Bunny would bring **a new silk** for the boys in their baskets.*
(<http://minivanlane.blogspot.com/>)
- (146) *on another note...I also have had **a gasoline** in my ear...it burned like all hell... I got a bad head-ache and could smell gas for a couple of days no matter what I did...give it a few days sleep it off you'll be fine...or not*
(<http://honda-tech.com/general-discussion-debate-40/poured-gasoline-my-ear-1619063/>)
- (147) *It's hazy and orangey gold and glorious. Just like a witbier should be. The influx of good **wheats** into my system almost makes me feel guilty about the things I said about them in the past. Almost being the operative term here, Either way, this looks and smells good. It smells sort of like orange with a little spice. We'll call it coriander even though I have no fucking clue what coriander smells like.*
(<http://manofbeerman.tumblr.com/post/108119041619/sam-adams-cold-snap>)

All these extensions can be represented by means of such schematic formulations as AMOUNT OF (e.g., [[WATER]_v → [AMOUNT OF WATER]_c]), PIECE OF (e.g., [[COTTON]_v → [PIECE OF COTTON FABRIC]_c]), or by means of specific names: PUDDLE OF MUD, BOG, and BALL OF SILK. At a higher level of schematicity, we arrive at the schema that needs to be formulated as: [[SUBSTANCE]_v → [LIMITED AMOUNT OF THE SUBSTANCE]_c].

The second of the general schemas instantiating the subpattern focuses on aggregates of things: [[AGGREGATE OF THINGS]_v → [LIMITED NUMBER OF ELEMENTS OF THE AGGREGATE]_c]. The first of its subschemas, [[AGGREGATE OF THINGS]_v → [SINGLE ELEMENT OF THE AGGREGATE]_c], arises from extensions of eight nouns: *money, stuff, equipment, mail, furniture, wildlife, jewelry, and trash* (148–155). The extended senses determined in the analysis refer to, respectively, a coin, a single undetermined object, a piece of equipment, an email, a piece of furniture, a wild animal, a piece of jewelry, and a piece of trash:

- (148) *Let us define money as that which possibilizes the imagination. Moneys are the riches of Pluto in which Hades' psychic images lie concealed. To find imagination in yourself or a patient, turn to money behaviors and fantasies. You both will soon be in the underworld (the entrance to which requires **a money** for Charon).*
http://www.cgjungny.org/pdfs/w_20110312_jh.pdf
- (149) *I can't really imagine trying to strap a hatchet to the Synapse 19 and heading into the woods, so I'll still need other bags for overnight camping trips and any sort of travel that requires bulky clothing or **a stuff** for other people in my family. Stuff like that.*
<http://www.tombihn.com/forums/photos-videos-and-reviews/9744-quest-perfect-man-bag-5-11-tactical-rush-12-vs-tom-bihn-synapse-19-a.html>
- (150) *The design of **an equipment** for measuring small Radio-Frequency noise powers*
*The paper discusses the design of **an equipment** for the continuous recording of the very small r.f. noise powers received from the sun and the galaxy. It is first shown how a noise power can be described in terms of an equivalent temperature, and how cable attenuation affects the noise power measured at the end of an aerial feeder. The fundamentals of the measurement of noise power are considered; it is shown that the minimum detectable power is determined by the receiver noise and by the ratio of input and output bandwidths of the receiver.*
<http://ieeexplore.ieee.org/xpl/articleDetails.jsp?reload=true&arnumber=5241420>
- (151) *Ever since BT forced us to change to BT Mail from BT Yahoo (which I am told was for security reasons!!), the service has become totally dysfunctional. I had a 90 minute call with 'support' yesterday because (1) after working on **a mail** for 45 minutes I was forced off, i.e. session expired, and lost all the work, and (2) my computer store expert suggested I change browsers!!*
https://disqus.com/home/discussion/websitesdown/bt_email_problems/
- (152) *Will I be able to sell **a furniture** around 500-1000 ??*
*It's **this drawer** thingy that's in the living .. pretty big and looks authentic (even tho it's not :P)]*
*It originally costs 2000. If I was to advertise as ... say 700... how popular would **a furniture** at that price be?*
<http://forums.whirlpool.net.au/archive/1609810>
- (153) *The commissioner may issue a permit to a person or institution, pursuant to Title 12 Section 12152, to possess **a wildlife** for the following purposes: 1.*

Wildlife Propagation: The holding of wild animals (except wolf hybrids) or wild birds for the purpose of propagating, breeding and/or rearing for consumption, sale or release.

(<http://usark.org/wp-content/uploads/2015/04/Maine-Exotic-Animal-Law.pdf>)

- (154) *We offer large selections of wholesale shoes, wholesale boots, wholesale sandals, wholesale flip flops, wholesale pumps, wholesale wedges, wholesale evening shoes and wholesale **jewelries**. We are dedicated to providing top quality, trend setting, and latest styles in wholesale shoes and **jewelries** at competitive discounted wholesale prices.*
(<http://www.247fashionstore.com/>)

- (155) *Trash Hunting*

Equipment:

*Any bow is appropriate. There are no weight limits, but light is generally better than very heavy, as **trashes** are usually found in areas where stumps and rocks are common, and excessive poundage can result in stuck and/or broken arrows. In good areas, you can get a lot of shots at **trashes**, so again, too heavy a bow can be tiring.*

(<http://www.dickwightman.com/archeryactivity/shooting-dventures/trashhunt/trashhunt.html>)

An important characteristic of these nouns' referents is that typically they are described not only in terms of just single objects, as is the case with referents of the nouns from the THING MADE OF THE SUBSTANCE subpattern, but also in terms of elements of a certain category of objects. Although in the detected contexts they are often referred to as single things, there is usually an implication that there are more such elements, as for instance, in the case of *trash* or *money*. This characteristic is additionally emphasised by the fact that all of the nouns with such senses are aggregate nouns, that is, from the very start, the information that they carry is that the referent typically consists of a number of things. And this aggregate can be either a collection of similar or nearly identical things, as in the case of letters or coins, or things that have the same function; for example, the purpose of furniture is to furnish the house, the purpose of jewelry is to decorate a part of the body, etc.

That is why, to represent these extensions schematically, we stress the fact that each noun refers to just a single thing, which is potentially one of a number of similar things:

- $[[\text{MONEY}]_v \rightarrow [\text{SINGLE COIN}]_c]$,
- $[[\text{STUFF}]_v \rightarrow [\text{SINGLE, INDETERMINATE OBJECT}]_c]$,
- $[[\text{EQUIPMENT}]_v \rightarrow [\text{SINGLE PIECE OF EQUIPMENT}]_c]$,

- [[MAIL]_v → [SINGLE EMAIL]_c],
- [[FURNITURE]_v → [SINGLE PIECE OF FURNITURE]_c],
- [[WILDLIFE]_v → [SINGLE WILD ANIMAL]_c],
- [[JEWELRY]_v → [SINGLE PIECE OF JEWELRY]_c],
- [[TRASH]_v → [SINGLE PIECE OF TRASH]_c].

At a higher level of schematicity, these extensions could be described as: [[AGGREGATE OF THINGS]_v → [SINGLE ELEMENT OF THE AGGREGATE]_c].

The second direction of extension is represented by the schema [[AGGREGATE OF THINGS]_v → [SET OF ELEMENTS OF THE AGGREGATE]_c]. It is much less extensive, as we have only detected two senses that it encompasses: *equipment* and *furniture*. In their extended senses the nouns designate a set of equipment and a set of furniture (156–157).

(156) *We pride our ability and willingness in providing high quality branded **equipments** at an honest and competitive price to all our customers, big and small.*

CCTV-only system

16-camera system= £2,700 + VAT

Parent-viewing

6-camera system= £1,590 + VAT

(http://www.nurserycam.co.uk/Centre_price.htm)

(157) *Summer is almost here. Isn't it time to highlight your garden or your porches with **furnitures**? Why not try teak outdoor furniture from Thos.Baker, a private company based in Washington that offers distinctive and high quality outdoor **furnitures** for your outdoor settings. You can have variety of choices. Visit their furniture **set collections** with their low and affordable prices too. These products are longer lasting as well.*

(http://www.pinaywifesden.com/2008_05_01_archive.html)

These two extensions give rise to the schemas of the type [[FURNITURE]_v → [SET OF FURNITURE]_c]. At a higher level of abstraction, we postulate the following characterisation: [[AGGREGATE OF THINGS]_v → [SET OF ELEMENTS OF THE AGGREGATE]_c].

To sum up the schemas discussed in the present subpattern, we need to indicate how the subpattern arises. First, the schemas SET OF ELEMENTS OF THE AGGREGATE and SINGLE ELEMENT OF THE AGGREGATE give rise to the schema that encompasses the properties characteristic of aggregate nouns: [[AGGREGATE OF THINGS]_v → [LIMITED NUMBER OF ELEMENTS OF THE AGGREGATE]_c]. Because the nouns that designate an amount of substance are schematically described by means of a different schema, [[SUBSTANCE]_v → [LIMITED AMOUNT OF THE

SUBSTANCE]_c], we can only combine them at a higher level of schematicity. After we extract the characteristics shared by the two schemas, we arrive at the sub-pattern [[SUBSTANCE/ AGGREGATE OF THINGS]_v → [THING THAT HAS A PROPERTY OF THE SUBSTANCE/ THE AGGREGATE OF THINGS]_c].

2.3.1.5 [[SUBSTANCE/ AGGREGATE OF THINGS]_v → [CONTAINER THAT HOLDS A LIMITED AMOUNT OF THE SUBSTANCE/ NUMBER OF THE THINGS]_c]

At first sight, this subpattern may seem quite different from the other schemas – it subsumes nouns whose extended senses do not designate a single thing, a limited number of things, or a limited amount of substance but a container. However, a closer examination reveals that this is not in fact a container but an amount of substance or a number of things that are limited because they are in a container. This can be seen especially in the case of the extended senses of *water*, *butter*, and *honey* (158–162), which can be interpreted as containers that hold portions of the respective substances: a bottle of water, a package of butter, and a jar of honey.

At the same time, this amount of things can be more flexible and does not have to constitute the whole portion. This is seen in the case of *trash*, which designates in its extended sense a trash bin (both in the physical and computer sense) (161–162), that is, a container that is supposed to hold any amount of trash. This divergence may be caused by at least three factors. First, *trash* belongs to a different category of nouns than the other three – it is an aggregate noun and, as a result, it may have different types of extension than nouns designating substances in their primary senses. Second, *trash* in its basic sense refers to inedible things, which means that *trash* has to designate a different type of container than a container of food or drink. Finally, the process that underlies the ‘bin’ sense is ellipsis – *trash* is an abbreviated form of *trash bin*, that is, the content-container relationship that it designates is inherently different than that in the case of the other three nouns.² Whatever the reason, this sense forces us to provide an account of the four extensions at a higher level of schematicity than ‘a portion of the substance.’

(158) *Wear fitted, comfortable workout clothes and sneakers. You WILL break a sweat! Hydration is key, so either plan to buy a water at our front desk or bring your own water or water bottle. We have a water cooler in the studio.* (<http://www.cityrow.com/>)

² What is more, this sense is already conventionalised among American speakers – it can be found, for example, in MWD and, as a result, is not preceded by the full compound in the detected contexts, as is the case with less conventionalised instances of ellipsis in the present analysis.

- (159) *And when I knew there's free delivery above \$70 at Huber's Butchery in Dempsey, and they sell Echire butter in its online store, that's it. In the end, I bought 6 **butters**, Echire and Beurre d'Isigny AOC, which left my wallet \$61.50 lighter.*
(<https://indulgesweetsloves.wordpress.com/category/pastry/>)
- (160) *When we were finished we stumbled upon a local flea/farmers market around the corner in front of a church. It had about two dozen stalls with local artisan jewelers and vintage collectors, jam and honey vendors, bakers, cheesemongers, meat vendors, and more. It was so much like the Brooklyn Flea, but smaller. My personal heaven. I got two little mini **honeys** for my friends from home, in eucalyptus and lavender.*
(<https://sweetiefromthecity.wordpress.com/>)
- (161) *Server Carmen Anderson scrapes leftover food into a **trash** in the kitchen at Luka's Taproom in Oakland, CA Friday, July 24 2015. Because of a significant rate increase for collection in Oakland, Luka's Taproom has decided to stop composting their food waste and instead put all their trash into a land-fill dumpster.*
(<http://www.sfchronicle.com/bayarea/article/Oaklanders-furious-over-unexpected-jumps-in-6405446.php>)
- (162) *Balsamiq Mockups 3 now has a **trash** for mockups, assets and Symbols you have deleted. This makes it easy to keep your project tidy as you make progress but still allows you to browse or recover earlier concepts. To recover a trashed object from the Trash panel click the context menu arrow and select "Restore". You also have the option to delete permanently.*
(<http://support.balsamiq.com/customer/portal/articles/1844131>)

The collected extensions can be schematically represented as:

- $[[\text{WATER}]_v \rightarrow [\text{BOTTLE OF WATER}]_c]$,
- $[[\text{BUTTER}]_v \rightarrow [\text{PACKAGE OF BUTTER}]_c]$,
- $[[\text{HONEY}]_v \rightarrow [\text{JAR OF HONEY}]_c]$,
- $[[\text{TRASH}]_v \rightarrow [\text{TRASH BIN}]_c]$.

Because, as has already been mentioned, the differences in meaning may be caused by the differences between the active domains, we can postulate different schemas for each of the two kinds of nouns. On the one hand, for those nouns that designate substances, this can be $[[\text{SUBSTANCE}]_v \rightarrow [\text{CONTAINER THAT HOLDS A PORTION OF THE SUBSTANCE}]_c]$. On the other hand, for *trash*, this can be $[[\text{AGGREGATE OF THINGS}]_v \rightarrow [\text{CONTAINER THAT HOLDS A NUMBER OF THE THINGS}]_c]$. Still, if we try to extract the commonalities present in the two schemas, we arrive

at the subpattern [[SUBSTANCE/ AGGREGATE OF THINGS]_U → [CONTAINER THAT HOLDS A LIMITED AMOUNT OF THE SUBSTANCE/ A NUMBER OF THINGS]_C].

2.3.1.6 [[AGGREGATE OF THINGS]_U → [PLACE THAT HOLDS A NUMBER OF THINGS]_C]

The next subpattern is instantiated by three aggregate nouns: *furniture*, *wildlife*, and *jewelry* (163–165). In their extended senses they refer to, respectively, a furniture shop, a wildlife park, and a jewelry shop. What is worth noting is that this is the only schema in our analysis that encompasses solely nouns based on ellipsis – all three nouns are abbreviated names of the respective places. What is more, as the contexts suggest, only the sense of *furniture* is not conventionalised – the author begins his story with the term *furniture store*, and it is later, when the reader already knows the frame of reference, that he uses *furniture* in the ‘store’ sense.

As for the extended senses of *wildlife* and *jewelry*, they seem to be already conventionalised, because the nouns are used in the respective forms from the start (though none of the consulted dictionaries enumerates such a sense). Moreover, for example, *The Guardian* uses *a wildlife* in a series of photos entitled *The week in wildlife – in pictures*, that is, the two senses of *wildlife* are used in the same text without any clear indication of change, as if the author was certain that readers would easily understand the difference.

Also, certain parallels between the sense of *trash* from the previous schema and those of the three nouns are worth noting. First of all, all four nouns are aggregate nouns. Second, their senses are based on ellipsis. Finally, they designate entities that have a lot in common. Naturally, the referents are ontologically different – a kind of small container, a store, and a park are not related. Still, from the conceptual perspective, they are all containers – we can see something, for instance, *in* the bin, *in* the store, as well as *in* the park. Because in our analysis we only have four nouns of this type, it cannot be determined whether this is an accidental convergence or a more general regularity – this problem must be left for further analysis.

(163) *We spent a few weeks visiting close to two dozen **furniture stores** from South Bay to Sacramento trying to find the perfect bedroom set. After each store we visited, our standards kept getting higher. We had a vision of what we wanted, but none of the stores we visited had a bedroom set that met our standards. We looked through a few catalogs, but catalogs can be deceiving. Through our experience, we learned that although the furniture might look nice in a catalog, it might look completely different in person, and often times the internal hardware feels cheap and flimsy. We were on the verge of*

*giving up when we visited a **furniture** in Elk Grove that had a bedroom set on the showroom floor that exceeded our standards.*

(<http://www.yelp.com/biz/dimensional-design-furniture-outlet-oakland>)

- (164) *Manx shearwater birds rescued after being stranded by recent storms and high winds in England recuperate in a holding pool at a **wildlife** in Taunton. The RSPCA has been dealing with hundreds of juveniles and other birds, which were bound for South America, but were blown inland as they attempted to begin their winter migration.*

(<http://www.theguardian.com/environment/gallery/2011/sep/16/week-in-wildlife-in-pictures>)

- (165) *I worked for a **jewelry** for several yrs and have only come across that marking once, the reason for that is its not common to come across such, meaning the common markings are:*

gold:

24k 999 (99% gold)

18k 750 (75% gold)

14k 585 (58.5% gold)

10k 417 (41.7 gold)

(<http://www.answerbit.com/what-does-a-323-stamp-mean-on-jewelry-2012012000274-4AAvlvmf>)

Summing up the three extensions, we postulate the following schemas:

- $[[\text{FURNITURE}]_v \rightarrow [\text{FURNITURE STORE}]_c]$,
- $[[\text{JEWELRY}]_v \rightarrow [\text{JEWELRY STORE}]_c]$,
- $[[\text{WILDLIFE}]_v \rightarrow [\text{WILDLIFE PARK}]_c]$.

Because, unlike *furniture* and *jewelry*, the extended sense of *wildlife* refers to living creatures, the emergence of two higher-level schemas should be observed, one for *wildlife* and the other for *furniture* and *jewelry*: $[[\text{AGGREGATE OF ANIMALS}]_v \rightarrow [\text{PLACE WHERE THE ANIMALS LIVE}]_c]$ and $[[\text{AGGREGATE OF OBJECTS}]_v \rightarrow [\text{PLACE WHERE THE OBJECTS ARE COLLECTED}]_c]$. The ultimate extraction of commonalities for both the standard and target of extension may take place at a higher level of schematicity: $[[\text{AGGREGATE OF THINGS}]_v \rightarrow [\text{PLACE THAT HOLDS A NUMBER OF THINGS}]_c]$.

2.3.1.7 $[[\text{SUBSTANCE/ AGGREGATE OF THINGS}]_v \rightarrow [\text{THING ASSOCIATED WITH THE SUBSTANCE/ THE AGGREGATE OF THINGS}]_c]$

This is the next subpattern in which we combine extended senses designating things and living creatures. This is also a schema in which the dominant exten-

sion process is ellipsis – five out of six senses discussed here are based on it. These are the senses of: *blood*, *sugar*, *mud*, and *wildlife* (166–170). Only the count sense of *silk* (171) is different in this respect.

The senses based on ellipsis designate, respectively, results of blood tests, results of sugar tests, a mud shrimp, mud tires, and a wildlife hatchet. In the case of *silk*, the issue is more complex, for this sense is based on a chain of referent points. First, *silk* as a type of material extended to the material of the gown worn by a specific type of lawyers – Queen’s (or King’s) Counsels – and has become very closely associated with this post. Actually, appointing someone for it is known as *taking silk*. Because of the contiguity between the gown and the person wearing it, *a silk* has come to mean this specific type of lawyer who has the privilege of wearing a silk gown.

What should be observed about these extended senses is a similarity between *blood* and *sugar* in the area of both meaning and morphological behaviour. As for the meaning, they refer to results of blood analysis. In the former case, these are results of the basic metabolic panel, that is, a set of tests that provide the most general type of information about the patient’s health. In the case of *sugar*, this is a single test that determines the amount of glucose in the blood. What is interesting about the forms of the nouns is that both of them are typically used in the plural form – we find the following expressions: *she had bloods done*, *show in bloods*, *my blood sugars*, *lowering blood sugars*, etc. However, if we take into consideration that a blood test in fact covers several tests, the plural form of *blood* is semantically motivated. Probably by analogy, the result of a single sugar test is called *sugars*.

As for the other three extended senses, they are associated with the original substances in very different and unpredictable manners. The two extended senses of *mud* designate the habitat in which a shrimp lives and a type of objects that is devised for use in muddy areas. *Wildlife*, in turn, designates a hatchet that is devised for typical uses in the wild.

We should also note that the senses based on ellipsis do not seem conventionalised. In all the cases, the noun is either preceded by the thread starter that provides the full name of the object/creature or the name is mentioned overtly in the text. In the case of mud tyres, there are actually two clues of this type. First, the author mentions that he is interested in tyres, and then he uses an abbreviation to signal the specific type he is looking for: bfg mt (BFGoodrich Mud Terrain). It is in response to this that another forum member uses the terms *Muds*. Naturally, this abbreviation is only easily recognisable for specialists, but this conversation comes from a specialist forum. By contrast, *silk* in its extended sense is conventionalised – it is used in the text without any previous explanation and such a sense is enumerated in dictionaries.

- (166) *Naomi Fletcher began spying on her colleagues' **blood records** at Russells Hall Hospital when she heard a rumour that one of them was carrying a baby. [...]*
*The inquiry discovered that she had entered the names of 19 members of staff during one night shift and examined the **bloods** for eight of these people.*
 (<http://www.expressandstar.com/news/2015/05/11/midwife-gets-caution-for-accessing-records-at-dudley-hospital/>)
- (167) *Boghosian mentors other young people who have been recently diagnosed with **diabetes**. There is a learning process, he explains. "Managing diabetes is not an exact science. You have to figure out what works for you, what will affect your blood **sugars**. For me, as a baseball player, each season is a little different and changes how I need to respond. It's a 24/7 job, but you've got to keep going."*
 (http://chancellor.uncg.edu/chancellor_report/2014/spartan-athletics.html)
- (168) *Yeah that's **a mud** for sure. Very distinctive smell, smells like sturgeon fishin' to me*
 (<http://www.pierfishing.com/msgboard/viewtopic.php?p=97184&sid=b3ba16eae578653af9c2b36f3f3b63e1>)
- (169) – *right im doing some research on **tyres** atm but i carnt find anywhere who has the **bfg mt 35s** instock or even imports them anymore. Any body got any info?*
 – *If you are stuck & fancy Cooper STT's, 35/12.50 are on offer, but in 15"*
www.silverlinewheels-tyres.com
www.devon4x4.com
have 35" BFG Krawlers, but these are £256.63 each,
*Maybe ask them about **Muds**. KM or KM2*
 (<http://forum.difflock.com/viewtopic.php?t=53288&view=next&sid=65ca64b17fd7eda4788568ae8c7cdd59>)
- (170) – *I'm happy enough to do that and, in fact, waited a few weeks for **wildlife hatchets** to come in when I bought mine.*
 – *Woodlore have got new GB stock in today, wifey has ordered me **a wild-life** for my birthday bless her :)*
 (<http://www.bushcraftuk.com/forum/archive/index.php/t-125803.html>)
- (171) *Following the round of senior counsel appointments in 2013, the percentage of female **silks** at the NSW Bar topped 10 per cent for the first time (10.8%).*

This year's selection of only three female silks has seen the percentage of female silks in NSW drop to 9.8%.

(<http://www.lawyersweekly.com.au/wig-chamber/news/15790-Female-silks-in-NSW-fall-below-10>)

The above extensions can be represented as follows:

- [[BLOOD]_v → [RESULTS OF BLOOD TESTS]_c],
- [[SUGAR]_v → [RESULTS OF SUGAR TESTS]_c],
- [[MUD]_v → [SHRIMP THAT LIVES IN MUD]_c],
- [[MUD]_v → [TYRE MADE FOR USE IN MUDDY TERRAINS]_c],
- [[WILDLIFE]_v → [HATCHET MADE FOR USE IN THE WILDERNESS]_c],
- [[SILK]_v → [KIND OF LAWYER THAT WEARS A SILK GOWN]_c].

Despite the divergences, at a more schematic level, the schemas give rise to the following subpattern: [[SUBSTANCE/ AGGREGATE OF THINGS]_v → [THING ASSOCIATED WITH THE SUBSTANCE/ THE AGGREGATE OF THINGS]_c].

2.3.1.8 [[SUBSTANCE/ AGGREGATE OF THINGS]_v → [ACTION ASSOCIATED WITH THE SUBSTANCE/ THE AGGREGATE OF THINGS]_c]

This last subpattern emphasises a domain that is peripheral for the majority of mass nouns, action, and ranks it very high among the active domains. In the analysis, we distinguish two kinds of such domains: those that are intrinsically related to the substances designated by the nouns and those that are less accessible than the spatial domain. The former case can be seen in *rain* and *snow* (172–173): the domain of action of falling is closely related to the domain of space, in relation to which both substances are typically defined. At the same time, the domain of action is only marginally related to *stuff* (174), and only through association with the domain of volleyball and one of the types of block used in it: *stuff block*.

There are several observations that are worth making at this stage. First, unlike the senses of *rain* and *snow* that are found in dictionaries, *stuff* seems to be a specialist term that requires explanation – the author first makes it clear what he means: *an ace block*, and later indicates the type of block that he has in mind: *a stuff at the net*.

Second, the nouns differ in the type of process included in the conceptual base. In the case of *rain* and *snow*, the process is durational and atelic – it lacks a conclusive end point. As for *stuff*, the process is punctual and atelic – it encompasses a single jump. Still, what makes the nouns countable is the boundedness imposed on the background process. As a result, the nouns only encompass either a limited span of raining/ snowing or a single jump.

Finally, we wish to observe a different semantic behaviour of nouns of the same type. All three nouns in their primary senses are defined as substances or

aggregates of things. However, while in the extended senses of *rain* and *snow* it is impossible to determine which of these is profiled, the extended sense of *stuff* is more specific in this respect. To do this block correctly, “you must penetrate on the block to get a true stuff block or to roof your opponent. Penetrating means reaching over the net so that your hands are on your opponent’s side of the net when you block” (<http://volleyball.about.com/od/learntoplay/tp/BlockingHub.htm>). In other words, the players’ hands form a kind of dense cover due to which the ball immediately goes back to the hitter, which makes *stuff* an aggregate noun.

(172) *During a rain, the scent becomes diluted and washes away. To maintain the scrape’s ability to lure in does, the buck must reintroduce his scent immediately to the scrape. That’s why you’ll find scrape hunting the most productive after a rain.*

(http://www.nighthawkpublications.com/journal/2013/05/journal_2.htm)

(173) *Indy, looks like it’s unlikely that you’ll be doing xcountry in Indy...do you have any friends in South Bend you can visit?*

Out of curiosity, do they salt or plow the Monon after a snow for the runners/cyclists?

(<http://forums.teamestrogen.com/showthread.php?t=20467>)

(174) *Platte County middle hitter Maren Mair punctuated her high-school volleyball career with an ace block on Nov. 16 at Avila University. The senior took part in the Greater Kansas City Volleyball Coaches Association Mo-Kan All-Star Match and helped the Missouri All Stars earn a three-set win against the Kansas All-Stars, sealing a 25–22, 17–25, 26–24 win for the Show-Me Staters with a stuff at the net. Official statistics were not kept.*

(<http://www.plattecountycitizen.com/theplattecountycitizen/7515>)

Summarising the extensions, we would like to indicate such schemas as:

- [[RAIN]_v → [ACTION OF RAINING]_c],
- [[SNOW]_v → [ACTION OF SNOWING]_c],
- [[STUFF]_v → [ACTION OF BLOCKING IN VOLLEYBALL]_c].

Because, as has been mentioned, it cannot be determined whether the count senses of *snow* and *rain* are derived from substance or aggregate interpretations of the nouns, two possible higher-level schemas can be proposed for them: [[SUBSTANCE]_v → [ACTION ASSOCIATED WITH THE SUBSTANCE]_c] and [[AGGREGATE OF THINGS]_v → [ACTION ASSOCIATED WITH THE AGGREGATE OF THINGS]_c]. However, these distinctions are only noticeable at this specific level of schematicity, for at the higher level of abstraction the subpattern needs to be formulated as: [[SUBSTANCE/ AGGREGATE OF THINGS]_v → [ACTION ASSOCIATED WITH THE SUBSTANCE/ THE AGGREGATE OF THINGS]_c].

2.3.2 The pattern $[[\text{SUBSTANCE/ AGGREGATE OF THINGS}]_U \rightarrow [\text{KIND OF THE SUBSTANCE/ AGGREGATE OF THINGS}]_C]$

The nouns that the last pattern of the present analysis is based on evoke a specific immediate scope: a set of domains where the domain of quality plays a prominent role. This can be the role of either the sole domain within which the noun's profile is located or one of several domains evoked by the noun.

Our analysis confirms the recurrent observations concerning the quality dimension of mass nouns: quality is a dimension that is deeply ingrained in the structure of mass nouns. This can be seen, among others, in the fact that none of the previous patterns of count and mass nouns encompassed *all* the analysed nouns. What is more, if we consider the semantic potential of the mass nouns, one of their count senses is always 'kind' – be it a kind of substance, a kind of aggregate of things, or a kind of object. Also, even if a mass noun has only one count sense, and there are four such nouns in the analysis: *food*, *salt*, *cream*, and *flour*, this extended sense is 'kind.'

We also need to comment on the correlation between the 'kind' sense and the type of construction. As indicated in the methodological part (Section 2.1.3), one of the schematic constructions that we searched in the analysis was A/AN + QUANTIFIER + NOUN.SG + PREP. According to QU (1985: 249, 287), a noun that appears in this type of construction, that is, either pre- or post-modified, inherently involves the dimension of kind. This claim requires elaboration. It must be admitted that the vast majority of such constructions involve 'kind' either as an exclusive interpretation or as one of the possible readings, for example, in (175), where the sense of a single piece of furniture is conflated with a specific characteristic of the table – the fact that it has a bad history. At the same time, there are also cases in which the 'kind' reading seems to be at best marginal, especially when the noun is post-modified (176–177).

(175) *That being said, I cancelled the order and will just give them the 30% rather than having my grandmother use **a furniture** that already has a bad history to begin with.*

(<http://www.yelp.com/biz/ashley-furniture-homestore-murrieta>)

(176) *How to draw **a mud** for kids – Step by step*

(<http://fourpencil.com/pages/how-to-draw/kids/415-how-to-draw-mud-for-kids.html>)

(177) *To prepare **a silk** for the steamer, I place it in a sheet of white butcher paper with the non-shiny side against the silk.*

(<http://www.barbwired.com/barbweb/silkpaint/steamer/steamer.html>)

It also needs to be stressed that ‘kind’ interpretations are common with the third type of construction – the one that involves the plural form of the noun, as in (178).

- (178) *Enjoy freedom of choice and unleash your creativity with a range of up to 12 **timbers** for interior and exterior cladding, including Spotted Gum and Blackbutt.*
(<http://woodformarch.com/product/expression-cladding-timbers>)

However, it must be noted that while the ‘kind’ sense is one of the possibilities for A/AN + NOUN.SG + PREP and NOUN.PL + PREP constructions, the third of them, a/an + ADJ + NOUN.SG + PREP, is a construction in which all thirty nouns appear in the ‘kind’ sense, as we illustrate with the following examples (179–208):

- (179) *Search Florida Gulf Beach and Waterfront Condos For Sale below that include photos and details on each unit for sale. Remember, there are thousands of other MLS Listings in all price ranges on the West Coast of Florida. Are you searching for a waterfront condo that allows pets or need **a deep water** for your sailboat or a townhome with gulf access and a boat slip.*
(<http://waterfrontfloridacondo.com/>)
- (180) *California Chrome may be a sure thing to win today’s Belmont Stakes and become the first horse since Affirmed in 1978 to win horse racing’s triple crown. And capturing the triple crown will mean **a big money** for the owners of the horse, Steve Coburn and Perry Martin.*
(<http://www.forbes.com/sites/mikeozanian/2014/06/07/california-chrome-and-belmont-stakes-cost-new-york-taxpayers-a-bundle/>)
- (181) *I’ve come to believe that beef heart is not **a good food** for axolotls, despite the widespread documentation of its use. The last time I checked, axolotls do not prey on cows in the wild...*
(<http://www.axolotl.org/feeding.htm>)
- (182) *I was a vegetarian for many years and was eating too much fruit and vegies. Now I eat very balanced diet and 50g of good quality proteins. Blood type A not **a good blood** for fighting cancers.*
(<http://www.dailymail.co.uk/tvshowbiz/article-3073213/Channel-Nine-presenter-Georgie-Gardner-urges-fans-sun-smart-having-carcinoma-cut-out.html>)

- (183) *Moving products could consist of everything from relocating boxes to tow bars, ropes cargo and providers. When it pertains to relocating that does not just mean moving. That could involve **a big stuff** for transport.*
(<http://www.billeo.mobi/page/51/>)
- (184) *Iron gym is **a great equipment** for chin ups, pull ups and push-ups. However, it doesn't work as well as they claim to be for dips. But generally, it has met what it said it does.*
(<http://thehealthwatcher.com/iron-gym-a-great-add-on-for-your-upper-body-workout/>)
- (185) *Black nylon is also **a good plastic** for this application but is less well known. We recently found a website all about a do-it-yourself product called the "Pick Punch" this lets you take acetol and punch your own picks at home – you might never run out again!*
(<https://plasticowto.wordpress.com/category/acetol/>)
- (186) *The soil should hold water after **a heavy rain** for no longer than an hour before it is absorbed. If your soil has too much clay, you will need to replace it with a rain garden mix (approximately 50% sand, 30% topsoil, and 20% organic material).*
(<http://www.bayouvermiliondistrict.org/spotlights/rain-garden>)
- (187) *Kosher salt is **a flaked salt** used in cuisines around the world. Kosher salt is traditionally used in the koshering process, in which it is applied to meat to draw the blood to the surface.*
(<http://gourmet.lovetoknow.com/spices-seasonings/gourmet-types-salt>)
- (188) *Olive oil, which is rich in monounsaturated fatty acids (all that means is it's **a good fat**), is my go-to fat resource whenever I cook, whether it's with scrambling my eggs or adding a tablespoon to my salad.*
(<http://www.thewellnessbucket.com/eat-these-12-foods-daily-to-help-you-lose-fat-lean-up-quicker/>)
- (189) ***A granulated sugar** produced into very fine textured grains of sugar. Often referred to as "caster" sugar in Britain, this sweetener is an unrefined sugar made from unrefined sugar cane.*
(<http://www.recipetips.com/glossary-term/t--35729/caster-sugar.asp>)
- (190) *Ardis predicted only 19 tracking snows for last winter. **A tracking snow** is defined as one in which a near-sighted man is able to track a rabbit.*
(<http://www.mansfieldnewsjournal.com/story/news/local/2014/11/20/judge-predicts-tracking-snows-mansfield/70029740/>)

- (191) *OK, I am not that old... but old enough to appreciate a **good cream** for my face. I LOVE this stuff. It is so good to my skin. This and the one with SPF is all you will ever need for good skin!!*
 (<http://www.amazon.co.uk/Philosophy-When-Enough-Replenishing-Cream/dp/B0007UNGFY>)
- (192) *“It works here, because I like a **fine sand** for a good surface finish,” he said. “But Green Diamond does not have a wide range of sands. You are limited. It matched the type of sand I was using. I also liked that my supplier offered a pre-mull sand, because I’m running a special bond.”*
 (<http://www.afsinc.org/about/content.cfm?ItemNumber=12750>)
- (193) ***A New Butter for Breakfast**
 A H H , B U T T E R! I love butter. And it’s mutual—I know butter loves me right back by the way it never leaves my sides, and how it lovingly tries to encircle my heart forevermore.*
 (<http://youvegottotastethis.myrecipes.com/2011/04/07/a-new-butter-for-breakfast/>)
- (194) *A good event manager does not work much; he makes sure the right person fulfils his duty. Instead of entering data about guest speakers in the site, you can send a **reminder mail** to the eminent speakers that the event is approaching and they need to enter their short bio. Provide them secure log-in details so that they can write their bio and upload pictures in your site.*
 (<http://www.eventindustrynews.co.uk/brand-marketing/event-management-solutions-help-manage-events-better/>)
- (195) *The Journeyman Steamer Trunk Is **A Modern Furniture** For Modern Fashionistas*
Designed by Method Luxury Furniture for the Amsterdam based fashion labor, Denham, the Journeyman steamer trunk is a stylish piece of furniture made with traditional and contemporary influences and techniques.
 (<http://www.homedosh.com/the-journeyman-steamer-trunk-is-a-modern-furniture-for-modern-fashionistas/>)
- (196) *When I used to have my coffee sweet, one of my pleasures was trying different sugars and honeys. Used to get small trial jars from a specialist. Yum yum. I still use a **good honey** with Turkish coffee.*
 (<http://www.jamieoliver.com/forum/viewtopic.php?id=60770#sEHfZpRut79wmVqC.97>)

- (197) *Smoking a pipe is such an enjoyable pastime that I sometimes feel bad for the people that have never had the pleasure of experiencing **a fine tobacco** in a briar pipe.*
(<http://pipesmagazine.com/blog/tag/sykes-wilford-interview/>)
- (198) *The bright turquoise fabric was in my fabric collection and I'm not exactly sure where I acquired it but I do know it is **a sandwashed cotton**, meaning it has been gently buffed into a smooth and soft texture, resembling a suede but having the practical qualities of a cotton.*
(<http://www.folkfibers.com/collections/all>)
- (199) *The squash has sweet-tasting, orange flesh and is used for pies, processing, and fresh market. This winter squash type is excellent for retail and farm market growers. Neck pumpkin does not have Novelty winter squash **as dry a flesh** as butternut squash.*
(<http://extension.psu.edu/publications/agrs-114>)
- (200) *This is **a good flour** for those who are weight conscious as it is less addictive, and more nutritious, although not necessarily less caloric.*
(<http://www.amazon.com/Jovial-Organic-Einkorn-Flour-32-0-Ounce/product-reviews/B007SM6NWC>)
- (201) *Because of the necessity to wash to bottom during the trip into the borehole, trip time increases. Cuttings accumulation in the annulus also increases drag, which decreases drilling rates.
A good mud for suspending cuttings, thereby avoiding their accumulation at the bottom of a vertical hole, has 10-sec gels between 10 and 20 lb/100 sq ft, with a 10-min gel of no more than triple this value.*
(<http://www.ogj.com/articles/print/volume-94/issue-46/in-this-issue/drilling/bingham-plastic-fluids-more-effectively-clean-horizontal-holes.html>)
- (202) *This unique and little known island is a UNESCO World Heritage Site and allows visitors to discover amazing landscapes, one-of-a-kind history and **a rare wildlife**.
Depending on weather condition and on the reservations programme, St Kilda offers other opportunities for discovery in this archipelago with an incredible wealth of marine landscapes and **a remarkable marine wildlife**.*
(http://www.enezgreen.com/destinations/site/st_kilda_cruises-139/)
- (203) *I've worked with these window blind slats before, they're easy to carve and shape, and sturdy enough to be rigid (though they won't stand up to really rough usage):*

<http://propsbyfev.blogspot.com/2010/04/t...>

*I'd probably use **a good silk** for the fan, and hand paint it, or applique the spots.*

(<https://answers.yahoo.com/question/index?qid=20120314133442AARVkoZ>)

(204) *E15 is **a new gasoline** that is just beginning to be sold in Minnesota and other states. It consists of 85% gasoline and 15% ethanol, and has a higher octane rating than regular unleaded.*

(<http://mnfuels.com/e15locations.cfm>)

(205) *Who might have thought that this beautiful set is a cheap wedding accessory? This can also be perfect as **a wedding jewelry** for the bridesmaid.*

(<http://www.2-be-unique.com/Wedding-Crystal-Earrings-with-Pear-Shaped-Crystal-Dangles.html>)

(206) *Here are some ideas for ways you can reuse plastic shopping bags:*

– *Use as trash can liners for **a small trash** in bathroom or bedroom.*

(<http://www.passionforsavings.com/ways-you-can-reuse-plastic-shopping-bags/>)

(207) *Spelt Flour – **An ancient wheat** from the Bronze Age. This is a lighter coloured flour with a light and slightly sweet taste. An excellent flour for pancakes, waffles, whatever!*

(<http://goldforestfarms.blogspot.com/p/about-our-flour.html>)

(208) *Certainly early in the season the Spindle Tree, named because its wood was valuable in former times as **a strong timber** for making spindles for wheels, *Euonymus europaeus*, does turn red.*

(<http://thegardenimpressionists.com/2012/10/28/autumn-leaf-colour-physiology-the-big-bulb-plant-ends-nearly/>)

Independently of the type of construction, the discussed extensions can be schematically formed as, for example, $[[\text{WATER}]_v \rightarrow [\text{KIND OF WATER}]_c]$ or $[[\text{TIMBER}]_v \rightarrow [\text{KIND OF TIMBER}]_c]$, etc.

Because, as already indicated, the analysed nouns can be generally divided into those that refer to substances and those that refer to aggregates of things, we postulate that the schemas that arise from them should be formulated as follows: $[[\text{SUBSTANCE}]_v \rightarrow [\text{KIND OF THE SUBSTANCE}]_c]$ and $[[\text{AGGREGATE OF THINGS}]_v \rightarrow [\text{KIND OF THE AGGREGATE OF THINGS}]_c]$. It is at a higher level of schematicity that these schemas give rise to the subpattern: $[[\text{SUBSTANCE/ AGGREGATE OF THINGS}]_v \rightarrow [\text{KIND OF THE SUBSTANCE/ AGGREGATE OF THINGS}]_c]$.

2.4 Conclusions and discussion

The conclusions flowing from our investigation are organised in two major sections. The first one summarises the results of the analyses of count nouns and mass nouns (2.4.1). The second one collates these findings with general research on this issue in English (2.4.2), provides a discussion of different methodological approaches to countability and uncountability, and sums up what the book offers in this area.

2.4.1 Results of the analysis

2.4.1.1 Count nouns

We begin with the observation that all 30 count nouns collected for the analysis have mass extended senses. We have determined as many as 100 such senses and described them at several levels of schematicity. Because each categorising relationship leads to the emergence of a schema, there are 100 lowest-level schemas. Through the medium level of schematicity, they can be described as eight subpatterns and, at the highest level of schematicity, as three patterns of semantic extension. The two highest levels of schematicity are enumerated below:

$[[\text{OBJECT}]_c \rightarrow [\text{MASS DIMENSION OF THE OBJECT}]_v]$,
 $[[\text{OBJECT}]_c \rightarrow [\text{SPATIAL DIMENSION OF THE OBJECT}]_v]$,
 $[[\text{OBJECT}]_c \rightarrow [\text{SUBSTANCE THAT THE OBJECT IS MADE OF}]_v]$,
 $[[\text{OBJECT}]_c \rightarrow [\text{PART OF THE OBJECT}]_v]$,
 $[[\text{OBJECT}]_c \rightarrow [\text{PROPERTY OF THE OBJECT}]_v]$,
 $[[\text{OBJECT}]_c \rightarrow [\text{CAPABILITY OF THE OBJECT}]_v]$,
 $[[\text{OBJECT}]_c \rightarrow [\text{MASS DIMENSION ASSOCIATED WITH THE OBJECT}]_v]$,
 $[[\text{OBJECT}]_c \rightarrow [\text{SUBSTANCE CONTAINED IN THE OBJECT}]_v]$,
 $[[\text{OBJECT}]_c \rightarrow [\text{PART OF AN OBJECT CONTIGUOUS TO THE OBJECT}]_v]$,
 $[[\text{OBJECT}]_c \rightarrow [\text{ACTION ASSOCIATED WITH THE OBJECT}]_v]$,
 $[[\text{OBJECT}]_c \rightarrow [\text{AGGREGATE OF OBJECTS}]_v]$.

As can be seen, these patterns are far from uniform. First, they differ in the number of subpatterns. The first one is instantiated by five subpatterns, the second pattern – by three subpatterns, and the last one has no subpatterns; that is, it arises directly from the lowest-level schemas. However, the most radical differences can be noted if we compare the number of the lowest-level schemas that instantiate each pattern. While the first pattern is also most numerous – it encompasses 72 schemas, the second one, with just eight schemas, turns out to be quite small, and the third one is almost twice as numerous as the second (17 schemas).

Another observation concerns the regularity of the detected senses. We must start by emphasising that none of the 100 senses has been registered by any of the

consulted dictionaries. This might be surprising if one takes into consideration the fact that the detected senses are not accidental or context-driven. First, they are determined among nouns of all frequencies of occurrence and with ontologically different referents, that is, virtually distinct and unrelated. At the same time, the number of regularities is very high – there are identical senses that can be found among 17 different nouns, which is over a half of the analysed count nouns, as in the best represented sense ‘aggregate of things.’ Other senses subsume fewer nouns, for instance, ‘some extent of the object’s surface’ – 15 nouns, ‘part of the object’ – nine nouns, ‘the object’s size’ – seven nouns, ‘the object’s capacity’ – seven nouns, or ‘action associated with the object’ – six nouns. These numbers mean that, for example, seven unrelated nouns are used in a certain number of contexts where the nouns adopt the same kind of sense. We consider such cases to be symptomatic of a more general tendency of semantic extension.

Naturally, this does *not* mean that all the detected senses are equally entrenched or conventionalised, or that all of them should be found in dictionaries. Quite conversely, there are senses that must be classified as novel interpretations or incipient senses, as seen in the structure of the analysed nouns – while the majority of them have several extended senses, one or two of them are often quite marginal, as in the case of *bag*. The dominant senses, ‘capacity’ and ‘size,’ have been found in 25 out of 30 contexts, whereas such senses as ‘weight’ and ‘price’ in, respectively, four and one contexts.

A similar disproportion can be observed in the case of *sleeve*. Its dominant sense, ‘the length of the sleeve,’ was found in 14 out of 30 contexts, ‘the substance of the sleeve’ in 10 contexts, and ‘the surface of the sleeve’ – in just six. This suggests that each thing has a set of characteristic dimensions that it is associated with, and it is them that constitute the core of its senses. At the same time, there are also dimensions that are rather loosely related to things – they seem to constitute marginal and more contextually-based uses.

As a kind of exception, two nouns must be mentioned, *client* and *guest*, as their contexts of use indicate only one direction of extension. What is more, in both cases this is the same type of extension: ‘aggregate of things’ or, more specifically, ‘aggregate of clients’ and ‘aggregate of guests,’ as in: *Sometimes it’s good to start a business on the side. This way you slowly gather new client but, still have a steady income. When you have too much client, you can then quit your steady job* (<http://www.technibble.com/forums/archive/index.php/t-41421.html>) or *By the time we were there was about 2.30pm. Not much guest in his house already, as they started at 1pm. So since I’m quite full with the lunch, so I just have some drinks and food* (http://judychow.blogspot.com/2007_03_01_archive.html).

Finally, we need to mention the presence of a more complex phenomenon that can also contribute to the formation of an extended sense with the reverse grammatical property – a chain of reference points. This phenomenon was detected in three extended senses only, which is why we decided to analyse all

three cases, despite the fact that in one of them the sense was metaphorical and in another an additional process was observed – ellipsis.

2.4.1.2 Mass nouns

To a certain degree, the analysis of the mass nouns has produced comparable results: all of the 30 nouns have count extended senses, and we have detected a similar number of them – 97. Differences begin when we analyse the resultant patterns and schemas of semantic extension, because there are just two general patterns, and only the first one has as many as eight subpatterns:

[[SUBSTANCE/ AGGREGATE OF THINGS]_v → [BOUNDED AMOUNT OF THE SUBSTANCE/ LIMITED NUMBER OF INDIVIDUAL THINGS]_c]

[[SUBSTANCE]_v → [THING MADE OF THE SUBSTANCE]_c],

[[SUBSTANCE]_v → [THING FOR WHICH THE SUBSTANCE IS A SALIENT COMPONENT]_c],

[[SUBSTANCE/ AGGREGATE OF THINGS]_v → [THING THAT HAS A PROPERTY OF THE SUBSTANCE/ THE AGGREGATE OF THINGS]_c],

[[SUBSTANCE/ AGGREGATE OF THINGS]_v → [LIMITED AMOUNT OF THE SUBSTANCE/ A LIMITED NUMBER OF ELEMENTS OF THE AGGREGATE]_c],

[[SUBSTANCE/ AGGREGATE OF THINGS]_v → [CONTAINER THAT HOLDS A LIMITED AMOUNT OF THE SUBSTANCE/ A NUMBER OF THE THINGS]_c],

[[AGGREGATE OF THINGS]_v → [PLACE THAT HOLDS A NUMBER OF THINGS]_c],

[[SUBSTANCE/ AGGREGATE OF THINGS]_v → [THING ASSOCIATED WITH THE SUBSTANCE/ THE AGGREGATE OF THINGS]_c],

[[SUBSTANCE/ AGGREGATE OF THINGS]_v → [ACTION ASSOCIATED WITH THE SUBSTANCE/ THE AGGREGATE OF THINGS]_c].

[[SUBSTANCE/ AGGREGATE OF THINGS]_v → [KIND OF THE SUBSTANCE/ AGGREGATE OF THINGS]_c].

Also, the status of these two patterns is not equal – taking into consideration the number of the lowest-level schemas, the first pattern is over twice as numerous as the second one (67 senses vs. 30 senses). At the same time, while the first pattern arises from the extensions of 26 nouns, the second pattern encompasses the extended senses of all 30 nouns.

It can be hypothesised that this discrepancy stems from the fact that one of the central characteristics of substance is quality (LANGACKER, 2016: 85; cf. Section 1.2.3.1). Actually, this characteristic may be so prevalent that almost one third of the countable extended senses of mass nouns are the senses that refer to ‘kind.’ At the same time, the other types of count senses seem to be less typical or natural for mass nouns – despite eight subpatterns, the number of lowest-level schemas is only 67.

We should also mention some differences among the subpatterns. The most numerous of them, $[[\text{SUBSTANCE/ AGGREGATE OF THINGS}]_v \rightarrow [\text{LIMITED AMOUNT OF THE SUBSTANCE/ LIMITED NUMBER OF ELEMENTS OF THE AGGREGATE}]_c]$, encompasses 29 senses. The second most numerous pattern, $[[\text{SUBSTANCE}]_v \rightarrow [\text{THING MADE OF THE SUBSTANCE}]_c]$, is instantiated by fewer than one third of the senses of the first subpatterns – nine. The third most numerous subpattern, $[[\text{SUBSTANCE/ AGGREGATE OF THINGS}]_v \rightarrow [\text{THING THAT HAS A PROPERTY OF THE SUBSTANCE/ THE AGGREGATE OF THINGS}]_c]$, subsumes only seven extensions. This shows a clear dominance of one of the types of directions of extensions in relation to the others.

One of the reasons for this situation may be, as already suggested in Section 2.2.1.1, the conception of reality from the human perspective. This approach means that, for instance, associating a substance with a limited amount of it may be more important than associating a substance with a process. At the same time, it is possible to approach the discrepancies in numbers from the point of view of the structure of the world, where things made of a substance are more frequent than, for example, containers that hold an amount of a substance, or where not too many substances perform actions.

We also need to mention the nouns whose count senses are listed by dictionaries. In Section 2.3, we enumerated 37 such senses, the vast majority of which are parallel or comparable to the senses that we have detected in the analysis. Naturally, the manner in which they are formulated may sometimes be quite different, as in the case of one of the senses of *blood*: “blood samples or tests.” In the analysis, we proposed two senses of *blood*: ‘an amount of blood’ and ‘results of blood tests,’ which are instantiations of two different schemas: $[[\text{SUBSTANCE}]_v \rightarrow [\text{LIMITED AMOUNT OF THE SUBSTANCE}]_c]$ and $[[\text{SUBSTANCE/ AGGREGATE OF THINGS}]_v \rightarrow [\text{THING ASSOCIATED WITH THE SUBSTANCE/ THE AGGREGATE OF THINGS}]_c]$. Similarly, a dictionary definition of *sugar* is “a lump or teaspoonful of sugar, used to sweeten tea or coffee” (OD), while we just defined this sense as ‘an amount of sugar.’ At the same time, there were also several senses that we did not find, such as ‘a stratum of sandstone or compacted sand’ in the case of *sand* or ‘a sweet of a specified flavour which is creamy in texture’ and ‘a biscuit with a creamy filling’ in the case of *cream*. This was probably a result of the fact that we only analysed 30 of the Internet contexts.

The next observation concerns the division of the mass nouns into substances and aggregates of things. This division proved useful in the analysis – it explained both certain seeming discrepancies between the extended senses of the same nouns and certain regularities of extension of nouns from each of the respective categories. As for the discrepancies, we could observe two contradictory directions of extension of such nouns as *money*, *stuff*, or *snow*. Their extended senses were instantiations of both the subpattern A LIMITED AMOUNT OF THE SUBSTANCE on the one hand and A SINGLE ELEMENT OF THE AGGREGATE OF

A SET OF ELEMENTS OF THE AGGREGATE on the other. However, these discrepancies became understandable once we realised that the nouns' primary senses, the standards of extension, are characterised in English as possessing both the properties of substances and aggregates of things.

As for the regularities of extensions, only aggregate nouns extend to A PLACE THAT HOLDS A NUMBER OF THINGS (*furniture, wildlife, and jewelry*) or AN ACTION ASSOCIATED WITH THE SUBSTANCE/ THE AGGREGATE OF THINGS (*stuff, rain, and snow*). At the same time, only nouns that designate substances in their primary senses extend to A THING MADE OF THE SUBSTANCE (e.g., *plastic, cotton, or timber*) or A THING FOR WHICH THE SUBSTANCE IS A SALIENT COMPONENT (e.g., *tobacco, silk, or gasoline*). In other words, if we want to achieve a clear picture of the detected regularities, it is good to maintain the substance-aggregate distinction.

We must also confirm the observation made during the discussion of count nouns: typically, one of the senses dominates among the senses of a noun. *Rain*, for instance, has 20 contexts with the sense 'the action of falling,' seven with 'a large number,' and only three with the sense 'a kind of rain.' Similarly, the collected contexts for *mail* show the dominance of the 'single mail' sense (26 contexts), with just four contexts with 'a kind of mail' sense.

This is also where we need to mention the issue of quality, so strongly indicated by, among others, PELLETIER (1975), BUNT (1985), QU (1982), or LANGACKER (1987a). It appears that the dimension of quality plays a crucial role among the extended senses of mass nouns – *all* of the analysed nouns have extended senses to this domain. What is more, frequently the contexts with such senses dominate among the contexts collected for particular nouns; for example, *fat* has only three contexts in which it does not designate the quality of fat. Similarly, out of 30 contexts of *plastic*, only seven do not have the 'kind' sense. Additionally, among the mass nouns, there are four nouns with just the 'kind' sense: *food, salt, cream, and flour*.

The topic of quality overlaps the topic of the constructions that were used in the Internet search. One of the constructions, A/AN + ADJECTIVE + NOUN.SG + PREP, was a quality partitioning construction that we used to collect one sixth of the hits. Still, despite such a small number, it produced at least one quality hit for each of the nouns, which shows a strong tendency among the mass nouns to adopt count quality senses through partitioning constructions. This is not to say that the other two constructions did not produce hits based on quality of the noun – they only failed to produce them for all the nouns.

As for the other two constructions, A/AN + NOUN.SG + PREP, (MANY) + NOUN.PL + PREP, we can conclude that they were equally productive and each of them allowed us to find the desired number of contexts. What is more, all three constructions allowed us to detect the same types of extended senses. Naturally, the contexts in which the constructions were used differed, but in

each of the cases, the conceptualisers profiled the same mass dimension of the given entity; for example, bodybuilders, gun owners, and fashion-sensitive people focused on the width of the same type of object – the belt. In other words, the type of construction searched had no influence on the detected meaning of the noun.

To conclude the discussion of the count extensions of mass nouns, we need to mention one more phenomenon – ellipsis. It was hinted in the previous section as a marginal phenomenon detected in the case of one extension only. In the present section, we must acknowledge its pervasive character among mass-to-count extensions, as the number of senses that it sanctions is large – almost one fifth of the detected senses. However, there are some characteristics that make it a peculiar extension phenomenon.

First, we need to observe its heavy reliance on the context. A good example of this property is an extended sense of *blood* – ‘blood python.’ This sense arises in a specific situation – when the speakers know that they are talking about a python and, as a kind of mental shortcut, they simply use the ellipsed part of the name.

Second, without ellipsis, a considerable disproportion could be observed between the number of extended senses of mass and count nouns. The scale of ellipsis suggests that mass nouns are more flexible also in the sense of being more easily associated with count entities and, as a result, they are more likely to develop senses based on ellipsis.

Third, while ellipsis must be counted as one of the mechanisms of sense extension, it is important to realise the difference between the types of extended senses that are created as a result of ellipsis and metonymy. One such difference is definitely the fact that ellipsed nouns dominate only in three schemas of semantic extensions: A THING THAT HAS A PROPERTY OF THE SUBSTANCE/ THE AGGREGATE OF THINGS, A PLACE THAT HOLDS A NUMBER OF THINGS, and A THING ASSOCIATED WITH THE SUBSTANCE/ THE AGGREGATE OF THINGS. Because ellipsis is hardly present in the other schemas, this suggests that ellipsis should be analysed more thoroughly for its occurrence and productivity.

Finally, just as in the case of the mass extensions of count nouns, extension to new senses with altered grammatical properties appeared together with a chain of reference points. There were just two such senses: *silk* in the sense ‘a kind of lawyer that wears a silk gown,’ discussed under the subpattern [[SUBSTANCE/ AGGREGATE OF THINGS]_v → [THING ASSOCIATED WITH THE SUBSTANCE/ THE AGGREGATE OF THINGS]_c], and *gasoline* in the sense ‘car,’ discussed under [[SUBSTANCE]_v → [THING FOR WHICH THE SUBSTANCE IS A SALIENT COMPONENT]_c]. Although both chains were very short, it is important to note the co-occurrence of both phenomena.

2.4.2 General discussion

We are now in a position to compare our findings with the previous linguistic and philosophical analyses and discussions. First, however, we would like to recall one of the observations made by WARE ([1975] 1979: 26). Although it was made almost four decades ago, in light of some of the recent research on countability and uncountability, for example, CHIERCHIA (2010), this remark still does not seem to be commonly acknowledged: “it is not just grinding and mashing that does the job.” This remark also captures the essential difference between the previous research and ours. We show that nouns do not change their grammatical properties because of the workings of such thought experiments as the Universal Grinder, the Universal Packager, the Universal Sorter, or their generative equivalents – grinding rules. What “does the job” are in fact philosophically less attractive but nevertheless efficient regularities of semantic extension. And knowing this enables us to adopt a qualitatively and quantitatively different perspective on the countability and uncountability of English nouns.

We begin with a general comparison of the extensions discussed in the literature with the schemas and patterns that result from our analysis. For convenience, the extensions (cf. Section 1.1.6) are repeated below:

C→U:

- nouns for objects extend to ‘a measurable extent of the object,’ as in *I just need a few pencils vs. an inch of pencil*;
- nouns for things extend to ‘parts of things that contribute to the enlargement or enhancement of the product,’ as in *We’ve just bought a table vs. an area of table*;
- nouns that denote containers can be used in the mass sense ‘the amount that it contains or its contents,’ as in *The glass broke vs. Don’t drink the whole glass*;
- names of trees develop such senses as ‘wood from the tree,’ as in *I’ve just cut down three oaks vs. The table is made of oak*;
- names of trees extend to the sense ‘a mass of growing trees,’ as in *Can you see those oaks? vs. Oak and beech began to take the place of willow and elm*;
- nouns designating objects develop the sense ‘nonce substance interpretations of these objects,’ as in *Put these books on the shelf vs. The termite was living on a diet of book or I’ve got a dog vs. There was dog all over the driveway*;
- nouns, including food items, animals, and plants (e.g., *potato, turnip, carrot*, etc.) develop the sense ‘the edible part of the substance of which the object is made,’ as in *if you eat an egg, you may get egg on your tie; I was lucky enough to catch a salmon today vs. We’re having salmon for dinner; Can I cook potatoes with lamb? vs. mashed potato*;
- nouns referring to animals extend to ‘animal pelt,’ as in *Did you see the leopards in the zoo? vs. Jacqueline prefers leopard to fox*; and

- nouns for animals develop senses ‘animals to be hunted or caught,’ as in *I can see an elephant vs. They’ve gone out after elephant.*

U→C:

- mass nouns designating a substance extend to ‘a unit of the substance denoted by the noun,’ as in *I like cheese vs. two (huge) cheeses;*
- mass nouns for food substances and drinks extend to servings of these substances and drinks, as in *I’m going to have pork vs. That makes five porks and two turkeys, please and I don’t like beer vs. She offered me another beer;*
- mass nouns extend to the sense ‘a kind of substance’ (e.g., *How much paint do you need for your room? vs. Some paints are more lasting than others*);
- mass nouns for a metal develop the sense ‘a receptacle made of this metal,’ as in *What can you use so much tin for? vs. What do you keep in those tins?*
- mass nouns for food substances extend to ‘a unit of fabrication of this food,’ as in *I ordered a pizza, not a slice of pizza.*

To see the results of our analysis in the proper light, first we need to acknowledge some of the methodological problems behind the collected regularities. First, these regularities are formulated at rather indeterminate, unsystematic, and arbitrarily selected levels of schematicity. As a result, there are considerable differences between the levels of schematicity of different extensions, for instance, ‘a unit of noun’ and ‘a unit of fabrication of food.’ This also means that it is difficult not only to establish a uniform level of account but also to decide whether or not different extensions are in fact related, such as ‘a measurable extent of the object’ and ‘parts of things that contribute to the enlargement or enhancement of the product.’ Second, because these regularities lack more detailed characteristics, the same noun may seem a relevant example of several different extensions; for example, the noun *potato* and its mass sense could be treated as an example of such extensions as ‘animals and food,’ ‘the substance of which the object is made,’ or ‘parts of plants that are suitable for human consumption.’ Concluding, we should also note that the enumerated regularities stem from analyses of a handful of arbitrarily selected nouns that represent relatively few dimensions of reality, such as trees, food items, or animals. As a consequence, this approach can be questioned as valid only for very few selected examples rather than all the language.

Our analysis approaches the problem differently. From the quantitative perspective, we must note that the schemas that we have detected exceed considerably the number of regularities that have been described in the literature. Our analysis shows almost 200 lowest-level schemas that, at the highest levels of schematicity, can be represented in the form of five highly general patterns of semantic extension (to say nothing of the intermediate levels of schematicity). What is more, our analysis encompasses many diversified semantic fields. There, we were able to find a number of new examples that have not been discussed in

the literature before, including such untypical nouns as *bag*, *guest*, *belt*, *telescope*, *shower*, *bulb*, *elbow*, or *dam*. Finally, the regularities found in the literature either mesh with some of the patterns that we have determined or are comparable to our schemas at one of their levels of schematicity.

Consider, for instance, the four extended senses based on animal nouns: ‘the edible part of the substance of which the object is made,’ ‘nonce substance interpretations of the animals,’ ‘animal pelt,’ and ‘animals to be hunted or caught.’ Although we have not analysed any animal nouns, we can predict that these senses can be classified as low-level instantiations of the following subpatterns and patterns of semantic extensions:

- $[[\text{OBJECT}]_c \rightarrow [\text{MASS DIMENSION OF THE OBJECT}]_v]$,
 $[[\text{OBJECT}]_c \rightarrow [\text{SPATIAL DIMENSION OF THE OBJECT}]_v]$,
 $[[\text{OBJECT}]_c \rightarrow [\text{SUBSTANCE THAT THE OBJECT IS MADE OF}]_v]$,
 $[[\text{OBJECT}]_c \rightarrow [\text{PROPERTY OF THE OBJECT}]_v]$,
- $[[\text{OBJECT}]_c \rightarrow [\text{MASS DIMENSION ASSOCIATED WITH THE OBJECT}]_v]$,
 $[[\text{OBJECT}]_c \rightarrow [\text{SUBSTANCE CONTAINED IN THE OBJECT}]_v]$,
- $[[\text{THING}]_c \rightarrow [\text{AGGREGATE OF THINGS}]_v]$.

At the same time, other extensions indicated in the literature are somehow comparable to ours, though they were either formulated at different levels of schematicity or were more vague; for instance, ‘a measurable extent of the object,’ could be interpreted as instantiating one of three schemas of the subpattern $[[\text{OBJECT}]_c \rightarrow [\text{SPATIAL DIMENSION OF THE OBJECT}]_v]$: $[[\text{OBJECT}]_c \rightarrow [\text{EXTENT OF THE OBJECT'S SURFACE}]_v]$, $[[\text{OBJECT}]_c \rightarrow [\text{PART OF THE OBJECT}]_v]$, or $[[\text{OBJECT}]_c \rightarrow [\text{SUBSTANCE THAT THE OBJECT IS MADE OF}]_v]$. It is the example that allows us to decide that the extension is in fact equivalent to the subpattern $[[\text{OBJECT}]_c \rightarrow [\text{SUBSTANCE THAT THE OBJECT IS MADE OF}]_v]$.

Two further senses, ‘nonce substance interpretations of objects’ and ‘the edible part of the substance of which the object is made,’ turn out to be two different formulations of the same subpattern: $[[\text{OBJECT}]_c \rightarrow [\text{SUBSTANCE THAT THE OBJECT IS MADE OF}]_v]$. Similarly, the sense ‘the amount that a container contains or its contents’ turns out to be a rewording of $[[\text{OBJECT}]_c \rightarrow [\text{SUBSTANCE CONTAINED IN THE OBJECT}]_v]$. Likewise, after an analysis of the provided examples, ‘parts of things that contribute to the enlargement or enhancement of the product’ appears to be an equivalent of one of the instantiations of the subpattern $[[\text{OBJECT}]_c \rightarrow [\text{SPATIAL DIMENSION OF THE OBJECT}]_v]$: $[[\text{OBJECT}]_c \rightarrow [\text{EXTENT OF THE OBJECT'S SURFACE}]_v]$.

Parallel observations can be made about the mass-to-count extensions; for example, the extended sense ‘servings of substances and drinks’ raises the question of what servings are. On the one hand, a ‘serving’ might suggest a certain amount of the substance, as in the schema $[[\text{SUBSTANCE}]_v \rightarrow [\text{LIMITED AMOUNT OF THE SUBSTANCE}]_c]$. On the other hand, the example with beer makes it clear that the nouns concern the amount of substance in a container. In other words, this

sense instantiates a different schema: $[[\text{SUBSTANCE}]_v \rightarrow [\text{CONTAINER THAT HOLDS A PORTION OF THE SUBSTANCE}]_c]$. At the same time, we must also note that our subpattern is more schematic than the extended sense in its reference to ‘servings of substances and drinks,’ which results from the fact that the subpattern encompasses also an extended sense of the noun *trash*, which is not ‘a food substance.’

Our analysis offers also a qualitatively different perspective on countability and uncountability. First, it must be stressed that our study is usage-based, that is, it does not rely on random instances invented by researchers but on a detailed analysis of over 1,700 *actual* utterances produced in specific situations. In other words, the analysis does not focus on what is theoretically possible in language, for in language probably anything is possible, but on what native speakers actually say. This provides a real, rather than idealised, vision of English.

Also, as has already been mentioned, instead of universal machines, we indicate one major linguistic process that leads to the change of the grammatical properties of the noun – sense extension. It can be occasionally complemented by ellipsis or a chain of reference points.

Next, we need to stress the intrinsic relationship between the schemas of semantic extension and grammar. On the one hand, this relationship should be theoretically obvious, because it stems directly from LANGACKER’S (2008: 55) assumption that the meaning of a lexical item consists of the conceptual content and the manner in which this content is construed. On the other hand, grammar is hardly ever noticed in discussions of conceptual metaphors and metonymies (for analyses showing grammar in patterns of metaphorical extension, cf. TARASZKA-DROŹDŹ, 2014a, 2016). That is why we want to stress not only its presence at all levels of schematicity but also the fact that it plays a significant role that cannot be neglected if we want to receive an accurate picture of the analysed phenomena.

Another characteristic of our approach is a coherent and systematic account of the process of semantic extension. Among others, this systematicity can be seen in relating, through gradual shifts to higher levels of schematicity, an extension of a single noun to the general patterns of semantic extension; for example, one of the extended mass senses of *tie* can be described as $[[\text{TIE}]_c \rightarrow [\text{PART OF THE SURFACE OF THE TIE}]_v]$, $[[\text{OBJECT}]_c \rightarrow [\text{EXTENT OF THE OBJECT’S SURFACE}]_v]$, $[[\text{OBJECT}]_c \rightarrow [\text{SPATIAL DIMENSION OF THE OBJECT}]_v]$, and $[[\text{OBJECT}]_c \rightarrow [\text{MASS DIMENSION OF THE OBJECT}]_v]$. As a result, it is possible not only to focus on a single, arbitrarily selected level of schematicity, but to receive a full range of the levels at which semantic extension can be described.

The systematicity inherent in the adopted approach is also seen in analysing *all* the extended senses of a noun. This means that we can not only describe the extended senses that we already know or the haphazard senses that we happen to come across, but also systematically *discover* all the directions of extension of a noun, including those that other researchers do not expect to find. In the case

of a noun like *belt*, we can observe such mass extensions as: $[[\text{BELT}]_c \rightarrow [\text{PART OF THE SURFACE OF THE BELT}]_v]$, $[[\text{BELT}]_c \rightarrow [\text{BELT'S LENGTH}]_v]$, $[[\text{BELT}]_c \rightarrow [\text{BELT'S WIDTH}]_v]$, $[[\text{BELT}]_c \rightarrow [\text{BELT'S THICKNESS}]_v]$, $[[\text{BELT}]_c \rightarrow [\text{BELT'S COLLECTION OF FEATURES}]_v]$, and $[[\text{BELT}]_c \rightarrow [\text{COLLECTION OF BELTS}]_v]$.

What is more, this kind of approach allows us to observe a gradual expansion of the senses with the reverse grammatical property and note close relationships between them; for instance, the noun *oven* has such related extended senses as ‘oven size’ and ‘oven capacity’ and *tunnel*, ‘tunnel’s capacity’ and ‘tunnel’s length.’ Actually, very few of the previous accounts have managed to offer an equally complex set of observations, though some of them were undoubtedly aimed to do so, for instance, APRESJAN (1973) or OSTLER & ATKINS (1991).

Concluding, there is one more hallmark of the analysis that is worth mentioning – it enables an analysis of all nouns, including those that are *not* supposed to possess senses with the reverse grammatical property. Actually, the analysis conducted in Section 2.2 is entirely based on such nouns.

Apart from a distinctive character of the CG-based approach to the analysis of count and mass nouns, the analysis allows us to make several other observations. One of them concerns the tendencies of count and mass nouns towards extending to senses with reverse grammatical properties. We can conclude that mass nouns extend to count senses much more readily than count nouns to mass senses. We could see this already at the stage of collecting the nouns for analysis in Section 2.3, where only nine of the selected nouns had solely mass senses – the other 21 nouns, in one way or another, had a count sense. This flexibility was later confirmed in the analysis at the stage of collecting Internet contexts – unlike with some mass contexts of the count nouns, we had no problems with collecting 30 count contexts for each mass noun.

A correlated question is whether or not all nouns are equally likely to change their construal from count to mass or vice versa. A feasible answer to this question is offered by TAYLOR (2002: 379), who describes the count-mass distinction in terms of two categories with a fuzzy boundary in between. Such nouns as *cat* or *car* are likely candidates for the prototype of the count nouns category; *air*, *traffic*, and *music*, for the prototype of the mass nouns category; and *lawn*, *desert*, or *fog*, which tend to appear in both categories, are good candidates for the occurrence at the fuzzy boundary between them.

At this stage, an important difference must be indicated between Taylor’s proposal and the scales of countability put forward by ALLAN (1980) or WIERZBICKA (1985) (cf., e.g., SVENSSON, 1998). Both Allan and Wierzbicka indicate that there are nouns that can be marked as “only count” and “only mass,” whereas the crux of Taylor’s categorisation is that the prototypical nouns occur in senses characteristic of their categories “on most occasions of their use.” This means that such nouns can also appear in senses with the reverse grammatical properties, though such senses are relatively rare.

Actually, Taylor's approach provides a suitable basis for the account of English that arises from our analysis. There are certain nouns whose senses quite easily and regularly appear with the reverse grammatical property, such as *page*, *jacket*, *elbow*, or *sleeve*. At the same time, there are nouns like *star*, *dam*, or *jar*, which, for one reason or another, do not (cf. the introduction to the analysis in Section 2.2). And although it is possible to imagine the reasons why a conceptualiser may want to profile an untypical dimension of an entity, ordinary speakers may feel that certain utterances are less usual, and indicate this, for instance, by means of quotation marks, as in the case of *dam* (42). The most marginal cases, clearly marked for the type of message, would be the example provided by GLEASON (1965: 136) about a caring termite mother: *Johnny is very choosy about his food. He will eat book, but he won't touch shelf*, by WIERZBICKA (1988: 522): *The mad doctor forced the child to eat book/pencil/sock and Add more book to the fire*, or the advertising slogan mentioned by TAYLOR (2002: 378): *more car for your dollar*.

Our analysis also shows an important property of extended senses: the impossibility of predicting (in the generative sense) what senses particular nouns can adopt on the basis of the category that they belong to. This means that we cannot know, before we analyse a noun, which of the possible senses of the noun are *in fact* used by native speakers. A case in point is the above-mentioned example of the noun *sock* given by WIERZBICKA. The example is supposed to be funny, because *sock* adopts the sense 'sock substance treated as food.' As such, it is definitely unconventional, though theoretically possible. However, what other mass senses could *sock* have? It is only through a brief Internet search that we can learn about an actual mass sense of *sock*: 'the warmth provided by the sock,' as illustrated by *The only other "thicker" choice is the Mountaineering sock but that's too much sock for summer use* (<https://www.whiteblaze.net/forum/archive/index.php/t-110705.html>).

As a result, we might be tempted to think that because a sock is a piece of clothing, it should be expected to provide warmth. However, a brief look at other nouns that have been determined to provide a parallel sense shows that this is not so, for one of the nouns with the same sense is *tent*. As a result, it becomes problematic to classify *sock* as a member of a more general class. What is more, *sock* appears also with another sense, not possible to predict from the perspective of a piece of clothing: 'extent of the surface of the sock.' This sense appears during a discussion of the pros and cons of socks of different length (height), such as those running up to the knee. Because the author favours 3" socks, when he presents 7" socks, he comments: *7" A BIT TOO MUCH SOCK FOR MY TASTES* (<https://fitrecovery.wordpress.com/2016/01/11/thank-god-for-the-uci-rarely-but-when-it-comes-to-socks/>).

More generally, such findings reinforce the stance adopted by CG on the treatment of schemas as rules (cf. Section 1.3). In other words, schemas are not

supposed to predict new senses of words but, because they arise from particular expressions and resemble them, schemas are templates to which we relate if we want to construct a new expression.

The analysis enables us to point to certain factors that influence the construal of the noun. One of them stems from the CG claim that meaning is dynamic in nature, that is, meaning is not a pre-packet amount of information or a bundle of features but is, to some extent, dependent on the context. Seeing several separate potatoes in a bowl, most people would probably say that *There are some potatoes in the bowl*. Accordingly, when these potatoes are grated, the resultant mass would probably be described as: *There is a lot of potato in the bowl*.

However, an even more significant role must be ascribed to the conceptualiser, as it is ultimately the conceptualiser that decides which facet of the entity he draws the hearer's attention to and which construal he imposes on the conceived scene, out of several possibilities (which assumes the knowledge of the potential range of conceptualisations encoded in the noun and the ability to use grammatical means to highlight the selected one). This means that the conceptualiser can assert both: *I've got a brother* and *he's more brother than a hero*, even though both statements may concern the same person described by means of a typically count noun.

Actually, it is perfectly conceivable that the conceptualiser may reverse the construal inherent in the visual scene and, seeing several separate potatoes in the bowl, conclude: *This is not enough potato for the salad*. By saying this, the speaker would mean that the amount of the substance that can be produced from these potatoes is not sufficient. Similarly, seeing a mass of potato, the speaker may observe: *There are too few potatoes here*, which would mean that the number of potatoes used to produce the potato pulp was too small. In other words, the speaker may want to draw the interlocutor's attention not to what both of them actually see, but to a different dimension of the potatoes.

The decisive role of the conceptualiser can also be seen from the perspective of the question whether or not the syntax can determine the grammatical property of the noun. On the basis of the analysed data, we have to reject this idea as flawed. There are numerous cases where the structure of the sentence unambiguously indicates that the noun is count, and it is our encyclopaedic knowledge that tells us that what the speaker means is in fact an uncountable substance, as in *My LO has been on the 7month+ jars since she was 6 and a half months, she is now 10 months old, she usually takes half a jar and a fruit pot for her meals* (<http://babyandbump.momtastic.com/weaningnutrition/1603815-cow-gate-7month-jars.html>). Actually, nothing in the structure of the sentence suggests the mass reading of *jar*, which reinforces the conclusion that it is the conceptualiser that attributes the ultimate senses to nouns.

We can also look at the extended senses that we have determined from one more perspective – polysemy (cf. Section 1.2.1.2). Clearly, not all of them can

be classified as established senses of the analysed nouns. Still, those that are conventionalised undoubtedly constitute an integral part of the network of each of the analysed nouns. And although in the analysis we were concerned only with a specific part of the network, namely, the senses that are concrete and that take part in changing the grammatical properties, the determined senses form a highly complex structure where both many levels of schematicity and many chains of extension can be determined (cf. the discussion of *lamp* or *arm* in DROŹDŹ, 2016: 116–117). Another dimension of polysemy that is worth noting is the fact that higher level schemas encompass extensions of different nouns. This means that within networks of different nouns we can observe the same directions of extension, and the schemas that we have determined describe these directions at higher levels of schematicity.

To sum up our discussion, we would like to stress four issues that we consider to be the crucial findings of the present book. First, the differences between the results of our analysis and what has been indicated in the literature about countability and uncountability stem, for the most part, from different theoretical and methodological assumptions. Naturally, each theory has its own rationale, specific analytical tools, and the resultant explanatory force. At the same time, our analysis has put these to the test. From this perspective, as the above discussion shows, the schemas and patterns that we have determined encompass the ones indicated in the literature, add many schemas to them, and clearly show distinct levels of abstraction at which all schemas are organised.

The second issue worth stressing concerns the regularity and systematicity of the process of semantic extension. Due to the adoption of the CG framework, it was possible to present the regularities in the form of schemas and patterns of semantic extension that progressively encompass a higher number of extended senses. The relatedness between the schemas shows how a sense undergoes the process of gradual semantic extension and, related to it, the process of adopting the reverse grammatical property.

Third, we want to note the multidimensional validity of the adopted approach. The collected nouns, due to their diversification, can be considered representative for the English language. What is more, the senses determined in the analysis constitute a set that meshes well with the senses offered by English dictionaries. Finally, the schemas and patterns that we have determined are a well-organised structure that easily encompasses the 14 regularities established on the basis of the general literature overview. In other words, although the analysis unveils a rather unknown dimension of English, this dimension is still real and true.

Finally, we want to return to the puzzle of (un)countability indicated in the title of the book – does our analysis solve it? The answer to this is twofold. First, we must admit that the *ultimate* solution has not been provided yet. The problem of (un)countability in English is too complex to be entirely solved through a single analysis and declaring that *every* noun can be both count and mass

would be premature at this stage of knowledge – much more cases have to be scrutinised first. That is why the book, as we see it, constitutes the first of three major steps that must be taken to provide such a solution. The other two steps assume analysing in the same manner two further general categories of nouns: nominalisations and abstract nouns. Metaphorically speaking, then, if we treat the determined schemas and patterns as pieces of the jigsaw puzzle that we have been trying to solve, we can conclude that another set of pieces have fallen into place and we are one step closer to the ultimate picture of countability and uncountability in English.

At the same time, this analysis inevitably brings us closer to the goal. We have learnt a great deal about both the intricate paths of the process of semantic extension and, correlated with it, the processes underlying the change of the grammatical property of the noun. We also know that the nouns representing all frequencies of occurrence in English and very diverse ontological categories, often characterised as either solely count or solely mass, have extended senses whose grammatical properties are reverse to those of the primary senses. What is more, in the analysis we encountered many unconventional directions of extension that produce senses that exceed the established knowledge. These facts strongly suggest that the discussed phenomenon – the change of the grammatical properties of extended senses of count and mass nouns – is more common among English nouns than typically assumed. Actually, in the light of all the evidence, we are inclined to conclude that every noun in English can be both count and mass.



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- The American Heritage Dictionary of the English Language*. 2017. New York: Houghton Mifflin Harcourt; available at: <https://ahdictionary.com/>



Appendix

Some of the newspapers, journals, and magazines that were referred to in the analysis:

The Wall Street Journal (<http://www.wsj.com>)
TIME (<http://content.time.com>)
MIRROR (www.mirror.co.uk)
THE GUARDIAN (<http://www.theguardian.com>)
THE GUARDIAN.au (<http://www.theguardian.com.au>)
THE TELEGRAPH (<http://www.telegraph.co.uk>)
THE INDEPENDENT (<http://www.independent.co.uk>)
Forbes (www.forbes.com)
NYTIMES (<http://www.nytimes.com>)
THE WASHINGTON POST (<http://www.washingtonpost.com>)
LOS ANGELES TIMES (<http://www.latimes.com>)
NewStatesman (<http://www.newstatesman.com>)
FOX NEWS (<http://www.foxnews.com>)
AUSTIN DAILY HERALD (<http://www.austindailyherald.com>)
The Herald Journal (<http://news.hjnews.com>)
BUSINESS INSIDER international (<http://www.businessinsider.com>)
PROVIDENCE JOURNAL (<http://www.providencejournal.com>)
VOGUE (<http://www.vogue.com>)
MARIE CLAIRE (<http://www.marieclaire.com>)
Scientific American (<http://www.scientificamerican.com>)
MIT TECHNOLOGY REVIEW (<http://www.technologyreview.com>)
Nature (<http://www.nature.com>)
American Chemistry Council (<http://plastics.americanchemistry.com>)
IJCSI International Journal of Computer Science Issues (<http://ijcsi.org>)
Nature Reviews Drug Discovery (<http://www.nature.com>)

Some of the televisions, news services, agencies, or government publications:

<http://www.publications.parliament.uk>
<http://www.tfx.org.uk>
<http://www.votewatch.eu>
<http://legis.wisconsin.gov>
<http://www.ncbi.nlm.nih.gov>
<http://teens.drugabuse.gov>
<http://leg.mt.gov>
<http://www.noaa.gov>
<http://water.epa.gov>
U.S. Food and Drug Administration (<http://www.accessdata.fda.gov>)
<http://www.accessdata.fda.gov>
<https://www.eatforhealth.gov.au>
<http://www.betterhealth.vic.gov.au>
TVTropes.org
<https://www.frbatlanta.org>
<http://youthjournalism.org>
<https://nmtracking.org>
<http://www.arthritisresearchuk.org>
BBC: <http://news.bbc.co.uk>
<http://www.laobserved.com>
<http://www.theweathernetwork.com>
<http://www.accuweather.com>
<http://www.weareiowa.com>
13abc Action News (<http://www.13abc.com>)
<http://www.dailynutritionnews.com>
<http://law.justia.com>
<http://www.drugs.com>
<http://www.ipwatchdog.com>
<http://www.reuters.com>
<http://www.mansfieldnewsjournal.com>
<http://www.newstatesman.com>
<http://www.nydailynews.com>
<http://www.news.com.au>
<http://www.expressandstar.com>
<https://www.law.cornell.edu>
<http://www.hsph.harvard.edu>
<http://www.austlii.edu.au>

Grzegorz Drożdż

Zagadka (nie)policzalności w języku angielskim Studium z perspektywy Gramatyki Kognitywnej

Streszczenie

Monografia poświęcona jest zagadnieniu policzalności i niepoliczalności rzeczownika w języku angielskim. Przyjmując punkt widzenia jednej z teorii językoznawstwa kognitywnego – Gramatyki Kognitywnej Ronald Langackera – praca stawia sobie dwa cele. Po pierwsze, weryfikuje jedno z twierdzeń tej teorii, iż prawdopodobnie każdy rzeczownik może wystąpić zarówno w formie policzalnej, jak i niepoliczalnej. Po drugie, wskazuje regularności zmian tych własności gramatycznych rzeczownika.

Książka składa się z dwóch rozdziałów. W pierwszym z nich autor dokonuje przeglądu literatury poświęconej zagadnieniu policzalności i niepoliczalności i przedstawia najważniejsze osiągnięcia wypracowane w ramach różnych podejść: logicznego, morfologicznego, syntaktycznego, semantycznego oraz pragmatycznego. Zarysowano tu również główne założenia oraz aparat terminologiczny Gramatyki Kognitywnej, która stanowi bazę teoretyczną dla przeprowadzonej w drugiej części monografii analizy. Rozdział kończy zestawienie wybranych założeń Gramatyki Kognitywnej z postulatami poszczególnych podejść.

Rozdział drugi to część badawcza, której trzon stanowi analiza 30 rzeczowników klasyfikowanych w słownikach języka angielskiego jako policzalne oraz 30 rzeczowników typowo niepoliczalnych. Badanie dotyczy użyc tych rzeczowników w kontekstach, w których przejawiają one odwrotną własność gramatyczną. Analizę przeprowadzono na podstawie autentycznego materiału językowego obejmującego ponad 1700 wypowiedzi rodzimych użytkowników języka angielskiego. W ramach analizy opisano szereg ekstensji semantycznych, głównie metonimicznych, towarzyszących omawianym tu zmianom gramatycznym. Na wyższym poziomie abstrakcji ekstensje te ujęte zostały w formie schematów rozszerzenia semantycznego.

W podsumowaniu autor ocenia wiarygodność twierdzenia dotyczącego możliwości użycia każdego rzeczownika zarówno w formie policzalnej, jak i niepoliczalnej oraz przedstawia zestaw regularności dotyczących zmian tych własności gramatycznych rzeczownika. Poza odniesieniem się do dwóch głównych celów monografii, autor wskazuje również inne zjawiska językowe związane z omawianą zmianą własności gramatycznych rzeczownika, takie jak elipsa czy łańcuchy punktów odniesienia.

Grzegorz Drożdż

Puzzle de la (non) comptabilité en anglais Étude dans la perspective de la grammaire cognitive

Résumé

La monographie est consacrée au problème de la comptabilité et de la massivité des noms en anglais. En adoptant le point de vue d'une des théories de la linguistique cognitive, notamment de la grammaire cognitive de Ronald Langacker, l'auteur se pose deux buts. Premièrement, il se propose de vérifier une des hypothèses avancées dans le cadre de la dernière théorie: l'hypothèse selon laquelle probablement chaque nom peut être utilisé à la fois de façon comptable et de façon massive. Deuxièmement, il se donne pour objectif de mettre en évidence certaines régularités concernant le passage du massif au comptable et, inversement, du comptable au massif.

Le livre se compose de deux chapitres. Le premier chapitre donne un aperçu de la littérature sur la comptabilité et la massivité des noms et il esquisse les acquis les plus importants de différentes approches de ce problème: logique, morphologique, syntaxique, sémantique et pragmatique. Puis, il traite des principes fondamentaux et de l'appareil terminologique de la grammaire cognitive qui constitue la base théorique de l'analyse présentée dans le chapitre suivant. Le chapitre s'achève par une comparaison de certains postulats de la grammaire cognitive avec ceux des approches analysées plus tôt.

Dans le deuxième chapitre, qui constitue la partie analytique du présent travail, l'auteur étudie 30 noms décrits dans des dictionnaires de la langue anglaise comme comptables ainsi que 30 noms qui sont fondamentalement massifs. Il analyse les emplois de ces noms dans les contextes dans lesquels ils représentent une propriété grammaticale inverse. L'analyse est fondée sur un matériel linguistique authentique qui englobe plus de 1700 énoncés de locuteurs natifs de la langue anglaise. Elle permet à l'auteur de saisir un certain nombre d'extensions sémantiques, principalement métonymiques, qui accompagnent les changements grammaticaux en question. À un niveau d'abstraction plus élevé, ces extensions sont représentées comme des schémas d'extension sémantique.

En conclusion, l'auteur discute l'hypothèse concernant la possibilité d'employer chaque nom à la fois de façon comptable et de façon massive et il présente un ensemble de régularités du passage du massif au comptable et vice versa. Outre les deux principaux objectifs de la monographie, l'auteur décrit d'autres phénomènes linguistiques liés aux changements des propriétés grammaticales discutés : ellipse et chaîne de points de référence.

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