

**Verticality as an experiential basis
for non-spatial relationships in English and Polish:
the principled polysemy model**

A case study of verbal particles and prefixes

Ewa Konieczna

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for Sławek

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List of abbreviations and symbols

1SG	1st person singular	MASC	Masculine
2SG	2nd person singular	MS	maximal scope
3SG	3rd person singular	N	Noun
1PL	1st person plural	NKJP	<i>Narodowy Korpus Języka Polskiego</i>
2PL	2nd person plural	OALD	<i>Oxford Advanced Learner's Dictionary</i>
3PL	3rd person plural	OED	<i>Oxford English Dictionary</i>
ACC	Accusative	PF	Perfective
BNC	<i>British National Corpus</i>	PL	Plural number
CCPVD	<i>Collins COBUILD Phrasal Verbs Dictionary</i>	PROG	Progressive
F	Feminine	PRS	Present
FT	Future	PT	Past
GEN	Genitive	PTCP	Participle
IMA	Integrated Model of Aspect	q	qualitative dimension
IMPF	Imperfective	REFL	Reflexive
IMPF2	Secondary Imperfective	SG	Singular number
INF	Infinitive	SJPD	<i>Słownik języka polskiego Doroszewskiego</i>
INS	Instrumental	SJP PWN	<i>Słownik języka polskiego PWN</i>
IS	immediate scope	t	temporal dimension
LCCM	lexical concepts and cognitive models	TR	trajector
LDPV	<i>Longman Dictionary of Phrasal Verbs</i>	Wiercz	<i>Wybór tekstów staropolskich</i>
LOC	Locative	Zap War	<i>Zapiski i roty polskie</i>
LM	landmark		

Introduction

The semantics of spatial particles and prefixes both in English and Slavic languages has already been studied in the cognitive linguistic paradigm by numerous researchers (e.g. Lindner 1983[1981]; Rudzka-Ostyn 1984, 2003; Janda 1986, Brugman 1988[1981]; Brugman and Lakoff 1988[1981]; Dąbrowska 1996; Morgan 1997; Navarro 1999; Tyler and Evans 2001, 2003; Tabakowska 2003; Przybylska 2002, 2006; Vandeloise 2004, 2010; Lindstromberg 2010; Šarić 2012; Tchizmarova 2012; Šarić and Tchizmarova 2013; Janda et al. 2013, to mention but a few). The frequency with which the study of the topic of space is undertaken stems from the fact that in cognitive linguistics “the spatio-physical properties of the world of humanly perceived experience are fundamental to human cognition” (Tyler and Evans 2003: 23). This should be taken to mean that our experience of space and spatial relations, mediated and determined by our bodies, underlies much of our conceptual system.

Despite the existence of quite an impressive body of research in the field, relatively little work has been done within the framework of principled polysemy, which constitutes a major theoretical model relied on in the present monograph. To the best of my knowledge, apart from the seminal book published by Tyler and Evans (2003), in which the basic tenets of this model have been laid out, and an unpublished doctoral dissertation by Bębeniec (2010), in which the author uses the principled polysemy model to discuss directional prepositions in Polish and English, no other monographs have been written so far. The number of papers employing the principled polysemy model for the study of semantics of space is quite limited as well and it is possible to enumerate just a handful of them, e.g. Mahpeykar and Tyler (2011), Daneshvar et al. (2016), Šeškauskienė and Žilinskaitė-Šinkūnienė (2015), Saeed (2018), and Dehghan and Parvini (2019).

The lack of popularity of the principled polysemy model among cognitive linguists appears to be rather surprising in light of the fact that in cognitive linguistics it is assumed that the meaning of an expression¹ is not stable and it

¹ See section 1.1 for the definition of this term.

depends on the context: “meanings are seen as emerging dynamically in discourse and social interaction. Rather than being fixed and predetermined, they are actively negotiated by interlocutors on the basis of the physical, linguistic, social, and cultural context” (Langacker 2008: 28). That being so, in the framework put forward by Tyler and Evans (2003) context plays a central role both in the interpretation of lexical meaning and in triggering meaning extensions. In contrast, some other cognitive-oriented approaches, e.g. those that explain the development of new spatial senses in terms of image schema transformations (e.g. Lindner 1983[1981]; Lakoff 1987; Przybylska 2002, 2006) do not take context² into account, which reduces the discussion of polysemy in the domain of SPACE to pure geometrical descriptions. Neither do they take into consideration the influence of context in the development of non-spatial meanings of expressions profiling spatial relationships.

Given this, one of the aims of the present monograph is to rely on the principled polysemy model supplemented with the *lexical approach* (developed by Kövecses 1986, 2017b) for a contrastive, corpus-based study of non-spatial senses of English verbal particles and Polish verbal prefixes, encoding the relationship of verticality, i.e. the particles: *up*, *down*, *over*, *under* and *on* as well as the prefixes: *nad-*, *pod-*, *na-*, *w-*, *wz-* and *z-*. The reason for which Polish prefixes are compared and contrasted with English particles (not prefixes) is that in early Middle English there was a sharp decline in verbal prefixation, which was accompanied by a massive rise in the use of verbal particles. As a result, English particles closely correspond to Slavic prefixes and – like prefixes – they express a fairly general meaning, which is “further specified” by verbs with which they are combined (Hampe 2002: 254).³

The analysis of English verbal particles and Polish verbal prefixes carried out in chapter 2 and 3, respectively, takes the cognate prepositions as the point of departure on account of the fact that particles and prefixes are not only historically related to prepositions but they also conceptualise the same TR–LM⁴

² I define context after Langacker (2008) and Kövecses (2015) not only as co-text but also as a physical setting in which an interaction is taking place as well as social and cultural values predominant in a given community of language users. The contextual factors and the importance of context in the process of conceptualisation are discussed in section 1.2.

³ See section 1.6 for a discussion of the relationship between particles and prefixes both from a synchronic and diachronic perspective.

⁴ In Langacker’s (2008) terminology the TR stands for the trajector and the LM for the landmark. While the TR represents the event participant that receives the primary focus, the LM is the entity that comes into secondary focus (see also section 1.3).

configuration (see section 1.6). Moreover, as pointed out by Šarić (2012: 9), “there is a need for a systematic account of the relationship between spatial prefixes and cognate prepositions with the aim of presenting prepositional and prefixal meanings not as a haphazard collection of senses, but as structured meaning networks”. By extension, an analogical claim applies to the study of prepositional and particle meanings.

The research undertaken here is restricted to English and Polish *spatial expressions*⁵ profiling verticality and functioning as verbal *satellites*⁶ (in the sense of Talmy 1991). When used as components of composite verbs, the *relational expressions* assume a force-dynamic value, i.e. they foreground interaction between the TR and the LM taking place along the vertical axis.⁷ Since in cognitive linguistics it is assumed that meaning emerges in the course of human interaction with the environment and can be represented in terms of the TR–LM configuration dynamically evolving in space and time, the construals of the scene by means of verbal particles and prefixes are crucial for explaining the development of non-spatial concepts grounded in human experience of verticality. This is so because relational construals encoded by verbal particles and prefixes can easily be traced back to everyday human interactions with physical objects proceeding along the vertical axis, which – when frequent enough – give rise to an experiential correlation that constitutes an initial phase in the process of meaning extension.⁸

The adoption of the principled polysemy model enables us to concentrate on the role of the linguistic, physical, social and cultural context in developing meaning extensions. The reason for choosing the relationship of verticality as the focus of interest in the present monograph is the importance of the VERTICALITY schema for human perception and cognition, which is a direct consequence of the distinctive human architecture, when compared to other

⁵ I use the term *spatial expression* as a cover term for prepositions, particles and prefixes.

⁶ As proposed by Talmy (1991), *satellites* are components of composite verbs, linguistically represented by particles, or prefixes, which encode the path of motion.

⁷ Verbal particles and prefixes are classified as *relational expressions* because they necessarily “invok[e] the conception of [their] participants” (Langacker 1999: 83), i.e. the TR and the LM. At the same time they possess a force dynamic value because they profile the TR’s change of location with respect to the LM, or the TR’s change of state, which proceeds through time (see section 1.5.3 for a detailed discussion of this issue). In contrast, prepositions frequently profile a single TR–LM configuration, which “persist[s] through time” (Langacker 2008: 99). Thus, the force-dynamic structure of events designated by prepositions is often neutral.

⁸ See section 1.3.1.

species, i.e. the default vertical orientation of the human body with respect to the ground (see section 1.4). Since experience of verticality, like experience of other spatial relations, is fundamental to human cognition, the present monograph makes an endeavour to investigate to what extent it is universal and to what extent language specific by comparing the so-called verbal satellites in two different languages, i.e. English and Polish.

In addition, the goal of this work is to suggest refinements to the principled polysemy model with respect to the nature and role of:

1. The functional element. In the principled polysemy model the functional element is contextual in nature since it is defined as a meaningful consequence of the TR–LM configuration, underlying the proto-scene, which is an idealised mental representation of the primary sense of the *spatial particle*⁹ (Tyler and Evans 2003). The authors assign one functional element to each proto-scene, claiming that it plays a crucial role in the development of meaning extensions. Given this, the aim of the analysis undertaken here is to verify the validity of the above claim on the basis of the corpus data (see point 4 below) from English and Polish by answering the following questions: (I) Is one functional element sufficient to account for polysemy of spatial expressions? (II) Should it be assigned only to the proto-scene? (III) Is it always decisive in triggering polysemy?
2. Experiential correlation. Tyler and Evans (2003) rely on the notion of experiential correlation (cf. Grady 1997, 1999) to explain meaning extensions. It appears that while it is possible to explain why meaning extensions are formed by employing the notion of experiential correlation, it is impossible to account for the way in which they are formed in terms of the construal operations involved. Therefore, the goal pursued here is to propose an idealised mental representation of patterns of mappings from a spatial to an abstract domain, triggered by experiential correlation.
3. Construal operations involved in triggering meaning extensions. Given that the proponents of the principled polysemy model limit themselves to the mechanism of experiential correlation in accounting for meaning extensions, paying little attention to alternative construals of the scene, which lead to the development of new senses, the aim of the present work is to depart from this rather one-sided view of the polysemy of spatial expressions and to discuss the

⁹ The authors use the term *spatial particle* indiscriminately, regardless of whether the relational expression functions as a preposition, a prefix or a particle. Therefore, it should be treated as synonymous with that of a *spatial expression*. The distinction between prepositions, particles and prefixes is discussed in section 1.6.

role of construal operations such as metaphor, metonymy, focusing, prominence and perspective (Langacker 2008) as well as force-dynamics (Talmy 2000a) in the development of semantic networks of spatial expressions.

4. Use of authentic corpus data instead of self-generated data. Tyler and Evans (2003) have admitted that one of the limitations of their investigation of English particles has been the reliance on self-generated data.¹⁰ This, as they have pointed out, can mean that the semantic networks¹¹ they have proposed may not be complete in the sense that they fail to encompass all of the meanings of a given spatial particle that emerge from its actual use in context. Therefore, Tyler and Evans (2003) have proposed that the next step should be to use corpus data in order to enable examination of how spatial particles are used in discourse. Thus, the present monograph offers a refinement of the principled polysemy model in the direction outlined by its proponents by using corpus data to investigate how verbal particles and prefixes combine with component verbs and other sentence elements and how their meanings are “negotiated” in context (Langacker 2008: 28).

As regards the procedure of the collection of corpus data from English and Polish, it can be subsumed under the so-called *lexical approach* proposed by Kövecses (1986, 2017b). The main characteristic feature of this approach is that the researcher looks for lexical items under study in various sorts of dictionaries (monolingual, bilingual, thesauri, etc.), opting for those based on large corpora.

Thus, the lexical approach deals with linguistic units that represent a high degree of conventionalisation. This fact is of paramount importance for the study of patterns of conceptualisation (Kövecses 2017a: 10-11):

Since higher degree of conventionalisation can be expected to go together with greater conceptual centrality, given the high degree of conventionalisation, or entrenchment, of the types, the researcher can make predictions (hypotheses) concerning the conceptually central cases of concepts, or conceptual categories, at the *supraindividual level*.¹² The *supraindividual level* is the level where we are dealing

¹⁰ Likewise, two extensive studies into the semantics of Polish prefixes: *do-*, *od-*, *prze-*, *roz-*, *u-* and prepositions: *na*, *za*, *przed*, *pod*, *nad*, *po*, *przy* and *u* carried out by Przybylska (2006, 2002) rely to a large extent on self-generated data.

¹¹ The notion of a *semantic network* has been proposed by Langacker (1991) and it is defined as a network of all the senses of a polysemous linguistic unit, organised by means of the whole range of categorising relationships, including extension from the prototype and the principle of similarity.

¹² In Kövecses (2017a) this term is in inverted commas. However, according to the convention adopted in the present monograph, all the terms are italicised; therefore, all the quotations are formatted accordingly.

with *decontextualised language* (the conventionalised types), as opposed to the *individual level*, where we are dealing with *contextualised linguistic usage* (of the types) by individuals that results in the tokens of use.

Since the lexical approach offers insight into a significant portion of a metaphorical conceptual system, shared by a linguistic community, I have employed this methodological framework in the present study, whose main aim is to focus not on the metaphorical conceptual system of individual speakers but to make hypotheses concerning conventionalised metaphorical conceptualisations¹³ at the supraindividual level. I have used lexicographic data in the process of identifying both spatial and non-spatial senses of the lexical items under study by relying on the definitions (either explicit or implicit) contained in the dictionary entries, which is what Kövecses (2011) refers to as the *top-down procedure*.

I have employed two dictionaries based on corpora as major sources of data: the *Oxford English Dictionary* (on-line version, available at: <http://www.oed.com/>) and *Słownik języka polskiego PWN* (both CD and online version, available at: <https://sjp.pwn.pl/>). When it comes to the *Oxford English Dictionary* (henceforth OED), it has been selected because, apart from being regarded as an unquestionable authority on the English language, it contains extensive data on the diachronic development of individual words, which is very important from the perspective of the principled polysemy model, according to which the earliest attested meaning is one of the criteria needed for establishing the primary sense (see section 1.3). Apart from the OED, the following monolingual English dictionaries have also been used: *Collins COBUILD Phrasal Verbs Dictionary* (henceforth CCPVD), *Merriam Webster Dictionary* (available at <https://www.merriam-webster.com/>), *Oxford Advanced Learner's Dictionary* (henceforth OALD, available at <https://www.oxfordlearners-dictionaries.com/>) and *Longman Dictionary of Phrasal Verbs* (LDPV).

As regards lexicographic sources for the Polish language, it is predominantly the CD version of *Słownik języka polskiego PWN* (henceforth SJP PWN) that has been relied on due to the fact that it has turned out to be more comprehensive than the online version, both with respect to the number of

¹³ As pointed out by Kövecses (2017a), the lexical approach is not efficient when applied to domains that are not rich in highly conventionalised figurative expressions, such as ABORTION or FEMINISM, which as the author argues, are relatively recent and for this reason they have not managed to develop highly conventionalised metaphors. Needless to say, the domain of SPACE is considered to be self-contained and conceptually stable (Talmy 2000a), therefore, it is characterised by a high number of conventionalised metaphorical conceptualisations.

entries (80 000 versus 50 000) as well as the accuracy of definitions. SJP PWN is a dictionary of contemporary Polish, consequently, it does not contain any historical data. For this reason, the following etymological dictionaries have been consulted with the aim of establishing the earliest attested meanings of spatial expressions under study: Bańkowski, A. 2010. *Etymologiczny słownik języka polskiego* and Brückner, A. 1974. *Słownik etymologiczny języka polskiego*. Apart from these sources, the internet version of a Polish dictionary edited by Doroszewski, known as SJPD (available at <https://sjp.pwn.pl/doroszewski/>), has been consulted to trace some aspects of the diachronic development of the prefixes under study.

Since the subject matter of the present monograph is the discussion of polysemy of English verbal particles and Polish verbal prefixes, the lexicographic search has been aimed at collecting two samples of composite verbs, in which the particle and prefix function as their component elements encoding the relationship of verticality. Accordingly, two samples of verbs have been collected: a sample of English verbs containing particles: *up*, *down*, *over*, *under* and *on* and a sample of Polish verbs with prefixes roughly corresponding to English verbal particles: *nad*, *pod*-, *na*-, *w*-,¹⁴ *wz*- and *z*-.¹⁵

The verbs that constitute the English sample have been extracted from the OED by means of an Advanced Search designed to look for the sequence of the verb and a given particle in a lemma and a headword. The next step has been to exclude verbs characterised by the following features:

1. The meaning of the particle is purely spatial, as in *look under*.
2. The verbs are marked in the OED as obsolete, or archaic, e.g. *bellows up*.
3. The verbs do not function as verbs proper, but as nominal compounds, in which the noun has been created from the verb by conversion, as in *bob-up*, or past participles, e.g. *glammed up*.
4. The meaning of the whole verb is idiomatic, which should be taken to mean that the semantics of a verb has blended with the semantics of the particle and it is not possible to see the contribution of the particle to the semantics

¹⁴ When occurring in the primary sense, the prefix *w*- does not conceptualise movement along a vertical axis because it profiles movement into a container. Still, it has been included in the sample because when used in one of its spatial extensions, it may profile upwards movement, and for this reason it corresponds – to a very limited extent – to the particle *up* (see sections 3.1, 3.5 and 3.5.1).

¹⁵ In chapter 3 Polish verbal prefixes conceptualising verticality are discussed in this particular order because the concept of ‘upwards movement’ encoded by *w*- and *wz*- and ‘downwards movement’, encoded by *z*- are very marginal senses of these three prefixes (see section 3.1 for an explanation).

of the verb by using the methodology adopted, as in e.g. *beam up* ‘to travel through space’.¹⁶

As regards the procedure for collecting Polish prefixed verbs, first, all the verbs containing a particular prefix have been extracted from SJP PWN (CD version) by means of an alphabetical search. The next stage has been to exclude the following categories:

1. Prefixed verbs in which the prefix encodes a purely spatial meaning, such as *podchwycić* [under-catch] ‘to catch from below’, or *podczepić* [under-attach] ‘to attach from below’.
2. Prefixed verbs that have undergone metaphorical extension, such as *nadskakiwać* ‘to lick sb’s boots’, created from the prefix *nad-* ‘over’ and the verb *skakać* ‘to jump’, where the meaning of the whole verb, not just the prefix, has been metaphorically extended. Such verbs are excluded from the analysis unless, according to SJP PWN, they are polysemic.¹⁷
3. Derivatives that are no longer synchronically¹⁸ motivated, e.g. *należać* ‘to belong to’, which nowadays is not related to the verbal base *leżeć* ‘to lie’ any longer in contrast to the verb *doleżeć* ‘to last till some time while lying’.
4. Verbs that are only contained in the subsection of the dictionary edited by Doroszewski and are not included either in the contemporary CD version or online version. SJPD was compiled in the years 1950–1969 and it encompasses the period from the second half of the 18th century to the second half of the 20th century. Consequently, it contains many obsolete forms and it cannot be treated as a reliable source of knowledge about modern Polish.

After the two samples have been collected, i.e. those of English particle verbs¹⁹ and Polish prefixed verbs, both particles and prefixes have been as-

¹⁶ According to the OED, this particular particle verb should be traced back to the US television series *Star Trek*, where it has also been used in extended senses, the most famous of which was the phrase *beam me up (Scottie)* ‘help me (Scottie) out of an undesirable or dangerous situation’.

¹⁷ However, if the opposite is the case, the verb has been included in the sample. One of many such verbs is *podłamać* [under-break], which can be used in the sense ‘to undermine one’s psychological resistance’ when the whole verb has undergone metaphorical extension, or ‘to break sth. partially’ when only the prefix is used metaphorically.

¹⁸ Even though in the principled polysemy model, it is assumed that “the synchronic network reflects many aspects of its diachronic development” (Tyler and Evans 2003: 63), the model is concerned only with the analysis of those composite forms that are not lexicalised, i.e. whose components are synchronically related.

¹⁹ The term *particle verb*, used throughout the monograph as the hyperonym for phrasal and prepositional verbs, has been adopted from Schröder (2011), who, in turn, uses it after Quirk et al. (1985). See section 1.6 for the rationale behind using this term.

signed to semantic classes, representing their non-spatial senses that were established, relying both on the lexicographic data and on the results of the previous research carried out in the field (see section 2.1. for English and 3.1. for Polish). Next, all the occurrences of each particle and prefix, representing a given sense have been counted manually. Since both particle verbs and prefixed verbs can be polysemous (and the polysemy is frequently attributed to the particle/prefix, which profiles two different relationships) the total number of particle/prefix occurrences surpasses that of verbs in the two samples. For example, the particle *down*, when functioning as a component of the composite verb *turn down* may profile a reduction in quantity, a refusal to accept an offer and getting or making worse (OED), all of which are classified as distinct occurrences of the particle because they encode its different senses. All the senses of each particle and prefix have been arranged in tables in descending order of frequency²⁰ with the aim of demonstrating the degree of entrenchment of metaphorical conceptualisations at the supra-individual level. The particle and prefix frequencies are rounded off to two decimal places.

The discussion of the polysemy of the particles and prefixes at issue proceeds in a few stages. It commences with the identification of the primary sense of the cognate preposition on the basis of the five criteria laid out by Tyler and Evans (2003) (see section 1.3). Then, it is demonstrated how non-spatial senses of the preposition have developed from the primary sense, represented by the proto-scene, or other spatial senses, which are a result of the reanalysis of the proto-scene. At this stage of the analysis the focus of attention is on the so-called *bridging context*,²¹ in which a non-spatial meaning co-occurs with a spatial one, as exemplified by:

(1)

Richard laid an armful of books on the table and strolled over to where Frank was sorting through a shelf. (BNC)

²⁰ I use the notion of frequency, here and throughout the whole monograph, to refer to the frequency of occurrence of a given sense of the particle/prefix in the collected sample based on lexicographic sources. By no means should it be regarded as the frequency of its use in the language, which can only be measured by adopting a corpus approach, not a lexical approach (Kövecses 2017a).

²¹ This concept has been made widely known through Heine's (2002) study of morphosyntactic change, but I believe that it can equally well be applied to the study of lexical meaning. As used here, it is the context in which a spatial expression has two meanings: a primary spatial and a non-spatial one, which has been triggered by the context.

It is assumed that in (1) the preposition *on* triggers the contextually induced implicature of addition, as each time a book is placed on the table, it is added to the set of books already lying there (see section 2.8.5 for more details). The next stage of the analysis is to move on to finding correspondences between the conceptual content of cognate prepositions as well as that of particles and prefixes, singled out by means of the lexical approach. For example, when *on* is combined with a verb in the composite verb *sign on* (2), it conceptualises addition (also implied by the preposition *on*, as used in (1)) because one adds one's name to the list by signing it (see section 2.8.5, example (97e) for an explanation).

(2)

You take this [card] up to the Social Security office and sign on at the time it says here.
(OED)

At this stage of the analysis an attempt is made to attribute each meaning extension of English particles and Polish prefixes either to a specific TR–LM configuration or a functional element, or both of them. Next, several instantiations (extracted from the corpora listed in the following) of a given sense of the particle/prefix are presented with a view to focusing on the relationship between the component particle/prefix and the component verb, as well as the degree to which the TR–LM configuration (representing the proto-scene, or its reanalyses) profiled by a cognate preposition figures in the construal of the scene encoded by the particle/prefix.

Given the importance of context in triggering meaning extensions as well as the interpretation of meaning, the study of the semantics of particles and prefixes is context-based. This means that their meanings are interpreted in the minimal context of one authentic sentence derived either from the OED or the *British National Corpus* for English (see section 2.1), and *Narodowy Korpus Języka Polskiego* or SJP PWN corpus for Polish (see section 3.1). Besides taking into account linguistic context, the role of physical, social and cultural context is investigated. The analysis of English particles and Polish prefixes, proceeding along the above described lines constitutes the subject matter of chapter 2 and chapter 3, respectively.

The two analytic chapters are preceded by the theoretical chapter, which discusses the significance of the role of conceptual mechanisms in the construal of space. Besides that, it focuses on several related issues, such as the structure of conceptual content, basic tenets of the principled polysemy model, the notion of embodiment, differences in the construal of a scene by preposi-

tions and verbal particles and prefixes, including valence relations between the component particle/prefix and the verb,²² as well as aspectual construal (even though the discussion of aspect remains outside the scope of the present monograph for reasons explicated therein²³).

The final part, i.e. Conclusion, addresses once again the methodological issues raised at the beginning of the present section. It offers refinements to the principled polysemy model, which are the fruit of the corpus-based research into the polysemy of spatial expressions undertaken in the present monograph.

²² Although verbal valence involves the phenomenon of transitivity, this issue is not examined in the present monograph (see section 1.6).

²³ See section 1.7.

CHAPTER 1

The role of conceptual mechanisms in the construal of space

1.1. Introduction

In cognitive linguistics it is presumed that language does not constitute an autonomous faculty in its own right but that it should be treated as an integral part of human cognition (Langacker 1987). This assumption has profound consequences for the theory of semantics, in which word meanings are not fixed and predetermined but they are actively constructed by language users in the linguistic, physical, social and cultural context. Consequently, language is not a direct reflection of reality, but it provides a representation of reality filtered through the minds of individual speakers, as neatly captured by the statement from Langacker (1988: 49), proclaiming that “[m]eaning reduces to conceptualisation”.

Because reality, understood as social, cultural and physical circumstances, is changing all the time, word meanings are never stable but are actively negotiated in discourse. As a result, conceptualisation has a dynamic character. Broadly defined, it encompasses any aspect of mental experience and subsumes not only “intellectual” concepts, but also motor, sensory and emotive experience within a specific context (Langacker 2008). Even though conceptualisation is far from being rigid and inflexible, it is not negotiated each time from scratch but is based on vast stores of *encyclopaedic knowledge*, i.e. “general world knowledge” (Tyler 2003: 2), pertaining to what is thought and talked about. This approach, known as encyclopaedic semantics, proclaims that “a lexical meaning resides in a particular way of accessing an open-ended body of knowledge pertaining to a certain type of entity” (Langacker 2008: 39).

As noted by Tyler and Evans (2003), acknowledging the link between semantics and the human conceptual as well as perceptual systems is of primary importance for the theory of meaning and language. The authors repeat after Jackendoff (1997) that we can only access a world that is unconsciously

organised by our minds, referred to as the projected world. The projected world indirectly reflects the real world, whose elements can be referred to by the language only if they have achieved the status of mental representations in the human mind. If we have no access to the objective world and what is available to us is its conceptual representation, this means that in order to talk about the world we need to take recourse to our conceptual system.

The claim that semantic representation can be viewed as a conventionalised conceptual structure is of paramount importance in the context of the research into the semantics of spatial prepositions, particles and prefixes because it enables us to account for many of the senses previously considered to be arbitrary. Talmy (1988, 2000a, 2000b) has convincingly argued that space, as conceptualised by the language user, is not Euclidean in nature, which should be taken to mean that it does not comply with the principles of fixed distance, angle, contour, or size. Instead, as Talmy (*ibid.*) has proposed, space is topological, that is relationships between objects are not fixed but relativistic and, for this reason, they can be considerably influenced by various kinds of construal operations performed by the language user.

What should be borne in mind is that semantic representation cannot be put on a par with conceptual structure because, while the latter is extremely elaborate and rich, the former is far more reduced. Therefore, a semantic representation of a given linguistic unit is a partial representation of conceptual structure. The function of lexemes and *composite*¹ *expressions*² relied on by the speaker or writer in a particular context is to induce the recipient of the message to activate a vast body of underlying knowledge and, as a result, to make elaborate conceptualisations like those in the mind of the conceptualiser (Tyler and Evans 2003).

Because the meaning of a linguistic expression, referred to by Langacker (1987: 157-158) as a *usage event*, is underspecified, it is subject to contextual influence:

The semantic pole of a usage event is the *contextual meaning* of an expression, i.e. the richly detailed conceptualisation that constitutes our full understanding of the

¹ The *composite expression (structure)* is symbolically complex, which means that it consists of smaller symbolic elements, referred to as *component elements* (Langacker 2008). The composite expression can also be referred to as a *composite symbolic structure* and a component element as a *component symbolic structure* (see section 1.5.2).

² The term has been adopted from Langacker (2008) who uses it to refer to a linguistic unit of any length and morphological complexity, from a simplex word to a multi-word phrase.

expression in context and includes all relevant aspects of the conceived situation. Contextual meaning is clearly encyclopaedic in scope [...], it includes particulars of the speech situation that are not linguistically coded. More importantly, the contextual meaning of an expression is often an *emergent* property: though perfectly evident in context and *consistent* with the meaning of the lexical items employed, it goes beyond anything computable or predictable from their individual conventional values.

This is what Evans and Green (2006: 213) refer to as the “protean [...] nature” of lexical meaning, characterising the vast majority³ of words used in a given language. Accordingly, the aim ascribed to the present work is to discuss the protean nature of the meanings of prepositions, verbal particles and prefixes encoding verticality in English and Polish, i.e. to focus on how context affects their interpretation. For example, one of the particles under study, the particle *down* has several different meanings, depending on the linguistic context, including the verb with which it is combined: it encodes the Less Sense⁴ when combined with the verb *mark*, the Worse/Inferior Sense when combined with the verb *dumb*, the Destruction Sense when combined with *throw*, the Defeat Sense when combined with *vote*, etc.⁵ (see section 2.4.4).

Thus, when contrasted with the dictionary view of meaning, the encyclopaedic view sees meaning as “‘guided’ by context” and “‘constructed’ online as a result of contextual information” (Evans and Green 2006: 221). When seen in this light, there are no fully-specified word senses because they are formed from encyclopaedic knowledge that is referred to as *meaning potential* (Allwood 2003), or *purport*⁶ (Croft and Cruse 2004). A consequence of adopting an encyclopaedic view of meaning is the idea that words should not be treated as containers with packages of information that are ready to be used,

³ Most words in each language are polysemic, excluding very basic function words, such as pronouns, or some elementary terms, such as days of the week, or names of the month. Even though the aforementioned lexemes do not have conventionalised meaning extensions, for individual users they can be polysemic, which may result from their experience. For example, a particular month, or day of the week may be used to represent happiness, or misfortune, depending on whether the events occurring then were happy or unfortunate for the conceptualiser.

⁴ The names of senses of spatial expressions are given in capitals in accordance with the conventions used in the principled polysemy model.

⁵ This what is referred to as the *activation* of specific domains, or domain matrixes (see section 1.2).

⁶ See section 1.3.

but as elements of discourse that constitute points of access to an extensive and elaborate network of encyclopaedic knowledge.⁷

Evans and Green (2006) emphasise that it is important to be aware of the dividing line between encyclopaedic meaning and contextual meaning. On the one hand, the meaning of each lexeme is triggered by encyclopaedic knowledge, but on the other hand, it arises in the context of use, which implies that the choice of encyclopaedic meaning is determined by contextual factors. In other words, the discourse context controls the kind of encyclopaedic knowledge evoked by a lexical item. For instance, the nature of encyclopaedic knowledge brought forth by the particle *over* depends on whether it profiles the TR being located higher than the LM (see 2.6.5), the whole A-B-C Trajectory followed by the TR (see 2.6.4.2), merely its part, such the B-C segment (see 2.6.4.3), or point C (see 2.6.4.1). This phenomenon is referred to as *contextual modulation* (Cruse 1986) or *conceptual highlighting* (Croft 1993) and it occurs when a specific facet of encyclopaedic knowledge related to a word is favoured because of the discourse context.

On the whole, an expression's meaning presupposes the existence of "an extensive multifaceted conceptual substrate that supports it, shapes it, and renders it coherent" (Langacker 2008: 42). According to the author, this substrate comprises concepts evoked in the previous discourse on the same or similar topic, a particular speech situation itself, physical, social and cultural context as well as those domains of knowledge that appear to be relevant. Consequently, a lexical item does not have a fully specified meaning but its semantic value is rooted in its provision of access to the conceptual substrate associated with it.

Depending on how the conceptual substrate (and which of its portions) is accessed, language users construe an expression's meaning in a particular communicative situation. In other words, linguistic meaning resides both in the conceptual content and the way of construing this content (Langacker 2008). The term *construal* should be understood as the way in which a speaker portrays the experience that they want to communicate (Croft and Cruse 2004). While at the purely conceptual level, i.e. at the stage prior to verbalisation, any kind of experience can probably be evoked in a rather neutral way, once it is encoded linguistically, the language user imposes a specific construal

⁷ Besides, it should be noted that while the prototypical meaning of a word is rather stable, the encyclopaedic knowledge that this word enables access to is dynamic, that is, it changes as a result of our ongoing interaction with the environment (Evans and Green 2006).

on it. Consequently, one and the same situation can be construed in several different ways. Langacker (2008) illustrates this statement by discussing the experience of seeing a glass containing water, which can be construed in four different ways, corresponding to four different expressions: *the glass with water in it*, *the water in the glass*, *the glass is half-full* and *the glass is half-empty*. Each of these expressions profiles⁸ a different element of the scene (such as the container, liquid, or volume) despite the fact that the object of conception is the same. Thus, the construal of the object in question that is conveyed linguistically is dependent on the subject⁹ of conception.

As in the theory of cognitive linguistics meaning comprises both conceptual content and a specific way of construing this content, the analysis of meaning requires that these two components are discussed in detail. Accordingly, the exploration of the structure of conceptual content as put forward by Kövecses (2017b) is undertaken in section 1.2 and an overview of construal operations, which are one of the factors triggering the polysemy of spatial expressions (Langacker 1987, 1991), constitutes the subject matter of section 1.5. The basic tenets of the major theoretical framework relied on in the present monograph, i.e. the principled polysemy model, are presented in section 1.3, which additionally offers several refinements to the model (such as the significance of the functional element), drawing on the findings from the present research. Given that the principled polysemy model highlights the importance of human experience as mediated by the human body, section 1.4 is concerned with the notion of embodiment. Section 1.6 is devoted to the discussion of differences and similarities between prepositions, verbal particles and prefixes in terms of the construal of the scene and valence relations. Since some English verbal particles and all the Polish verbal prefixes encode aspectual meaning, aspectual construal is touched upon in section 1.7 despite the fact that, as stated in the Introduction, the discussion of aspect is not undertaken in this book.

1.2. Conceptual content as a basis of meaning

Cognitive linguists have traditionally assumed that much of our knowledge about the world (termed *conceptual content*, or *conceptual substrate*) is organised into conceptual structures, known as domains (Langacker 1987), image schemas (e.g., Lakoff 1990, 1993), frames (e.g., Lakoff 1996; Kövecses 2006), scenes (e.g., Grady 1997), mental spaces (e.g., Fauconnier and Turner

⁸ For a definition of profiling see section 1.5.3.

⁹ The notion of subject and object of conception are explained in section 1.5.4.

2002), schemas (e.g., Lakoff and Turner 1989), and scenarios (e.g., Musolff 2006; 2016). As Kövecses (2017b) insightfully remarks, there are more terms in circulation, but even just the above-mentioned ones suggest that there is a lot of terminological confusion as to how to approach the structure of human conceptual knowledge. Therefore, in order to introduce order into this unclear nomenclature, he proposes that conceptual structures, or units, as he calls them, differ from each other only in terms of their schematicity, within which it is possible to distinguish four levels: the level of *image schemas*, the level of *domains*, the level of *frames* and the level of *mental spaces*.¹⁰

The proposal put forward by Kövecses (2017b) echoes claims made by Rosch (1978), Lakoff (1987), and Langacker (1987), according to which our knowledge constitutes a system of concepts that are hierarchically organised and related by *schematicity*, defined by Langacker (1987: 492) in the following way: “[s]chematicity is relative precision of specification along one or more parameters”. When seen in this light, the conceptual system is made up of concepts related to one another at several levels of precision of specification. Kövecses (2017b) proposes that conceptual structures referred to as *image schemas*, *domains*, *frames* and *mental spaces* occupy different levels in the schematic hierarchy, ranging from the most schematic level to the least schematic one. Thus, at the very top of the hierarchy there are image schemas, the next level down is occupied by domains, below which there are frames. At the bottom of the hierarchy there are mental spaces. Accordingly, image schemas are the most schematic structures and the least specific, while mental spaces are the most specific and the least schematic ones.¹¹

As far as *image schemas* are concerned, they are very basic schematic structures which make human experience meaningful (Johnson 1987; Lakoff 1987). As Kövecses (2017b) notices, the highly schematic nature of image schemas makes it possible for them to range over the whole conceptual system. For example, one of basic schemas, i.e. the SOURCE-PATH-GOAL schema, underlies not only the concept of MOTION as construed by spatial particles¹²

¹⁰ Even though Kövecses (2017b) proposes these four levels of schematicity as the theoretical framework for the conceptual metaphor theory, his model has a universal application on account of the fact that metaphor is just one of construal operations, all of which reside in obtaining access to conceptual content.

¹¹ As noted by Kövecses (ibid.) a similar hierarchy has been proposed by Dancygier and Sweetser (2014).

¹² For the time being, this term is used as a cover term for all the kinds of spatial expressions (following the convention adopted by Tyler and Evans 2003) irrespective of

analysed in the present work, but also numerous abstract concepts, such as COMPLETION, or GOAL, construed by metaphorical extensions of these particles.¹³ Moreover, one and the same concept may be supported conceptually by several image schemas, as is e.g. the case with the concept of SUPERIORITY construed by the particle *up*, which is based on the FORCE schema and the UP-DOWN schema (see chapter 2.3.4).

Domains, which are more specific than image schemas, are defined by Langacker (1987: 488) as “a coherent area of conceptualisation relative to which semantic units may be characterized”. Langacker (2008) points out that a lexical item invokes a set of domains as the foundation of its meaning. The set of domains in question is referred to as the *domain matrix*. For instance, as the analysis carried out in chapter 2 will show, the English spatial particle *up* invokes several domains, such as DIRECTION, MOTION, VERTICALITY, GOAL, to mention but a few. These domains serve, then, as source domains in such conceptual metaphors as UPWARDS DIRECTION IS POSITIVE, REACHING A GOAL IS COMPLETION OF AN ACTIVITY, etc. Such metaphors have a more specific information content than those that rely exclusively on image schemas. Therefore, it can be safely assumed that domains constitute elaborations of image schemas (Kövecses 2017b).

At a still lower level there are *frames* (Fillmore 1982), which are less schematic, i.e. more specific than domains.¹⁴ According to Kövecses (2017b), the difference between the domain and the frame is that of a greater schematicity of the former. In other words, frames elaborate selected aspects of the domain matrix, i.e. some specific higher level concepts within a domain. As pointed out by Sullivan (2013), domains consist of frames and this is the relationship that she refers to as *inclusion*. Frames involve more conceptually specific information than domains and a domain such as VERTICALITY can be perceived as being elaborated by several distinct frames, e.g. ASCENT and DESCENT. These frames account for metaphorical expressions, such as *prices*

their status in the sentence, i.e. whether they function as a preposition, particle, or prefix. A comparison of these three kinds of spatial expressions is carried out in section 1.6.

¹³ As the analysis carried out in chapters 2 and 3 shows, the SOURCE-PATH-GOAL schema underlies the concept of MOTION encoded by all the particles and prefixes analysed in the present work as well as the concept of COMPLETION, encoded by the particle *up*, and the concept of GOAL construed both by the particle *on* and preposition *na* (see sections 2.8.4 and 3.4.4.4, respectively).

¹⁴ Note that Langacker (2008) considers domains and frames to be similar, arguing that frames are non-basic domains (see also Cienki 2007).

go up, or *to mark down the clothing* (see 2.3.4.1 and 2.4.4.1, respectively). Thus, frames are said to be made up of roles and relations between these roles.

When the roles are filled with specific values in actual discourse and in particular communicative situations, the level of *mental spaces* is reached. Kövecses (2017b: 326) uses the term in the sense defined by Fauconnier (2007: 351):

Mental spaces are very partial assemblies constructed as we think and talk, for purposes of local understanding and action. They contain elements and are structured by frames and cognitive models. Mental spaces are connected to long-term schematic knowledge, such as the frame for walking along a path, and to long-term specific knowledge.

As Kövecses (2017b) observes, mental spaces import their structure from frames but they are filled with specific information from context. Therefore, as he says, the level of mental spaces can be put on a par with what Langacker (2008) refers to as the *current discourse space* (CDS). Mental spaces are more specific than frames because they do not rely on generic roles and relations (which is a feature of frames) but operate with particular instances of roles and relations. Thus, we are dealing with mental spaces when we produce language in real communicative situations, both when using metaphorical language and creating novel metaphors, as well as processing them online.

While images schemas, domains and frames occupy the *supraindividual level* of the conceptual system, mental spaces can be found at the *individual level*. In one of his previous publications, Kövecses (2010[2002]: 321) clarifies the difference between various levels of cognitive organisation in the following way:

In conclusion, then, the cognitive linguistic view of metaphor [...] works on three levels: the supraindividual level corresponding to how a given language and culture reflects decontextualized metaphorical patterns, the individual level corresponding to the metaphorical cognitive system as used by individual speakers of a language, and the subindividual level corresponding to universal aspects of various kinds of embodiment.

Thus, image schemas, domains and frames, which can be found at the supraindividual level, constitute the basis of our ontological system and are stored in the long-term memory. They make up what we commonly refer to as encyclopaedic knowledge, which can be retrieved from decontextualised language by means of the lexical approach. Mental spaces operate at the individual level, wherein individual language users modify and manipulate higher level conceptual structures in the way that depends on their communicative needs. Therefore, the language used at the individual level is fully contextual-

ised because language users resort to mental spaces that are not part of the habitual cognitive and linguistic repertoire.

An important point that Kövecses (ibid.) makes is that even though mental spaces constitute the online level of conceptual processing,¹⁵ cognitive operations can be carried out only by relying on higher levels of our conceptual system, i.e. image schemas, domains and frames. This should be taken to mean that a given metaphor as used in context is connected with conceptual structures residing at the supraindividual level. Consequently, a metaphor used in a particular speech situation activates the frame with which it is connected, which activates the domain to which it belongs, which in turn activates the image schema, conceptually supporting the frame.

All in all, image schemas, domains, frames and mental spaces lend coherence and organisation to human experience. Even though they occur at four levels of schematicity, they are closely intertwined with one another. Because of that, metaphors should not be associated with a single conceptual structure, such as domains, frames, image schemas or mental spaces, because they form complexes of all four of these. This vertical hierarchy underlying metaphorical conceptualisations is presented in Fig. 1-1, which demonstrates the way in which UPWARDS MOVEMENT as a source concept takes part in metaphorical mappings¹⁶ through which the concept of INCREASE is construed.

Thus, Fig. 1-1 represents both the schematicity hierarchy of the source and target concepts (from the level of image schemas to the level of mental spaces), organised vertically, and mappings between the source and target concepts, organised horizontally on the four levels. Concepts organised on these four levels of the hierarchy range from the least specific to the most specific. Consequently, it is possible to distinguish conceptual metaphors on various levels of specificity/schematicity: ABSTRACT DIRECTION IS DIRECTION (of an object in space) (domain level), INCREASE IN QUANTITY/VALUE IS UPWARDS MOTION (frame level) and THE PRICE GOES UP, WE LENGTHENED OUR STAY, TENSION IS MOUNTING¹⁷ (mental spaces level).

¹⁵ As the author puts it, below the level of mental spaces there is the level of actual communication, that is, producing specific utterances.

¹⁶ This is an example of the *primary metaphor* (Grady 1993, 1997), which constitutes one of the most basic mechanisms of extension from spatial to abstract meaning (see section 1.3.1 for details).

¹⁷ It should be pointed out that as regards the lowest level, a large number of mental spaces could be created that are based on the frame of UPWARDS MOTION. Conse-

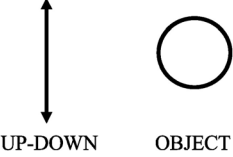
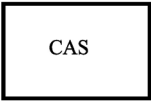
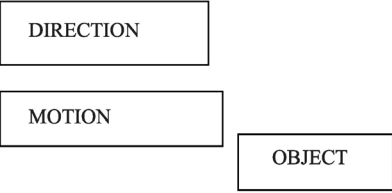
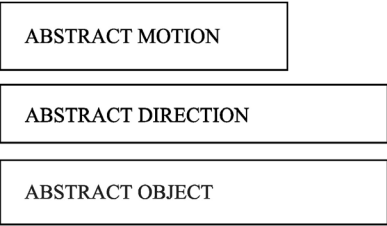
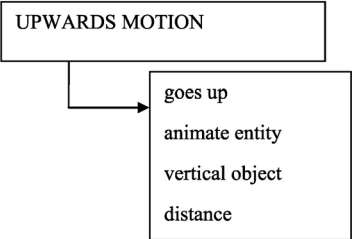
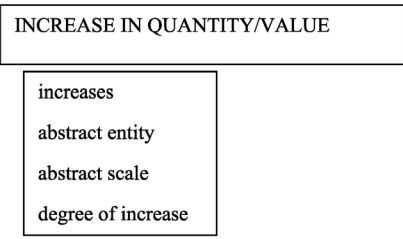
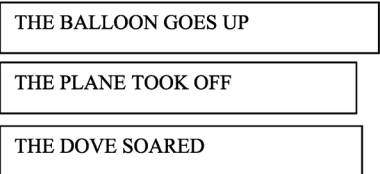
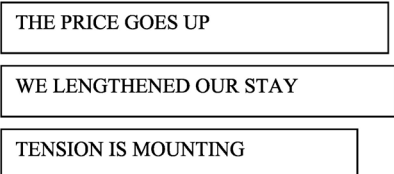
UPWARDS MOVEMENT	COMPLEX ABSTRACT SYSTEM (CAS) ⁴⁰
<p>IMAGE SCHEMAS</p> 	
<p>DOMAINS</p> 	
<p>FRAMES</p> 	
<p>MENTAL SPACES</p> 	

Figure 1-1. Four-level metaphorical mappings for MORE IS UP

For the description of the meaning of a lexical item it is not sufficient to know that it resides in images schemas, domains, frames and mental spaces which are organised into a hierarchy and represent various degrees of schematicity. Another important aspect of lexical meaning is how all these conceptual structures are accessed and activated. As Langacker (2008) puts it,

quently, it is possible to offer only some potential examples of mental spaces based on the frame of UPWARDS MOTION.

whether a particular domain is activated or not depends on the degree of its centrality on a particular occasion, i.e. in a specific communicative situation. For example, when the Polish prefix *pod-* ‘under’ is used in its central sense and it construes the TR located under the LM, or the TR moving under the LM (as used in verbs such as *podbudować* ‘to support from beneath’, *podkleić* ‘to glue from beneath’), the UP-DOWN image schema, the domain of SPACE, as well as the frame of BEING LOWER than another object in space are ranked high for centrality, therefore, it is highly likely that they will be activated.¹⁸ However, when this prefix is used in one of its abstract senses, such as the Partial Effect Sense (see section 3.3.5.2), conceptual structures central for its spatial meaning are peripheral and will be activated only if there is a special motivation. Instead, the WHOLE-PART image schema, the domain of ACTION and the frame of PERFORMING AN ACTIVITY are central and, consequently, they are activated. Thus, the semantic contrast frequently resides not in the inventory of accessible domains (the domain of SPACE is still accessible for the Partial Effect Sense because it has an embodied basis) but in the degree of their accessibility.

Which image schemas, domains or frames will be activated depends on contextual factors: “[c]ontextual factors can obviously focus attention on a domain that might otherwise not be accessed at all or only at a lower level of activation” (Langacker 2008: 49):

- (1)
 - a. *Schowałam się pod parasolem.*
‘I hid under an umbrella’.
 - b. *Spotkaliśmy się pod pomnikiem Pileckiego.*
‘We met near the monument to Pilecki’.
 - c. *Dojechałem pod Warszawę.*
‘I got somewhere near Warsaw’.

While in (1a) the UP-DOWN image schema is central for the meaning of the preposition *pod*, in (1b) the attention of the conceptualiser is centred around both the UP-DOWN and NEAR-FAR image schema as the meeting referred to took place near the monument, towering over those who took part in it. As regards the meaning of *pod* in (1c), the default spatial configuration

¹⁸ This is what Kövecses (2017b: 333) refers to as *meaning foci*, which he defines as “habitually profiled aspects” of the concept, representing a source domain. The tendency for a given domain to be activated is rather probabilistic than absolute and it is also subject to contextual variation as well as changes through time (Langacker 2008).

captured by the UP-DOWN image schema has been suppressed because in this specific context the meaning of *pod* is not ‘under’ but ‘near’.¹⁹

Thus, lexical meaning is always influenced by context, which results in the various patterns of domain activation that represent the contextual implementation of a particular lexical item in an actual usage event. Consider yet another exemplification of the influence of physical context on the meaning of a spatial expression, in this case, the particle *up* (Lu 2016: 584):

(2) *His parents are coming up.*

The particle *up* can mean ‘vertically higher’ when the utterance is used to refer to a situation in which the parents are located in a position lower than the speaker and are moving upwards towards him or her. The second possible sense of *up* is ‘approaching a physical goal’, which is triggered by the physical context in which the parents are positioned on the same vertical level as the speaker and are horizontally moving in his or her direction. Finally, the third interpretation of *up* is ‘north’ provided that the parents are located south of the speaker. As Lu (2016: 584) observes, “*up* in *His parents are coming up* may develop different individual interpretations, and the interpretations are constrained by the physical context in which the utterance is used”. Thus, under the three interpretations, two different image schemas are activated: UP-DOWN, SOURCE-PATH-GOAL and three domains: VERTICALITY, COMPLETION and DIRECTION. Because from one usage event to the another, the domains that are accessed tend to vary, a particular lexical item has different meanings on different occasions. “It may be that, strictly speaking, a lexeme is never used twice with exactly the same meaning” (Langacker 2008: 50).

This observation has important theoretical consequences for any theory of meaning. First of all, it implies that linguistic meaning cannot be strictly separated either from general knowledge or from contextual interpretation. Because of this, it is impossible to provide an exhaustive description of a semantic structure. Another premise is that semantics is not fully compositional because lexical meanings, which Langacker (2008: 50) refers to as “putative building blocks”, do not possess constant lexical values. Consequently, any analysis of meaning carried out within the cognitive framework must take into account various types of context. Bearing this in mind, the analysis of English verbal particles and Polish prefixes conducted in the present monograph is contextualised, i.e. their meaning is studied not only in the context of the component verb with which they constitute a composite expression, but also in the context

¹⁹ See section 3.3.3.

of a specific utterance derived from the corpus. This should be taken to mean that the present analysis is carried out at the level of the mental spaces at which language users handle higher level mental structures so as to meet their communicative needs.

Because the present work constitutes an attempt to account for non-spatial senses of verbal satellites in English and Polish relying to a great extent on the primary metaphor (see section 1.3), at this point I would like to present the approach taken by Kövecses (2015), who argues that metaphorical conceptualisation is heavily context-dependent. He proposes that there are two sets of factors that affect metaphor variation: *differential cognitive styles* and *differential experience*. While differential cognitive styles²⁰ are defined as the ways in which conceptualisers rely on the universal cognitive processes available to them, differential experience should be understood as subconscious knowledge, reflecting humans' direct or indirect experiences of the world. According to Kövecses (2015), both differential cognitive styles and differential experience should be treated as types of context. Kövecses (2015: 53-59) suggests that differential experience comprises a variety of factors. Of these, the present study has shown that the following influence conceptualisations encoded by means of verbal particles and prepositions:²¹

1. Physical environment. In other words, this is the setting in which a particular utterance is produced. It includes physical circumstances, viewing arrangement, salient properties of the environment, etc.
2. Surrounding discourse. This should be understood as the linguistic context, i.e. lexical items or phrases that either precede or follow particular discourse units.
3. Knowledge about the main elements of the discourse. These comprise the speaker, the theme of discourse and the addressee.
4. Social situation. This should be perceived as the whole array of social factors characterising the structure of the society, such as power relations, social roles of men and women, the concept of work and many others.

²⁰ According to Kövecses (2015: 26), differential cognitive styles comprise, among other things, the following processes: elaboration, specificity, conventionalisation, transparency, experiential focus, viewpoint preference, prototype categorisation, framing and metaphor vs metonymy preference. Even though these processes are universally available to all people, they are not used in the same way by all groups of language users, which is one of the reasons for the variety of metaphor use.

²¹ Other factors, which are of no importance in the present study, include: previous discourses on the same topic, dominant forms of discourse and intertextuality, history, interests and concerns, and ideology.

5. Cultural situation. Cultural factors affecting metaphor variation include mainly cultural values preserved by a social group and products of culture, such as TV shows, books, films, music, etc.

Besides, as Kövecses (2015) insightfully remarks, differential experience can characterise either groups or individuals, and it is further subdivided into *global context* and *local context*²² which are defined in the following way: “[t]he *global context* is the general knowledge that the whole group shares and that, as a result, affects all group members in using metaphors. The *local context* is the specific knowledge that pertains to a specific situation involving particular individuals” (Kövecses 2015: 53). It is further argued that the global context is the whole system of concepts shared by a group of people and stored in the long-term memory, which is reflected in conventional linguistic usage. In contrast, the local context should be understood as the situation in which some individuals conceptualise a particular situation by means of their working memory. Consequently, it is proposed that the contextual factors that make up differential experience (1-5) listed above exist both on the global and local levels.

In his later work, Kövecses (2017c: 17) proposes that because of the existence of many different types of context, the language user is exposed to a wide range of differential experience that “compete” for his/her attention. “One of the contextual factors will emerge as the strongest and primes the speaker to use the matching metaphorical expression” (Kövecses 2017c: 17). Kövecses (ibid.) refers to this process as *contextual priming* and he makes a claim that it takes place when one of the contextual factors will “motivate, trigger, prompt, facilitate, shape, etc., the use of a particular metaphor in discourse”. The author has derived the name of this process from the procedure extensively used in psychological and psycholinguistic experiments, in which the processing of the target stimulus is either helped or altered by the previous presentation of some other stimulus (see, e.g. Boroditsky and Ramscar 2002; Casasanto 2009; Gibbs and Colston 2012).

Only “a manageable set” of contextual factors out of the whole range available becomes active enough “to prime the use of particular metaphors in the discourse” (Kövecses 2017c: 17). By saying that they are active enough, Kövecses (ibid.) means that they are activated by the language user, who does so by making a decision as to which specific piece of mental or perceptual information he or she wants to “utilise for metaphorical use”. This is done by taking into consideration a “particular target domain meaning” that the conceptualiser wishes to

²² According to Kövecses (2015), the idea of global and local context corresponds to the *communal* and *personal common ground* proposed by Clark (1996).

express in a given communicative situation. “Given this target-domain meaning, the appropriate source-to-target mapping(s) may be activated from the experiential content of the contextual model”²³ (Kövecses 2017c: 7).

Even though Kövecses (2017c) uses the term *contextual priming* to discuss the spontaneous online production of metaphors in discourse, it can be safely assumed that metaphorical meaning extensions of prepositions, prefixes, and particles denoting spatial relationships²⁴ originated in this way in the course of diachronic language development. For example, the sense of subordination encoded both by the preposition *pod* ‘under’ and the corresponding prefix *pod-* has probably arisen in the course of priming the two contextual factors: physical environment and social situation, which are closely intertwined. Physical environment should be understood as the setting in which the conceptualiser (i.e. the TR) is located physically lower than another participant of the scene (i.e. the LM). Social situation manifests itself in asymmetrical power relations within the society where subordinate groups are dominated by those who are in control. Since low physical position and being socially inferior frequently co-occur in human experience (see sections 3.3.2 and 3.3.5.3 for details), the target domain meaning of subordination has activated appropriate mappings from the source to the target, using the specific experiential content. In other words, the metaphor of subordination (BEING SUBORDINATE IS BEING UNDER) has been primed by two contextual factors: physical environment and social situation.

Given the importance of context for the study of metaphorical conceptualisations, as well as the fact that the present work aims to offer an analysis of the semantic network of spatial particles and prefixes, I have decided to adopt the principled polysemy model as the main analytical framework because it goes beyond the pure geometrical representation of spatial meanings captured by image schemas (and transformations of these schemas) and it takes context into account.

1.3. Principled polysemy model

In the principled polysemy model it is context that is of paramount importance in the process of meaning construction. One of the model’s basic claims is that because lexical items always occur in context, their precise mean-

²³ A contextual model is understood as an idealised cognitive model in which communication takes place.

²⁴ See 1.5.3 for an explanation of the notion of relationships.

ings change as the communicative situations in which they are used change as well. Besides attaching great importance to context, the principled polysemy model has established a rigorous procedure for determining whether a given instance of a spatial particle counts as a separate sense. The present section is devoted to presenting the main tenets of the principled polysemy model. At the same time it proposes certain refinements, especially with respect to the nature of experiential correlation and the role of the functional element as well as the construal operations taking part in deriving meaning extensions.

Since the principled polysemy model is concerned with the polysemy of spatial expressions, let me begin the present section by presenting the approach to the phenomenon of polysemy developed by one of the proponents of the model in his later work (Evans 2015). The linguist has studied the phenomenon in question from different angles, which has led him to propose three types of polysemous phenomena: *conceptual polysemy*, *lexical polysemy* and *inter-lexical polysemy*.

As regards *conceptual polysemy*, Evans (2015:100) states that it occurs when an open-class lexical item “obtains different readings in different contexts of use”.²⁵ For example, the noun *book* has different meanings depending on the adjectives it co-occurs with in the discourse. Thus, when accompanied by the adjective *heavy*, the noun *book* denotes a physical object, which is what Evans (2015) dubs a ‘tome’ reading. When the noun in question is used in the composite expression *a boring book*, it refers to the activity of reading, and to be more precise, to the lack of engagement on the reader’s part, hence ‘a level of interest’ reading. Finally, while co-occurring with the adjective *long*, the noun *book* refers to the amount of time needed to read the book, which can be dubbed a ‘duration’ reading.

The second type of polysemous phenomenon investigated by Evans (2015: 101) is *lexical polysemy*, which is when a lexeme “has multiple, distinct meanings, that appear to be conventionalised, but are nevertheless semantically related”. For instance, the polysemous preposition *in* has several different conventionalised readings, such as ‘container’, when used in the phrase *in the kitchen*, ‘state’, when being part of the phrase, such as *in love*, or ‘occlusion’, when used in the phrase *in brown paper*, to mention just three of them.

²⁵ Evans refers to this phenomenon as conceptual polysemy on account of the fact that linguistic context highlights different aspects of the encyclopaedic knowledge that a word provides access to. Langacker (1987) explains this type of polysemy in terms of *active zones* – different aspects of our conceptual representation of an entity are activated during language use under the influence of context.

The third type of polysemy is what Evans (2015: 101) refers to as *inter-lexical polysemy*, which occurs when two different lexical items appear to have “broadly similar readings”. This phenomenon can be exemplified by prepositional phrases, containing *in* and *on* where both prepositions encode a ‘state’, as exemplified by *to be in love/shock/pain* and *to be on alert/the look-out/the run*, respectively.

In order to describe the three types of polysemy in more detail than has been advanced by the above sketchy explanation, it is necessary to introduce the theoretical framework of lexical representation devised by Evans (2006, 2009, 2010b, 2013) referred to as the theory of *lexical concepts and cognitive models*, henceforth *LCCM* theory. Evans (2015) relies on the *LCCM* approach as the theoretical architecture aimed at the explication of various kinds of polysemy.

The main claim of the *LCCM* theory is that there are two distinct kinds of human knowledge, represented by two “foundational theoretical constructs” (Evans 2015: 103): *lexical concepts* and *cognitive models*. *Lexical concepts* encode schematic meaning (Langacker 1987), such as that conveyed by spatial expressions. They contain “parametric knowledge: knowledge that is schematic, digitised and highly partial”. In contrast, *cognitive models* encode “rich” semantic content (Langacker 1987) and they form the conceptual system which is “multi-modal, and analogous to the rich perceptual and interoceptive experience we encounter in our daily lives (analogue knowledge)” (Evans 2015: 103).²⁶

Lexical concepts can be compared to the semantic pole of a *symbolic unit*²⁷ in the sense of Langacker (1987) and, as such, they provide access to the conceptual system. Because lexical concepts are schematic, they “underspecify the range of situated meanings associated with a given form in an individual utterance” (Evans 2015: 103). Lexical concepts are form-specific but a single form may encode a great deal of different lexical concepts. Consequently, lexical concepts which have the same form may be organised into a semantic network. Another feature of lexical concepts is that they have a *lexical profile* which should be defined as their unique “biometric” identifier; it can be compared to the notion of an *ID tag* (Atkins 1987), or *behavioural profile* (Gries 2006). A lexical profile displays both semantic selectional tendencies²⁸ and grammati-

²⁶ This is different from Langacker’s (1987) approach, in which conceptual structure constitutes part of the word’s meaning.

²⁷ A symbolic unit is bipolar as it incorporates two poles: the semantic pole (or alternatively the semantic structure) and the phonological pole (or alternatively the phonological structure) wherein either can evoke the other.

²⁸ Semantic selectional tendencies could also be understood as what Croft (2001) terms *collocational dependencies*, i.e. syntagmatic relations that a given lexical concept forms by attracting certain words and repelling others.

cal selectional tendencies (Evans 2009) which determine the lexical concept that a given usage of a form relates to. To put it simply, each lexical concept can combine only with a certain set of semantic arguments and it can be used only in a certain type of grammatical constructions. One more property of lexical concepts is that they encode linguistic knowledge in terms of *parameters* which should be regarded as reductive abstractions across complexities demonstrated by a given category.

As regards the theoretical construct of the cognitive model, it is “a coherent body of multimodal knowledge” and it “derives from the full range of experience types processed by the brain” (Evans 2015: 105). Meaning construction takes place when cognitive models are activated by lexical concepts in the course of language use. A lexical concept may provide access to a vast number of cognitive models, which collectively constitute the *cognitive model profile*.

Let me now come back to the three types of polysemy, as distinguished by Evans (2015), with the aim of accounting for them in terms of the LCCM theory. When seen from this perspective, conceptual polysemy can be explained as activating access to the cognitive model profile by a lexical concept. As Evans (2005: 109) states, the arising of such a “situated, sense-boundary” construal can be compared to previous accounts of this phenomenon in cognitive linguistics, such as Croft and Cruse’s (2004) notion of *purport*, or Langacker’s (2008) construct of a *domain matrix*. Within the framework of LCCM theory, polysemy of the lexeme *book*, as used in composite expressions such as *heavy book*, *boring book* and *long book*, is seen as a result of “differential activation of regions of the cognitive model profile – the vast semantic potential – to which the lexical concept [BOOK] facilitates access”.

According to Evans, the lexical concept [BOOK] provides access to the knowledge that a book is a physical object and that one interacts with it through the activity of reading. These two types of knowledge are encapsulated by two cognitive models: PHYSICAL STRUCTURE and READING ACTIVITY, which are related to each other by the reader, who interacts with the physical object by attending to it and reading the text. Evans refers to relationships holding between cognitive models as *structural invariants*. Additionally, as he (Evans 2015: 109) argues, cognitive models consist of *attributes* which are “a large, detailed, but structured, body of knowledge”.

The cognitive model PHYSICAL STRUCTURE applies to the physical artefact and it concerns its physical properties, such as its dimensions, weight, colour, kind of binding, etc. This aspect of human knowledge is referred to as the TOME attribute by Evans (2015). Besides being purely physical objects,

books also contain text, with which the reader interacts through the process of reading. This property is dubbed by Evans the TEXT attribute.

The READING ACTIVITY cognitive model is related to interacting with the text of the book. Since reading takes up a specific period of time, this aspect of knowledge is captured by the DURATION attribute. While some books are interesting, others may be boring to read, which is encapsulated by the LEVEL OF INTEREST attribute.

The conceptual polysemy of the noun *book*, as used in the following noun phrases: *heavy book*, *boring book* and *long book*, results from activating – which is what Evans (2015) refers to as *highlighting* – both different cognitive models and different attributes within these models. Thus, the reading of [BOOK] in the expression *heavy book* results from activating the PHYSICAL STRUCTURE cognitive model and highlighting the TOME attribute, while the reading of [BOOK] in the expressions *boring book* and *long book* results from activating the READING ACTIVITY cognitive model and highlighting the DURATION attribute and the LEVEL OF INTEREST attribute, respectively.

When it comes to lexical polysemy, it is based on the unique lexical profile of a lexical concept, i.e. “a habitual patterning in terms of the semantic and grammatical selectional tendencies associated with the lexical concept” (Evans 2015: 110). As already pointed out, lexical concepts encode a schematic meaning; therefore, the polysemy of spatial expressions, which are schematic in nature, is modelled in terms of this particular type of polysemy. Lexical polysemy is based on the semantic and grammatical selectional tendencies of a lexical concept’s lexical profile. If lexical profiles exhibit distinct lexical or grammatical selectional tendencies (or both of them), they are distinct from one another. In this case it is hypothesised that they represent different lexical concepts.

Let me explain this issue by investigating the lexical profile of the Polish preposition *pod* ‘under’. First, consider the following prepositional phrases: *pod stołem* ‘under the table’, *pod ciężarem* ‘under the weight’ and *pod kocem* ‘under the blanket’, where the semantic argument selected for the object of the preposition is different in each case.²⁹ Thus, in the phrase *pod stołem* the semantic argument *stół* corresponds to an object that is higher than the TR, so that the latter can be placed below it because it fits there. In the composite expression *pod ciężarem* the object argument refers to a heavy object, which exerts pressure on the TR. The semantic argument *koc*, used in the last example, corresponds

²⁹ The polysemy of the Polish preposition *pod* is discussed in section 3.3.

to an entity that is frequently thick, soft and warm – for this reason it is used to protect people from the cold. Thus, the following lexical concepts can be selected for the preposition *under*: [HIGH PHYSICAL OBJECT], [HEAVY OBJECT] and [MEANS OF PROTECTION]. Because the nature of the object argument is quite distinct in these three cases, the nature of the relation mediated by the preposition *pod* is different as well and it can be captured by distinct parameters: Lower Location, Pressure and Protection.

The lexical profile of the preposition *pod* ‘under’ is established not only by semantic selectional tendencies but by a combination of these with grammatical selectional tendencies. Thus, the preposition *pod* can be used with the static verb and the object noun in the instrumental case (*Walizka leży pod stołem* ‘The suitcase is lying under the table’), or the dynamic verb and the noun in the accusative case (*Wsunął walizkę pod stół* ‘[He] pushed the suitcase under the table’). Accordingly, it can be stated that we are dealing here with two different lexical profiles of *pod* and also different lexical concepts: [LOWER LOCATION] and [MOVEMENT INTO LOWER LOCATION], respectively, which are established on the basis of both different semantic and grammatical patterning characteristic for each instance of use.

The last type of polysemy distinguished by Evans (2015) is inter-lexical polysemy, which takes place between different lexical forms. The essence of this type of polysemy is that sometimes different lexical forms may encode similar lexical concepts. For example, as evidenced by the analysis in chapter 3, three Polish lexical forms, i.e. the prefixes: *pod-* ‘under’, *nad-* ‘over’ and *na-* ‘on’ encode the [PARTIAL EFFECT] lexical concept. When combined with component verbs, they encode a partial performance of an action, i.e. they express reaching an intermediate stage beyond which the undertaken activity can still be continued. The lexical concept in question constitutes part of the following composite verbs: *nadpalić* ‘to burn partially’, *podgotować* ‘to parboil’ and *naciąć* ‘to notch’.

However, as it turns out, the [PARTIAL EFFECT] lexical concepts for the three prefixes exhibit different semantic selectional tendencies. The [PARTIAL EFFECT] lexical concept associated with *nad-* selects for verbs that may encode an action affecting the upper part of a physical object, while the same lexical concept associated with *pod-* selects for verbs that are capable of encoding affecting the bottom part of the affected object. When associated with the prefix *na-*, the [PARTIAL EFFECT] lexical concept selects for verbs that express affecting merely the surface of an object. In view of this, it can be assumed that the [PARTIAL EFFECT] lexical concepts discussed above are different from one another.

According to Evans (2015: 113), the relatively constant nature of lexical concepts, which are, in his view, “instantiated as discrete sense-units in long-term semantic memory [...] does not preclude lexical concepts also being constructed in context, guided by appropriate linguistic and non-linguistic context”. As pointed out by Herskovits (1987, 1988), many spatial prepositions are used quite flexibly, which means that in certain contexts the meanings that they encode diverge considerably from the prototype. For example, as remarked by the author, a sentence such as *The pear is in the bowl* may describe a scenario where the pear is located on top of another fruit so that actually it is not contained within the boundaries of the bowl. I will return to the study of the influence of context on the meaning of spatial expressions in the further part of this section, in which I focus on meaningful consequences of a spatial configuration, i.e. *functional elements* (Tyler and Evans 2003).

At this point, I would like to focus on the procedure that is adopted in the principled polysemy framework for determining the *primary sense* which is the central or prototypical meaning of a spatial expression.³⁰ As is well-known, even though cognitive linguists are all of the opinion that numerous senses of a single lexeme are arranged into a network, they do not agree as to what should be regarded as the main sense and how other senses are related to it. For example, Lakoff (1987) has proposed the notion of a radial category, arguing that lexical items should be seen as natural categories of senses. As an illustration of this approach and at the same time relying on Brugman’s work (1988[1981]), he has described a wide variety of meanings of the preposition *over*. Despite the fact that his analysis is meticulous, it is not quite clear what criteria he uses to differentiate between the various senses of the preposition. Gries (2006: 59) criticises Lakoff’s approach because of the fact that “every usage event even minimally different from another constitutes a different sense”. Sandra and Rice (1995) also object to Lakoff’s methodology in his analysis of *over*, claiming that the discussion is based too much on intuition and the data instead of being derived from corpora, or lexicographic sources, is generated by the linguist himself.³¹ Besides, in their view, the application of Lakoff’s model results in the far too fine-grained distinctions between related uses, which is sometimes termed the *polysemy fallacy* (Sandra 1998; Tyler and Evans 2003: 38; Shakhova and Tyler 2010: 274). In an attempt to solve this

³⁰ Langacker (1987) refers to this sense as the *sanctioning sense*, arguing that it sanctions sense extensions.

³¹ As stated already in the Introduction, the reliance on self-generated data is also one of the drawbacks of the analysis carried out by Tyler and Evans (2003).

problem, i.e. to do away with the unnecessary multiplicity of senses, Tyler and Evans (2003) have proposed the principled polysemy model, whose great merit is the development of a methodology aimed at establishing the primary sense.

The principled polysemy model has been proposed as a result of studying the semantic networks of some English particles. In this approach the primary sense of the spatial particle is determined according to the following five criteria (Tyler and Evans 2003: 47):

1. The earliest attested meaning. This criterion has been established on the basis of the stable nature of spatial conceptualisations in the language: spatial relations as well as the way in which humans perceive space has been relatively constant throughout the centuries. Therefore, the earliest attested sense appears to be a probable candidate for the primary sense.
2. Predominance in the semantic network. This should be understood as “the unique spatial configuration that is involved in the majority of distinct senses found in the network” (Tyler and Evans 2003: 48). For example, Tyler and Evans (*ibid.*) have found that out of fifteen senses of the particle *over* eight involve the TR located higher than the LM. Consequently, the primary sense for the particle *over* is the one that encodes this particular position of the TR in relation to the LM.
3. Use in composite forms (Langacker 1987). As observed by Tyler and Evans (2003), English spatial particles are used predominantly in two types of composite forms: compounds³² and particle verbs.³³ Their analysis has revealed that if a given sense of a spatial particle is used in composite forms, it does not necessarily mean that this is the primary sense. However, if it is not used in composite forms, it is likely that it is not the primary sense.
4. Relations to other spatial particles. It is a well-known fact that spatial particles occur in certain sets that divide up various spatial dimensions into related subspaces, which are referred to as *contrast sets*, such as for example *over* and *under*, or *up* and *down*. Since the meanings of spatial particles are largely relativistic (Langacker 1987), i.e. determined in relation to the other spatial particle in the contrast set, the specific meaning used for the

³² The authors include prefixed verbs (such as *overachieve*, *underscore*) in this category as well.

³³ *Particle verbs* are defined after Quirk et al. (1985) as those which consist of a lexical verb followed by a particle. They can be further subdivided into *phrasal verbs* (where the particle is an adverb) and *prepositional verbs* (in which the particle is a preposition). However, as it turns out the borderline between these two categories is frequently quite fuzzy (see section 1.6 for a discussion of this issue and Fig. 1-9 for the preposition-particle continuum).

formation of such a contrast set appears to be a probable candidate for the primary sense.

5. Grammatical predictions. According to Langacker (1987), meaning extensions are derived from the sanctioning sense. If so, the choice of the primary sense should enable the formation of testable predictions as to which other senses can be traced back to it either directly or indirectly.

After the prototypical meaning has been established, it can be represented by a *proto-scene*, roughly corresponding to Langacker's (1987) *super-schema*, both of which stand for the least elaborate, and also the most schematic, content of the particle. However, the difference between a super-schema and a proto-scene is that the latter structure consists of configurational and functional elements. The configurational elements are a trajector (TR) and a landmark (LM), the former being the element that is located, while the latter standing for the entity with respect to which the TR is located. As regards *functional elements*, they are non-spatial in nature and they reflect an interactive relationship taking place between the TR and the LM in a particular spatial configuration (Herskovits 1987; Vandeloise 1991, 1994). For example, a functional element associated with a spatial configuration expressed by the preposition *in* is containment, which is a natural consequence of the TR being located within the bounded LM. In the opinion of Tyler and Evans (2003), a functional element plays a decisive role in triggering meaning extensions.

In his later work, Evans (2015) speaks of functional elements in terms of parameters. He proposes that the prototypical spatial lexical concept associated with *in* is [ENCLOSURE], which, in his view, encodes the parameter Enclosure. This parameter should be viewed as an abstraction across a range of the spatio-geometric properties associated with bounded landmarks:

There are a diverse range of complex conceptualisations across which the parameter Enclosure is abstracted. This includes, at the very least, experiences relating to the range of the entities enclosed, and a bounded landmark, which serves to enclose the figural entity. Bounded landmarks themselves consist of many types even in everyday experience. For instance, a bounded landmark includes an interior, which further subsumes an interior surface, and the volumetric interior bounded by the interior surface. It also subsumes a boundary, which can be rigid, as in a metal safe, or non-rigid, as in a plastic carrier bag. The boundary also has other physical characteristics such as permeability and degrees of opacity (Evans 2015: 114).

As pointed out by Langacker (1987), among others, when used in context, words bring about *invited inferences* (Geis and Zwicky 1971) which are defined

as deductive processes of thought that arise in specific contexts. Tyler and Evans (2003) refer to them as *functional consequences* of human interaction with the environment. Evans (2015) claims that as a result of human interaction with enclosures, *in* is associated with the following functional consequences: Location with Surety, Occlusion, and Affecting Conditions. According to the author, the above listed consequences of human interaction with enclosures have given rise to several conventionalised parameters, which are associated in semantic memory with the lexical concept [ENCLOSURE]. These are: Enclosure, Location with Surety, Occlusion, and Affecting Conditions. Thus, the notion of a parameter, as used by Evans (2015), can be put on a par with the concept of a functional element, as understood by Tyler and Evans (2003).

The parameter of Enclosure in the sense of (Evans 2015), i.e. the functional element of enclosure³⁴ in the sense of Tyler and Evans (2003), arises as a consequence of bounded landmarks which contain a smaller, movable physical entity. The Enclosure parameter itself can give rise to other parameters, such as a Location with Surety on account of the fact that containers typically hold and restrict the freedom of movement of a motile entity located therein. This phenomenon can be exemplified by a spatial scene in which a bulb is only partially contained in a ceiling socket but at the same time it is fixed with surety, which results from its partial enclosure. Another parameter, i.e. Occlusion, arises due to the opacity of the boundaries of some containers, which hide from view an object located inside. Finally, the parameter of Affecting Conditions is a consequence of the fact that the interior of a container affects an entity that is contained inside. For example, as observed by Evans (2015), a prisoner who is held in solitary confinement in a windowless cell is clearly affected by the absence of light and the lack of the company of other prisoners.

On the whole, Evans (2015: 115) proposes that the above-mentioned functional consequences, which emerge from “the spatio-geometric property of Enclosure, have become abstracted as distinct parameters”. Consequently, as the author claims, the prototypical spatial lexical concept for *in* that he dubs [ENCLOSURE] encodes a meaning spectrum that consists of four different parameters, which are triggered by context.

The notions of a meaning spectrum and parameters are employed by Evans (2015) to explain the development of lexical polysemy. In the linguist’s view, the parameters: Location with Surety, Occlusion and Affecting Conditions associated with *in*, can bring about the emergence of new lexical concepts.

³⁴ In the principled polysemy model functional elements are written in lower case – this convention has been adopted here.

As Evans (2015: 118) states, the development of new lexical concepts consists of several stages. First, by interacting with the spatial relation of Enclosure, several functional consequences arise. They “become conventionalised as parameters, or semantic ‘atoms’ – forming part of the bundle of linguistic content encoded by the [ENCLOSURE] lexical concept”, which encodes not only the spatial relation of Enclosure but also parameters that encode different functional categories, such as Location with Surety, Occlusion and Affecting Conditions.

According to Evans (2015: 118), polysemy arises when “due to the multiplicity of parameters encoded by a single lexical concept, under certain conditions, a parameter (or parameters) that is (or are) particularly salient in a given context of use can become reanalysed as a distinct sense-unit, giving rise to a new lexical concept in its own right”. This phenomenon occurs when the spatial expression is used in a *bridging context*, in which the spatial lexical concept gives rise to a situated implicature that is frequently non-spatial in nature. If the preposition frequently occurs in such bridging contexts, the implicature may give rise to the formation of a different parameter and, accordingly, a different lexical concept.

Evans (2015) accounts for the emergence of the Affecting Conditions parameter in the following way. First, he considers expressions such as *in the dust*, *in the sand*, *in the snow* which can be regarded as bridging contexts for the emergence of a new sense. As the author claims, even though *dust*, *sand* and *snow* are physical entities capable of enclosing other entities, they do not typically serve the function of containers on account of the lack of physical boundaries, characteristic of each type of enclosure. At the same time, *dust*, *snow* and *sand* can “provide an affecting condition, an environmental influence which affects our behaviour” (Evans 2015: 19), such as the kind of clothing that we wear or the kind of protection that we need to provide ourselves with on a given occasion. Accordingly, these prepositional phrases should be thought of as bridging contexts in which the preposition *in* encodes both enclosure and affecting conditions, or either of them.

In contrast, when considering the conceptual content of the phrases, such as *the flag in the storm*, or *the flag in the wind*, it is evident that the parameter of Enclosure is not encoded by them any more (Evans 2015). Instead, as Evans (2015: 118) proposes, it is the parameter of Affecting Conditions that has been “re-analysed as a core component of an independent lexical concept”. As the linguist further argues, humans do not perceive a storm and a wind in terms of enclosures but they see them as “prevailing conditions [...] which

constitute an environment which affects us”. Therefore, it can be claimed that the Affecting Conditions parameter has been reanalysed as the main component of a distinct lexical concept.

On the whole, the emergence of distinct meanings is due to the emergence of a distinct functional element, dubbed a parameter by Evans (2015: 120):

[...] [P]arameters derive from the humanly-relevant scenes with which words are associated during language use. Any such scene involves a number of situated implicatures, associated with the scene. Implicatures that re-occur in usage contexts associated with the same lexical form can come to be stored as parameters – schematic units of semantic structure – conventionally associated with a distinct form. And over time, some parameters can come to be reanalysed as being more salient than others, allowing a lexical item to gradually be used in new contexts of use. And when this happens, we are provided with evidence that a new lexical concept associated with the form has emerged, with a revised inventory of parameters vis-à-vis the prototypical spatial lexical concepts.

Tyler and Evans (2003: 51) propose one functional element for each proto-scene, representing a particular spatial particle, but they “see no reason why, in principle, a proto-scene may not be associated with more than one functional element. It seems reasonable that human experience with a particular spatial configuration may be meaningful in multiple ways and thus be associated with more than one functional element”. For example, Beitel et al. (2001) postulate that the particle *on*, as used, e.g. in the sentence:

(3) *The boy sat on the table.*

encodes several meaningful interactions between the TR and the LM. First of all, the table supports the boy and constrains his actions by preventing him from going lower than the table top. Secondly, the boy exerts pressure on the table, due to his weight and he also covers part of the table that he is in contact with. Thus, it can be proposed that the particle *on* encodes four functional elements: support, constraint, pressure and covering.

In my opinion, the assignment of just one functional element to the proto-scene appears to be the greatest weakness of the approach adopted by Tyler and Evans (2003) because the authors fail to provide a representative semantic network of some spatial particles. For example, they postulate that the functional element for *up* is positive verticality, while the functional element for *down* is negative verticality. When seen from this perspective, all the senses of the particle *up* should be positive, while all the senses of the particle

down should be negative. However, as the present research has demonstrated, this is not the case. For example, *down* may conceptualise PERMANENCE³⁵ and STABILITY (as in *write down*, or *settle down*), which are generally considered to be positive. On the other hand, *up* may convey negative meanings, such as DAMAGE (as in *break up*), or SURRENDER (as in *give up*).³⁶

Consequently, it appears impossible to describe successfully the semantic network of many spatial particles without taking recourse to the functional element characterising a particular spatial configuration. For instance, the semantic networks of the particles *up*, *down* and *on* are heavily dependent on the meaningful consequences of interaction taking place between the TR and the LM, which varies with respect to the specific features of a spatial configuration, such as a shift in the vantage point, or the profiling of different elements of the scene. Thus, in the case of the particle *up*, the position of the starting point and the end-point of the trajectory specified in relation to the LM results in the emergence of two contrasting functional elements, i.e. a decrease in accessibility and an increase in accessibility,³⁷ which, in turn, underlie different meaning extensions.³⁸ As regards the semantic network of the particle *on*, it is based on functional elements that predominantly result from a shift in perspective: for example, the construal of the scene from the TR's perspective gives rise to the functional element of support, while construing the scene from the LM's perspective triggers the functional element of control.³⁹

This kind of approach to functional elements is in tune with the claim that meaning is embodied because it demonstrates convincingly that human interaction with the environment is meaningful by showing how a change in the TR–LM configuration, or a change in the perspective adopted by the conceptualiser, gives rise to different functional elements, which in turn motivate different non-spatial extensions. In other words, assigning functional elements to spatial scenes representing different TR–LM configurations, or construed differently by the conceptualiser, enables us to systematically trace regularities in meaning extensions both in a spatial and a non-spatial domain.

Evans (2010: 224) himself admits that the principled polysemy model “actually underestimates the functional complexity that must be readily avail-

³⁵ See section.2.4.5 for a detailed explanation of this issue.

³⁶ See section 2.3.5 for a detailed explanation of this issue.

³⁷ This is what Vandeloise (1984, 1986, 1991) terms *access to perception*.

³⁸ See sections 2.3.4 and 2.3.5.

³⁹ Altogether the spatial scene construed by the particle *on* gives rise to four functional elements. See section 2.8.2 for details.

able to language users". The linguist admits that the failure to provide an in-depth and comprehensive account of the functional character of spatial semantics stems from the fact that the principled polysemy framework was primarily concerned with working out a meticulous methodology for distinguishing between various senses of spatial particles. Given this, in his view, the issue of the functional content of spatial particles requires further elaboration, an attempt at which is made in the following paragraphs.

First of all, it needs to be pointed out that an early pioneer in the field, Vandeloise (1984, 1986, 1991), was the first researcher who emphasised the limits of a purely geometrical description of prepositional meaning.⁴⁰ Many of the theses that he proposed have been confirmed by psycholinguistic experiments (e.g. Carlson and van der Zee 2005). Vandeloise developed an elaborate system of functional elements, in which he distinguished five groups of functional universal features that need to be considered in the process of studying the semantics of spatial particles. These are: anthropomorphic principles/form of the human body, naive physics, access to perception, potential encounter, and general and lateral orientations.

While in his early works Vandeloise (1984, 1986, 1991) expresses the view that functional features and relations determine the meaning of spatial particles,⁴¹ in his work from 2006 he sees the need for offering an integrated account in which both functional and spatial factors are included and related to one another. Langacker (2010), commenting on the work of Vandeloise (2006), shares this view and argues that neither a pure spatial configuration nor function alone are sufficient for the description of the semantics of spatial particles. He argues that there are cases in which merely a spatial configuration is fully adequate to provide a motivation for the particle meaning, as in the phrase *the dot in the circle*. On the other hand, sometimes the reliance on the functional aspect of a spatial particle alone appears to suffice for handling the particle's semantics, as is, e.g. the case with the prepositional phrase *water in*

⁴⁰ As observed by Aurnague and Col (2017), until the 1980s almost all research on spatial semantics was predominantly geometrical. For instance, Talmy's (1983) account is concerned with assigning geometrical, i.e. abstract, schemas to entities and spatial configurations through various mechanisms, such as idealisation, or abstraction.

⁴¹ Aurnague and Col (2017: 9) quote posthumously the following passage from one of Vandeloise's texts that was never published: "[t]he priority of complex functional notions comes as a surprise only if one expects languages to proceed from the descriptively simple notions to the more complex ones. In fact, languages are devised to help our adjustment to the world and to society. Functional relationships fit this purpose better than general abstract notions".

the glass, in which the function of the glass is that of containment. Langacker (2010: 3) summarises his position in the following words:

Hence the meaning of a preposition cannot be captured by a single semantic specification pertaining to either function or configuration. Instead, according to the view now prevailing in cognitive linguistics, prepositional meanings are complex in two respects. First, an element exhibits a range of conventional senses or established uses, usually anchored by a central case with respect to which the others can be seen as motivated extensions [...]. Second, a given value – especially the central one – is complex in that its characterization involves multiple, coexisting factors. For instance, Deane (1993, 2005) posits a *multimodal* description comprising visual, motor, and force-dynamic images. Navarro and Ferrando propose a similar scheme whose factors include the topology of objects, the motion and force involved in interacting with them, and their function.

Another important observation that Langacker (2010) makes is that out of the functional features that Vandeloise enumerates, anthropocentric principles, alternatively referred to as the form of human body, appear to encapsulate the unity of all the other functional features because they are related to human interaction with the environment. Langacker suggests that anthropomorphic principles can be put on a par with the notion of embodiment as understood by Johnson (1987), Lakoff (1987), or e.g. Ziemke et al. (2007). Therefore, he postulates after Vandeloise (2006) that the primary meaning of the spatial particle can be perceived in terms of the complex primitive, which is pre-linguistic and at the same time requires numerous propositions if it is to be described comprehensively.

To recapitulate, Langacker (2010: 15) claims that there is a need to recognise the fact that both spatial and functional elements are so closely interrelated that it is frequently impossible to set them apart:

It is thus to be expected that interactive and configurational properties might be bundled in a single morphological package. They constitute related aspects of prepositional meaning whose importance varies depending on the preposition and how it is used. Still, it does not necessarily follow that their spatial and functional aspects are exactly equal in status.

In the context of the present study, aimed at the description of a wide array of spatial expressions, encoding either position or movement along the vertical axis, an extremely important observation is that the importance of functional and configurational properties may vary from one spatial expression to another. For example, as the study conducted in the analytic part of

the present work will show, in the case of the particle *on* functional features are of primary importance (see section 2.8.2), while for the particle *over* it is the shape of the trajectory and the position of the TR with respect to the LM that is essential⁴² (in fact the functional element figures only in the proto-scene). Thus, one of the aims of the present study is to demonstrate that spatial meaning represents a “bundle” of interactive and configurational properties, with the supremacy of either the former or the latter holding for a particular spatial particle. From this it follows that, contrary to what has been proposed by Tyler and Evans (2003), the role of the functional element may be very limited.

According to Tyler and Evans (2003: 53), “how a particular spatial scene is viewed will in large part determine the functional nature of a particular spatial scene, and thus in what way it is meaningful”. The authors have identified four variables that affect the functional properties of spatial scenes, as well as meaning extensions, based on how such scenes may be viewed. These are: 1) a shift in the vantage point, 2) profiling selected aspects of the spatial scene, 3) alternative construals of the same scene and 4) variation in the properties of objects conceptualised as the TR and the LM. As regards the first three variables, the authors appear to overlook the fact that in cognitive linguistics a shift in vantage point and profiling are regarded as instances of construal operations (Langacker 1990, 2008).⁴³ That being so, the first and the second variable should be subsumed under the third variable, which is different construal operations. As the analysis carried out in chapters 2 and 3 will show, construal operations that trigger meaning extensions are not limited to those listed by Tyler and Evans (2003) because they also include specificity, focusing (comprising selection and arrangement of conceptual content into foreground, background, composition and scope), prominence (where profiling constitutes merely one of its aspects, another being the TR–LM alignment) perspective (including not only the concept of vantage point but also more abstract dimensions, such as subjectivity, objectivity and mental scanning) and force-dynamics.⁴⁴ These construal operations are discussed in detail in section 1.5 because they play an important role in generating polysemy of spatial expressions.⁴⁵

⁴² See section 2.6.2.

⁴³ See section 1.5 for the analysis of construal operations.

⁴⁴ Force-dynamics is listed as one of construal operations by Talmy (2000a).

⁴⁵ On top of that, it should be remembered that the role of experiential correlation is of paramount importance in motivating abstract extensions of spatial particles (see section 1.3.1).

When it comes to the fourth variable, i.e. the difference in features of objects that represent the TR and the LM in the construed scene, Kövecses (2015, 2017c) would refer to it as characteristics of the physical environment. When seen in this light, it can be proposed that metaphorical senses of some spatial particles have originated as a result of contextual priming, where certain properties of objects, which are part of the physical environment, have motivated the language user to make metaphorical conceptualisations. For example, if in the spatial scene construed by the particle *on* the LM is a heavy solid object, as in the sentence: *He put his glasses on the wooden desk*, a metaphor of support is activated (PUTTING AN OBJECT ON THE SURFACE OF A HEAVY OBJECT IS SUPPORTING IT). If, in contrast, it is the TR that is an object of considerable weight, as in the sentence: *The truck ground to a halt on the melting asphalt*, a metaphor of burden⁴⁶ is prompted (PUTTING A HEAVY OBJECT ON THE SURFACE IS A SOURCE OF BURDEN).

As regards the process of meaning extension, Tyler and Evans (2003) propose two criteria for deciding whether a particular usage of a spatial particle can be regarded as a distinct sense. First of all, if a particular sense is to be considered a separate sense, it must involve a different configuration between the TR and LM than the one encoded by the proto-scene. Thus, in the sentences in (4) the meaning of the spatial particle *over* is distinct from the one represented by the proto-scene, because *over* does not encode a spatial configuration where the TR is located higher than the LM, which is the prototypical meaning of this particle (Tyler and Evans 2003: 43):

- (4)
- a. *Joan nailed a board over the hole in the ceiling.*
 - b. *Joan nailed a board over the hole in the wall.*

The second criterion for determining a distinct sense is that it needs to be context independent, meaning that it cannot be inferred from its usage in a specific context. Given this, *over* as used in sentence (5), cannot be said to encode a distinct sense (the Covering Sense) because it can be derived from context (Tyler and Evans 2003: 44):

- (5)
- The tablecloth is over the table.*

In this sentence the TR, i.e. *the tablecloth*, is higher than the LM, i.e. *the table*, at the same time remaining in contact with it. According to our ency-

⁴⁶ Conceptualising the TR as a burden triggers the functional element of control (see 2.8.2).

clopaedic knowledge, tablecloths tend to be larger than tables and because of this, they obscure tables. Thus, the fact that the table is covered by the tablecloth may be inferred from the spatial configuration between the TR and the LM as well as from extra-linguistic knowledge. Consequently, the covering component does not count as a separate sense. In contrast, the covering component of the particle *over* in sentences in (4) cannot be derived from the context, because the TR–LM configuration would normally be encoded by *below* in (4a) ('The board is below the hole') and *next to* in (4b) ('The board is next to the wall'). Thus, as maintained by Tyler and Evans (2003), unless we know that *over* may encode covering, it is not possible to infer this meaning from the context.

An important claim put forward by Tyler and Evans (2003) is that a complex conceptualisation, such as for example A-B-C Trajectory, encoded by the particle *over* may be subject to multiple instances of reanalysis, and as a result it may trigger multiple senses. In that case, the set of different senses is referred to as a *cluster of senses*. In the graphic representation of a semantic network (which closes each section devoted to the discussion of the polysemy of a given spatial particle) the cluster of senses is marked with an open circle, while a single distinct sense is represented by means of a shaded circle.⁴⁷

Apart from the reanalysis of the spatial scene, prompted by construal operations and followed by the (optional) emergence of a new functional element, another factor that is of primary importance for triggering novel senses is experiential correlation, which is discussed in detail in the next section.

1.3.1. Experiential correlation

The phenomenon of experiential correlation should be viewed in the context of embodied experience,⁴⁸ that is the view that "humans regularly think and talk about internal, often more abstract experience (such as emotions, thought processes and states) in terms of our experience with the external, physical-spatial world" (Tyler 2012: 134). Thus, meaning is based on everyday interactions with physical objects from our environment and the nature of our bodies, which should be understood as both our physiology and neural architecture. For example, in contrast to other animals, such as horses, our eyes are situated in the front part of our faces, which results in an asymmetrical, i.e. front/back orientation in relation to the outside world. This, in turn, is re-

⁴⁷ See, e.g. Fig. 2-5.

⁴⁸ The notion of embodiment is discussed in detail in section 1.4, therefore, at this point it is given only a brief mention.

flected in language in the form of expressions, such as *to turn one's back on sb.* Another instance of embodied experience may be the fact that human beings are bipedal, i.e. as a result of our evolutionary development we stand and move around on our hind legs. Consequently, from infancy we develop an acute awareness of gravity and balance as well as the usefulness and importance of being up. Rising to or remaining in an upright position constitutes the source domain of many metaphorical expressions, referring to persistence, or self-esteem, such as *to stand up for oneself*, or *this aggression will not stand* (Grady 1999). Tyler and Evans argue (2003) that "embodied experience gives rise to conceptual structure", supporting this claim by results of a substantial body of research (Lakoff and Johnson 1980, 1999; Johnson 1987; Lakoff 1987; Langacker 1987; Grady 1997; Evans 2000).

Coming back to the notion of *experiential correlation*, it is defined as a result of the repeated co-occurrence of two distinct phenomena, which eventually become so strongly associated in memory that it is possible to conceptualise and talk about one experience in terms of another (Grady 1997, 1999). For instance, as early as in infancy, the child experiences security and a sense of well-being when being held close to its mother. In this way, physical proximity becomes associated with having a close relationship with another human being. Our experience from later stages of our life is that people who are good friends or important family members do not live far away from one another. As a result, we establish a cognitive link between these two separate experiences and, consequently, we rely on the language about physical proximity to talk about emotional intimacy, as evidenced by:

(6)

My sister and me are very close [...]. (BNC)

The sense of emotional closeness associated with physical proximity has been established in the language in the course of the process referred to as *pragmatic strengthening*. Following Traugott (1989), Tyler and Evans (2003) argue that inferences deriving from repeated patterns of experience can become conventionally associated with the lexeme related to the implicature. What this amounts to is that once pragmatically strengthened,⁴⁹ the implica-

⁴⁹ Cole (1975) considers pragmatic strengthening to occur in steps. First, language users are aware of the literal meaning of a given lexeme but associate it with the context-induced meaning arrived at through the implicature. Next, they lose awareness of the original meaning retaining only what he refers to as conversational meaning, which he defines as the meaning inferred from the context.

ture occurs independently of the context which gave rise to it, as exemplified by sentence (6), which points to emotional closeness between siblings, irrespective of physical distance between them.

It is important to remark that Tyler and Evans (2003) regard experiential correlation as a distinct mechanism, not seeing it as an inherent part of the primary metaphors described by Grady (1997, 1999). This approach is not followed in the present work, which regards conceptualisations motivated by sensory experience as metaphorical in their nature. Such a viewpoint rests on one of the main premises of Grady's research (1997, 1999), according to which human embodied experience may give rise to metaphorical conceptualisations. Grady (1997, 1999) has put forward the concept of the *primary metaphor*, consisting in the association of two basic concepts, one of which is based on a physical perception. This claim is markedly different from an earlier approach of the conceptual metaphor theory in which only the source is a basic concept, while the target is an abstract one. As mentioned above, in the primary metaphor theory both the source and the target are "equally basic in the sense that they are both directly experienced and perceived" (Evans and Green 2006: 304). Consequently, Grady (1997) does not agree that the difference between the source and the target in metaphorical mappings can be put on a par with the distinction between basic and abstract concepts. Instead, he advances the claim that the difference between the source and the target is that of the degree of subjectivity. Consider some examples of primary metaphors, accompanied by their exemplifications (Grady 1997: 14):

(7)

SIMILARITY IS NEARNESS

That colour is quite close to the one on our dining-room wall.

IMPORTANCE IS SIZE

We've got a big week coming up at work.

QUANTITY IS VERTICAL ELEVATION

The price of shares has gone up.

CAUSES ARE FORCES

Vanity drove me to have the operation.

CHANGE IS MOTION

Things have shifted a little since you were last here.

DESIRE IS HUNGER

We're hungry for a victory.

This is how Grady (1997: 14–15) comments on the physical basis of these metaphors:

[...] [T]he target concepts (e.g. SIMILARITY, IMPORTANCE, QUANTITY, CAUSES, CHANGE and DESIRE) lack the kind of perceptual basis which characterises the source concepts [...]. CHANGE, for instance, can be detected in any number of domains, including non-physical ones (e.g. a change in the emotional tone of a conversation), whereas the detection of physical MOTION is directly based on physical perception. DESIRE is an affective state while HUNGER is a physical sensation. QUANTITY is a parameter in any realm, while VERTICAL ELEVATION is a physical variable, perceived by the senses.

Thus, as indicated by Evans and Green (2006), while source concepts are sensory experiences, primary target concepts should be understood as subjective responses to sensory perceptions that constitute “judgements, assessments, evaluations and inferences” (Grady 1997: 14–15). Primary target and primary source concepts are associated with each other through experiential correlation, which should be taken to mean that the phenomena denoted by them frequently co-occur in the real world. For example, the upwards movement of a liquid in a container correlates with an increase in its quantity. Therefore, both a rise in the quantity of physical substances and an increase in the intensity of abstract values is frequently conceptualised in terms of upwards movement, i.e. by means of the metaphorical meaning of the particle *up* (the More Sense).⁵⁰

As regards the mapping from the source to the target in the primary metaphor theory, it is explained in the following way (Grady 1997, 1999). Primary target concepts are subjective responses, operating at the level of cognitive processing, which are not easily available to us. However, once they are structured in terms of sensory images (primary source concepts), they become more accessible. Primary source concepts, which are based on external sensory experience, are said to have image content, while primary target concepts are more evaluative and consequently more subjective – hence, they are claimed to have response content.

The mapping from the source domain to the target domain is believed to have a neuro-cognitive basis, as evidenced by the research on metaphor acquisition in children. Johnson (1999), using a corpus of the utterances of a boy called Shem and collected by MacWhinney (1995), has carried out a case study of the metaphor KNOWING IS SEEING. He has found that before mastering the metaphor Shem went through a stage in which the domain of seeing

⁵⁰ For a detailed discussion of this sense of the particle *up* see section 2.3.4.1.

and the domain of knowing were conflated, which could be expected on account of the fact that most of human knowledge is obtained through seeing. In the case of conflation the seeing domain and the knowing domain are co-active, which can be exemplified by the sentence, such as *Let's see what's in the box*, where seeing what is in the box is correlated with knowing what is in the box.

According to Lakoff (2008), metaphorical conceptualisations, such as *I see what you mean*, which do not refer to the actual process of seeing are non-existent at this stage. As hypothesised by Johnson (1999), such metaphorical construals emerge during later stages of cognitive development. What is of primary importance from the point of view of the origin of primary metaphors is that confluations constitute the basis of their learning. The period of conflation is followed by the child's ability to distinguish between two conceptual domains, followed by the emergence of the primary metaphor. As observed by Lakoff (2008), Grady's theory of primary metaphor is based on Johnson's theory of conflation on account of the fact that it is early confluations in everyday experience that automatically trigger the formation of a large number of primary metaphors that couple subjective judgement with sensorimotor experience.

In a more recent work, Kövecses (2013) proposes that correlation metaphors have a metonymic basis. He states that many emotion-related expressions, such as those in (8) can be regarded as both metaphorical and metonymic ones (Kövecses 2013: 78):

- (8)
He is in low spirits. (SADNESS)
She is feeling up. (HAPPINESS)
He is a hothead. (ANGER)

The author argues that being physically down is an important ingredient of our folk theory of sadness, while being upward-oriented is part of our concept of happiness and an increase in body heat is part of our idea of anger. Consequently, our folk theories of being sad, happy and angry make up a single coherent frame in which being downward-oriented, upward-oriented and having a higher than usual body temperature represent sadness, happiness and anger, respectively. To put it differently, in the aforementioned cases, there is a single frame for the concepts of SADNESS, HAPPINESS and ANGER, in which a single element of the frame stands for the whole frame. This is a clear case of metonymy.

On the other hand, it is a well-known fact that, as has been repeatedly proposed (e.g. by Lakoff and Johnson 1999; Kövecses 2004), feelings and

emotions, such as sadness, happiness and anger can be, and frequently are, conceptualised metaphorically, as exemplified by the following conceptual metaphors: SAD IS DOWN, HAPPY IS UP, and ANGER IS HEAT. Kövecses (2013) explains this apparent paradox in the following way. First of all, it is an undeniable fact that we experience specific behavioural responses linked with the emotions in question. For instance, sadness entails a drooping body posture, the corners of the mouth turned down, etc. The first step that leads to forming a metaphorical conceptualisation is that this set of body posture and facial expressions is generalised into the concept of DOWNWARD BODILY ORIENTATION. Taking into account the existence of the EFFECT FOR CAUSE metonymy (Ruiz de Mendoza and Mairal 2007) as well as the fact that behavioural responses metonymically represent emotions (Kövecses 1986, 1990, 2008; Lakoff and Kövecses 1987), it is possible to propose the following metonymy: DOWNWARD BODILY ORIENTATION FOR SADNESS.

The downward bodily orientation can entail metaphorical conceptualisation in two successive ways (Kövecses 2013). First, the specific notion of downward bodily orientation associated with the psychological state of feeling sad can be generalised to the concept of DOWN(WARDS). In the course of the process of *generalisation* (or *schematisation*)⁵¹ DOWN(WARDS) becomes a spatial concept because it becomes dissociated from the behavioural responses traditionally connected with the feeling of sadness inside the SADNESS frame. Accordingly, the generalised concept of DOWN(WARDS) ceases to be a part of the EMOTION domain and is assigned to the domain of SPACE. Because it is now outside the SADNESS frame, it can be perceived as a source domain of a metaphor of sadness. This particular mapping entails the conceptual metaphor SAD IS DOWN.

The metaphor SAD IS DOWN is based on schematisation of several behavioural responses and it sanctions as number of metaphorical expressions, such as *to fall into depression*, *to feel down*, *your spirits sank*, etc. Moreover, DOWN can be elaborated by other concepts that do not belong to the frame of SADNESS, such as places characterised by their downward orientation, e.g. *pits*, figuring in the phrase *to be in the pits*, or *dumps*, as used in the expression *to be in the dumps*, and others. Thus, as remarked by Kövecses (2013: 87) since in the case of metaphors, such as SADNESS IS DOWN, schematisation ap-

⁵¹ According to Langacker (2008: 17), *schematisation* is one of basic cognitive processes and it consists in “extracting the commonality inherent in multiple experiences”, which results in the emergence of a concept belonging to “a higher level of abstraction”.

plies to the element that becomes the source domain (DOWN); this kind of conceptualisation can be referred to as “target giving rise to the source”.

In addition to the above-described pattern of conceptualisation, it is possible to distinguish cases in which the generalisation applies to the element that becomes the target domain of the metaphor, referred to as “source giving rise to the target”. This phenomenon can be exemplified by the KNOWING IS SEEING metaphor. The metaphor is based on the common aspect of human experience of gaining knowledge about a physical object, which frequently begins with examining it by means of our eyesight: by looking at it we find out its size, colour, shape, etc. Thus, seeing a physical entity and knowing it can be perceived as two kinds of experience that are located within the same frame. For this reason, the relationship between these two kinds of experience can be considered to be metonymic: we regard one event (that of seeing) as the one enabling the other (that of knowing something). This triggers the SEEING SOMETHING PHYSICAL FOR KNOWING THE THING metonymy.

However, getting to know things takes place not only by looking at them. When learning about non-physical entities, such as theories, ideas, facts, etc., we do not use our sense of sight. This should be taken to mean that we generalise the concept of knowledge as based on physical objects to the concept of knowledge separated from our perceptual experience. Consequently, the concept of knowledge becomes highly schematic and becomes the target domain. Because of this, it is possible to construe the obtaining of knowledge about non-physical objects as seeing physical objects, which gives rise to the conceptual metaphor KNOWING IS SEEING.

Kövecses (2013) notices that his treatment of experiential correlation and that of Grady and Johnson’s (2002) differ on a number of important points. First of all, Grady and Johnson (2002) exclude the possibility that primary metaphors arise from metonymies on the grounds of the fact that they consider experiential correlation (on which the primary metaphor is based) to be irreconcilable with conceptual and referential association (constituting the base of metonymy). However, in the opinion of Kövecses (*ibid.*) this argument is not valid because if experiential correlations are linguistically coded this means that they are conceptualised and consequently turn into conceptual associations. Another point⁵² of disagreement between Kövecses (2013) and Grady and Johnson (2002) is the claim made by the latter that while primary metaphors are based on primary scenes and subscenes, metonymies can be found in

⁵² For a detailed dispute with the framework advocated by Grady and Johnson (2002) consult Kövecses (2013).

frames, which are different from scenes. If so, it is not possible to derive primary metaphors from metonymies, which are confined to frames. Kövecses refutes this argument by stating that it is very difficult, if not completely impossible, to draw a clear dividing line between frames, mental spaces, domains, schemas, scenarios and scripts in a way that would enable us to make a valid distinction between primary metaphor and metonymy.⁵³

In the present work I adhere to the approach taken by Kövecses (2013: 87) and I consider metaphors based on experiential correlation as the ones derived from metonymy. I agree with Kövecses that if there exists an experiential correlation between two elements, they must belong to the same frame. Consequently, if one of those elements is selected to provide access to the other element, located within the same frame (before it is schematised and removed from the initial frame so that it then constitutes a new frame), the relationship between them is clearly metonymic.

In view of the above, I propose the following stages in the passage from a spatial to a non-spatial meaning. The first stage is the co-occurrence of two types experience, one of which is a physical phenomenon, while the other is a subjective response to a sensory perception, or a non-physical experience (this can be e.g. a psychological state, or a social phenomenon). Since these two types of experience accompany each other, they can be considered to belong to the same frame. Once the language user becomes aware of non-spatial aspects of spatial experience, he or she forms a context-dependent implicature of a non-spatial relationship between the TR and the LM accompanying a given spatial scene. If this implicature is pragmatically strengthened, a language user becomes aware of the fact that the relational expression has two meanings: one literal and one contextually-induced, as proposed by Cole (1975). When the profile of the expression is shifted from a physical experience to a non-physical one, the language user conceptualises the non-spatial experience in spatial terms (through metonymy). The next stage is that the non-spatial experience is schematised and dissociated from the spatial domain and it is then construed metaphorically through cross-domain mapping. If the metaphorical meaning is to be established as a distinct meaning component in the semantic network of a lexeme, it needs to undergo the second phase of pragmatic strengthening in the course of which a language user loses awareness of the original spatial meaning (Cole 1975).

⁵³ According to Kövecses (2017b), the difference between these conceptual structures is the degree of their schematicity, but all of them constitute coherent mental representations of various aspects of the world (this issue has been elucidated in section 1.2).

The validity of this proposal is going to be verified through the study of English verbal particles and Polish verbal prefixes, carried out in chapters 2 and 3, which will demonstrate that correlation metaphors based on metonymy constitute one of the major mechanisms of meaning extension from a spatial to a non-spatial meaning. For example, one of the meanings of the particle *up*, the Preparing/Beginning Sense (see 2.3.4.3), is based on the experiential correlation between picking up an object and the beginning of an activity in which this object is used as an instrument or a tool. The co-occurrence of these two events takes place in the initial phase of many common activities involving objects: for example, the very first stage of one's journey begins at home and it involves taking hold of luggage, usually left beforehand on the ground. Thus, picking up one's luggage and going on a journey can be seen as two kinds of experience that are placed within the same frame, i.e. the frame of JOURNEY. Therefore, the relationship between these two events is metonymic, as picking up one's luggage and taking it with oneself is perceived as a necessary step prior to going away. This relationship activates the PICKING UP AN OBJECT FOR THE BEGINNING OF AN ACTIVITY metonymy.

However, not all activities begin with taking hold of objects previously located on the ground. For instance, becoming engaged in the mental activity of thinking over a problem or a suggestion does not involve dealing with any physical objects. Therefore, we generalise the concept of BEGINNING as involving physical objects to the concept of BEGINNING separated from physical experience. Thus, the concept of BEGINNING, which becomes schematic at this stage, becomes the target domain (which represents a case of "source giving rise to the target"). Accordingly, it becomes possible to conceptualise the initiation of an activity through cross-domain mapping, i.e. in terms of upwards movement, which generates the BEGINNING AN ACTIVITY IS UPWARDS MOVEMENT metaphor.

Because experiential correlation consists in forming associations and making connections between bodily experience and non-physical experience, it is essential to discuss, in more detail, the notion of embodiment. This constitutes the subject matter of the next section.

1.4. Embodiment

In the framework of cognitive linguistics, the human mind and human language cannot be separated and studied in isolation, because they are heavily influenced by the nature of human experience mediated by the human body. As observed by Evans and Green (2006: 45), "the idea that experience is em-

bodied entails that we have a species-specific view of the world due to the unique nature of our physical bodies. In other words, our construal of reality is likely to be mediated in large measure by the nature of our bodies”.

In the context of a study devoted to spatial relationships, it is important to note that the nature of our bodies as well as features of the physical environment determine our perception and experience of space. For example, while gravity is an objective feature of the world we inhabit, our experience of it is contingent on the kind of bodies that we have. Thus, in order to move upwards, e.g. jump, we need to push off the ground by means of our muscles, after which we find ourselves on the ground again without the possibility of remaining above the surface of the earth for a longer time. In contrast, other species, such as humming birds are capable of rising from the ground without pushing off because they rely on the rapid movement of their wings. Besides that, they are able to stay in the air and are not forced to land immediately afterwards. Another genus, fish, experience gravity only to a limited extent because its strength is counteracted by their buoyancy in water. Thus, the idea that different organisms have different kinds of experience, stemming from the nature of their bodies, is known as *variable embodiment* (Evans and Green 2006: 45). Evans and Green (2006: 46) summarise the influence of embodiment on human cognition in the following words:

The fact that our experience is embodied – that is, structured in part by the nature of the bodies we have and by our neurological organisation – has consequences for cognition. In other words, the concepts we have access to and the nature of the “reality” we think and talk about are a function of our embodiment: we can only talk about what we can perceive and conceive, and the things that we can perceive and conceive derive from embodied experience. From this point of view, the human mind must bear the imprint of embodied experience.

It has been discovered that human experience is not only embodied but also established very early. Psychological experiments carried out by Mandler (1992) have revealed that as early as at the age of two months, children begin paying attention to objects in their environment and by attending closely to numerous spatial experiences they are capable of detecting meaningful patterns. For example, infants younger than six months old exhibit signs of surprise if they see that containers without bottoms hold objects. According to Mandler (1992), this proves that these infants have already formed a “theory” about the relationship of containment and support – as a result they begin to realise that when a smaller entity is inside a bigger one, it is supported by its bottom.

In his seminal book, Johnson (1987) has put forward an idea that embodied experience can manifest itself in the form of image schemas, which should be understood as rudimentary concepts, such as CONTACT, CONTAINER, BALANCE. They are meaningful in the sense of being derived from human pre-conceptual, i.e. sensory-perceptual, experience as early as in infancy. For example, as argued by Tyler and Evans (2003: ix), the spatial scene in (9) is meaningful because it entails several consequences of the TR-LM configuration that can be captured under the notion of containment.

(9)

The coffee is in a cup.

The authors maintain that if the coffee is contained in the cup, it means that it is located there, and its movement is limited by the cup's boundaries; being in the cup makes it impossible for the coffee to pour out over the table and whenever the cup is moved, the coffee moves with it.

Lakoff (1987, 1990, 1993) and Johnson (1987) have proposed that embodied concepts can be systematically extended in the process referred to as *conceptual projection* to provide structure for more abstract concepts and domains. For instance, it is possible to conceptualise abstract states, such as love or trouble, in terms of a container because when experiencing them human beings feel as if they were encompassed by a particular emotional state from all sides, just as a substance or an object stored inside a container is surrounded by its boundaries. Thus, embodied experience serves to impose its structure on abstract ideas, such as mental or psychological states, which is reflected on the linguistic level by means of collocations, such as *to be in love*, *to be in trouble*, *to be in crisis*, etc.

Despite the paramount importance of the human body in the conceptualisation process, it should not be treated as the only level at which human cognition operates. Following Lakoff and Johnson (1999), Gibbs (2005) distinguishes three levels of embodiment: the neural level, the phenomenological level and the cognitive unconscious.

Neural embodiment comprises structures characterising concepts and cognitive operations at the neuro-physiological level. Even though the concepts we have and the experience we have obtained through interaction with the environment are embodied within the brain, the neural level alone is incapable of accounting for the bodily basis of cognition and language. This results from the fact that neural assemblies function relative to the whole body and the way in which it acts in specific situations.

Another level is the cognitive unconscious, which should be understood as all the mental operations that structure conscious experience, including cognition and language. The cognitive unconscious relies on and affects perceptual and motor aspects of human bodies, especially those that involve basic-level concepts. This level includes all of our thought processes and unconscious knowledge. The human body is an essential determinant for the level of cognitive unconscious because all human cognitive structures and mechanisms are founded on patterns of bodily experience and activity.⁵⁴

The third level, the phenomenological level, is accessible to consciousness and it includes everything that we may be aware of, that is our physical and social interactions, our environment, our mental states and our bodies. At this level we experience both the world, understood as the way in which things appear to us, and *qualia*, that is certain qualities of this experience, such as for example, the redness of a fruit, the sound of a musical instrument, or the pain in a part of the body.

The three levels of embodiment described above are closely interrelated with one another. The character of both conscious experience and the cognitive unconscious originate from the nature of neural structure. On the other hand, the neural level as well as the external world determine to a large extent our language and the concepts we have.

Even though the purpose of the present work is to focus on the conceptual aspect of polysemy, I would like to go briefly over some of the results of neurolinguistic research aimed at revealing the existence of a close correspondence between the human ability to perceive and feel things and the ability to think about them. In the course of numerous experiments it has been revealed that if parts of the brain responsible for a certain kind of perception are damaged, the human ability to think about concepts that relate to this perceptual experience is impaired as well. For instance, if the motor and somatosensory area suffers damage, our ability to think about and identify concepts that relate to motor and somatosensory experience, such as tools, is seriously affected. Likewise, if the areas of the brain that are in control of visual perception are

⁵⁴ Thus, atemporal relationships construed by spatial expressions (whose subset encoding verticality constitutes the subject of investigation undertaken in the present monograph) are grounded either directly or indirectly in human interaction with the environment. For example, the Ceasing to Function Sense encoded by the particle *down* derives from experiential correlation between the downwards oriented motion of one's body executed when falling or lying down and bringing an end to one's active functioning (see section 2.4.4.1).

damaged, our ability to manipulate conceptual categories is severely impaired as well (Evans and Green 2006).

In his influential book *Philosophy in the flesh*, Lakoff (2008: 15) makes the following claim: “the very structure of reason itself comes from the details of our embodiment. The same neural and cognitive mechanisms that allow us to perceive and move around also create our conceptual systems and modes of reason”. According to the author, this stems from the evolutionary nature of reason, that is from the fact that human reason evolved to make abstract concepts by building on the various forms of perceptual and motor experience that characterise lower animals. This happened because the brain has a tendency to make improvements on the basis of what it already has at its disposal and to make additions only when it is absolutely necessary. Consequently, during the process of evolution “newer parts of the brain have built on, taken input from, and used older parts of the brain” (Lakoff 2008: 49).

Another piece of neuroscientific evidence for embodiment comes from the primary metaphor theory, which proclaims that human cognition and language are to a large extent motivated by the correlations in bodily experience. This view has triggered the emergence of the *neural theory of metaphor* (Kövecses 2015). The linguist argues that the fact that the brain controls the body and the idea that metaphor is in the body should be taken to mean that metaphor is also in the brain. Consequently, embodied experience triggers the establishment of neural connections between areas of the brain that correspond to source and target. For instance, the activation of the brain region responsible for affection entails the activation of the area that corresponds to warmth. Similarly, if we think about the change in some amount or quantity, such as price, the areas of the brain corresponding to quantity and verticality (understood as the up–down axis) are co-activated. To be more precise, when we conceptualise abstract concepts in metaphorical terms, two sets of neurons in the brain are activated simultaneously: when the group of neurons representing the source fires, another group of neurons, i.e. those corresponding to the target, fires as well (Gallese and Lakoff 2005; Feldman 2006; Coulson 2008; Lakoff 2008). The co-activation of groups of neurons pointed out above brings about what we know as primary metaphors, such as INTENSITY IS HEAT, or MORE IS UP, LESS IS DOWN. As indicated by Feldman (2006: 201), when seen from the neural perspective, primary metaphors can be regarded as instances of associative learning, being in this way an exemplification of the well-known Hebbian maxim “neurons that fire together, wire together”.

1.4.1. Conceptualisation of verticality

Given that embodied experience provides structure for our conceptual system and that the subject matter of the present work is the presentation and description of the semantic networks of English verbal particles and Polish verbal prefixes encoding either motion or location along the vertical axis, at this point it is worth discussing the human experience of verticality, which constitutes a significant element of our perceptual and cognitive system. The importance of VERTICALITY schema in human perception and consequently cognition can be attributed to the unique human architecture and its consequences for conceptualising the world (Rudzka-Ostyn 2003). Tyler (2012) has noted that because people are bipedal, they are fully aware of the significance of an upright position. The author (Tyler 2012: 40) further argues that children also quickly learn the salience and usefulness of being up, i.e. maintaining a vertical position, because it amounts to being able to see more, grasp objects more freely, move more quickly and so forth. Being able to stand upright makes verticality and resistance to gravity meaningful to humans in ways they are simply not to, say, snakes or hummingbirds.

Besides, as observed by Johnson (1987: XIV), among others, verticality is part of our everyday perceptual experience:

We grasp [...] structure of verticality repeatedly in thousands of perceptions and activities we experience every day, such as perceiving a tree, our felt sense of standing upright, the activity of climbing stairs, forming a mental image of a flagpole, measuring our children's heights, and experiencing the level of water rising in the bathtub. The VERTICALITY schema is the abstract structure of these verticality experiences, images and perceptions.

Along similar lines, Langacker (1987) acknowledges that in the study of some spatial scenes, it is indispensable to refer to the dimension of orientation, which is specified in terms of reference to a horizontal or a vertical axis. As Langacker (1987: 133) further argues,

Orientation [...] pertains to alignment with respect to the axes of the visual field (or some comparable coordinate system). Consequently, typical accounts of spatial scenes involve the normal horizontal/vertical dimensional grid we calculated in relation to the surface of the earth; this in turn reflects the orientation of our visual field when we assume our canonical upright viewing [...]. We are accustomed to seeing most of the objects in our experience [...] in a canonical alignment with respect to their surroundings [...]. To the extent that our conception of such objects includes a canonical viewpoint or alignment, this information is necessarily a part of an encyclopaedic characterization of the predicates designating them.

Thus, it can be stated that verticality constitutes an important aspect of both visual perception and cognition because specifying the location of physical objects frequently involves making reference to the vertical axis. Moreover, the VERTICALITY schema underlies basic human experience, such as maintaining a canonical upright position while standing, walking or sitting.

As regards the conceptualisation of verticality, in satellite-framed languages (in the sense of Talmy 1991), the position or motion of objects along the vertical axis is predominantly conceptualised by means of prefixes and particles, closely related to spatial prepositions from which they are derived (see section 1.6 for more on this issue).⁵⁵ In English, as stated by Tyler and Evans (2003), the position along the vertical axis is encoded by two contrast sets: *over* – *under* and *above* – *below*⁵⁶ which construe the TR as located either higher or lower than the LM. Yet another contrast set, i.e. *up* – *down*, consists of elements that are considered by the authors to be particles of orientation on account of the fact that they construe the TR's movement in relation to the oriented, i.e. asymmetric, LM along the vertical axis.⁵⁷ The LM is asymmetric because it is conceptually partitioned into the top and bottom, usually designated on the basis of anthro-

⁵⁵ As elucidated in section 1.6, the borderline between the preposition and particle is frequently fuzzy because the preposition–particle distinction forms a continuum with prototypical cases at its two extreme ends and many intermediate cases in between. For the sake of clarity, I use the two terms for clearly prototypical cases, which means that the preposition profiles a place or direction, while the particle profiles either a change, or a state entailed by the verb. This distinction is exemplified by sentences derived from BNC, where in (ia) it conceptualises the location of the TR (*her head*) on the surface of the LM (*the table*), while in (ib) it conceptualises the continuation (of talking):

- (i)
 - a. *She put her head on the table and wept.* (preposition)
 - b. *He talked on, but I was no longer listening.* (particle)

⁵⁶ While members of first contrast set, i.e. *over* – *under* can function both as prepositions and verbal particles, members of the other contrast set, i.e. *above* – *below* can only be used as prepositions. On this account, the members of the latter set are excluded from the analysis carried out in the present book, and only briefly mentioned while contrasting them with those of the former set (see 2.6.1).

⁵⁷ In fact, none of the four particles: *over*, *under*, *up* and *down* are exclusively limited either to a static or a dynamic use, as exemplified by (iia) and (iib), where the particle is dynamic and static, respectively:

- (ii)
 - a. *One Christmas I was flying over the city of Boston in America.* (BNC)
 - b. *The narrator of Farewells owns a bar in a sleepy village up in the mountains.* (BNC)

pomorphic or zoomorphic models or in terms of the earth's surface in relation to the sky, where the force of gravity plays an important part (Vandeloise 1991; Svorou 1994; Heine 1997 and Talmy 2000a, 2000b).

Even though the particle *on* is not classified by Tyler and Evans (2003) as one conceptualising verticality, and it is given only a brief mention by other authors, such as Lindkvist (1950) (who has observed that when *on* is used in a dynamic sense the orientation of motion conceptualised by it is vertical),⁵⁸ I have decided to incorporate it into my sample, following the findings of the research carried out by Navarro (1998). He is one of few linguists who do justice to the concept of verticality encoded by *on*, pointing out that even when *on* represents a static relation, the TR–LM configuration can be described in terms of a vertical axis, because when the TR is positioned on top of the LM, the TR's force exerted on the LM is directed downwards. Therefore, when seen from this perspective, *on* conceptualises forces operating along the vertical axis and for this reason it should not be excluded from the group of spatial particles encoding verticality.

Thus, as regards English, there are altogether five verbal particles that construe spatial relationships in terms of a vertical axis: *over*, *under*, *up*, *down* and *on*. While *over* and *under* prototypically conceptualise the position of the TR with respect to the LM, either as being located higher or lower than the LM, another set of verbal particles, i.e. *up* and *down*, construe the TR's movement along the vertical axis in relation to the oriented LM. In other words, *over* and *under* conceptually partition space into one part being higher than the LM and the other part being lower than the LM. In contrast, *up* and *down* do not conceptually divide space but they split the LM into the top and bottom part. Finally, the particle *on* in its prototypical sense conceptualises the TR, which because of its weight, exerts force on the LM. The force applied by the TR is in fact the force of gravity which is directed downwards.⁵⁹

As far as Polish spatial expressions and their primary senses are concerned, three of them correspond to English ones: *nad* is equivalent to *over*, *pod* to *under* and *na* to *on*. The above-mentioned prepositions⁶⁰ are closely related (both semantically and diachronically) to three prefixes: *nad-*, *pod-* and

⁵⁸ It has been pointed out by Navarro (1998) that a vast majority of researchers, including Herskovits (1987), Cienki (1989), and Dirven (1989), describe the meaning of *on* in terms of contiguity or contact without making any reference to the notion of verticality.

⁵⁹ For a discussion of other forces operating in this spatial configuration, see section 2.8.

⁶⁰ When writing about Polish, I use the term *preposition* not *particle*, as the notion of the particle has never been used in the context of spatial language (see section 3.1).

na-. The contrast set *up – down* does not have its exact prepositional equivalent in Polish and the meaning of both of its members can be translated in no other way than by means of lexical phrases, i.e. ‘w górę/w górze’ and ‘w dół’,⁶¹ respectively. There is only a very loose correspondence between this contrast set and a pair of two prefixes *w-* and *z(e)-* related to the Polish prepositions: *w* ‘in/into’ and *z* ‘from’ (Śmiech 1986), which may conceptualise downwards and upwards movement, but this is only their peripheral meaning. As suggested by the glosses, the two spatial prepositions prototypically construe either location inside a place or movement of the TR that ends there (*w* ‘in/into’), and motion starting at a particular place or position, either enclosed or open (*z* ‘from’). Consequently, even at this very initial stage it can be stated that Polish and English are partially asymmetric with reference to conceptualising the TR’s motion or position along the vertical axis.

1.5. Construal of spatial relationships

As has already been repeatedly pointed out in the present chapter, in cognitive linguistics, lexical meaning resides not only in the evoked conceptual content but also in the way in which this content is construed. The meaning of an expression can be represented in terms of a visual metaphor where the conceptual content is compared to a scene, and the construal, to a specific way of looking at it (Langacker 2008). Consequently, what is actually perceived while viewing a scene depends on how closely we observe it, what we decide to look at, which elements we focus on and where we examine it from. Correspondingly, the above-mentioned parameters are classified as the following types of construal operations: *specificity*, *focusing*, *prominence* and *perspective* (Langacker 2008).

In the present section, the construal operations that play a significant role in the construal of verticality by means of prepositions as well as verbal particles and prefixes (and those concepts in which verticality plays the role of the source domain) in English and Polish will be discussed in detail, supplemented by selected construal operations not discussed by Langacker (2008), such as *force-dynamics* and *distribution of attention* (Talmy 2000a).

1.5.1. Schematicity

I am going to start the review of construal phenomena by presenting the dimension of construal concerned with the level of detail with which the scene is described. Thus, a given expression is considered to be highly *specific* when it

⁶¹ The first element in each pair conceptualises location, while the other motion.

portrays a scene in fine-grained detail. In contrast, when the expression is *schematic*, it ensures a coarse-grained description, which discloses merely basic features and overall organisation. As regards the degree of specificity that can be reached by a given lexical item, a lexeme can be specific only to some extent and only with respect to given aspects of the general situation. As Langacker (2008: 56) puts it, “[l]exical meanings are [...] specific only in some respects, schematic in others”. For example, with respect to the domain of verticality, the meaning of the particle *up* is specific in terms of the TR’s orientation on the vertical axis, otherwise, i.e. concerning the altitude that the TR rises to, its speed, etc., it remains quite schematic.

According to Langacker (2008), schematisation is one of the most basic construal operations because it takes place in each aspect of language structure. Schemas perform a categorising function because they encapsulate what has been common throughout previous experiences. In cognitive linguistics it is assumed that all generalisations are brought about by performing the operation of schematisation from more specific structures.⁶² Moreover, as stated in section 1.2 schematicity underlies the organisation of the human conceptual system, which is hierarchically structured with image schemas being the most schematic, while mental spaces the least schematic.

1.5.2. Focusing

Another construal operation distinguished by Langacker (2008) is *focusing*, which he further subdivides into *selection* of the conceptual content for encoding it linguistically, arrangement of conceptual content into *foreground* and *background*, accessing a given set of cognitive domains in the process of *composition* and the extent of the expression’s *coverage* in the domains that have been accessed, which is referred to as an expression’s *scope*.

From the perspective of cognitive semantics, which assumes an encyclopaedic view of lexical meaning, it is the process of selection as well as the foreground versus background organisation that are of primary importance. Each lexical item provides access to a set of domains which constitute a domain

⁶² As Langacker (2008: 57) remarks, “[i]n semantics, schemas and categorising relationships (based on either elaboration or extension) constitute the network representing the senses of a polysemous lexical item”. However, this rigid distinction between elaboration (understood as an instantiation of a schema) and extension (understood as a departure from a schema in certain respects) is blurred in the principled polysemy model, as an elaboration of the schema often co-occurs with its extension in the so-called bridging contexts (see section 1.3 and Introduction).

matrix and which range from peripheral to central ones. The centrality of a particular domain is established on the basis of the likelihood of its activation and this, in turn, depends on a specific usage event; that is, how a lexical item is understood in a given context. In a specific communicative situation only a limited number of domains may be activated. One and the same domain can be activated to varying degrees and a high level of activation amounts to foregrounding a given domain.

Besides being a matter of degree, focusing is also closely related to the level of organisation. “In a complex matrix, a domain in the foreground – by virtue of being central (highly susceptible to activation) – may nonetheless remain in the background (being only weakly activated) on a certain occasion” (Langacker 2008: 57). Langacker (*ibid.*) exemplifies this claim in a discussion of domain activation by components of the composite expression *lipstick*. The author insightfully remarks that the frame⁶³ of the cultural practice of painting lips has a different status, depending on the level of the structural organisation at which it occurs. At the lower level, i.e. when *lip* and *stick* function as two independent lexemes, the frame in question is quite peripheral to the noun *lip* and not selected at all by the noun *stick*. It is only at the higher level (at which the two components are combined in the process of composition) that it is highly activated, i.e. foregrounded by the compound as a whole.

Likewise, when taking into consideration composite structures that constitute the subject of investigation in the present work, i.e. English particle verbs and Polish prefixed verbs, the activation of the frame varies depending on the level of structural organisation. For example, in the case of the particle verb *tide over*, in which the particle *over* encodes the Being Successful Sense (see section 2.6.4.2), the frame of achieving success is highly activated: while the particle metaphorically construes achieving success in terms of overcoming an obstacle, represented by the LM, the verb conceptualises the ease with which this is done. As regards the individual lexemes *tide* and *over*, the frame of achieving success is not selected by either of them.

As far as the organisation of conceptual content into *foreground* and *background* is concerned, it has a visual and spatial basis and can be exemplified by a scene in which a small moving figure stands out against a stable background. In the cognitive domain this process consists in relying on previous experience

⁶³ Langacker (2008) uses the term *domain* irrespective of the level of schematicity/specificity of the given portion of the conceptual content. In the framework proposed by Kövecses (2013), the cultural practice of painting lips would be classified as a frame. For this reason, I use this term here.

in the process of interpreting new experience (Langacker 2008). This type of asymmetric relationship can be found in all the cases in which the emergence of a given conception is preceded by another one. Consequently, it can be stated that a particular expression evokes certain background knowledge on which its understanding is based.

The notions of background and foreground figure in numerous construal operations. First of all, they play a role in metaphorical conceptualisations because the source domain constitutes a conceptual background against which the target is conceptualised and understood. Thus, the conceptual content of the source domain is backgrounded in the target domain because it is the target that is foregrounded.⁶⁴ In the case of metaphorical extensions of prepositions, verbal particles and prefixes encoding verticality, spatial domains and frames related to them are backgrounded. For example, the prefix *pod-* ‘under’, encoding the Subordination/Control Sense,⁶⁵ which has emerged as a result of the metaphor BEING CONTROLLED/SUBORDINATED IS BEING UNDER, evokes the spatial relationship of the TR located lower than the LM only in the background and it is the target concept of SUBORDINATION/CONTROL that is foregrounded.

The division of conceptual content into foreground and background is inherent in another construal operation, which is a subtype of focusing, i.e. *composition*. It is of particular importance for the present study, which looks into symbolically complex structures, namely prefixed and particle verbs. According to Langacker (2008), an expression is symbolically complex, i.e. it can be classified as a *composite* symbolic structure, if it consists of smaller symbolic elements, referred to by him as *component* symbolic structures.

The relationship between the composite and component structures can be and, in fact, is perceived in terms of a foreground-versus-background relationship: “[w]hile the composite conception is primary, it is viewed against the background or component structures at all lower levels” (Langacker 2008: 61). That being so, in a composite verb, such as e.g. *naktamać* [on-lie] ‘to tell a lot of lies’,⁶⁶ the notion construed by the complex verb itself is foregrounded,

⁶⁴ As Langacker (*ibid.*) puts it, viewing a given target domain against its source domain results in evoking a *hybrid domain*, which is a *blended space*. Alternatively, it can be proposed that both the target domain and the source domain provide the background for the emerging blended conception.

⁶⁵ See section 3.3.5.3 for a detailed analysis of this sense.

⁶⁶ See section 3.4.4.2 for a comprehensive analysis of this particular sense of the prefix *na-*.

while the concepts encoded by its components, i.e. the prefix *na-* ‘on’, encoding a high intensity, and the verb *klamać* ‘to lie’, are backgrounded. The way in which the composite expression relates to its components is referred to as a *compositional path*. The strength of the contribution of component structures to the composite structure depends, among other things, on their proximity to the composite structure on the compositional path.⁶⁷

While Langacker (ibid.) perceives proximity in terms of the level of morphological organisation, I additionally include in this category the level of metaphorical conceptualisation, i.e. whether the target domain has been derived directly from the source domain (as in the case of the More Sense of the particle *up*), or whether it has been derived from a source domain that at the previous stage of metaphorical conceptualisation used to be a target domain. For instance, in the case of the High Intensity Sense, encoded by the prefix *na-*, the first stage that has led to the emergence of this meaning is that accumulation of material objects has been conceptualised in terms of putting these objects on the surface of the LM. The next stage of this particular metaphorical conceptualisation is that the target concept of accumulation becomes the source domain in the HIGH INTENSITY IS THE ACCUMULATION OF OBJECTS ON THE SURFACE metaphor, in which putting objects in large quantities is mapped onto performing an action with a high intensity. Consequently, for the verb *nakłamać*, the strength of the contribution of the prefix *na-* is weakened by the fact that its meaning is not derived directly from the proto-scene for the preposition *na*, but it stems from the functional element of accumulation. Thus, it can be stated that it is less proximate to the composite structure than, e.g. *up* encoding the More Sense, as in the particle verb *go up*, which is derived directly from the proto-scene, with no intermediate stages.⁶⁸

Yet another subtype of focusing is *scope*, which should be understood as the preliminary selection of conceptual content for encoding it in the language. To put it differently, scope is the extent of the expression’s coverage in the domains to which it provides access. As Langacker (2008: 62) puts it,

Scope has an evident cognitive basis: there is only so much that we can mentally encompass at any one moment. For example, our visual apparatus limits what we

⁶⁷ According to Langacker (2008), the other relevant factor is analysability: the higher the degree of analysability, the stronger the contribution. Consequently, newly created lexemes, which exhibit a higher degree of analysability, are characterised by the more substantial contribution of their component structures to the overall meaning.

⁶⁸ See section 2.3.4.1 for a discussion of this sense of the particle *up*.

can see at any one time. Experientially, we have a restricted “viewing frame” – the visual field – delimiting what we can visually encompass when “looking out” at the world. At any one instant, only a limited portion of our spatial surroundings falls within the scope of vision.

Thus, there exists a close analogy between the delimitation of mental and visual experience: the human mind is able to comprehend merely a given portion of reality just like human eyesight may perceive only a certain fragment of the surrounding world. Consequently, for every domain that an expression evokes, its scope can be characterised as the portion of conceptual content that appears in the subjective viewing frame.

There exists a close relationship between an expression’s scope, which is matter of selection, and the arrangement of conceptual content into foreground and background. This correlation finds its reflection in the distinction between two related types of scope: *maximal scope* and *immediate scope*. While an expression’s *maximal scope* is the full coverage in the accessed domain, its *immediate scope* is the portion of conceptual content that is particularly relevant in a given conceptualisation. Given this, it can be clearly stated that the immediate scope is what constitutes the foreground, while the maximal scope corresponds to the background. Langacker (2008) proposes that the immediate scope can be metaphorically characterised as “the onstage region, the general region of viewing attention”. Scope is immensely important for aspectual construal, which is discussed in section 1.7.

1.5.3. Prominence

Yet another construal operation relating to the asymmetry of language structure is *prominence*, also referred to as *salience* by Langacker (2008) and *attention* by Croft and Cruse (2004), according to whom it should be viewed as the focus of consciousness. As Langacker (2008) remarks, one of the dimensions of prominence is focusing, because anything that is selected is prominent in relation to what remains unselected. This should be taken to mean that the foreground is salient in relation to the background. Langacker (ibid.) distinguishes two basic kinds of prominence: *profiling* and *trajectory-landmark alignment*.

The construal operation of profiling consists in identifying an expression’s profile within its conceptual base. As regards the *base*, it should be understood as the immediate scope in the domain that has been activated. In other words, it is the portion of conceptual content that has been put on stage. The *profile* is

a specific substructure within the onstage region to which the conceptualiser's attention is directed. Thus, as Langacker (2008: 66) puts, it "an expression's profile stands out as the specific focus of attention within its immediate scope".

Expressions can profile *things* or *relationships*. *Things* should be understood as entities that are conceptually autonomous in the sense that they can be conceptualised "independently of any event" (Langacker 1999: 83). Even though things incorporate relationships in their base for their essential conceptual content, these relationships remain in the background. For example, all lexemes denoting kin terms, such as *uncle*, include in their base the kinship relationship between a male and another individual, belonging to the family, because this relationship is essential for characterising the male in question. However, it is not this relationship that is profiled but a person: "the profile is not defined as the most important or distinctive content, but rather as the entity an expression designates, i.e. its referent within the content evoked" (Langacker 2008: 67).

Since the major concern of the present work is the discussion of relationships encoded linguistically by prepositions, particles and prefixes, I am going to discuss the nature of relationships in more detail than that of things.⁶⁹ To begin with, *relationships*, in contrast to things, are conceptually dependent, which means that it impossible to construe them "without in some way invoking the conception of its participants (if only in vague, schematic terms)" (Langacker 1999: 83). The way in which relationships are construed does not depend on their objective nature but on the conceptualiser, who may construe one and the same spatial scene in different ways, profiling its certain aspects, while relegating others to the base (Langacker 2008).

Relationships can be of two kinds: *temporal* and *atemporal*. As regards the former type, they are also called *processes* and they take the linguistic form of verbs, while the latter type is represented by adjectives, adverbs, prepositions, prefixes and participles. Since the present monograph deals with particles and prefixes (related to prepositions) that function as components of composite verbs, the discussion of profiling will be basically limited to these four word classes.

It needs to be pointed out that "a profiled relationship construes its participants at different levels of prominence" (Langacker 2008: 113), whereby, as already pointed out, the TR is more prominent than the LM. The TR-LM

⁶⁹ An interested reader might consult Janda (1997), Langacker (2008), or Kokorniak (2018) for a discussion of the nature of things.

organisation is essential for all relational expressions, even when one of the focused elements is not overtly manifested. For instance, in the complex relationships construed by the particle and prefixed verbs that constitute the concern of the present monograph, the LM is frequently left implicit, as exemplified by numerous verbs, such as *natożyć* ‘to put a lot of (sth.)’, *naktamać* ‘to tell a lot of lies’, *to speak up*, or *to draw up* ‘to approach’,⁷⁰ to mention but a few. On the whole, “a relationship is conceptually dependent on its participants” (Langacker 2008: 114) and an expression can be classified as relational even if it has a single focal participant.

Expressions that profile relationships may “have the same conceptual base and yet be semantically distinct because they profile different facets of it” (Langacker 2008: 68). For instance, the simple verb form and the corresponding progressive of the same verb have the same base but they profile different aspects of the event in question: the simple verb (e.g. *examine*) represents the whole bounded event, while the progressive form (e.g. *be examining*) profiles merely a middle segment of the event. If we contrast two different verbs, such as *come* and *arrive*, they have the same base, as both of them construe a thing (represented by a circle in Fig. 1-2), moving along a path to a goal located at the end of the path (represented by the square). However, each of these two verbs profiles a different aspect of the base. While *come* profiles the full event, during which the whole path is traversed by the mover (Fig. 1-2a.), *arrive* profiles only the portion of the path in which the mover finally reaches its goal (Fig. 1-2b.).

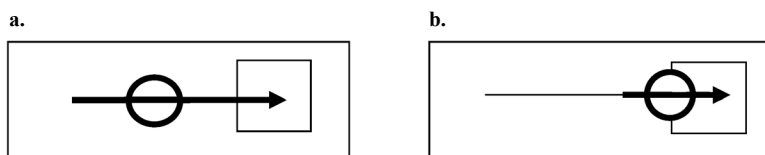


Figure 1-2. Difference in profiling: *come* versus *arrive*
(adopted from Langacker 2008: 69)

Differences in profiling do not always have to be overtly manifested, either grammatically or lexically, as in the two cases discussed above (i.e. *examine* vs *examining*, or *come* vs *arrive*), but also they can be a result of a shift in profile in one and the same lexeme, occurring in the same grammatical form, as exemplified by the following contrast set:

⁷⁰ See sections 2.3.4.1 and 3.4.4.2 for details concerning English and Polish examples, respectively.

(10)

- a. *They came all the way from Los Angeles.*
 b. *He came at precisely 7:45 PM.*⁷¹

These alternative construals can be accounted for in terms of *metonymy* (as proposed in Croft 2012) which consists in shifting the concept's profile to another element of a semantic frame.⁷² In (10a) the verb *come* profiles the whole event from its beginning to its end, in which the mover traverses the entire path, while in (10b) it conceptualises merely a final stage of an event, which is reaching the intended goal (for this reason being similar to *arrive* in Fig. 1-2b.). Since these two verbs profile two different substructures, located within the same base, the two senses in question are related metonymically.

This kind of metonymic shift in profile appears to be one of major construal operations to be held responsible for generating meaning extensions of spatial expressions that are under study in the present work. For example, the preposition *pod* 'under', which construes the TR located lower than the LM in its primary sense, designates also a small distance between the two entities. When the preposition at issue is used in its primary sense, the spatial relationship of one entity BEING LOWER THAN another one is focally prominent and profiled, while the spatial relationship of PROXIMITY remains in the base. However, if within the same conceptual base, it is the relationship of proximity that is profiled with the relationship of BEING LOWER THAN relegated to the base, or totally removed from it, the preposition *pod* construes CLOSENESS and is used in the sense 'close to, near'.⁷³

Relationships can be divided into the following categories: *non-processual*, further subdivided into *simplex* and *complex*, and *processual*. This classification is shown in Fig. 1-3, which additionally includes a representation of entities and things. As regards the former, they take part in relationships and are defined as anything that may be referred to when referring to conceptual structure, i.e. things, quantities, sensations, dimensions, locations, changes, etc.

In Fig. 1-3, relationships are depicted by means of arrows, establishing a connection between the entities that take part in them. A basic distinction that is drawn between various types of relationships is between those that are processual and those that are non-processual. A processual relationship is one that develops through time, as represented in Fig. 1-3e. by the arrow labelled *t*. The fact that the arrow is drawn with a bold line indicates that the evolution

⁷¹ Examples have been taken from Langacker (2008: 70).

⁷² See also section 1.7.

⁷³ See section 3.3.3 for details.

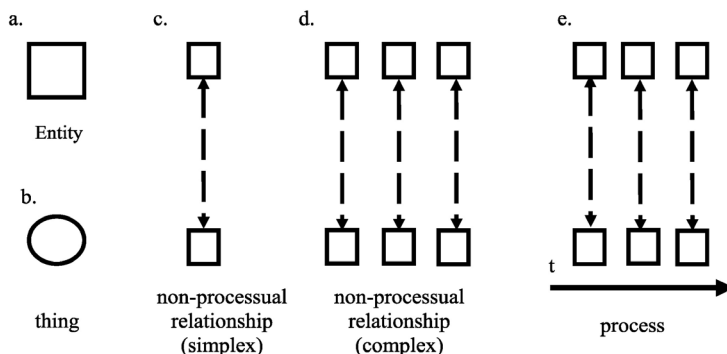


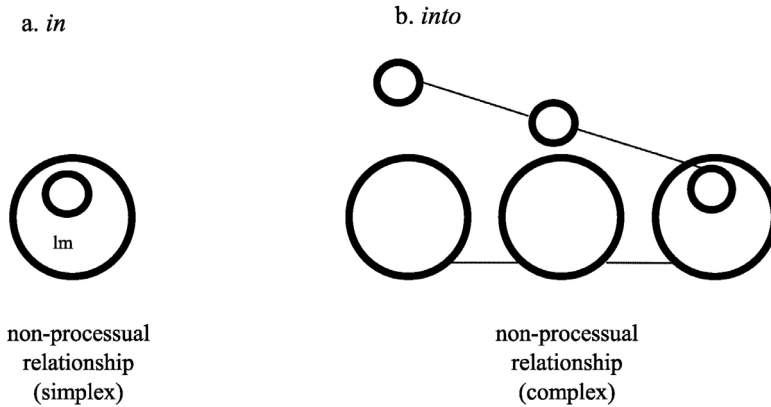
Figure 1-3. Entities and things versus relationships (Langacker 2008: 99)

of the process through time is foregrounded. The relationship is also complex, which means that “its manifestation at any one instant – any ‘time-slice’ of the overall relationship – is itself a relationship” (Langacker 2008: 99).⁷⁴ A relationship that is devoid of these properties is referred to as non-processual, or simplex, because it is made up of a configuration fully manifested at a single moment (even though a simplex relationship may persist through time, its temporal evolution is not taken into account).

Let me now turn to the relational expressions that are under study in the present work, i.e. prepositions as well as the prefixes and particles related to them and verbs. As regards prepositions, they construe non-processual relationships that can be either simplex or complex. A spatial preposition that construes a simplex relationship profiles a single location, as exemplified by prepositional phrases, such as *in the container*, *under the table*, *over the sofa*, *on the floor*, etc. A preposition that construes a complex relationship profiles a series of locations that altogether constitute a spatial path: *into the container*, *along the road*, *through the park*. These two different kinds of profile can be exemplified by the difference between *in* and *into*, presented in Fig. 1-4. As can be seen, *in* has merely one component state because it profiles an individual relationship. The preposition *into* profiles multiple component states and consists of the whole series of relationships (out of which only three are shown).⁷⁵ What these two profiles

⁷⁴ Figure 1-3(e.) depicts just three component relationships for the sake of clarity. However, because a process unfolds continuously over time, the decision as to how many time slices are shown is arbitrary.

⁷⁵ In Fig. 1-4(b.) only three component states have been distinguished even though in the real world it would be possible to identify far more of them.



**Figure 1-4. The construal of non-processedual relationships
(based on Langacker 2008: 117)**

have in common is that the single configuration profiled by *in* is identical with the final state profiled by *into*.

When it comes to verbs, they also profile complex relationships, just as prepositions do, but while prepositions construe their content atemporally, verbs construe it temporally. In other words, the verb designates a complex relationship developing along the time axis, as represented by Fig. 1-5.⁷⁶ When contrasting processual relationships with non-processedual relationships, Langacker (2008: 118) makes the following claim: “[w]hile the temporal dimension is not excluded from the preposition’s meaning, neither is it focused – it remains in the background and may even be absent altogether”. For instance, in the prepositional phrase *the path into the park* there is no development of the spatial relationship through time, because the extended TR, which is *the path* occupies all the specified locations at the same time.⁷⁷ Thus, yet another contrast between the relationship profiled by the preposition and that

⁷⁶ This is what Langacker (2008) refers to as the *conceived time*, discussed in section 1.5.4.

⁷⁷ On the other hand, when the prepositional phrase enters a correspondence relation with the verb (see section 1.6 for an elaboration on this issue), as in:

(iii) *Then Hatton had rolled into the water.* (BNC)

the verb, which becomes the profile determinant of the whole composite expression, “bequeathes its profile to the composite structure” (Langacker 1991: 208). Consequently, the composite structure acquires a temporal dimension, which triggers a sequential scanning of the trajectory.

profiled by the verb is that while the verb “highlights temporality by scanning through the component states sequentially”, the preposition “achieves a holistic view by scanning them in summary fashion” (Langacker 2008: 118).⁷⁸

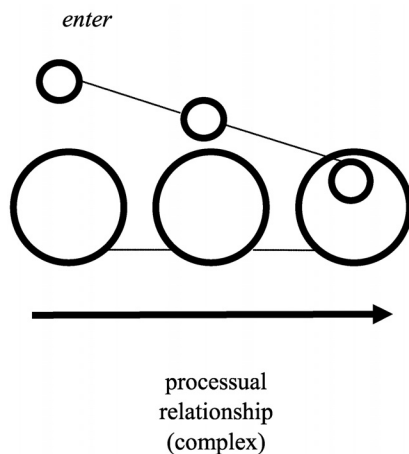


Figure 1-5. The construal of processual relationships profiled by verbs

As remarked by Langacker (2008), it is possible that expressions have the same content and profile the same relationship within it, yet they are semantically distinct because they differ in the TR–LM alignment, which is another type of prominence. This statement is of great validity in the context of the study of prepositions, which, as noted by Tyler and Evans (2003), frequently occur in so-called contrast sets, such as *above* – *below*, *over* – *under*, *before* – *after*, or *in front of* – *behind*.

Let me discuss the difference in the TR–LM alignment on the example of the *over* – *under* contrast set, the members of which constitute the subject of investigation carried out in chapter 2.⁷⁹ Both *over* and *under* have the same conceptual content, as they designate a spatial relationship of two entities located with respect to each other along the vertical axis. Besides this, they profile the same relationship, because from a purely referential point of view the statement that *object X is over object Y* is the same as the statement that *object Y is under object X*. However, these two sentences differ in terms of the promi-

⁷⁸ See 1.5.4 for a discussion of the difference between sequential scanning and summary scanning.

⁷⁹ This statement concerns merely the primary sense of *over* and *under*, not their meaning extensions.

nence assigned to the two entities that participate in this relationship. When producing the utterance *object X is over object Y*, it is object X that is assigned focal prominence by the conceptualiser (see Fig. 1-6a.), while in the case of *object Y is under object X* it is the other participant, i.e. object Y, that is given focal prominence (see Fig. 1-6b.). Consequently, the choice between object X versus object Y as the trajector of the relationship is what makes the two statements semantically distinct. Thus, in cases like this one, the semantic contrast derives neither from the content nor from profiling but from the choice of the trajector and the landmark. This, in turn, depends on the construal imposed by the conceptualiser on an actual spatial scene, i.e. on the degree of prominence that they assign to its participants.

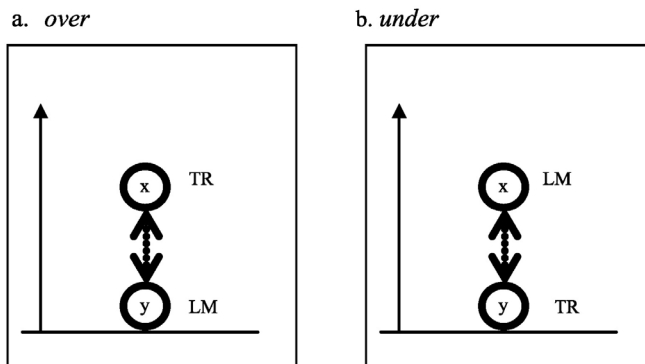


Figure 1-6. Difference in the TR–LM alignment on the example of the *over* – *under* contrast set (based on Langacker 2008: 71)

1.5.4. Perspective

Adhering to the view that conceptualisation can be perceived metaphorically in terms of viewing a scene, the notion of *perspective* cannot pass unnoticed. Perspective should be understood as the *viewing arrangement*, including the *vantage point* from which the scene is observed (Langacker 2008).⁸⁰ A *viewing arrangement* is defined as the relationship between the “viewer”, who represents the conceptualiser and the situation that is “viewed”, standing for the object of conceptualisation.

In the default viewing arrangement the speaker and the hearer are together at a stationary setting from which they observe events taking place in

⁸⁰ For a discussion of the role of the conceptual perspective by Talmy (2000a) see section 1.6.

their surroundings. This fixed location at which the interlocutors are positioned is referred to as the *vantage point*. The notion of the vantage point is particularly relevant for the discussion of spatial relationships for two reasons. First of all, the same spatial relationship may be observed from several vantage points, which brings about different construals of the scene. For example, when in the construal of the A-B-C Trajectory by means of the particle *over* the vantage point is shifted from the off-stage position to one located in the vicinity of point A, the TR (which has reached point C) is seen as separated from the viewer and located on the other side of the LM. This particular construal of the scene triggers the following meaning extensions: the Completion Sense, the Switching Sides/Allegiance Sense and the Transfer Sense (see section 2.6.4.1 and Fig. 2-18). Secondly, numerous spatial expressions evoke the notion of vantage point as part of their meaning. For example, the meanings of two English spatial particles *up* and *down* that constitute the subject of investigation of the present work are determined by the position of the starting point and the end-point of the trajectory with respect to the viewer's line of sight, which is not fixed but can "move" in various directions without the viewer changing their location. Thus, e.g. if in the construal of the scene encoded linguistically by the particle *up* the starting point of the trajectory is beyond the conceptualiser's line of sight, while its end-point is within it, the particle *up* construes those meanings that are triggered by the functional element of an increase in accessibility/visibility. On the other hand, if the starting point of the trajectory is within the conceptualiser's line of sight, while its end-point is beyond it, the particle *up* represents those meanings that are motivated by the functional element of a decrease in accessibility/visibility.⁸¹

The notion of the vantage point is an important aspect of the construal known as *subjectivity/objectivity* which resides in the asymmetry between the viewer and what is viewed, otherwise referred to as the *subject* and *object* of perception, respectively. As Langacker (2008: 77) puts it, "[s]ubjective construal is characteristic of the viewer's role as such – as an offstage locus of perceptual experience that is not itself perceived. Conversely, objective construal characterises the onstage focus of attention, which (at least in that capacity) does not engage in viewing". Thus, when an individual's attention is focused on a given entity in the outside world, the subjective construal is foregrounded while the objective construal is backgrounded. In contrast, when the conceptu-

⁸¹ See sections 2.3.4 and 2.3.5 for a detailed discussion of the relationship between the vantage point and the semantics of the particle *up*.

aliser's attention is focused on herself or himself, it is the objective construal that is salient, while the subjective construal remains in the background. In reality, however, it is hardly ever, if at all, possible to see such a clear-cut dichotomy between subjective and objective construal. Therefore, these two kinds of construal can be regarded as extreme points on a continuum, along which there are a whole range of intermediate cases (Evans and Green 2006). This should be taken to mean that in a vast majority of instances it is both subjective and objective construal that take part in the conceptualisation, with one of them being more salient than the other.

As regards the construal of space linguistically represented by English and Polish spatial expressions, the balance between subjective and objective construal varies not only from one spatial expression to another but also within a single spatial expression itself. For example, the proto-scene for the English spatial particle *on* (in which the TR is located on the surface of the LM) is construed with a high degree of subjectivity and a low degree of objectivity, because the conceptualiser is located off-stage. However, the Support Sense and the Control Sense of this particle are characterised by a far higher degree of objectivity because the subject of conception, i.e. the conceptualiser, is located onstage and, consequently, it becomes the locus of perceptual experience at least to some extent. Thus, in the case of the Support Sense the conceptualiser is represented by the TR, which receives support from the LM, located underneath, while in the case of the Control Sense, the conceptualiser is represented by the LM, controlled by the TR due to the latter's weight, restricting its freedom of movement.⁸² As a result, because the conceptualiser figures in the two aforementioned scenes as the TR and the LM, respectively, they represent a more objective construal than that of a proto-scene.

The construal operation of subjectivity versus objectivity is dependent on the amount of attention focused on the ground. In Langacker's (2008) model, the notion of the *ground* encompasses the participants of the speech event, the time of speaking as well as the physical context. If the ground is merely implicitly present, the construal drifts towards the pole of subjectivity; however, if some elements of the ground are evoked and participate in the meaning of a given expression, the construal drifts towards objectivity. As noted by Langacker (1991), whether the ground is explicitly mentioned or only implicitly present depends on the perspective taken by the conceptualiser.

⁸² See sections 2.8.5 and 2.8.6 for details.

Because conceptualisation consists in mental processing which takes place through time, the perspective also has a temporal dimension in which time figures either as a subject or an object of conception. In the former case, time is referred to as the *processing time* and it should be understood as the amount of time needed for processing a given conceptualisation. When time functions as an object of conception, it is referred to as the *conceived time* and represents the span of time through which the conceptualised event develops in the real world. For example, in sentence (11) taken from Langacker (2008: 79):

(11)

The long procession slowly entered the city.

the processing time, required for its understanding, is very brief (it may be merely one second), while the conceived time is certainly much longer (depending on the extra-linguistic context, it may range from several dozens of minutes to a few hours).

It is through the processing time that the conceptualiser may mentally access the component states of a given event, either by tracing a set of subevents in a specific order, or by encompassing all of them at once (Langacker 2008). This operation is referred to as *mental scanning* and it may be further subdivided into *sequential scanning* and *summary scanning*. When engaged in *sequential scanning* the conceptualiser focuses on the successive stages of an event which are in the focus of his or her attention, one at a time. In contrast, in the *summary scanning* process the conceptualiser focuses on all the stages of an event even though in the conceived time they occurred in a sequential fashion. Consequently, all the stages of an event are available to the conceptualiser at the same time. As has been observed by Kokorniak (2018: 36),

The two types of mental scanning are by no means exclusive; rather they constitute two complementary ways to observe events. Only after having observed an event by means of sequential scanning, that is viewing one component state at a time and retaining them in short-term memory, are we able to access them in summation.

The co-occurrence of summary and sequential scanning can be observed in the reanalysis of the proto scene for the particle *over* whereby a single location in space above the LM is reanalysed as a collection of points constituting the trajectory, which begins on one side of the LM (marked as point A), then reaches the point above the LM (marked as point B) and finally ends on the other side of the LM (marked as point C). This specific reanalysis results in the schematisation referred to as the A-B-C Trajectory and is brought about

by summary scanning, preceded by sequential scanning: in order to construe the A-B-C Trajectory as a single unit the conceptualiser first needs to successively trace individual points that constitute it, beginning with point A, going through point B and ending at point C.⁸³

1.5.5. Force-dynamics

As already stated at the beginning of this section, Langacker (1991, 2008) does not include force-dynamics in his discussion of construal operations. However, according to Croft and Cruse (2004: 63), the *force-dynamics model* is a type of construal, subsumed under Constitution/Gestalt, which stands for conceptualisation of the structure of entities involved in the scene. “These construal operations represent the most basic level of constituting experience and giving it structure or a Gestalt, as described by Gestalt psychologists (e.g. Wertheimer 1923[1950]; Koffka 1935)”. Croft and Cruse (2004) argue that many of the notions of Gestalt psychology, including proximity or bounding, are a result of how humans construe a complex object from what seem to be fragmented perceptual sensations.

The force-dynamic model of conceptualisation of events has been proposed by Talmy (1985, 1988, 2000a). In this model, processes are conceptualised as the interaction between two forces that are in opposition to each other. The focal force entity is the *Agonist* which may make use of its own force, or, on the contrary, its force may be overcome. The second force entity is referred to as the *Antagonist* and it is distinguished with respect to the effect it has on the Agonist; that is, whether it is capable of overcoming it effectively or not.

Depending on the relative strength of the Agonist and Antagonist, as well as the natural tendency of each of them towards either rest or action, Talmy (2000a: 415) distinguishes four basic force-dynamic patterns, as exemplified by the following sentences:

(12)

- a. *The ball kept rolling because of the wind blowing on it.*
- b. *The shed kept standing despite the gale wind blowing against it.*
- c. *The ball kept rolling despite the stiff grass.*
- d. *The log kept lying on the incline because of the ridge there.*

Sentence (12a) involves a force-dynamic pattern where the Agonist, represented by the noun *ball*, exhibits a natural tendency towards rest but is opposed by a stronger Antagonist, represented by the noun *wind*, which over-

⁸³ See section 2.6.2 for a detailed discussion of this issue.

comes its resistance and makes it move. As regards the scene construed by sentence (12b), the Agonist (*shed*) tends towards rest, as in (12a); however, its strength is greater than that of the Antagonist (*gale wind*). Consequently, the Agonist is capable of manifesting its tendency towards force and it stays in place. In (12c) the intrinsic tendency of the Agonist (*ball*) is towards motion and despite the opposing force of the Antagonist (*stiff grass*), the Agonist is stronger – therefore, it continues moving. Finally, in (12d) even though the Agonist (*log*) exhibits a tendency towards motion, the Antagonist (*ridge*) appears to be stronger and keeps the Agonist in place.

Despite the fact that the sentences in (12) conceptualise physical force interactions, it is possible to extend the application of this model to other domains, such as a psychological domain (Talmy 2000a; Kövecses 2004, among others) in which conflicting psychological forces oppose each other within a single self. This should be taken to mean that the self is divided so that while one part of it intends to perform a specific act, the other part does not wish for this to happen. Consider the following sentences, which construe this kind of a psychodynamic interaction (Talmy 2000a: 432):

(13)

a. *He held himself back from responding.*

b. *He exerted himself in pressing against the jammed door.*

In sentence (13a), which Talmy (*ibid.*) refers to as an *intrapsychological pattern of refraining*, the subject corresponds to the blocking part of the psyche, which acts as the Antagonist, while the reflexive direct object corresponds to the desiring part, which acts as the Agonist. Because the Antagonist tends towards rest and is stronger, it overcomes the Agonist's psychological urge to respond. The situation referred to in (13b) is an instance of another intrapsychological pattern, i.e. that of *exerting*. In this particular case one part of the psyche, identified as the Agonist, tends towards rest, while the other part, identified as the Antagonist tends towards action. Because the Antagonist is stronger, it overcomes the Agonist's resistance and entails the commencement of the activity of pressing against the door.

The possibility of extension of force-dynamics to a psychological domain has been further developed by Kövecses (2004), who applied it to the study of emotions. Kövecses (*ibid.*) based his analysis on the EMOTIONS ARE FORCES metaphor, which has as its source domain the FORCE schema, as put forward by Talmy (1988, 2000a). Consequently, the following series of mappings is applied (Kövecses 2004: 62-63):

(14)

Force Agonist (FAgo) → Emotion Agonist (EmAgo)

Force Antagonist (FAnt) → Emotion Antagonist (EmAnt)

FAnt's force tendency → EmAnt's force tendency

FAgo's force tendency → EmAgo's force tendency

FAgo's resultant state → EmAgo's resultant state

As Kövecses (ibid.) proposes, typically the Agonist is represented by the rational human self that either is or will become emotional and the Antagonist is represented by the emotion itself, or its cause. Consequently, the Agonist's typical tendency is to remain unaffected by the Antagonist (which is towards rest), while the Antagonist's typical tendency is to make the Agonist undergo a change (which is towards action).⁸⁴

If we take one of the best known and most widely studied metaphors, EMOTION IS PRESSURE INSIDE A CONTAINER, the source domain is the INTERNAL PRESSURE and the target domain is EMOTION. Correspondingly, the Agonist is identified as the container affected by the pressure and the Antagonist as the pressurised substance located in the container. While the Agonist's intrinsic force tendency is to resist the pressure, the Antagonist tends towards its exertion. If the Antagonist is stronger, the substance goes out of the container and if the Agonist is stronger, the substance remains inside the container. When the source domain is mapped onto the target domain, the Agonist is represented by the rational self and the Antagonist by the emotion. While the Antagonist causes the self to respond, the Agonist tries to remain unaffected by its strength. If the Antagonist turns out to be stronger, the self responds to an emotion (15a), if the Agonist is stronger, the self does not respond (15b) (Kövecses 2004: 148).⁸⁵

(15)

a. *She burst out with joy.*b. *Her frustration was pent up inside her.*

Thus, as can be seen, the force dynamic model can be extended to *psychodynamics*, which is used to construe intrapsychological force interactions within

⁸⁴ As Kövecses (2004) points out, this is only a tendency because there are several exceptions to this pattern.

⁸⁵ Kövecses (ibid.) uses the FORCE schema to analyse other metaphors, including EMOTION IS AN OPPONENT, EMOTION IS A SOCIAL FORCE, EMOTION IS A NATURAL FORCE, EMOTION IS A MENTAL FORCE, EMOTION IS INSANITY, EMOTION IS FIRE.

a single human entity. Besides, it can be extended to social force interactions, referred to as *sociodynamics* which should be understood as interactions between at least two entities (Talmy 2000a). When social interaction is perceived as a form of socio-dynamism, an entity that exerts pressure is identified as the Antagonist, while the one that typically opposes this pressure is the Agonist. If the Antagonist is stronger, the Agonist gives in to the pressure placed on it, which produces the resultant state of action (16a). On the contrary, if the Agonist is stronger, it is able to resist the pressure put on it, which brings about the resultant state of rest (16b):

(16)

- a. *I urged her to listen to me and to feel what I was feeling.* (BNC)
- b. *I am quite sure that the Moderator and his colleagues will be able to withstand any theological attack directed by the Rev. Ian Paisley.* (BNC)

As will be shown in chapters 2 and 3, the force-dynamic interaction between the Agonist and Antagonist, as well as its extension to psychodynamics and sociodynamics, underlies several senses of the English particles and Polish prefixes investigated in the present work.

1.6. Between prepositions and verbal particles and prefixes

Since the present monograph is devoted to the construal of space by means of prepositions, verbal particles and prefixes, a discussion of these three types of spatial expressions is now in order. As regards English particles, so far throughout the present monograph, the cover term of *spatial particle/expression* has been used to refer to both English prepositions and verbal particles, despite their different syntactic status, because irrespective of syntactic differences each of them conceptualises the same TR–LM configuration. However, on account of the fact that syntax is significant as “differences in syntactic form reflect a distinction in meaning” (Tyler and Evans 2003: 16), the present section offers an elucidation of the distinction between English prepositions and particles. Moreover, its aim is to juxtapose the construal encoded by prepositions and particles with that encoded by verbal prefixes because they are all diachronically related, being derived from a common source. Analogously, Polish verbal prefixes are compared with prepositions (from which they have developed) in terms of the construal of the scene.

At the very beginning of this section I would like to establish common ground between verbal particles and prefixes, with which the present work is

concerned. First of all, both particles and prefixes can be analysed in terms of *verbal satellites* in the sense of Talmy (1991) because they encode the path of motion. Applying the findings of Talmy's well-known study (1991) to the present research, English and Polish should be classified as *satellite-framed* languages because they encode a path of motion outside a verb, i.e. by means of a satellite which can be a prefix, as is the case in Slavic languages, e.g. *przejechać* [across-go] 'to run over', *wyjechać* [out-go] 'to leave' (Polish), or a particle, as in Germanic languages, e.g. *go up*, *go down*, *go across*, etc.

This correspondence has been acknowledged by numerous researchers whose field of interest is English verbal particles and Slavic prefixes. For example, Tchizmarova (2012) has remarked that Slavic prefixed verbs resemble English verb-particle combinations in that the "verb contributes to the source domain (literally, metonymically, or metaphorically) and the prefix is the expression of a cognitive image schema (CONTAINMENT, VERTICALITY, etc.), instantiated either literally or metaphorically". Another researcher, Suchostawska (2005) maintains that from the point of view of semantics, English complex verbs, which she refers to as verb-particle constructions, are very much like Polish complex verbs containing prefixes. As already mentioned in the Introduction, according to Hampe (2002: 254), "particles are suffix-like elements that open general spaces of meaning to be further specified by verbs".

At this initial stage of the discussion let me point out once again that spatial prepositions profile either simplex or complex non-processual relationships between the TR and the LM and even though they may have a temporal profile, it is not foregrounded (see section 1.5.3). Verbal particles and prefixes profile both complex and temporal relationships, which means that they construe a series of component relationships that develop through time. This stems from the fact that both verbal prefixes and particles are conceptually integrated with verbs, which profile complex temporal relationships. The process of *integration* consists in producing correspondences between the content evoked by two component structures, which means that "corresponding elements are superimposed, and their specifications merged, in forming the composite conception" (Langacker 2008: 163). As a result of this superimposition and merging, verbal prefixes and particles profile a change of location (in their spatial senses), or a change of state (in non-spatial extensions), which develops through time.⁸⁶

Another difference between prepositions, particles and prefixes is their position in the sentence and the degree of grammaticalisation. The elements

⁸⁶ This phenomenon gives rise to aspectual meaning (see section 1.7).

in question can range from being semantically transparent, as in prepositional phrases, such as *up the stairs* to being less semantically transparent (Tyler and Evans 2003), and, consequently, more grammaticalised, as is the case with *up* in the verb *book up* in which *up* marks the telic aspect. Nonetheless, irrespective of whether *up* is used as a preposition, a particle (as exemplified above), or a prefix (e.g. as in *upcycle*), it encodes the same TR–LM configuration even if the LM is implicit. This semantic uniformity across all syntactic representations of the studied elements is hardly surprising in the context of their diachronic development.

It has been generally acknowledged by many authors (e.g. Brinton 2009; Schröder 2011; Thim 2012, to mention but a few) that the emergence of the present-day English system with particles in the post verbal position has been triggered by two factors: “the loss of positional variability of the particle in relation to the verb” (Thim 2012: 74) and “an important structural shift, from a productive system of verbal prefixes to a new system of post-verbal particles” (Brinton 2009: 185).

As regards the first phenomenon, the particle placement was quite variable in Old English, because the particle could either precede or follow the verb (Hiltunen 1983); however, as observed by Brinton (2009), the preverbal position used to be more frequent. This fact makes it often impossible to distinguish between preverbal particle usage and prefixation, the more so that OE scribes did not always “indicate word divisions” (Brinton 2009: 186). Consequently, scholars tend to disagree as to the syntactic status of the elements in question, especially since they seem to constitute a cline (Kastovsky 1992).⁸⁷ It was only at the end of the Old English period and the beginning of the early Middle English period that the frequency of the word order in which the verb came first and the particle second started to increase steadily (Hiltunen 1983). First, this order was established in main clauses by the end of the Old English period and later in subordinate and non-finite clauses.

This development was accompanied by the decline of verbal prefixation: “[i]n the Middle English period prefixation as a means of word formation was in retreat” (Burnley 1992: 446).⁸⁸ Hiltunen (1983: 92) quoted in Brinton

⁸⁷ For the differences in syntactic behaviour between prefixes and particles in Old English consult, e.g. Fischer et al. (2001).

⁸⁸ This trend was caused by several language-internal and language-external factors, including the loss of phonetic content, semantic weakening and contact with Old Norse, which already had a developed system of phrasal constructions (for a more detailed discussion of this issue consult Brinton 2009 or Schröder 2011).

(2009: 187) “sees the rapid decline of prefixes and sudden rise of particles in early Middle English as ‘remarkable’”. Since particles increased in their frequency and productivity in early Middle English, their syntactic post-verbal position became relatively fixed (Hiltunen 1983). At that time particles were used in spatial concrete senses and only at the beginning of the 17th century some metaphorical meanings began to appear. As observed by Brinton (2009: 187), “[t]he acquisition of metaphorical [...] meanings in the particle verb is often seen as an indication of the fully-fledged development of this form”.

While at the beginning of the shift towards analyticity, taking place in Old English and early Middle English, particles used to have concrete spatial senses, prefixes were used metaphorically.⁸⁹ This tendency reflects Kuryłowicz’s *fourth law of analogy* (Kuryłowicz 1945-9), according to which old forms retain less central meanings, while novel forms acquire the prototypical, i.e. spatial meanings. Besides, the prefixed forms have been preserved because they underwent specialisation of meaning (Kennedy 2018[1920]).

As a result of these historical developments, in present day English, it is possible to find numerous pairs made up of prefixed verbs and particle verbs, such as *uphold* and *hold up*, *overlook* and *look over*, *uproot* and *root up*, *outlive* and *live out*, etc. (Brinton 2009: 188), where some pair members are synonymous, while others differ in meaning. Before I make an attempt at the comparison of these two word formation processes, I will elucidate the notion of the *particle verb* adopted from Schröder (2011) after Quirk et al. (1985), which is used throughout the book. The authors define particle verbs as those which consist of a lexical verb followed by a particle. Within this class they further differentiate *phrasal verbs* (where the particle is an adverb) and *prepositional verbs* (in which the particle is a preposition). However, despite making this differentiation, they stick to the cover term of particle verbs for the reasons described below.

Even though there exist several tests for differentiating between phrasal verbs and prepositional verbs (in the sense of Quirk et al. 1985), which are concerned mainly with the position of the particle or preposition in relation to the verb, i.e. its either separability or inseparability from it, they are frequently fallible. For example, it has been repeatedly proposed (Fraser 1976; Quirk et al. 1985; Walkova 2013) that if the element in question can be either fronted,

⁸⁹ Before the postverbal position of particles was regularised, particles were used before the verb when they were metaphorical and after it when they were literal.

or shifted to the post-object position, it should be treated as an adverbial particle (17a), if not, it should be regarded as a preposition (17b):⁹⁰

(17)

- a. *The kids tossed up the ball.*
The kids tossed the ball up.
Up, and still higher up, the kids tossed the ball.
- b. *The kids climbed up the tree.*
 * *The kids climbed the tree up.*
 * *Up the kids climbed the tree.*

Hampe (1997: 205)

Consequently, the verbs in (17a) should be considered to be particle verbs, while the verbs in (17b) are prepositional verbs. However, this procedure does not always work because in the case of some “typical” particle verbs (thought of as idiomatic, i.e. semantically non-compositional), this distinction does not apply, as demonstrated by the following examples (Hampe 1997: 206):

(18)

- * *He was looking the little girl after.*
 * *Out the truth he had found.*

This fact has been commented on by Hampe (1997: 207) in the following way:

[...] [T]he syntactic differences do not delineate particle verbs and prepositional verbs as two completely clear-cut groups, but point to the fact that, at the idiomatic end of the scale, the differences between the two kinds of multi-word verbs disappear to the degree that lexicalisation causes syntactic restrictions, i.e. to the degree that constructions of both kinds behave like one-word lexemes.

Along similar lines, Lindner (1983[1981]: 4) argues that the criteria for differentiating between particle verbs and prepositional verbs “are best thought of as characteristic features of each construction rather than exceptionless defining features”. According to Tomasello (1992: 172), “the distinction between verb particles and prepositions is a problematic one”. On the whole, as Schröder (2011) observes, very often the tests proposed do not succeed in distinguishing prepositions from particles and she opts for the hyperonym particle verbs, the term which is also used in the present book.

⁹⁰ Some other tests include adverb insertion, stress patterns, passive formation, or relative clause formation (see, e.g. Biber et al. 2002).

Despite the fact that, as has been argued above, the boundary between particles and prepositions is frequently fuzzy and difficult to determine, there are numerous clear-cut cases, where the elements at issue can be unequivocally assigned the status of either a preposition, or a particle, because of their unambiguous, i.e. prototypical,⁹¹ syntactic status. Since in the following part of this section I focus on the differences in the construal of the scene, depending on whether it is linguistically encoded by the preposition, the particle, or the prefix, an account of syntactic differences between the two elements (understood as prototypical instantiations) is now needed.

It has already been remarked by Lindner (1983[1981]: 195) that the difference between the particle and preposition lies in the way that they and other elements of the predicate are “hooked up” to each other. I will explain and characterise the nature of this connection in the cases in question by relying on the notion of *A/D asymmetry* and *valence relations*, as understood by Langacker (1991).

Whenever two component structures combine, they establish an asymmetry relationship, in which one structure is “conceptually autonomous”, while the other is “conceptually dependent” (Langacker 1991: 122). In Langacker’s formulation,

One structure is said to be dependent on another to the extent that it presupposes it as part of its own internal structure. More precisely, one structure, D, is said to be dependent on another structure, A, to the extent that a substructure (of type A) figures saliently in the internal composition of D, and is put in correspondence with A.

This relationship can be illustrated by means of the internal composition of a particle verb, such as, e.g. *think up* in which *think* is the autonomous structure, while *up* a dependent one. The particle *up*, which designates the Creating Sense,⁹² corresponds to the profile of the verb *think*, which is a complex processual relation. This relation is asymmetrical because the autonomous structure, represented by the verb “figures saliently” in the internal composition of substructure, represented by the verbal particle. To put it differently, “some substructure within the dependent component structure corresponds to the autonomous structure as a whole (as determined by its profile) and typically stands in a schematic relation to it” (Langacker 1991: 123). This substructure is referred to as an *elaboration site* (*e-site*) and it is the *autonomous*

⁹¹ The *prototype* is a central instance of a given category (Langacker 1991).

⁹² See section 2.3.4.2 for the definition of this sense.

structure that elaborates the e-site to which it corresponds, by specifying in more detail the content that the *dependent structure* specifies merely in schematic terms. Thus, in the composite structure *think up*, the autonomous structure, represented by the verb *think*, elaborates the e-site of the dependent structure, represented by the particle *up*, by providing details as to the way in which the process of creation (inventing a solution to the problem) is brought about (by thinking).

Essential aspects of a typical valence relation are presented in Fig. 1-7. The dependent structure is of a relational nature and it comprises within its profile an entity that corresponds to the profile of the autonomous structure. This entity (marked by means of the hatched circle) is schematic and functions as an e-site. The arrow marks the correspondence between the dependent and the autonomous structure and the dashed line represents the process of elaboration.

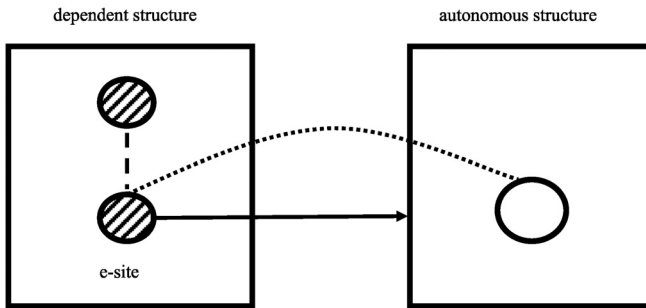


Figure 1-7. The e-site after Langacker (1991: 175)

The elaborative relation between the autonomous structure and the e-site in the dependent structure corresponding to it is referred to as *valence*. Thus, it can be stated that the dependent structure and the autonomous structure overlap with each other, which enables “their integration to form a coherent composite structure” (Langacker 1991: 123). When an autonomous and a dependent structure combine, one of them is selected as the *profile determinant* of the whole construction. The profile determinant is identified as the component that imposes the profile on the whole composite structure. Thus, *up* functions as the profile determinant of the composite structure *think up*, because it has the profile of the result of the action (finding a solution), represented linguistically by *up*, not the action itself (*thinking*), represented by the verb.

In the discussion of valence relations, the focus is usually on elaboration of the e-site of the dependent structure because the e-site of the dependent ele-

ment is more salient than that of an autonomous element on account of being far bigger (Tuggy 1992). However, as pointed out by Langacker (2008), it should be borne in mind that the e-site of the autonomous structure is also elaborated by the dependent structure, albeit to a far smaller degree. This results from the fact that the e-site of the autonomous element is smaller because it “is rather peripheral to its semantic characterisation” (Langacker 2008: 2001). For example, when considering the A/D asymmetry obtaining between the verb and particle in the composite verb *play up*,⁹³ in which the particle *up* conceptualises the Disrupting/Damaging Sense, the concept of damage is not part of the verbal profile and it may not be activated at all when using the expression. This kind of two-way elaborative relations is shown in Fig. 1-8.

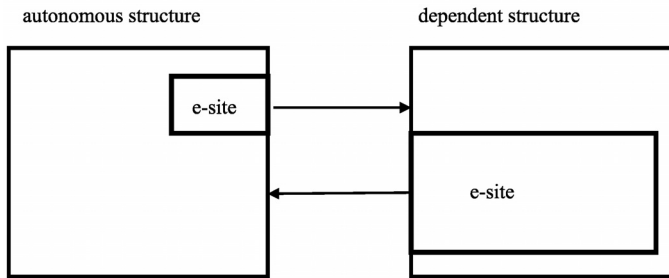


Figure 1-8. Elaborative relations in the composite verb *play up*
(adapted from Kardela 2015: 306)

Given this, it appears evident that the e-site of the verb is elaborated by the semantic content of the particle; however, to a far smaller degree than the e-site of the particle is elaborated by the semantic content of the verb. Taking yet another composite verb from the data analysed in section 2.3.5, *use up* (32b), the e-site of the verb *use* is elaborated with the semantic content of the particle *up*, which specifies the consequences of being used too much or too often.⁹⁴

⁹³ See example (32a) in section 2.3.5.

⁹⁴ The phenomenon of the elaboration of the e-site of the verb can be alternatively explained in terms of role and reference grammar (Foley and Van Valin 1984; Van Valin 1993; Jolly 1993). As pointed out by O’Dowd (1998), in this approach, the main constituents of the clause are: the *nucleus* which contains the predicate, the *core* which contains the nucleus and the arguments of the predicate, and also the *periphery*, which consists of adjuncts of place, time or manner (Van Valin 1993). Spatial particles may be inserted into the structure of a clause at different levels. If they are slotted into the core, “they specify the direction of motion and orientation of core arguments” (Foley and Van Valin 1984: 393). For example, in the sentence *Put it back up* the particle *up* specifies the

Now, let us consider the phrase *land on the moon* in the context of elaborating the e-site of the dependent elements. In this composite expression it is possible to distinguish several layers of syntagmatic organisation that can be represented like this: [[LAND] [ON[THE [MOON]]]].⁹⁵ As regards the composite expression *on the moon*, the preposition *on* is the dependent structure, while *the moon* an autonomous one. The content of the e-site of the preposition, which is schematic (as to the features and kind of the TR and the LM), is elaborated by the noun, which means that it provides the LM of this complex relationship (*the moon*). The preposition is the profile determinant of the composite structure because it profiles not a bounded entity (*the moon*), but a place (location on the surface of the moon). As regards the correspondence between the components *land* and *on the moon*, the prepositional phrase elaborates the LM of the verb, consequently, *land* is a dependent structure, and *on the moon* an autonomous one. The verb is also the profile determinant of the whole composite expression which designates a kind of landing, i.e. one which ends on the moon, not the location.

On the whole, a basic distinction between the preposition and particle in terms of grammatical valence is that the e-site of the preposition is elaborated by the noun and the e-site of the particle is elaborated by the verb. To put it differently, the preposition grounds the noun and the particle grounds the verb.

However, there are some intermediate cases, where the element at issue is neither a prototypical preposition, nor a prototypical particle because it grounds both the verb and the noun of the composite expression. This phenomenon may be exemplified by *over*, as used in the phrase *tide over this difficulty* (section 2.6.4.2 example (61.b)), which designates the Being Successful Sense. Thus, in this particular composite expression the particle *over* constitutes a composite structure together with the verb *tide*, where it functions as

direction of motion of the core participant which is the direct object *it*, therefore it should be classified as the *core-scope operator* in the role and reference grammar. In contrast, in the sentence *I'm cleanin up, right? up* does not refer to the direction of motion or orientation of a core participant but it specifies the verb by completing its meaning. Consequently, it functions as a *nuclear-scope operator*. In other words, under a nuclear scope particles “express a directional orientation of the nucleus” (Foley and Van Valin 1984: 212), which means that they refer to the verb itself rather than to core participants of the clause.

⁹⁵ The notation, has been adopted from Langacker (1991). Since the major concern of this section is the discussion of the syntactic role of the preposition, as contrasted with that of the particle, I will leave aside the discussion of the internal composition of the composite expression *the moon*, as irrelevant from the point of view of the present considerations.

the dependent structure, while the verb as the autonomous structure. Consequently, the e-site of *over* (which can be semantically characterised as being successful) is elaborated by the semantic content of the verb *tide* ('to flow by taking advantage of a favourable tide'). The particle *over* is the profile determinant of the composite expression because it profiles being successful without any considerable effort: the semantics of the composite verb can be paraphrased as 'to achieve success easily, without effort'.

On the other hand, *over* can be seen as a component of the prepositional phrase (*over this difficulty*), where it functions also as a dependent structure, while the noun phrase (*this difficulty*) is the autonomous structure. Consequently, the e-site of *over* is elaborated by the noun phrase *this difficulty*, which means that the latter contributes the LM of this complex relationship, conceptualised as an obstacle that the TR intends to avoid by following the A-B-C Trajectory.⁹⁶ *Over* is the profile determinant of this composite expression because it profiles not an unbounded entity (*difficulty*) but a complex relationship (following an A-B-C Trajectory).

Thus, on the whole, *over* has the status of double constituency in the composite expression, discussed above on the grounds of the fact that it functions both as the e-site and profile determinant for the verb and for the object of a prepositional phrase. Other cases like this one include the following composite expressions analysed in chapter 2: *to take up swimming*, *to tide over the fact*, *to run over the article*, *to gloat on the little face*, *to mention but a few*. Therefore, besides the prototypical prepositions and prototypical particles discussed above, it is possible to distinguish intermediate types because of their double syntactic status. Consequently, while in agreement with the linguists whose opinions I have presented above (Lindner 1983[1981]; Tomasello 1992; Hampe 1997; Schröder 2011) that there is a fuzzy boundary between prepositions and particles, I would like to propose a preposition–particle continuum, where at its extreme ends there are prototypical prepositions and particles, while the middle territory is occupied by intermediate cases, where the e-site of the element in question is elaborated both by the verb and the object of a prepositional phrase (PP) as shown in Fig. 1-9.

Given the lack of a definite boundary between particles and prepositions, I use the term *particle verbs* to refer to the class of composite verbs in which the e-site of the verbal satellite is elaborated by the verb, irrespective of whether or not it is elaborated at the same time by the object of the prepositional phrase.

⁹⁶ See section 2.6.4.2 for a detailed explanation of this issue.

a preposition, the LM is always present (19a); however, in the case of the particle¹⁰⁰ the LM may be either present (19c), or left implicit (19b):

(19)

a. *The cat climbed up a tree.*

b. *The cat licked up the milk.*¹⁰¹

c. *She needed guts to face always being passed over by the boys for her gorgeous sister Gloria.* (BNC)

In the scene described by sentence (19a) the LM is specified by the prepositional object, i.e. the noun, the *tree*, and in (19c), the LM is represented by the subject of the sentence, i.e. *she*. However, in the scene construed by sentence (19b) it is left unspecified, as *up* “codes a path – an ordered series of points in space correlated (in the overall verbal construction) with successive points in the temporal profile of the verb” (Lindner 1983[1981]: 120).

Likewise, the construal of the scene encoded by prefixed verbs may incorporate the LM, though it does not necessarily have to (Schröder 2011). For example, an expression such as *to underline a word* contains the LM, which is the object of the verb, i.e. *word*, but in the construal encoded by the verb *underachieve* the LM is left unspecified and it can be conceived of as some imaginary aim or expectation that has not been reached. Whether the LM is specified or left implicit is of paramount importance for the construal encoded by means of prepositions, prefixes and particles because the presence or absence of the LM in the construed scene triggers either a *synoptic* or a *sequential perspectival mode*, respectively, as argued by Dewell (2011).

Dewell (2011), who has made a study into the two contrasting verb patterns in German, i.e. prefixed verbs and particle verbs, has observed that semantic nuances between the two types of verbal constructions can only be explained by taking recourse to the subjective aspects of meaning, given the fact that the objective meaning contributed by the lower-level lexical components is essentially the same. Despite the fact that German is far more flexible in terms of the interchangeability of the two word formation processes than English, and that in Polish there is no morphological rivalry of this kind at all,

¹⁰⁰ In (19a) *up* is a prototypical preposition because its e-site is elaborated by the object of the prepositional phrase, which provides the LM of the complex relation. *Up* in (19b) is a prototypical particle because its e-site is elaborated exclusively by the verb. In (19c) *over* is not a prototypical particle, on account of the fact that its e-site is elaborated both by the verb *pass* and the LM of the construal, represented by the subject, i.e. *she*.

¹⁰¹ Sentence (19a) and (19b) have been taken from Schröder (2011: 92).

Dewell's findings are fairly universal and can be applied to account for the differences in the construal of the scene represented linguistically by means of prepositions, prefixes (both in English and in Polish) and particles (only in English). For this reason, I will first briefly present the results of his research and then I will apply them to the analysis of the linguistic data from English and Polish.

According to Dewell (2011), a key issue in interpreting alternative construals encoded by prefixes and particles is the distribution of focal attention. Therefore, as he claims, it is important to determine whether the conceptualiser's attention is focused on the TR "like a tracking shot in a motion picture" (Dewell 2011: 13), or whether his or her attention is distributed more evenly over the scene. In the first case the path is construed as a sequence of individual points, while in the second case it is conceptualised as one whole, deprived of internal parts.

The distribution of attention can be accounted for in terms of construal processes that have been labelled *perspectival modes* by Talmy (2000a) and which assume a crucial role of *conceptual perspective*,¹⁰² understood as the "point from which the entity is cognitively regarded" (Talmy 2000a: 68-76). It comprises parameters, such as *conceptual vantage* (perspectival location, perspectival distance and local or global scope of attention) and *perspectival motility*, concerned with whether the perspective point remains in one single location or whether it is moving. Dewell (2011: 14) comments on these parameters in the following way: "[p]ut crudely, this is the conceptual correlate to where you stand when you look at something, whether you are upright, which direction you are looking in (and how your attention is focused), and whether you (and more particularly your head and eyes) are holding still or moving".

Talmy (2000a: 70) proposes that a stationary perspective point triggers a *synoptic perspectival mode*, characterised by "global scope of attention", while a moving perspective point is associated with a *sequential perspectival mode*, characterised by "local scope of attention". Dewell (2011) compares synoptic construal to a "gaze tour" (Ullmer-Ehrich 1982) in which the conceptualiser scans "an environment from a single viewpoint", resembling a "survey viewpoint, similar to a map" (Taylor and Tversky 1996: 376). In contrast, a sequential mode can be likened to a conceptual "tour" of the setting, referred to as a "route tour" by Taylor and Tversky (1996: 376).

¹⁰² The conceptual perspective is related to Langacker's (2008) notion of perspective, including vantage point (see section 1.5.4).

Dewell (2011) compares interpreting a path in a synoptic mode to filming by means of a stationary camera located far enough away to take in the whole scene in a single frame, which amounts to adopting a “stationary distal perspective point with global scope of attention” (Talmy 2000a: 70). This mode is typical for spatial scenes in which a moving figure does not get focal attention because the conceptualiser focuses not only on the moving figure but also on the setting.

In contrast, the path is interpreted in a sequential mode when the conceptualiser focuses his or her attention on the moving figure. As Dewell (2011: 16) remarks, this type of construal corresponds to a “tracking shot in a film”, where the camera zooms in to concentrate attention on the motile figure, “following it through a sequence of changing locations”. Thus, it can be stated that the camera, which moves together with the figure, adopts “a moving proximal perspective point with a local scope of attention” (Talmy 2000a: 70). In this type of construal, features of the setting pass unnoticed.

At this point the following question arises: what makes the conceptualiser opt for either a sequential or a synoptic perspectival mode? Dewell (2011) proposes that this is determined by the distribution of attention between the TR and the LM,¹⁰³ which, in turn, depends on how the construal of the scene is encoded linguistically. For the sake of illustration, consider the following sentences taken from BNC, which contain the component *over*, functioning as a prefix, particle and preposition, respectively:

(20)

- a. *In June 1992 the talks appeared to have foundered, having overrun the deadline for an agreement.*
- b. *This is a praise that flows from superabundance, when ‘our cup runs over’.*
- c. *He [...] ran over a kerb.*

Because in sentence (20a) the LM is explicitly coded (the *deadline*), the TR does not capture focal attention because the conceptualiser’s attention is distributed evenly to the whole scene, i.e. divided more or less equally between the TR and the LM, which prompts a synoptic perspectival mode, represented graphically by Fig. 1-10.¹⁰⁴

¹⁰³ *Figure* and *setting* are conceptual correlates of the TR and the LM, respectively, on the grounds of the fact that while the former is motile, the latter is stationary and serves as a point of reference.

¹⁰⁴ Fig. 1-10 represents the Excess Sense of the particle *over* (see section 2.6.4.2).



Figure 1-10. A synoptic perspectival mode encoded by *over*

In Fig. 1-10 both the TR (represented by the shaded circle) and the LM (represented by an open rectangle¹⁰⁵) are given equal prominence, which is shown graphically by the shading and the bold line. The conceptualiser adopts a distal and stationary perspective point, from which he or she comprehends the whole scene.

In contrast, sentence (20b) represents a construal of the scene in which the LM is not overtly expressed. It can only be inferred from the context as the standard or expected level of praise, metaphorically represented as a full cup. When there is an excess of praise, it “comes over the edge of the cup” – this process functions as the TR of the construal. Because the LM is implicit, the conceptualiser’s attention is focused on the TR, which evokes a sequential perspectival mode, represented graphically in Fig. 1-11.

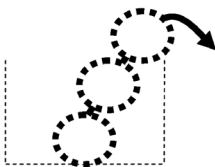


Figure 1-11. A sequential perspectival mode construed by *over*

In Fig. 1-11, like in Fig. 1-10, the circle corresponds to the TR and the open rectangle to the LM. However, due to different construals of the scene, the specific graphic representations of the two scenes differ significantly from each other. First of all, since in the construal of the scene represented by Fig. 1-11, the conceptualiser’s attention is focused on the TR, the TR is far bigger than in Fig. 1-10. Another difference is that the TR is on the move and the conceptualiser follows it through a sequence of changing locations, which is symbolised by the TR drawn with a broken line and occupying several different positions.¹⁰⁶

¹⁰⁵ In this sense of *over*, referred to as the Excess Sense, the LM is reanalysed as the container and the TR as the entity, held in it (see section 2.6.4.2).

¹⁰⁶ In Fig. 1-11 merely three positions taken by the TR as it moves along its trajectory have been distinguished. This should be regarded as a purely conventional representation,

Because the LM is not explicitly mentioned and it can only be inferred from the context, it is marked by a thin broken line, which symbolises its being outside the scope of the conceptualiser's attention.

Finally, in the construal of the scene represented by sentence (20c), both the TR and the LM are present. However, what makes the conceptualised scene different from that encoded by sentence (20a) is that the LM, i.e. *the kerb*, is not the object of the verb but the object of the prepositional phrase, which makes it less focally prominent.¹⁰⁷ Consequently, the construal of the scene encoded by the preposition followed by the prepositional object can be represented graphically as follows in Fig. 1-12:

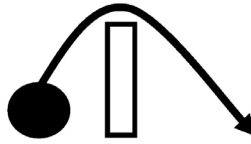


Figure 1-12. An attenuated synoptic perspectival mode represented by *over*

Since the LM is present, the conceptualiser does not concentrate all of his or her focal attention on the TR because the focus is also on the LM. However, because the LM, represented by the rectangle, is less prominent (which is marked by its contour drawn with thinner lines than in Fig. 1-10), the TR becomes analogously more prominent (the shaded circle, representing it is bigger than in Fig. 1-10). Thus, the perspectival mode represented in Fig. 1-12 can still be classified as synoptic, although not a prototypical one, because the TR receives more focal attention than in a typical synoptic mode in the sense of Dewell (2011). For this reason, I refer to this specific type of construal as an *attenuated synoptic perspectival mode*.

At this point it needs to be observed that out of the three construals presented above, only the construal of the scene encoded by the preposition can be treated as the default case for English. This should be taken to mean that

given the fact that it is not feasible to show graphically the complete sequence of points in space occupied by the TR.

¹⁰⁷ It has been stated by Dewell (2011) that a LM that functions as a direct object of a verb is far more focally prominent than a LM functioning as an object of a prepositional phrase. This view is shared by Zbierska-Sawala and Viereck (1992: 110), who point out that when a noun, or a noun phrase, is used as the direct object of the verb (not the object of the prepositional phrase), it is “represented more directly as the participant in a situation.”

when the scene is conceptualised by means of the preposition the LM is always overtly expressed, which entails attenuated synoptic construal. However, for particle verbs and prefixed verbs the pattern may be and frequently is reversed,¹⁰⁸ as demonstrated by the following examples:

(21)

- a. *She is a grand creature, but she over-acts.* (OED)
- b. *They chose to pass over her rude remarks.* (OALD)

Sentence (21a) constitutes an exemplification of a construal encoded by a prefixed verb with an implicit LM that can only be inferred from the context as the proper, requisite, right or lawful action. For this reason, the conceptualiser's focal attention concentrates on the TR, represented by the action(s) undertaken by the subject of the sentence, which triggers a sequential perspectival mode. In (21b), the LM is represented by the object of the preposition, i.e. the noun phrase *her rude remarks*, which makes the conceptualiser distribute his or her attention between the TR and the LM, which triggers an attenuated synoptic perspectival mode.

As regards Polish, the construal encoded by prepositions is always synoptic because of the presence of the LM in each prepositional phrase, linguistically represented by the prepositional object (22a). Prefixed verbs¹⁰⁹ may encode either a synoptic (attenuated) (22b), or a sequential construal (22c), depending on the presence or absence of the LM, respectively:

(22)

- a. *Zeskoczyłem na podłogę.* (NKJP)
'I jumped off onto the floor'.
- b. *Nie mam na chleb – napisała na kartce babcia.* (NKJP)
'I have no money to buy bread – grandma wrote on the sheet of paper'.
- c. *Miała 11 lat, gdy napisała dla niego wiersz.* (NKJP)
'She was 11, when she wrote a poem for him'.

The linguistic representation of the LM by the object of the prepositional phrase, i.e. *podłoga* 'floor' (22a) and *kartka papieru* 'sheet of paper' (22b), calls for the distribution of the conceptualiser's focal attention over the whole scene, i.e. both the TR (which is the subject of the sentence in each case) and the setting (the LM). In contrast, in sentence (22c), the LM is not

¹⁰⁸ This can be contrasted with basic patterns for German in which prefixed verbs are associated with a synoptic perspectival mode, while particle verbs with a sequential perspectival mode.

¹⁰⁹ Polish, which is an inflectional language, lacks verbal particles.

explicitly mentioned and can only be inferred from the context as a sheet of paper (as in (22b)), a copybook, or some other kind of writing material. Consequently, since no features of the setting are linguistically coded, the focal attention is concentrated on the TR, which prompts a sequential perspectival mode.

Having discussed differences in the construal of the scene in English and Polish, depending on whether it is linguistically encoded by a preposition, particle or prefix, I will concentrate in the remainder of the present section on the development of verbal prefixation in Polish and valence relations holding between the prefix and the verb.

Similarly to English, Polish prefixes are closely related to corresponding prepositions because they developed from prepositional phrases. This tendency was prevalent in most Indo-European languages and, as Śmiech (1986: 10) insightfully remarks, in some languages, such as German, a free position of the prefix has been preserved until today, as exemplified by the following sentence: *Er kommt heute Abend an* (containing the infinitive *ankommen*). Śmiech (1986) makes an assumption that in Slavic languages prefixes started to be permanently attached to verbs much earlier than in other language groups within the Indo-European family because of the emergence of the aspectual system in Proto-Slavic needed for the formation of the perfective aspect.

In the Old Polish texts there is a considerable variation in terms of the presence as well as distribution of prefixes and prepositions. It is possible to find verbs without prefixes but followed by prepositional phrases (23a) or prefixed verbs either with (23b) or without the prepositional phrase with the corresponding preposition (23c):

(23)

- a. *Jakom ja nie jeździł na dom Szczepanów gwałtem* (Zap War, the Rota 178, year 1426)
[I not go.1SG.MASC.PT.IMPF on house]
- b. *Odpadną od boku twego* (Wiercz, 259)
[they from-fall.3PL.FT.PF from side]
- c. *Jakom ja nie najechał słachetnego Szczepana Barsłaga* (Zap War, the Rota 2265, year 1521)
[I not on-go.1SG.MASC.PT.PF]

Given this, Jakowicka (1968) points out that until the 16th century the position of the preposition in a sentence was free: it could precede or follow the verb. Consequently, as argued by Jakowicka (1968), expressions, such as *iść na gospodę* [go on inn] – *najść gospodę* [on-go inn], *jechać na dom* [go on house] –

najechać dom [on-go house], *chodzić od matki* [go from mother] – *odchodzić matki* [from-go mother] were semantically synonymous.

However, it appears that despite this free variation, prevalent in Old Polish, prefixes were used to express a perfective aspect, which could not be encoded by prepositional phrases, despite the fact that the prefix and the verb were frequently written as two separate words: *do wodzi, od dalają, od jąc, pod pirają, od dzielone, na pełńcie, wy wiódt, roz niemogła, aw wiodłeś, od dofony*,¹¹⁰ *na gadał, na kazujemy, na radziwszy się, na był, od szedłeś, za szedłszy*, etc.¹¹¹ What is important is that, on the basis of written sources, it can be stated that even though written as distinct words prefixes did not function by any means as independent words in the period from the 15th to the 18th century (Popowska and Topolińska 1955). This particular type of spelling convention should be treated as a result of a process in the course of which prepositions were singled out from older prepositional phrases, which were then written as single words.

Jakowicka (1968) draws attention to the fact that until as late as the 19th century prefixed verbs were not followed by the prepositional phrases containing the corresponding preposition, because until that time prefixes still had a distinct spatial meaning. This statement is of great validity for the principled polysemy model, because in this framework non-spatial meanings are considered to be diachronically related to primary spatial senses, represented by a proto-scene. Consequently, Jakowicka's (1968) findings constitute yet another argument in support of the legitimacy of the adopted methodology.

Due to the path of diachronic development followed by verbal prefixes in modern Polish, a vast majority of them are formally indistinguishable from prepositions (Tabakowska 2003). For example, out of the six Polish prefixes (*nad-* 'over', *pod-* 'under', *na-* 'on', *z(e)-* 'away from/downwards', *w-* 'into/upwards' and *wz-* 'upwards'¹¹²) analysed in the present work, five of them are identical with their prepositional counterparts (*nad, pod, na, z* and *w*).

Despite clear indications that verbal prefixes and spatial prepositions are closely related, few studies have been carried out, especially in Slavic linguistics,

¹¹⁰ These examples, whose spelling has been updated, are derived from Popowska and Topolińska (1955: 255).

¹¹¹ These examples have been taken from an unpublished doctoral dissertation written by Rolska and entitled *Język księgi miejskiej Częstochowy z lat 1759-1765*, as noted by Śmiech (1986: 12).

¹¹² *Wz-* is one of only two Polish prefixes, with *roz-* 'apart', that does not have a prepositional counterpart.

aimed at showing correspondences between these two morpho-semantic classes.¹¹³ Therefore, the aim of the present work is to contribute to filling this gap and to argue in favour of a close semantic correspondence between prepositions and verbal prefixes by demonstrating that meanings of Polish verbal prefixes are motivated by spatial meanings of prepositions. Falling into step with Tabakowska's (2003) research, an attempt will be made to show that all the senses of Polish prefixes under study are not only related to one another within a single semantic network but also that they are systematically related to various senses of the prepositions that they correspond to.¹¹⁴ As Tabakowska states:

[...] [G]eneral principles of verbal prefixation may be revealed through a systematic comparison of the semantics of the category of verbal prefixes with that of prepositions, following the assumption that verbal prefixes originally developed from adnominal elements, which then later turned into lexemes defined as prepositions (Tabakowska 2003: 157).

This, as Tabakowska (2003: 158) calls it, “basically localist interpretation” is rooted in the view that grammar should be explained by means of human cognitive processes, which, in turn, are frequently shaped by our understanding of space and spatial relations.

As regards the A/D asymmetry and valence relations that characterise Polish prefixed verbs, in this type of composite expressions the prefix functions as the dependent structure, while the verb is the autonomous structure. Consequently, the semantic content of the verb elaborates the e-site of the prefix. For example, in the verb *nadużywać* [over-use] ‘to abuse’, the schematic content of the e-site of the prefix corresponds to the notion of excess (the prefix *nad-* conceptualises the Excess Sense in this composite expression, as elucidated in section 3.2.5.3) and it is specified in more detail by the verb *używać* ‘to use’. Consequently, the prefix constitutes the profile determinant of the composite expression, because it profiles an excessive use of a given substance or means.

When this verb is combined with the direct object in the phrase *nadużywać alkoholu* ‘to abuse alcohol’ (see example (15) in chapter 3), the pre-

¹¹³ See, e.g. Dąbrowska (1996), Tabakowska (1999, 2003), Tchizmarova (2006, 2012), Šarić (2012, 2013), Viimaranta (2012).

¹¹⁴ Another Polish linguist, Pasich-Piasecka (1993) in the course of her analysis of the preposition *przez* ‘across’ and the corresponding prefix *prze-*, has found that both spatial and non-spatial meanings of the prefix are derived from the spatial meanings of the preposition. All the meanings are related to each other through family resemblance with the spatial senses constituting the centre of the network and abstract ones being located at its peripheries.

fixed verb functions as a dependent structure and the object noun as an autonomous structure. Thus, the schematic e-site of the verb, designating the process of abuse, is filled with the semantic content of the direct object, which provides the name of the substance, i.e. alcohol. The verb is the profile determinant of the composite construction, which profiles the process of abuse, not the entity (alcohol). The scene is construed in a sequential mode because the LM, which is the socially accepted limit of alcohol consumption, is not explicitly coded in the sentence. Consequently, the conceptualiser's attention is focused on the TR, which is the process of excessive alcohol consumption.

Analogical valence relations hold for the English equivalent of the Polish prefixed verb, i.e. the verb *overuse*¹¹⁵ as employed in sentence (24):

(24)

But be sure later to learn specific items and don't overuse the generic terms. (BNC)

Thus, the prefix *over* functions as the dependent structure and profile determinant in the prefixed verb *overuse*, and the verb *overuse* assumes the role of the dependent structure and at the same time the profile determinant of the composite expression *overuse the generic terms*, which profiles excessive use of the substance encoded by the direct object, i.e. *generic terms* (functioning as an autonomous structure).

The discussion of verbal valence involves the notion of transitivity, because the prefix and the particle frequently change the verb from a transitive to the intransitive one, as exemplified by *walk*, *talk* (predominantly intransitive), *rysować* 'to draw', *malować* 'to paint' (either intransitive or transitive), which are obligatorily transitive when combined with the particle and prefix, respectively: *to walk somebody down*, *to talk somebody down* (see example (45) in chapter 2), *na-rysować coś* 'to draw sth.', *na-malować coś* 'to paint sth.'. If this is the case, the e-site of the composite verb is elaborated with the semantic content specified by the object noun. On the other hand, one comes across numerous instances where the addition of a particle or a prefix does not affect the transitivity of the composite verb, as exemplified by the following pairs, which are intransitive in both cases: *go – go up* (in the sense 'to increase'), *boil – boil over*, or, conversely, both of them are transitive: *buy – buy over*, *hate – hate on*, *karmić* [feed.IMPF] – *nakarmić* [feed.PF], *ciąć* 'to cut' – *naciąć*. 'to cut a little', etc. Since the present work is semantically oriented and aims at the description of

¹¹⁵ English uses more specific terms than Polish because the Polish verb *nadużywać* is not specified as to the nature of the excessive use taking place. Consequently, it can be translated both as 'to abuse' and 'to overuse'.

the polysemy of prepositions, prefixes and particles in English and Polish, and patterns of verbal valence constitute an extensive and complex topic, the discussion of which is beyond the scope of this book, an interested reader may consult Divjak and Kočańska (eds.) (2008), who have studied verbal valence in the paradigm of cognitive linguistics.

1.7. Aspectual construal

Being concerned with verbal particles and prefixes clearly brings to mind the notion of verbal aspect, which deserves at least a brief mention. The present section begins with the definition of verbal aspect and then proceeds to provide very rudimentary information concerning verbal aspect in English and in Polish. Next, the cognitive linguistic approach to aspect is presented, according to which aspect is not a feature of a verb but of the whole predicate and it depends on the construal of the scene.

As regards the definition of aspect, Comrie (1976: 3) states that *aspects* are “different ways of viewing the internal temporal constituency of the situation”. Smith (1997) makes an observation that aspect enables the language user to talk about the same situation in different ways.

In Polish, aspect is encoded by the perfective–imperfective distinction, which is obligatory for all verbs, irrespective of their tense and other grammatical features. The *perfective* aspect is defined by Śmiech (1971) as the verb form that represents an event as one whole due to the existence of a boundary that demarcates its beginning and end. In contrast, the *imperfective* aspect is not delimited by a temporal boundary. Svenonius (2004: 179) puts it this way: “roughly, perfective verbs express an event as a bounded whole, while the imperfective may express an event which is ongoing or otherwise not distinctly bounded”.

Verbal prefixes may not only change aspect from imperfective to perfective (*писаć* [write.IMPF] – *написаć* [on-write.PF]), but also they may modify the meaning of the simplex verb, as exemplified by *писаć* [write.IMPF] – *подписаć* [under-write.PF] ‘to sign’. The latter case is considered to be an instance of an *Aktionsart* (Kardela 1997), or a *specialised perfective* (Janda et al. 2013).¹¹⁶ Specialised perfectives may undergo secondary imperfectivisation by

¹¹⁶ The *specialised perfective* is a prefixed verb in which the lexical meaning of the composite verb is different from that of the corresponding component verb. Janda et al. (2013) have proposed this category for the Russian aspectual system, but it has been attested in Polish as well and it can be put on a par with the category of *Aktionsart*.

the addition of the suffixes: *-ać*, *-i/ywać*, as demonstrated by *podpisywać* [under-write.IMPF2].

From the formal point of view, Polish and English aspectual systems differ significantly from each other¹¹⁷ because in English there are different types of aspectual distinctions. Thus, there are two basic types of aspect: *perfect* aspect, which denotes “events or states taking place during a preceding period of time” and *progressive* aspect, which represents those events or states that “are in progress or continuing” (Biber et al. 2002: 156). These aspectual distinctions are marked both syntactically and morphologically, i.e. perfect forms are encoded by perfect tenses (e.g. *has written*), while progressive forms, by progressive tenses (e.g. *is writing*).

English, being an analytic language, does not have affixes that affect the lexical aspect of the verb, but it has particles, some of which may encode aspectual meaning. Aspectual particles have grammaticalised from spatial prepositions in which the original TR–LM configuration ceased to be transparent, as demonstrated by *burn up*, where *up* encodes a telic aspect (Rice 1999; Brinton 2009). Besides evoking the notion of a goal, as is the case with telic particles, such as e.g. *up*, *down*, or *over*, verbal particles may also encode a source (*out* and *off*) or path (*through* and *about*), as noted by Traugott (1978).¹¹⁸

The traditional distinctions presented above pose one major problem for the cognitive analysis of aspect that can be summarised by this quotation from Croft (2012: 32): “[e]vents do not have just an inherent aspectual type, as assumed in some unidimensional approaches: the event may be viewed from different aspectual perspectives or viewpoints”. In other words, as claimed by Dahl (1985: 26–7), predicates do not belong to a specific aspectual type, i.e. they cannot be inherently assigned to it, but rather they have an “aspectual potential”, which means that they may be realised as several aspectual types.

Because a detailed analysis of aspectual construal falls outside the scope of the present work, I will focus merely on how the construal of the scene affects

¹¹⁷ Note, however, an attempt made by Kokorniak (2018), who offers the *integrated model of aspect* (henceforth IMA), based on Croft’s (2012) two-dimensional model of aspect, supplemented with Janda’s (2015b) refinements. The IMA enables us to find common ground between aspectual systems that are significantly different from each other thanks to the fact that it offers a higher degree of specification.

¹¹⁸ The lexical aspect of English verbal particles has been discussed in detail by Walkova (2013). The interested reader may also turn for accounts of the lexical aspect in English to Bolinger (1971), Jackendoff (2002), Celce-Murcia and Larsen-Freeman (1998) or Cappelle (2005).

telicity¹¹⁹ in English. The reason for choosing a telic aspect is that three of the five particles, namely, *up*, *down* and *over* that are under investigation in the present work, are capable of encoding telicity. At the end of the section I will also offer a brief comment on the compositional nature of the construal of the perfective aspect in Polish.

Telicity has been defined by Croft (2012: 79) as q-boundedness which is “the existence of a natural end-point or telos of an event [...], the presence of a result state defined on the qualitative state dimension”. In Croft’s (2012) two-dimensional model, aspect is represented geometrically by means of two dimensions: temporal, corresponding to the (x) axis, which shows how an event unfolds in time, and qualitative, corresponding to the (y) axis, which allows observation of how its quality changes phase by phase (see Fig. 1-17). Croft’s phasal analysis of aspect is fine-grained, which means that it takes into account boundaries at the beginning and at the end of events. It distinguishes three possible phases: an initial boundary transition, a middle phase and a final boundary transition, which is the passage to the result state. In the context of discussing telicity, it is the final boundary transition that is of primary importance because depending on whether an event leads to the result state, or not, it is either telic or atelic, respectively. The final boundary transition should fall within the immediate scope, i.e. the viewing frame of the conceptualiser.

Whether the final boundary transition falls within the immediate scope does not depend merely on the lexical and grammatical features of the verb conceptualising an action. It has already been demonstrated in the 1970s by numerous researchers (Verkuyl 1972; Friedrich 1974; Lyons 1977; Taylor 1977; Mourelatos 1978) that verbal aspect (including telicity) in various languages has a compositional nature, which means that many factors are involved in aspectual meaning. Factors entailing telicity have been collectively described by Brinton (2009), and when put into the cognitive linguistics framework they are as follows: a verbal particle encoding a goal, a quantised verb argument and a prepositional phrase encoding a goal.

When it comes to the first factor, it has been argued by Walkova (2013), among others, that telicity is entailed by particles encoding a goal, but only when they are combined with incremental theme verbs in the sense of Krifka (1989)

¹¹⁹ The discussion presented in this section is based to some extent on a conference paper, entitled ‘Telicity in English as a contextual phenomenon’, read at the conference *Culture and Cognition in Language 2* held in Rzeszów in April 25-26, 2019.

and Dowty (1991). An *incremental theme* represents an entity, whose parts can be mapped onto parts of the event denoted by the verb. For example, when you eat a cake, the event is half over when half of the cake has been consumed. Consequently, a *cake* is an incremental theme in the phrase *to eat a cake*. Consider several incremental theme verbs in which telicity is entailed by the particle:

(25)

a.

*Hank silently drank down his beer.**Bill read a book through.**I printed out the documents.*

b.

*Hank silently drank his beer.**Bill read a book.**I printed the documents.*

Predicates that consist of verbs combined with particles are telic (25a) because the particle evokes the notion of the goal (represented by a black shaded dot in Fig. 1-13a.), which falls within the immediate scope (IS).¹²⁰ If the event is construed by a simplex verb, its goal is located off-stage, that is within the maximal scope (MS), as demonstrated in Fig. 1-13b. Consequently, the predicate is atelic.

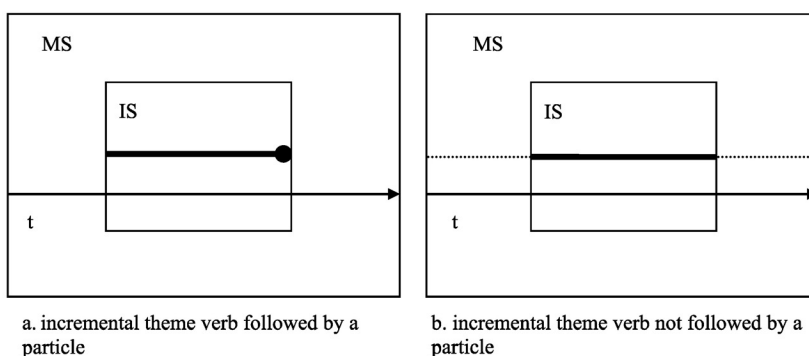


Figure 1-13. Telicity/atelicity and incremental theme verbs
(based on Langacker 2008: 65)

The transition from spatial to aspectual meaning can be accounted for by relying on the EVENT STRUCTURE metaphor (Lakoff 1990) which conceptualises events, such as actions, or changes of state in terms of physical movement, physical force as well as physical space. Because the main aspects of events

¹²⁰ Importantly, a telic particle is compatible exclusively with the bounded (quantised) incremental theme. The combination with the unbounded verb argument yields an ungrammatical sentence, e.g. **Hank silently drank down beer*.

include, among other things, change and purpose, the EVENT STRUCTURE metaphor involves numerous submetaphors, such as CHANGES ARE MOVEMENTS and PURPOSES ARE DESTINATIONS. Consequently, movement along the path encoded by the particle stands for the ongoing change from q-unboundedness to q-boundedness. The destination corresponding to the end-point of the path stands for the purpose of the action, which represents the transition to the result state. On the whole, telicity conceptualised in terms of the EVENT STRUCTURE metaphor is construed as reaching the end-point of the path, which is a GOAL in the SOURCE-PATH-GOAL schema. In this construal the goal falls within the immediate scope.

However, as Brinton (2009) has pointed out, the claim that particles are markers of telicity is an overstatement. Along similar lines, Walkova (2013: 117) proposes that “telicity marking is a mere additional effect of some particles in certain predicates”. What she means is that frequently the addition of the particle does not entail telicity on the predicate because the predicate is already telic. For example, in the case of predicates containing prepositional phrases the addition of the particle does not enforce telicity on account of the fact that it does not overrule the original interpretation of the path:

(26)

- a. *Bill pushed the cart off into the house in/*for¹²¹ two minutes.* (telic)
- b. *Bill pushed the cart off toward the house *in/ for two minutes.* (atelic)

When a telic particle is incorporated into a predicate that already conceptualises a transition to the result state, as in (27a) and (27c), it does not entail telicity either; it merely profiles the transition to the result state by making the concept of the goal explicit, as in (27b) and (27d):¹²²

(27)¹²³

- a. *No matter how tired I feel, I know that an hour of dancing will melt my stress.*
(telic)
- b. *No matter how tired I feel, I know that an hour of dancing will melt down my stress.*
(telic)

¹²¹ A widely used test for identifying telicity is to check the plausibility of occurrence of predicates with the *durative adverbial* (for TIME INTERVAL), or the *container adverbial* (in TIME INTERVAL). If the predicate can be used with the durative adverbial, it is atelic, if it can be used with the container adverbial, it is telic (Croft 2012).

¹²² Hampe (2002: 246) refers to this type of particles as *superlative*, claiming that “they profile material already (to some degree) activated”. To be more precise, they profile the final TR-LM configuration of the event denoted by the verb.

¹²³ These examples have been adopted from Hampe (2002).

- c. *Schrader drank his champagne and placed the glass on the counter.* (telic)
 d. *Schrader drank down his champagne and placed the glass on the counter.* (telic)

Consider now two predicates that differ from each other in terms of the boundedness of the noun which functions as the verb argument. *Boundedness*, understood as “countability”, is not an inherent property of the noun, or the concept that the noun denotes. According to Langacker (2008: 136), “[...] a thing is bounded when there is some limit to the set of constitutive entities”. Thus, the verb argument (*beer*) in (28a) represents an unbounded mass, while that in (28b) is an instance of a bounded mass. Consequently, if the noun is construed as an unbounded mass, the predicate is atelic but when it is construed as a bounded mass (quantised), the predicate is construed as telic (Krifka 1989: 75):

- (28)
 a. *Bill drank beer for an hour.* (atelic)
 b. *Bill drank two glasses of beer in an hour.* (telic)

The claim that beer is construed as an unbounded mass in (28a) does not mean that its referent is limitless but that its boundaries have not been selected for linguistic presentation. The noun *beer* used without any quantifier is construed by “zooming in”, i.e. by imposing a limited immediate scope that excludes its physical boundaries. Physical boundaries understood as a specific volume are encompassed by the maximal scope. Because it is the immediate scope that is foregrounded, only this onstage portion of the overall quantity of the substance stands out as the expression’s referent (Fig. 1-14b.). In contrast, for the noun phrase *two glasses of beer* (28b) the immediate scope is the same as the maximal scope, which makes it bounded and the predicate telic (Fig. 1-14a.).

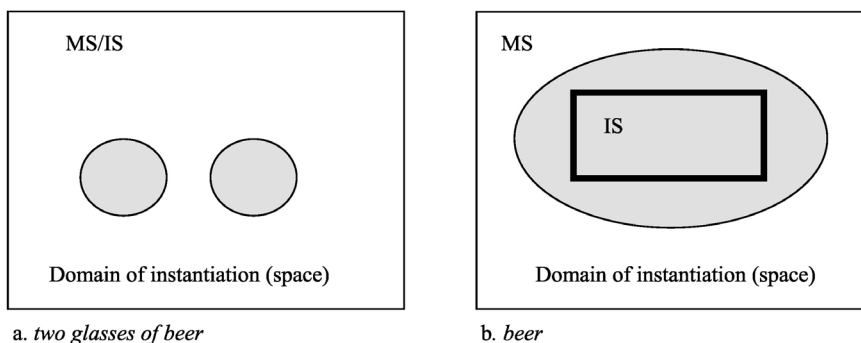


Figure 1-14. Telicity/atelicity versus countability/uncountability

Likewise, the noun in plural can also be construed as either a bounded or unbounded mass:

- (29)
Bill ate five sandwiches in an hour. (telic)
Bill ate sandwiches for an hour. (atelic)

For the referent of the noun phrase *five sandwiches* the entire amount of sandwiches appears “onstage”, i.e. within the immediate scope. Since the immediate scope is the same as the maximal scope, the quantity of sandwiches is bounded and the event is telic (Fig. 1-15a.). The noun *sandwiches* specifies an unbounded number of sandwiches – it is not an infinite number, but a collection of sandwiches whose boundaries lie outside the immediate scope of the construal (Fig. 1-15b.).

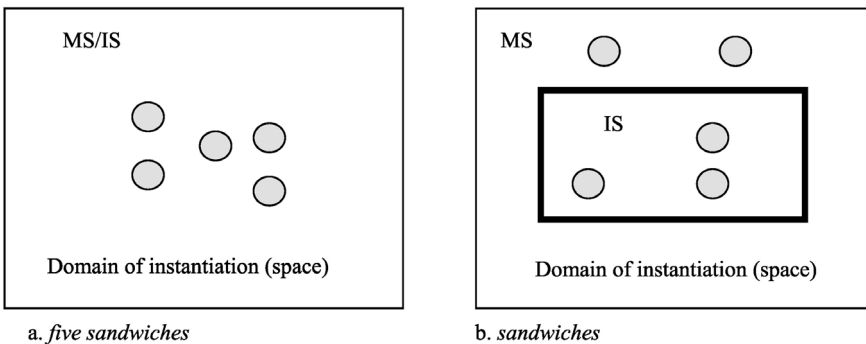


Figure 1-15. Telicity/atelicity versus specified/unspecified quantity

Telicity can be entailed not only by the boundedness of verb arguments but also by the boundedness of the path, which can be determined by a measure phrase (30a), a prepositional phrase (31a), or the root verb (32).

- (30)
 a. *An apple rolled a yard away.*
He ran a mile.
 b. *An apple rolled slowly.*
He ran in the marathon.

The predicates containing a measure phrase specify the length of the trajectory, hence they have a natural end-point, which corresponds to the end-point of the trajectory. Because the end-point falls within the immediate scope, the event is construed as telic (Fig. 1-16a.). If the predicate does not contain a measure phrase, it does not mean that the trajectory is of an infinite

length but that its length is outside the viewing frame of the conceptualiser. Consequently, because its end-point does not fall within the immediate scope, the predicate is unbounded, i.e. atelic (Fig. 1-16b.).

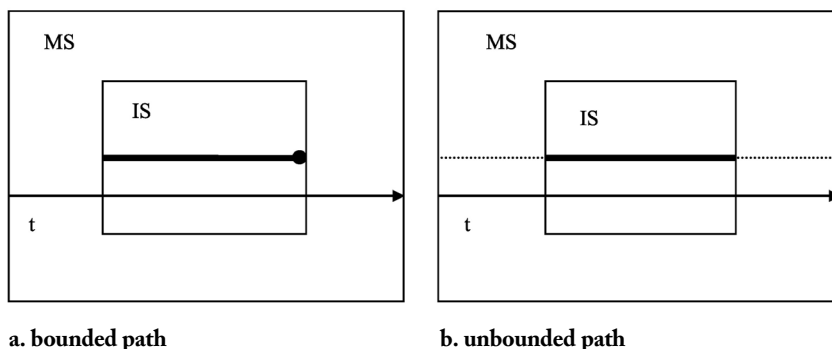


Figure 1-16. Scope and boundedness/unboundedness of the path

The activity encoded by the verb can also be delimited by the prepositional phrase, provided that it construes a bounded path, as in (31a):

(31)

a.

John ran to the line.

Bill pushed the cart into the house.

b.

John ran along the shore.

Bill pushed the cart towards the house.

The prepositional phrases in (31a) delimit the path by encoding the notion of the goal. Once the TR reaches the goal, which is the end-point of the path (the *line* and the *house*), it cannot move any further, which makes the event telic. In contrast, in (31b) prepositional phrases construe a trajectory by means of path prepositions, which encode merely the path along which the TR moves. Because they do not encode the goal within the immediate scope, they are incapable of delimiting the event, which is – for this reason – atelic.

The path may be encoded by the verb root itself if the verb has been borrowed from Romance languages, since Romance languages are *verb-framed* (Talmy 1991), i.e. they specify the direction of movement by means of the verbal root. Verbs borrowed from Romance languages do not require a prepositional phrase or a particle to encode a path:

(32)

a. *The climber descended in a few hours.* (telic)

b. *The climber descended for a few hours.* (atelic)

The alternative aspectual construals in (32) can be accounted for in terms of metonymy (as proposed in Croft and Cruse 2004), which consists in shifting the concept profile to another element of a semantic frame. Thus, if the final boundary transition leading to the result state is profiled, the event is construed as an *incremental accomplishment*,¹²⁴ which is telic (Fig. 1-17a.). In contrast, if the middle of the event is profiled, it is considered to be a *directed activity*, which is atelic (as represented in Fig. 1-17b.).

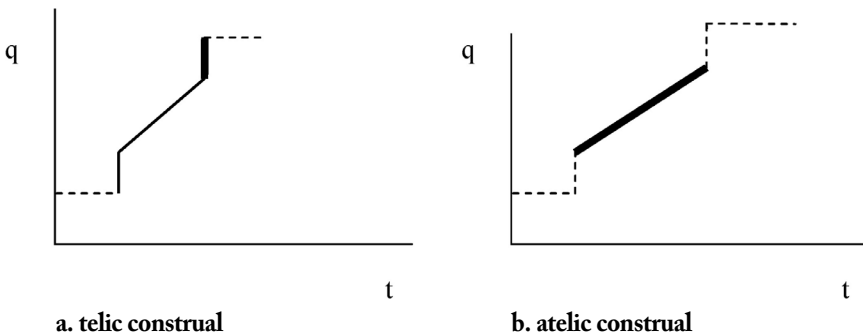


Figure 1-17. Alternative aspectual construals triggered by metonymy

Thus, as has been shown above, telic aspect cannot be regarded as an inherent property of the verb because it is a result of how the event is construed, i.e. whether the elements of the scene, such as the end-point of the trajectory, or the boundedness of an object participating in it, fall within the immediate scope. On the whole, telicity, understood as q-boundedness is entailed by the boundedness of the predicate, which, in turn, depends heavily on the linguistic and extra-linguistic context.

When it comes to the relationship between the construal of the scene and the aspectual construal in Polish, I will discuss this based on the example of Polish perfective verbs followed by nouns either in the accusative or genitive case. Tabakowska (2001b) claims that if the aspect of a verb is to be studied exhaustively and comprehensively within the cognitive linguistics paradigm, the semantics of the case needs to be taken into account. Let me focus on one of the contrastive aspectual pairs, as discussed by Tabakowska (2001b: 9):

¹²⁴ Croft (2012) defines *incremental accomplishments* as durative and bounded events steadily progressing towards the result state, which is finally reached. In contrast, *directed activities* “involve a continuous (or at least incremental) change along the q dimension, but without a transition to a result state representing a completed action” Croft (2012: 60).

(33)

- a. *nalać wodę* 'to pour (all of) water'
 [on-pour.PF water.ACC.SG]
 b. *nalać wody* 'to pour some water'
 [on-pour.PF water.GEN.SG]

As Tabakowska points out, the accusative case in Polish encompasses the whole referential mass (as defined by Langacker 1991), while the genitive only part of it.¹²⁵ This is so because in the construal of the first scene, expressed by (33a) the referent of the noun encodes a bounded mass, i.e. a mass whose boundaries fall within the immediate scope. In contrast, in the construal encoded by (33b), the referent of the noun encodes an unbounded mass, i.e. one whose boundaries fall outside the immediate scope, i.e. within the maximal scope (See Fig. 1-15b.). Consequently, the predicate in (33a) is bounded, while the one in (33b) is unbounded, which means that in the first case the event has been brought to an end and the activity of pouring water cannot be resumed because the whole amount of water has been used up. Conversely, in the second case (33b) the event construed by the predicate can be treated as a subevent of the activity of pouring water, which can be resumed at any time as there is still some water left.

Since, as demonstrated above, the alternative aspectual construals are dependent on the context (both differential experience and differential cognitive styles¹²⁶ in the sense of Kövecses 2015), both space limitations and the considerable size of the collected sample of English particle verbs and Polish prefixed verbs would make the analysis of aspectual construal of the studied verbs impossible. It would require a holistic analysis (Tabakowska 2001b), involving a highly contextualised study of each particle verb and prefixed verb. Consequently, the aspectual construal is not discussed in the present work and given only a brief mention if some regular patterns have been observed across a given particle or prefix. For example, the particles *up* and *down* have the potential to change activities into achievements and accomplishments when they are used in the Completion Sense (see sections 2.3.4.1 and 2.4.4.1, respectively).

¹²⁵ This type of genitive is referred to as *genitive partitive* (*dopełniacz częścikowy*).

¹²⁶ When it comes to differential experience, in the case of aspectual construal it is the surrounding discourse that is of paramount importance, which should be understood as the elements of the predicate discussed in the foregoing. Differential cognitive styles, understood as construal operations available to the conceptualiser, play a role in shifting a profile to another element of a semantic frame, as in (32).

1.8. Conclusions

Verbal particles and prefixes conceptualise complex relationships and are closely related to the corresponding prepositions from which they have evolved in the sense that they represent the same TR–LM configuration. Consequently, all their abstract senses can be traced back to the primary spatial sense, represented by means of the proto-scene in the principled polysemy model. Due to the fact that a proto-scene encodes not only a prototypical TR–LM configuration but also a functional element which represents its meaningful consequences, it is possible to pay due attention to the priming role of contextual factors in developing meaning extensions.

It has been argued in section 1.3 that a functional element may be attributed not only to a proto-scene but also to other spatial scenes derived from it in the course of reanalysis guided by a wide array of construal operations, such as profiling, subjectivity, foregrounding, perspective, or mental scanning. Once a proto-scene is reanalysed, the TR–LM configuration changes, which entails different meaningful consequences, i.e. a different functional element, which has the potential of triggering polysemy.

New senses originate at the level of mental spaces, which are the least schematic in the human conceptual system and which constitute the online level of conceptual processing. When mental spaces are filled with specific information obtained from context the conceptualiser may form an implicature concerning a perceived scene, which reaches beyond a given spatial configuration. Implicatures are made by the conceptualiser relying on the construal operations available to him or her. If a particular type of scene recurs, the implicature is pragmatically strengthened, leading to the emergence of new spatial and abstract meanings, all of which are embodied; that is, derived from human interaction with the environment.

Even though verbal particles and prefixes correspond both semantically and diachronically to prepositions, they differ from them in terms of their syntactic role in the sentence. Accordingly, they are characterised by different valence relations: while the *e*-site of the preposition is elaborated by the object of the prepositional phrase, the *e*-site of the (prototypical) particle and the prefix is elaborated by the verb. Moreover, because in the construal of the scene by means of prepositions the LM is always present (represented by the object of the prepositional phrase), the scene is construed in an attenuated synoptic perspectival mode. In the construal of a scene by verbal particles and prefixes there are two options: if the LM is absent, the scene is construed in

a sequential perspectival mode because the TR receives the entire focal attention. In contrast, if the LM is present and represented by the object of the verb, the scene is construed in a synoptic perspectival mode because the object of the verb is more prominent than that of the preposition.

The next chapter is devoted to the analysis of the polysemy of verbal particles encoding verticality in English with the aim of showing their close relationship with the corresponding prepositions. Besides studying the frequency of particular particles, its goal is to demonstrate the role of context and construal operations in triggering meaning extensions.

CHAPTER 2

Non-spatial meaning extensions of the English particles *up*, *down*, *over*, *under* and *on*

2.1. Introduction

The present chapter is devoted to the description of non-spatial meaning extensions of English verbal particles conceptualising either movement or position along a vertical axis, i.e. *up*, *down*, *over*, *under* and *on*. The purpose of the analysis to follow is to demonstrate that all the abstract senses of the particles in question are grounded in human experience of verticality. Therefore, the study of the semantic network of each spatial particle commences with a description of the primary sense of the corresponding preposition established in accordance with the criteria proposed by Tyler and Evans (2003) and laid out in section 1.3. The next step is to discuss other spatial senses of a given preposition but only those which give rise to non-spatial meanings of the corresponding particle in the course of metaphorical extension and other construal operations described in section 1.5. Since the present work relies on the principled polysemy model enriched with a lexical approach (Kövecses 1986, 2017a), it uses the lexicographic data provided by the OED for the construction of the semantic network of each particle. The lexicographic data are supplemented by earlier studies of English spatial prepositions and particles,¹ such as Lindner (1983[1981]), Navarro (1998, 2006), Boers (1996), Tyler and Evans (2003), Rudzka-Ostyn (2003) and Lindstromberg (2010), to mention but a few.

Since, as observed in chapter 1, many English spatial prepositions and particles occur in contrast sets in which their prototypical senses and some of their meaning extensions stand in clear contrast to each other, the present analysis takes this fact into account. The study begins with the *up* – *down* con-

¹ See section 1.6 for the discussion of the preposition–particle continuum.

trast set since, according to the corpus which has been collected for this research, *up* and *down* are the two most frequent English verbal particles. Next, the analysis proceeds to the discussion of the *over* – *under* contrast set and it ends with the analysis of *on*, which is not regarded as part of any contrast set.² The aim pursued here is not only to provide substantial evidence in favour of the embodied nature of particle meanings but also to try to determine whether it is the functional element/(s) or the TR–LM configuration that motivates non-spatial meaning extensions.³ Thus, in this chapter, non-spatial senses of each particle are arranged in descending order of frequency around either a particular spatial TR–LM configuration, or a specific functional element, depending on which of them has played a decisive role in generating meaning extensions in a particular case.

The explanation of the bodily basis of abstract meanings is followed by the study of their instantiations derived from two authentic sources: *Oxford English Dictionary* (online edition) and *British National Corpus*. The reason for relying on two sources of data is that sometimes the OED entry contains only obsolete quotations with the particle in a given sense, dating back up to several hundred years. Therefore, since the focus of the present work is synchronic not diachronic, in order to obtain the relevant examples it was necessary to turn to a contemporary corpus of the English language, such as BNC. Another reason for relying on BNC is that some relatively contemporary instantiations of a given particle sense in the OED (i.e. those dating back to the 19th or 20th centuries) have turned out to be unsuitable for the explication of the particle meaning. This has been caused by the fact that the OED quotations do not provide an adequate surrounding discourse, being either too short or very situation-specific. Therefore, it has been impossible to identify the main elements of the construal, such as participants or physical setting, indispensable for the correct interpretation of a particle meaning. Where this was the case, instantiations of a given sense of the particle have been derived from BNC. Only incidentally – when the BNC search brought no satisfactory results – other sources of data have been used, such as Google web pages, or monolingual dictionaries of English (e.g. OALD and LDPV).

² Even though *on* is juxtaposed with *off* by Lindstromberg (2010) on account of the fact that the former encodes contact while the latter a lack of contact, and in some cases *off* may denote vertical movement as in the case of the particle verb *take off* ‘to rise from the ground into the air’, in its basic sense it encodes separation and removal. Therefore, it is not included in the present analysis.

³ See section 1.3.

The discussion of all the non-spatial senses of a given particle ends with the graphic representation of its semantic network.

2.2. Spatial particles of orientation: *up* and *down*

To begin with, both *up* and *down* are considered to be highly dynamic by Boers (1996: 78), who claims that in the corpus collected for the purpose of his research only about 10 per cent of *up* and *down* are clearly static. The two spatial expressions under study “represent the linguistic means of expressing orientation of the TR in reference to an asymmetric LM along the vertical axis” (Tyler and Evans 2003: 135). According to Clark (1973), the physical structure of the human body with legs at one end and a head, in which all the organs of perception are located, at the other, provides a solid foundation for the significance of a distinction between ‘up’ and ‘down’. To put it differently, our bodies are asymmetric, which entails profound consequences for our interaction with the environment. The structure of the environment is also asymmetric, with the force of gravity constituting a natural direction downwards. These two aspects of reality have serious consequences for deriving both spatial and non-spatial senses of *up* and *down*.

As Lindstromberg (2010) notes, *up* and *down* are usually intransitive, which leads to the fact that their LMs must be inferred. With regard to the direction of movement, (Lindstromberg 2010: 189) proposes that “the basic meaning of *up* is almost certainly ‘straight up’ and that of *down* ‘straight down’. But, in fact, *up* (and *down*) can refer to any angle of movement to a higher (or to a lower place)”. An important claim made by Lindner (1983[1981]) and repeated by Lindstromberg (2010) is that many senses of *up* and *down* depend on the perspective from which the action is viewed (this issue is discussed in detail in section 2.3.2).

Since *up* and *down* predominantly function as prototypical particles, which means that their e-site is elaborated with the semantic content of the component verb, the analysis to follow will bring into focus the valence relation between the particle and the verb (see section 1.6).

2.3. Semantics of *up*

The discussion of sense extensions of the particle *up* draws on several earlier works, such as Tyler and Evans (2003), who have analysed selected senses belonging to the Quantity Cluster as well as Rudzka-Ostyn (2003) and Lindstromberg (2010), who have provided a partial description of the polysemy of

the particle *up*. As regards the terms applied for various meanings of the particle *up*, they have usually been derived from the aforementioned works and some of the semantic labels have been adopted from the particles index section of *Collins COBUILD Particle Verbs Dictionary* (CCPVD).

The aim that this section seeks to achieve is to compensate for the shortcomings of the above-mentioned accounts of the polysemy of *up*. To begin with, CCPVD and Rudzka-Ostyn (2003) provide a multiplicity of sense extensions; however, neither of them accounts for the way in which new senses are derived from the prototypical one. The motivation for sense extensions is offered in the work of Tyler and Evans (2003), which, however, discusses merely a tiny fraction of all the senses of *up*; that is, those motivated by the concept of QUANTITY. Lindstromberg's (2010) classification is clearly the most comprehensive, because it takes into account two different perspectives, crucial for the development of sense extensions. However, his analysis is pedagogically oriented, which means that it is practical in nature and, therefore, it suffers from several weaknesses, such as a lack of clear specification of the prototypical meaning, absence of an in-depth scientific explanation of meaning extensions, and no information concerning the frequency of senses. Therefore, the present analysis of the semantic network of *up* intends to provide comprehensive coverage of the most common senses of this particle and to explain how they are derived from the primary sense.

According to Rudzka-Ostyn (2003: 23), *up* is the most frequent English particle, on account of the fact that “an upward position or motion, both physical and especially abstract, is in a very special way part of our daily experience, which is due to our unique physical architecture and its consequences for our conceptualisation of the world”. Before I begin the discussion of non-spatial senses of this particle, I am going to focus on the proto-scene for *up*, which motivates both spatial and non-spatial meaning extensions.

2.3.1. Proto-scene for *up*

According to Tyler and Evans (2003), a proto-scene constitutes a representation of the primary sense of the preposition. As stated in chapter 1, the sense is considered to be primary if it satisfies five criteria of prototypicality (see section 1.3), including being the oldest attested meaning.

As indicated by the OED, *up* is derived from Old English *uþp*, *up* and related to Old Frisian *up*, *op*, Old Low Franconian *up*, Old Saxon *up*, Old Norse *uþp*, Old High German *uf* and Gothic *iup*. As regards the earliest attested

sense of *up*, it is surprisingly a figurative one, namely 'from a lower to a higher status in respect of position, rank, or affluence', recorded as early as c. 825. The second oldest meaning is 'to a higher point on or within a river, channel, etc., or a point further from the sea' dating back to 847. The third and the fourth oldest sense (c. 888) are: 'to or towards a point or place higher than another and lying directly (or almost directly) above it; so as to raise or bring, come or tend, to or towards a higher position in space' and 'towards a point overhead, or away from the surface of the earth; into the air', respectively. They are considered to be distinct and placed under two separate dictionary entries; however, within the theoretical framework adopted here these two senses are treated as one because neither of them contains an additional meaning, or involves a different configuration between the TR and the LM than that represented by the proto-scene (see section 1.3).

Given the chronology of the earliest attested senses of *up*, it is possible that it is one of the two prepositions among those studied by Tyler and Evans (2003) for which the earliest attested sense expresses a non-spatial configuration.⁴ When it comes to the remaining four criteria for being considered the primary sense, the sense at issue satisfies all of them. It is predominant in the semantic network as all the senses described in this section involve the TR moving towards the top part of an upwards-oriented LM. As regards the use in composite forms, the primary sense is used in numerous compounds, such as *upland*, *up-grade*, *uphill*, *upturned*, in which it conceptualises the TR's upwards motion towards the top of the LM. Finally, the primary sense of *up* is contrasted with the primary meaning of *down* in the contrast set *up* – *down* and all other senses may be traced back to it, as will be demonstrated in the analysis to follow.

Consequently, it can be stated that when *up* conceptualises the TR moving towards the top of an oriented LM, it is used in the primary sense, despite the fact that it violates the first criterion of prototypicality, which is the earliest meaning. This may have been caused by the fact that in the 9th century few people could write and the primary, i.e. spatial, sense of *up* may have been functioning in oral language for several decades before it found its way into the written language. Consequently, it may have been a matter of pure chance that it was a non-spatial meaning that was recorded first.

Tyler and Evans (2003: 136) propose that the proto-scene for *up* conceptualises a relation in which an oriented TR is directed towards the top of an

⁴ Unfortunately, Tyler and Evans (2003) do not specify, or even mention explicitly, these two prepositions in their study.

asymmetric LM. The TR's orientation is a result of the direction in which it moves, while the LM is conceptually partitioned into a top and bottom part. Tyler and Evans (2003) are of the opinion that due to the significance of embodied experience as well as the asymmetrical character of the human body, it is legitimate to rely on the human anatomy to represent schematically the LM's structure, so that the top part of the LM will be represented by the human head. They further argue that this conceptualisation is fully justified in the light of cross-linguistic evidence provided by Svorou (1994), who in a study of 55 languages discovered that over 50 per cent employ the word denoting 'head' in order to refer to the spatial relation conceptualised by *up*, as evidenced by numerous English expressions, such as *head of the stairs*, *head of beer*, or *head of steam*. Consequently, in the proto-scene for *up*, proposed by Tyler and Evans (2003), the asymmetrical LM is depicted as a "stick-person" with the top represented by the head, as shown in Fig. 2-1.

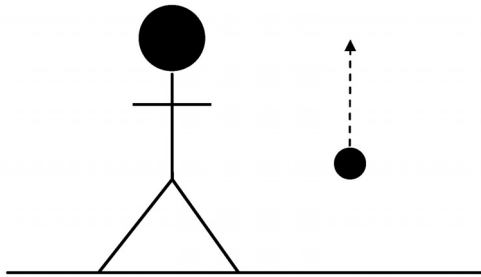


Figure 2-1. Proto-scene for *up* after Tyler and Evans (2003: 137)

Since in this conceptualisation the focus of interest is the upper part of the LM, it is highlighted by being made disproportionately large. The TR is represented by the dark sphere and it is oriented towards the upper part of the LM, which is manifested by the arrow pointing upwards. Consider some instantiations of *up* used in the primary sense:

- (1)
- a. *We often went up the hill from The Gantry, for a stroll, you know.* (BNC)
 - b. *The plane flew up the fjord, which seemed so narrow that the mountains were on both wing tips at the same time.* (BNC)
 - c. *And the smoke goes up the chimney just the same.* (BNC)

In their analysis of similar examples, Tyler and Evans (2003) insightfully remark that none of the LMs similar to those in (1) are inherently asymmetrical. Instead, the vertical asymmetry resulting from the irregular structure of the

human body is imposed on them even if their shape is perfectly uniform, which is the case with the chimney (1c). Therefore, it is possible to conceptualise the chimney as well as other LMs in terms of having a top and bottom part just like the human body.

2.3.2. Functional elements encoded by *up*⁵

As regards the functional element associated with the proto-scene for *up*, resulting from the configuration of the TR and LM, Tyler and Evans (2003) propose that it is a positive value, drawing on an earlier work of Clark (1973: 33), who makes the following observation:

Facts of perception also suggest how we could assign positive and negative values to the directions away from the [...] [plane] [...] of asymmetry [...] where *positive* is taken in its natural sense to mean the presence of something, and *negative* the absence [...] since everything above ground level is perceptible and nothing below it is, upward is naturally positive and downward naturally negative.

Tyler and Evans (2003: 137) exemplify this standpoint by the following sentences:

(2)

- a. *The kite is up in the air.*
- b. *The child picked up the shell from among the seaweed.*
- c. *The cat pricked up its ears.*
- d. *He set the jar the right way up.*

The authors argue that the functional element of a positive value stems from the beneficial effects of the TR's physical elevation, such as better visibility (2a), greater accessibility (2b), fuller readiness (2c), or more advantageous normative position (2d).

However, as Hampe (2005: 137) remarks, the axiological value of the particle *up* (as well as that of *down*) is not as unequivocal as Tyler and Evans have proposed:

Up is not positively charged, for example, when it denotes movement away from the ground and /or the speaker – or, in Lindner's (1983[1981]) terms, when the *up*-path leaves the viewpoint-dependent *region of interactive focus* and thus metaphorically denotes the loss of possession, power, control, or understanding (as in

⁵ The present subchapter is based to some extent on a paper entitled 'Experientially grounded axiological component of particles: towards reconciling polar opposites' read at the PTJK conference held at the University of Rzeszów in September in 2017.

the various uses of *give up*). Vice versa, when *down* refers to movement into this region, things literally or metaphorically pulled down from above are suddenly within reach, thus also ready for inspection and under control; things on the ground also tend to be more permanent and stable. Certainty, comprehensibility, and stability are thus all down (as in *write/note down*, *settle down*, etc.) while uncertainty is *up*, and the evaluative polarity associated with the canonical human orientation is reversed for these experientially very pervasive cases.⁶

Given this, Hampe (2005) claims that image schemas that underlie the meanings of paired particles denoting opposing orientations, such as *in – out*, *up – down* and *on – off*, do not include axiological components. Instead, she argues that they are contained within entire ICMs, in which image schemas play a major role. What should be emphasised at this point is that usually image schemas are not experienced separately from one another but as complex configurations, referred to as image-schema compounds (Johnson 1987; Cienki 1997).

Consequently, as Hampe (2005) further argues, axiological values attributed to many orientational metaphors are probably imported from the full experience of verticality in a specific context of a particular bodily experience – in the case of *up* and *down* this is the posture traditionally related to the standard human orientation. From this it follows that individual image schemas are not the locus of either positive or negative value, because they are imported from image-schema complexes, which provide “scaffolding” of the whole ICMs. As regards the standard human orientation, even though the schema of VERTICALITY is of primary importance, other image schemas, such as BALANCE, CONTACT, or STRAIGHT should also be considered, as remarked by Cienki (1997: 111):

There is a significant relation between our bodies being straight, up, and in control; resisting the force of gravity, standing up straight involves a specific kind of

⁶ This quotation constitutes a polemic against Krzeszowski (1993, 1997), according to whom each image schema is characterised by a PLUS-MINUS parameter, comprising evaluative dimensions of positive or negative polarity and arising from canonical human experience of functioning in an upright position, maintaining balance, looking or moving forwards and existing here and now (cf. Krzeszowski 1997, 1993: 309-310; Cienki 1997: 5). In this approach, axiological properties of image schemas are not only derived from experiential gestalts which make up bodily experience but are also assumed to be enhanced by the “dynamism of the metaphorization processes” based on these source domains: “metaphorization reinforces the axiological charge of concepts or activates latent axiological charge” (Krzeszowski 1997: 156). This claim is made explicit in Krzeszowski’s postulation of the *axiological invariance principle* (Krzeszowski 1997: 156-161) which is an extension of the *invariance hypothesis* in metaphor theory (cf. Lakoff 1990; Turner 1993).

muscular tension. Contrast this with the relation between being bent, down, and a lack of control; when submitting to a force or influencing factor (e.g., fatigue), the body is bent over, slouched.

Overall, what this implies is that according to Hampe (2005) default values associated with the notion of verticality are incorporated in the image schema complexes typical of the canonical human experience of the walking and standing posture. In other words, it comes down to postulating that “default evaluations should be attributed to stereotypical contexts rather than isolated elements of these” (Hampe 2005: 141). Thus, axiological evaluation can never be considered to be absolute as it hinges not only on conceptual frames evoked by particular elements of linguistic constructions, or situational contexts, but also on distinct construals and perspectives used in specific communicative situations. Consequently, various instantiations of a particular construction, which represent the same conceptualisation from a particular domain, can be characterised by different axiological values depending on the context.

In view of the above, I propose that an evaluative dimension of positive and negative polarity is an inherent part of functional elements – the meaningful consequences of the specific spatial configuration between the TR and the LM coded by each spatial preposition/particle. While Tyler and Evans (2003) identify one functional element for each proto-scene, they admit that human experience with a specific spatial configuration may be meaningful in several different ways and, consequently, be linked with several functional elements.⁷ In a similar vein, Krzeszowski (1997) in his paper on the CONTAINER schema,⁸ remarks that the axiological value ascribed to this schema can only be determined in relation to the desirability of the state perceived as containment, conceptualised either as protective or restraining, which, in turn, depends on cultural models and individual assumptions.

I argue that experiential patterns of human embodied experiences associated with the idealised meaning of the particle *up* can be either positively or negatively loaded, as it is not the direction of movement itself that is meaningfully favourable, or unfavourable but the final point of the TR’s path (understood as the goal in the SOURCE-PATH-GOAL schema) in relation to the vantage point and its consequences for the conceptualiser. If the TR reaches the conceptualiser’s eye level (by moving upwards) and comes to a halt there, it becomes more visible and more accessible, which is considered to be positive in

⁷ For a detailed discussion of this issue see section 1.3.

⁸ The CONTAINER schema is considered by Krzeszowski (1997) to be an exceptional case.

human experience. This can be exemplified by sentence (3), which pertains to putting notices in places easily available to human sight and, consequently, clearly perceptible:

(3)

'We took Des with us and put up notices for the other dogs, which were replied to by various other units'. (BNC)

If the perspective changes, i.e. the initial point of the TR's path (understood as the source in the SOURCE-PATH-GOAL schema), is located at the vantage point, which is the eye level of the conceptualiser, and its final point above the vantage point, the TR becomes both less visible and less accessible, which may sometimes end up in its loss, as demonstrated by sentence (4a) and (4b). In (4a) the upward movement of the bag amounts to it becoming out of reach and control, while in (4b) going upwards is tantamount to destruction. Consequently, the construal of the scene in both (4a) and (4b) is characterised by a negative axiological value.

(4)

a. *I just sat there staring at the bag as it unscrewed itself and the wind took it and blew it up into the air and away. (BNC)*

b. *Bombs were placed in the fuel depot at the airport last month, and a small power station nearby was blown up. (BNC)*

Consider Fig. 2-2, depicting the relationship between the final location of the TR and the development of the functional element that can be described in terms of access to perception (Vandeloise 1984, 1986, 1991).⁹ The LM is represented as a human with a disproportionately large head, bringing into focus the upper part of the LM, which is of primary importance for the particle *up* (cf. Tyler and Evans 2003: 137). The TR is represented by a broken line when it is located at the starting point (source) and by a black shaded ball when it has reached the goal.

In Fig. 2-2a. the initial point of the TR's path is located at the eye level of the conceptualiser, and the final point is above it. Consequently, the upwards movement of the TR entails a decrease in its accessibility and visibility, or even completely going out of reach and out of sight if the trajectory is very long and extends far upwards. In contrast, in Fig. 2-2b. the initial point of the TR's path is located below the vantage point, while its final point is either at the conceptualiser's eye level, or quite close to it, which, in turn, results in both

⁹ See section 1.3.

greater visibility and accessibility of the TR. These two different final positions of the TR with respect to the vantage point, shown in Fig. 2-2a. and 2.2b., have given rise to two distinct functional elements: a decrease in accessibility/visibility and its opposite, i.e. an increase in accessibility/visibility, which underlie different metaphorical extensions, of negative and positive polarity, respectively.

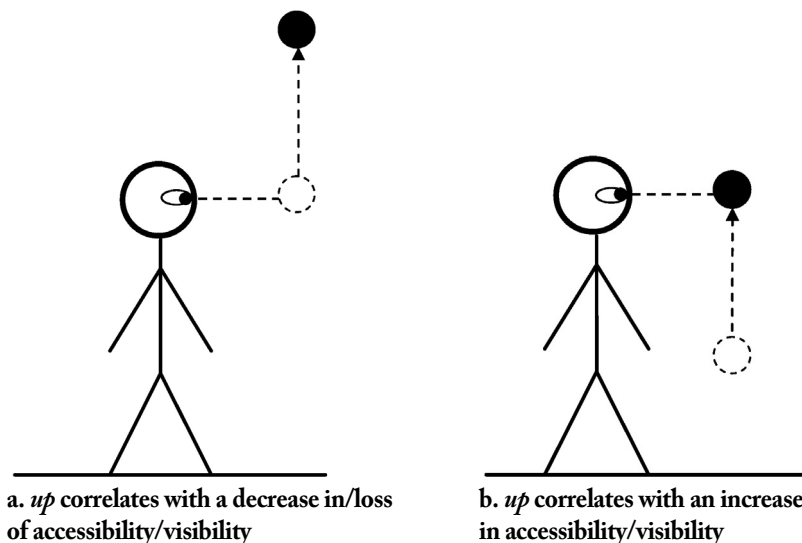


Figure 2-2. Relationship between the final position of the TR and its access to perception construed by *up*

These two distinct functional elements can be entailed not only by the different location of the final point of the TR's path with respect to the vantage point but also by the change in the position of the vantage point itself, represented by the conceptualiser's line of vision, which can also move along the vertical axis (This is what Talmy 2000a refers to as *perspectival motility*). Consider Fig. 2-3, which shows how a change in the position of the vantage point affects the TR's access to perception.

Fig. 2-3 represents the construal of a scene in which the conceptualiser's line of vision is not directed straight ahead, which would be its canonical orientation, but upwards (Fig. 2-3a.) and downwards (Fig. 2-3a.). Even though the final position of the TR with respect to the human body remains unchanged in both spatial scenes, a change in the position of the vantage point entails the emergence of reverse functional elements.

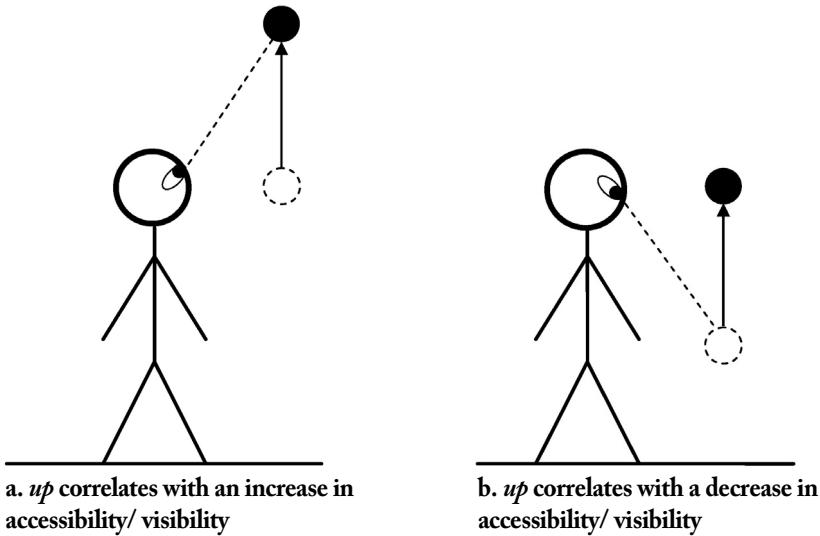


Figure 2-3. Relationship between the position of the vantage point and TR's access to perception construed by *up*

The fact that non-spatial senses of the particle *up* are determined both by the location of the final point of the TR's path in relation to the vantage point and the position of the vantage point itself constitutes yet another piece of evidence in favour of the importance of the physical context in the process of developing metaphorical extensions, as has been observed by Kövecses (2015) and Lu (2016) and discussed in section 1.3.

2.3.3. Data and frequency of senses

For the purpose of the present analysis a sample of 568 verbs followed by the particle *up* has been extracted from the OED by means of an Advanced Search designed to look for the sequence of the verb and particle *up* [^{*}up] in a lemma and headword. This procedure has allowed the elimination of combinations that are beyond the scope of this study, such as noun + *up*, adverb + *up*, etc. On the other hand, one of the weaknesses of this search is that it does not reveal all of the verb + *up* combinations, i.e. it skips those in which the verb followed by a particle is not listed explicitly in an entry, or subentry, as is the case with the verb *block up*, which is marked merely as an alternative to the simplex verb *block* in the sense 1. 'to obstruct or close with obstacles (a passage)'. Therefore, since *block up* is not included in this, or any other

subentries under the verb *block*, the combination of the verb and particle has not been generated by the search applied. However, if the use of the particle *up* is considered to be optional, it can be assumed that the particle does not contribute substantially to the overall meaning of the complex verb. As Hampe (2002) proposes, in cases like this, the particle *up* profiles the endpoint of the action, which she considers to be an intensifying, or superlative function.¹⁰ As she puts it, particles in their superlative function constitute an instance of conceptual overlap; that is, they “refer to elements which are already parts of the conceptual bases of the respective simple verbs” (Hampe 2002: 346). Therefore, it can be safely assumed that the exclusion from the sample of those verbs that contain a superlative particle does not distort the overall semantic network of the particle *up*. All in all, if the usage of the particle *up* is marked as optional in the OED, it is considered to be superlative and not included in the sample.

The OED search has yielded 568 verbs with *up* but 300 of them were rejected on the basis of the criteria presented in the Introduction. Consequently, the final number of verbs in the sample amounts to 268. Since many of the verbs are polysemous and the difference in meaning can frequently be attributed to the distinct conceptual content profiled by the particle, the number of occurrences of the particle surpasses the number of particle verbs¹¹ generated by the search amounting to 289. Because the aim of the study is to come up with a maximally comprehensive semantic network of *up*, all the senses of the particle occurring with each verb have been recorded.

Consider Table 2-1, presenting the frequency of occurrence of all the senses of the particle *up*, singled out from the sample of 289 particle tokens where the frequency threshold was 4 occurrences, which amounts to slightly less than 1.5 per cent. The numbers in the percentage column are rounded off to two decimal places.¹² All the labels for the particle senses have been written with capital letters, following the convention used in Tyler and Evans (2003).

¹⁰ Hampe (2002) argues against referring to this type of particles as redundant, which has been done, e.g. by Goyvaerts (1973) and Pelli (1976), because, in her view, they go beyond a mere reduplication of the meaning inherent in the verb. The particles in question fulfill an expressive function by bringing into focus the completion of an activity. Thus, they can be regarded as grammaticalised aspectual markers.

¹¹ This tendency is displayed across all the semantic networks of English particles (see Introduction).

¹² The same procedure is applied for all the English particles analysed in the present section.

Table 2-1. Frequency of senses of the particle *up*

Sense of particle <i>up</i>	Number of occurrences	Percentage
More	36	12.45
Improvement	33	11.41
Preparing/Beginning	32	11.07
Togetherness	32	11.07
Enclosing/Restricting	24	8.30
Noticeability	23	7.96
Completion I (by filling)	21	7.26
Creating	17	5.88
Disrupting/Damaging	14	4.84
Superiority	13	4.50
Approach	13	4.50
Rejecting/Surrendering	9	3.11
Completion II (by depletion)	7	2.42
Unexpectedness	7	2.42
Revealing/Discovering	4	1.38
Active	4	1.38
Total:	289	100 ¹³

The above data show conclusively that there is a strong experiential correlation between upwards movement and an increase in visibility and quantity, as the first eight most productive senses (More, Improvement, Preparing/Beginning, Togetherness, Enclosing/Restricting, Noticeability, Completion I and Creating) are motivated by this functional element. Out of the total number of sixteen senses that have been singled out, only three senses are related to the functional element of a decrease in accessibility/visibility, i.e. Disrupting/Damaging, Rejecting/Surrendering, and Completion II.

¹³ This is 100 per cent in round figures (99.95 to be precise) due to the fact that individual percentages have been rounded off to two decimal places.

The two tables below (Table 2-2 and Table 2-3) show the frequency of senses of the particle *up* triggered by the functional element of an increase in accessibility/visibility and a decrease in accessibility/visibility, respectively, depending on two different locations of the TR's final position with respect to the vantage point as well as the location of the vantage point from which the TR's movement is observed.

Table 2-2. Frequency of senses of the particle *up* motivated by the functional element of an increase in accessibility/visibility

Sense of <i>up</i> : increase in accessibility/visibility	Number of occurrences	Percentage
More	36	12.45
Improvement	33	11.41
Preparing/Beginning	32	11.07
Togetherness	32	11.07
Enclosing/Restricting	24	8.30
Noticeability	23	7.96
Completion I (by filling)	21	7.26
Creating	17	5.88
Superiority	13	4.50
Approach	13	4.50
Unexpectedness	7	2.42
Revealing/Discovering	4	1.38
Active	4	1.38
Total:	259	88.8

Table 2-3. Frequency of senses of the particle *up* motivated by the functional element of a decrease in accessibility/visibility

Sense of <i>up</i> : decrease in accessibility/visibility	Number of occurrences	Percentage
Disrupting/Damaging	14	5.2
Rejecting/Surrendering	9	3.4
Completion II (by depletion)	7	2.6
Total:	30	11.2

The next subsection is devoted to a discussion of non-spatial senses of the particle *up*, grouped into two categories, depending on the functional element from which they have been derived and presented in the order of their frequency. First, the analysis will focus on the senses encoding the functional element of an increase in accessibility/visibility, since these senses are far more productive than those related to the other functional element, i.e. a decrease in accessibility/visibility.

2.3.4. Functional element of an increase in accessibility/visibility

The functional element of an increase in accessibility/visibility underlies thirteen senses, which is over three times as many as the functional element of a decrease in accessibility/visibility triggering merely three senses. In this category it is possible to distinguish two clusters of senses: the Quantity Cluster (proposed by Tyler and Evans 2003) and the Accessibility/Visibility Cluster. The Quantity Cluster is motivated by an experiential correlation between the rise of the level of the substance in a container and an increase in its quantity on account of the fact that the former and the latter phenomena frequently co-occur in human experience.¹⁴ The Quantity Cluster has been assigned to the functional element of an increase in accessibility/visibility on account of the fact that for the increase in quantity to be registered it needs to take place in the region of the conceptualiser's *interactive focus*.¹⁵

Tyler and Evans (2003) differentiate three senses in the Quantity Cluster: the More Sense, the Improvement Sense and the Completion Sense. However, as the present study has shown, two other senses can be assigned to this category: the Approach Sense (referred to as Approaching in CCPVD) and the Togetherness Sense (referred to as Collecting and Togetherness in CCPVD).

The Accessibility/Visibility Cluster is based on the final location of the TR with respect to the LM once it reaches the final point of the trajectory. Because the TR is located within the region of the LM's interactive focus, it is both visible and accessible to the LM. The Accessibility/Visibility Cluster

¹⁴ See section 1.3.1.

¹⁵ This notion has been introduced by Lindner (1983[1981]: 171), who sees it as “the realm of shared experience, existence, action, function, conscious interaction and awareness”. Thus, when the TR enters the region of interactive focus, it becomes visible, existing, desired, known and accessible to the public.

comprises four senses: the Noticeability Sense, the Creating Sense, the Unexpectedness Sense and the Revealing/Discovering Sense.

2.3.4.1. The Quantity Cluster

The More Sense¹⁶

The More Sense is the most productive sense in the sample with the particle *up* being combined with 36 verbs, which amounts to 12.45 per cent of all the verbs analysed.

As has already been noted, there exists an experiential correlation between vertical elevation and an increase in quantity on account of the fact these two phenomena frequently co-occur in the real world, as exemplified by:

(5)

Sea level went up by 24 metres in less than 1,000 years, a rate of more than 24mm per year. (BNC)

The scene in (5) constitutes a bridging context for the emergence of the More Sense: it conceptualises a physical phenomenon, i.e. a rise in the sea level, accompanied by a rise in the quantity of its waters, both of which belong to the same frame. Thus, it can be assumed that the More Sense has probably arisen when in a similar context the conceptualiser has formed a context-dependent implicature of an increase in quantity. When the language user realises that *up* has two meanings, one of which is spatial, the other contextually induced, the profile of the particle is shifted, as a result of which an increase in quantity is conceptualised in terms of upwards movement (through metonymy). The next stage in the process is when the concept of AN INCREASE IN QUANTITY is dissociated from the spatial domain and construed metaphorically in terms of the MORE IS UP metaphor. Consequently, in the course of diachronic development this has led to establishing a conventionalised More Sense in the semantic network of *up* as exemplified in:

(6)

- a. *Strain the celery, saving the liquid. Make up to ¾ pint with milk and add gradually to the butter and flour.* (OED)
- b. *The maximum amount that a standard premium would be rated up is about 200 percent.* (OED)

¹⁶ The term for this sense has been adopted from Tyler and Evans (2003).

In (6a) the particle *up* conceptualises an increase in the volume of the liquid and in (6b) it construes an increase in the insurance rate that is imposed on a person due to increased risk. In fact, the combination of the verb and the particle both in (6a) and (6b) is typical for the More Sense of the particle *up*. The analysis of the lexical profile¹⁷ of the particle *up* used in the More Sense in terms of its semantic selectional tendencies has shown that in this sense *up* combines mainly with verbs referring to numerical values (usually relating to the amount of money), or physical parameters, such as the volume of sound, the level of temperature or voltage, the strength of wind, etc. Verbs from the former group, such as *run up*, *price up*, *mark up*, *bump up*, *go up*, *bid up*, etc. are used either transitively or intransitively and they conceptualise an increase in the price of goods, or services, as exemplified by the following sentences:

(7)

- a. *Two manipulators..*¹⁸ *successfully ran up the price of the stock over 106,600 percent.* (OED)
- b. *But the hotel may well bump up the bill with all sorts of spurious charges.* (BNC)
- c. *Wool would go up a penny a pound.* (OED)
- d. *They bade them up until they reached 10,000 livres.* (OED)

As regards the verb in (7a), i.e. *run up*, the OED entry for it is fairly general as it does not provide any details as to the nature of increase, construed by the particle *up*. However, it might be proposed that the verb *run* maps the activity of moving fast on one's legs onto the process of rapid fluctuation of stock prices. Consequently, a fairly schematic meaning of an increase in quantity, encoded by the particle *up* is elaborated by the metaphorical meaning of the verb *run* and, as a result, the meaning carried by the verb *run up* can be interpreted as 'to cause to grow rapidly'.¹⁹ Another particle verb encoding the More Sense, i.e. *bump up* (7b), is used colloquially to refer to increasing prices without notice. It is the semantics of the verb *bump* which encodes the activity of striking an object heavily or firmly that is held responsible for the meaning component of suddenness: bumping an object, or a person is considered to be unexpected and unforeseen. Yet another verb, *go up*, apart from encoding a rise

¹⁷ See section 1.3.

¹⁸ In the online version of OED ellipsis is marked with two (instead of three) dots in order to save space.

¹⁹ According to *Merriam Webster Dictionary* (online edition), the meaning of *run up* can be paraphrased as 'to grow rapidly'. In the analysed example *run up* is transitive and its transitivity is brought about by the addition of the particle, which is a relatively common occurrence in the process of forming particle verbs (Dąbrowska 1996).

in price, as exemplified by sentence (7c) may also refer to an increase in value, or degree, as instantiated in (8):

(8)

- a. *Educational standards went up sharply in business.* (OED)
- b. *Concentration goes up. Anxiety goes up.* (OED)

A wider range of meanings conveyed by *go up* is due to the fact that the verb *go* is a so-called *light verb*²⁰ and as such it has a fairly general meaning, which in turn results in producing a greater number of e-sites of the particle *up* in comparison with other verbs. This stems from the fact that the e-site of the particle can be elaborated with a more diverse semantic content activated by the surrounding discourse.²¹ Finally, in (7d) the particle *up* is elaborated by the verb *bid*, with the result that the composite structure *bid up* construes raising the price of an item by making successive bids.

As already stated, another semantic group of verbs that are combined with the particle *up* conceptualising the More Sense are verbs describing physical sensations and phenomena that can be defined in terms of physical units, such as heat, which is measured in degrees, loudness measured in decibels, the force of wind measured in kilometres per hour, or the voltage of electric current, measured in volts. Consider instantiations of composite particle verbs which conceptualise a rise in the level of loudness:

(9)

- a. *The music welled up and the image disappeared from the screen, to be replaced by that of a young woman with large dangly earrings chopping up immense handfuls of coriander.* (OED)
- b. *Listen to this on a shite stereo and you may hardly notice its passing, but sling on some headphones and pump up the volume and your synapses will melt.* (OED)
- c. *Speak up, I can't hear you.* (BNC)

²⁰ The term has first been used by Jespersen (2013[1931]) to refer to verbs that have little semantic content, i.e. those that are semantically bleached.

²¹ For example, when the verb *go* collocates with a noun whose referent is a mechanical device, it means 'to work' as exemplified by the sentence *This clock doesn't go.* (OALD) When *go* is combined with a noun denoting an old or unwanted object, it is used in the sense 'to be thrown away', as in *This old sofa will have to go* (OALD). Yet another example illustrating the rich semantic potential of the verb *go* is the phrase in which it is followed by a prepositional phrase, as in *I'll go to \$1 000 but that's my limit* (OALD), whereby it means 'to be willing to pay a particular amount of money for something'. The list of the above examples derived from OALD is very fragmentary and by no means exhaustive; it should merely be treated as an illustration of the correlation between the general meaning of the verb and the high number of particle e-sites.

As regards the verb *well up* (9a), it construes the flow of sound as the flow of water, which is a well-entrenched metaphor, instantiated by many lexicalised phrases, such as *a sound wave*.²² When seen in this light, the verb *well* ‘to flow forth’(OED) represents the emission of sound in terms of the flow of water. It can be proposed that this metaphorical conceptualisation has been primed by one of the factors that constitute differential experience, i.e. physical environment, because when hearing music we feel “immersed” in it, as we do when faced with a flow of water directed at us. Consequently, when the e-site of the particle *up* is elaborated by the verb *well*, the composite verb *well up* conceptualises an increase in loudness as a rising level of liquid. Likewise, the particle verb *pump up* (9b) is made up of two metaphorical components. First, the verb *pump*, which has been used here in the sense ‘to sound loudly, esp. with a fast propulsive bass rhythm’ (OED) metaphorically construes the emission of sound as the activity of pumping water. This sense of the verb *pump* has been derived from its basic meaning which is raising or moving water or some other substance by means of a pump and then metaphorically extended to other conceptual domains. As a result of this metaphorical extension, *pump* may be used to conceptualise the supplying of any kind of resources in great quantity since the large amount of substance that has been forced to flow by means of a pump metaphorically represents a great deal of whatever is to be provided:

(10)

- a. *Moscow started pumping arms into Ethiopia.* (OED)
- b. *The more they kept pumping money from the rest of England into West Ham, the more they would accentuate the local problem there.* (OED)

Since sending a great quantity of arms (10a) and money (10b) is represented as the activity of pumping and, according to our encyclopaedic knowledge, it is most frequently water that is pumped, it seems justified to propose that these two sentences are an instantiation of two metaphors: BIG AMOUNT IS WATER and MONEY IS WATER, respectively, which is in line with the findings of research carried out by Baldauf (1997).²³ Therefore,

²² According to Wilson and Carston (2008), this particular metaphor has a scientific basis: physicists studying the nature of sound have found that it can be compared to waves of water because both sound and water are characterised by amplitude and periodicity.

²³ Baldauf (1997) has found on the basis of a large amount of data from contemporary standard German that WATER metaphors are used systematically in the following contexts: money (*to swim in money, liquidity, source of capital, flow of money*, etc.), communication (*he talks like a waterfall, flow of speech, a gush of welcoming words*, etc.), history (*the tide of history, in the wake of historic incidents*) and mass/amount (*flood of asylum seekers, a sea of*

the sound volume in sentence (9b) is metaphorically conceptualised as water pumped in a large quantity and the particle *up* stands for an increase in its quantity. As regards (9c), the verb *speak up* constitutes an interaction of metaphor with metonymy in a sense that the verb *speak* is an example of the WHOLE FOR PART metonymy: the activity of speaking stands for one of its features, i.e. loudness, while the particle *up* represents an increase in the level of loudness of one's voice.

Consider one more example in which the particle *up* conceptualises an increase in another physical quality, i.e. brightness:

(11)

He..turned up his reading lamp. (OED)

The etymology of the composite verb *turn up* (11) dates back to the times when various appliances were regulated by means of knobs, or handles which were turned in order to increase the temperature, volume of sound, etc. Accordingly, the semantics of the verb *turn* should be regarded as an instance of the MANNER OF ACTION FOR ACTION metonymy on the grounds that turning a knob stands for regulating the intensity of the parameter, such as heat, sound, or light, produced by a particular piece of equipment. Thus, in (11) while the verb *turn* stands for regulating the intensity of light, the particle *up* conceptualises an increase in its emission.

The Improvement Sense²⁴

The Improvement Sense is the second most productive sense belonging to the Quantity Cluster (33 occurrences). As noted by Tyler and Evans (2003), obtaining a bigger amount of something frequently correlates with improvement or betterment. For instance, getting more money for one's job results in a higher standard of living, getting more food implies being satiated, etc. Therefore, these experiential correlations have triggered the MORE IS BETTER metaphor. Consider exemplifications of the Improvement Sense, encoded by the particle *up*:

(12)

a. *A composition of the ashes of cork, ivory-black, and gall with treacle, made into a ball, and used with water for touching up the dark parts of the plate.* (OED)

faces). As observed by Baldauf (2003), following Lakoff and Johnson (1980), it is reasonable to claim the existence of four corresponding metaphorical concepts: MONEY IS WATER, COMMUNICATION IS WATER, HISTORY IS WATER/FLOOD and MASS IS WATER.

²⁴ Tyler and Evans (2003) have singled out this sense as well and the term for it has been adopted from their study.

- b. *Punching up a speech with a line from Cicero was deliberate and usually shameless ostentation.* (OED)
- c. *Miss Whitelaw marks up her copy of a Beckett manuscript with brief, sometimes cryptic remarks.* (OED)
- d. *It encourages you to go to the expense of turning in good bulls and grading up your stock.* (OED)

As regards (12a), it is not only the particle *up* that is metaphorical but also the component verb *touch*. According to the OED, the composite verb *touch up* is used in the sense ‘to improve by means of minor changes or additions; spec. to modify or improve in appearance by small, light, or precise applications of paint, make-up, etc.’. Thus, while the sense of improvement is conceptualised by the particle *up*, the idea of making minor alterations or additions is conveyed by the verb *touch*. The basis of this conceptualisation is the nature of the activity of touching, which involves coming into bodily contact with an object so that only a light pressure is felt on the skin. Consequently, the lightness of touch is mapped onto the weakness of the implemented modification, which triggers the metaphor MAKING SMALL CHANGES IS TOUCHING. Thus, in the process of composition the domain of FORCE (peripheral for the component verb *touch*) is ranked high for centrality and therefore activated. The component verb *touch*, metaphorically representing making slight modifications, elaborates the e-site of the particle *up*. Accordingly, the composite particle verb *touch up* conceptualises making a slight improvement (to the appearance of the *plate*).

Likewise, in the example (12b) the verb *punch* elaborates the e-site of the particle *up* by filling it with a metaphorical sense. The construal of the scene by means of the verb *punch* can be explained by the archetype of a *billiard ball model* (Langacker 1991) as well as the IDEAS ARE OBJECTS metaphor. In the *billiard ball model* a chain of action is comparable to perceiving the course of a billiard ball. The ball is set in motion by absorbing the energy received from the player’s cue and in bouncing against another ball, it transfers its energy onto this ball (which in turn may come into contact with another ball until the energy is exhausted). By analogy, intellectual energy encapsulated in the idea dating back to *Cicero* is transferred to a collection of ideas, i.e. the *speech*, adding impact to it – this is what the verb *punch* conceptualises. Consequently, the speech becomes more emphatic and may exert the desired influence on the listeners. The verb *punch* elaborates the particle *up*, encoding improvement, by contributing to it its metaphorical meaning, i.e. ADDING IMPACT IS HITTING. Consequently, the composite verb *punch up* profiles making improvement by adding impact.

Concerning the valence relation between the verb and the particle in two last examples, i.e. (12c) and (12d), the verbs *mark* and *grade* elaborate the dependent structure by contributing their literal senses: *mark up* conceptualises improving the *copy* of a manuscript by marking it with remarks and *grade up* pertains to improving the quality of *stock* through grading.

The Completion Sense I (by filling)

The sample under study has yielded 21 occurrences of the particle *up* encoding the Completion Sense I (by filling). The term for this sense has been adopted from Tyler and Evans (2003), who have proposed that its experiential basis is our everyday experience with containers. If liquid is poured into a container, its quantity steadily increases and eventually a point is reached when no more liquid can fit in. Consequently, the rise of the liquid level in the container correlates with the completion of the activity of pouring. Consider the bridging context in which both senses, i.e. an increase in quantity and completion, are present:

(13)

Asik [...] filled up the water jug. (BNC)

Thus, (13) conceptualises a rise in the level of liquid in the jug, ultimately reaching the jug's brim, which is tantamount to the completion of the activity of filling it. Through a shift in profile, the Completion Sense has been established as a separate sense in the semantic network of *up*, as exemplified by the following sentences:

(14)

- a. *Both of the safari buses were booked up solid for the month after that.* (BNC)
- b. *I trenched up the whole to the depth of eighteen inches.* (OED)
- c. *One American psychologist surveyed 659 people to count up some 21,000 examples of everyday irritations and annoyances.* (OED)
- d. *Now it was just a place for shooters and trampers to rest up.* (OED)

In all the sentences in (14) the particle *up* conceptualises completion in the sense that it marks the end-point of an action, perceived as a succession of single actions in (14a), (14b) and (14c), that is accepting a series of bookings, cutting trenches in the ground and counting a large number of examples, respectively. These repeated efforts make it possible to achieve the final result, i.e. becoming fully booked (14a), laying the land in trenches and ridges alternately (14b) and finding the total number of examples (14c). Thus, in each case an aggregate of single acts entails the completion of an initially durative and unbounded activity. When it comes to the last example, i.e. (14d), bringing resting to an end is en-

tailed by the length of the period throughout which it lasts rather than the repetition of single actions. As *trampers* and *shooters* recover their strength, they stop resting. In all these sentences the particle *up* changes activities into accomplishments in the sense of Vendler (1967), i.e. it encodes telicity.

Making use of the classification put forward by Croft (2012), the events in (14a), (14b) and (14c) can be referred to as incremental accomplishments because they conceptualise a measurable and steady progression from the rest state to the result state despite some breaks and backtracking. With each booking being made, trench cut and example counted, the result state, corresponding to the completion phase, is getting closer. As regards the event in (14d), it can be considered to represent a *non-incremental accomplishment* on account of the fact that no steady progression towards the result state is observed (Croft 2012). The activity of resting is likely to involve not only breaks and backtracking but also some dead-ends during which despite the apparent progress *shooters* and *trampers* feel tired again.

Hampe (2002) notes that the grammaticalised use of *up* as an aspectual marker is multiply motivated, both metonymically and metaphorically. The metonymic motivation has been proposed by Lindner (1983[1981]), who states that *up*-paths are usually limited in our experience, which means that they stop at some point. If the final point is sufficiently salient, it can alone be used to represent the *up*-path in terms of the GOAL FOR PATH metonymy. In the metaphorical interpretation the 'goal' sense of the particle *up* is an instance of the *compound metaphor* (in the sense of Grady 1997)²⁵ COMPLETION IS UP. Hampe (ibid.) argues that this metaphor is a result of an interaction between the location version of the EVENT STRUCTURE metaphor and the metaphor CLOSE IS UP. In the EVENT-STRUCTURE system states are represented as locations, i.e. bounded regions, changes of state as changes of location and actions as movements to new locations. Consequently, a prototypical action can be conceptualised in terms of the SOURCE-PATH-GOAL schema. This feature of the EVENT-STRUCTURE schema interacts with the CLOSE IS UP metaphor, which is grounded in human visual experience, as any object approaching a conceptualiser rises in his or her visual field. Hampe (2002: 185) claims that "the action nearing completion is conceptualised as an entity coming closer", hence the metaphorical mapping COMPLETION IS UP.

In accordance with what has been stated in section 2.3.3, the verbs in which the particle *up* merely profiles the end-point of the activity, already inherent in the verb itself, have not been included in the sample, as demon-

²⁵ According to Grady (1997), a *compound metaphor* is made up of two primary metaphors.

strated in (15). These verbs do not constitute separate dictionary entries and the use of the particle *up* is marked as optional.

(15)

How will Yorkshire shape (up) this summer? (OED)

The girl...asked Mrs. Kavanagh if all her portmanteaus were strapped (up). (OED)

In (15) the verbs themselves, i.e. *shape* (15a) and *strap* (15b), imply goal orientation and the particle *up* merely makes this orientation explicit, or to put it differently, it makes a “covert” end-point “overt” (Traugott 1982: 252).²⁶

The Togetherness Sense

The name of this sense has been adopted from CCPVD²⁷ (2012: 513), which defines it in the following way: “*up* is used to talk about people or things collected together and sometimes becoming part of a group”. The motivation for this sense stems from an experiential correlation between a vertical rise of the pile of objects and the successive gathering of objects in this pile. Consider the bridging context for this sense in which both the concept of AN UPWARD MOVEMENT and TOGETHERNESS are present:

(16)

At the far end was a small hall with tables and chairs piled up along the walls. (BNC)

²⁶ Other examples of verbs in which the particle *up* merely profiles the end-point of the action already denoted by the verb are those that are referred to as the Separation Sense by Tyler and Evans (2003) and Separating and Dividing by CCPVD (2012). Tyler and Evans (2003) claim that the Separation Sense stems from an experiential correlation between experiencing an object moving away when it is thrown upwards and separation of this object from an observer. In my opinion, this explanation is not very convincing, because the resultant state of separation is not dependent on the direction in which an object is moving, as it may result from the TR’s movement in any direction, such as a downward path when it is dropped, or a horizontal one when it is kicked. Besides, the analysis of all the instances of the particle *up* (there were six of them in total), which seemed to be used in this sense has revealed that in fact the meaning of the particle overlaps with the meaning of the verb, because all the verbs (*break*, *cut*, *carve*, *chop*, *split*, *tear*) construe separation or division by themselves. Consequently, the function of the particle is merely to profile the end-point of the action encoded by the verb. Taking this point into account as well as the fact there seems to be no sufficient explanation of the spatial motivation of this sense I consider these instances of the particle *up* to have a merely superlative function even though the particle is not marked as optional in the OED.

²⁷ Neither Lindstromberg (2010) nor Tyler and Evans (2003) make any mention of this sense even though it in the sample under study it has turned out to be quite frequent, as it has been found with 32 verbs, which amounts to 11.07 per cent.

However, it needs to be remarked that in (16) the meaning of togetherness is already inherent in the semantics of the verb itself. Thus, *up* functions here as a superlative particle (in the sense of Hampe 2002). Consider some other instantiations of this sense:

(17)

- a. *I am a little worried about my son ganging up with those rough boys.* (OED)
- b. *The spokesman for the First World War Veterans' Association, Trafford joined up at 15 on the first day of the war, giving his age as 18.* (BNC)
- c. *Your books have to be boxed up to send to university.* (BNC)
- d. *Mr Brown says that he will consider it only if 500,000 people sign up.* (BNC)

The first two composite verbs, i.e. *gang up* (17a) and *join up* (17b), profile the relationship of togetherness already by means of component verbs, therefore *up* performs merely a superlative function (Hampe 2002): it makes the verb more emphatic and expressive by profiling the end-point of action that it denotes. The verb *gang* has been created through conversion from the noun *gang*, which denotes a group of people usually causing trouble, and the verb *join* conveys the sense of coming together, or becoming a member of the group. Thus, the particle *up* does not add the meaning of togetherness to the semantics of the two composite structures in question, as this sense is inherent in the semantics of the two verbs – the particle merely highlights the concept of BEING or ACTING TOGETHER as a group.

In fact, *up* makes a significant contribution to the semantics of the verb only in (17c) and (17d) in which the particle adds a sense of togetherness that is not encoded in the component verb itself. As regards the verb *box*, the OED defines it as ‘to put into a box’, and from the example provided therein it is clear that it may denote placing an individual object inside a box, as demonstrated by sentence (18):

(18)

Here is the ‘copper underwing’, that seems so unsuspecting that nothing appears easier than to box it. (OED)

Thus, it is the particle *up* alone that profiles the relationship of togetherness when combined with the verb *to box*, as in (17c).

The composite structure of *sign up* in example (17d) is far less compositional. According to the OED, *sign up* means ‘to enrol or enlist in an organisation, society, course, etc., esp. by writing a name or signature on an application form or register’. The contribution of the component verb *sign* is that it profiles a formal procedure indispensable in joining a course, or an organisation,

which is putting down a person's name (nowadays usually in an electronic format) to declare their consent to become a member of a group. For this reason it can be argued that becoming a member of a group is conceptualised in terms of the MEANS OF ACTION FOR ACTION metonymy, where means of action is understood as putting down one's name on a list and action is seen as joining a group of other people. The particle *up* profiles the sense of togetherness by implying that one's name is added to other names of prospective candidates already included in the list.²⁸

The Approach Sense

The Approach Sense has not been identified by Tyler and Evans (2003) in their cursory analysis of the particle *up* but it has been distinguished by Lindstromberg (2010: 191), who states that it conceptualises a mainly horizontal approach, in expressions, such as *pull up a chair*, or *come up to sb*.

I include the Approach Sense in the Quantity Cluster because it is motivated by the concept of QUANTITY. The Approach Sense can be regarded as the outcome of two experiential correlations. First of all, it is rooted in a close conceptual link between vertical elevation and an increase in quantity. As Lindstromberg (2010: 191) puts it, “[w]hen someone approaches us from a distance, on level ground, they seem to get taller”. Thus, an entity getting taller stands for an increase in quantity in the sense of becoming larger in the eyes of the conceptualiser. Secondly, the Approach Sense stems from an experiential correlation

²⁸ The interaction between the semantics of the verb and particle can also be explained along the lines proposed by Mahpeykar and Tyler (2015), who argue that the two component structures undergo conceptual integration, which should be interpreted as a series of correspondences between the TR and the LM on account of the fact that the verb denotes a process that unfolds through time. Therefore, each stage of the process represents a specific configuration of the TR and the LM. When seen in this light, the conceptual integration of the verb *sign* and the particle *up* involves a combination of two metaphors: NAMES ARE OBJECTS and MAKING AN OBJECT JOIN THE GROUP IS TAKING IT UPWARDS, the latter one being a result of the aforementioned experiential correlation between putting things in a pile and bringing them together. As far as the former metaphor is concerned, it can be argued that in a situational context in which one's name is written down, a name can be treated as a material object since it has a tangible form, as its representation has been produced either electronically or on paper. The emergent meaning of this particle verb stems from the conceptualisation of joining a group of people by adding one's name to the list, perceived in terms of moving the TR upwards. Once the TR has reached its goal, i.e. has been put on top of other objects, representing other people belonging to an organisation, the person's name has been added to the list, which amounts to their joining the group.

between an increase in quantity; that is the TR’s “enlargement”, and its drawing nearer to the vantage point. A salient aspect of human experience is that when we are immobile, expecting an object progressing in our direction, the closer this object comes to us, the taller²⁹ it appears to be. This kind of perceptual experience is typical for the everyday experience of seeing a vehicle, or a person, progressing towards us. When we see them far away on the horizon, they appear to be of a small size, but as they move towards us, they get bigger. The following sentences are instantiations of this construal:

(19)

- a. *As the car drew up outside her flat she turned to Steven.* (BNC)
- b. *The man had come up to her at the entrance to the library where she worked and just asked her.* (BNC)

As demonstrated in (19), approaching the vantage point is conceptualised as the TR’s increase in size, measured with respect to the vertical axis. Moreover, the Approach Sense is also connected with the Noticeability Sense (see 2.3.4.2) on the grounds of the fact that an entity approaching a vantage point becomes more noticeable.

On the other hand, when the spatial scene in which the TR approaches a goal is considered not in relation to the vantage point but to the horizon line, which is done in applying the laws of graphical perspective, it appears that the TR “moves down”: the closer it comes, the more of it becomes visible under the horizon line, as demonstrated in Fig. 2-4.

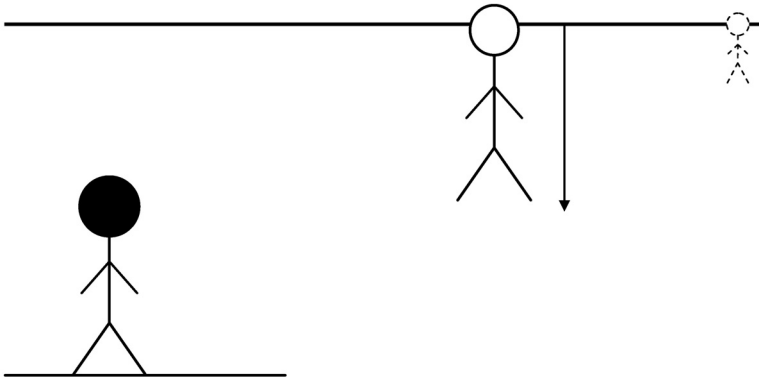


Figure 2-4. The TR approaching the conceptualiser construed in relation to the LM represented as the horizon line

²⁹ Needless to say, the object expands also along the horizontal axis, but this type of enlargement is not cognitively salient in this particular construal, therefore, it is backgrounded.

Consequently, the TR's moving towards the conceptualiser perceived in relation to the horizon line would be construed as going downwards. However, this conceptualisation is not sufficiently salient to be encoded in the language, probably because of the fact that in most real life situations the horizon line is not available to human sight, as it is obscured by man-made and natural objects, such as buildings, trees, mountains, etc.

Note that in Polish (section 3.2.4) the Approach Sense can also be conceptualised in terms of the TR's size, albeit only implicitly, by means of the prefix *nad-* 'over' which designates the TR towering over the LM (usually represented by the speaker at the vantage point). However, the difference in construal between Polish and English is that while English profiles an increase in the TR's size along the vertical scale, which is a gradual process, Polish foregrounds the TR's being higher than the LM, which may additionally conceptualise either the unexpectedness of the TR's appearance, or its higher social position, or both of them.³⁰

2.3.4.2. The Visibility Cluster

The Visibility Cluster underlies four senses which profile the TR coming into the visual field of the conceptualiser, so that it cannot pass unnoticed: the Noticeability Sense, the Creating Sense, the Unexpectedness Sense and the Revealing/Discovering Sense. They are discussed in descending order of frequency.

The Noticeability Sense

The Noticeability Sense has been singled out as a separate sense by Rudzka-Ostyn (2003: 85), who maintains that "higher up is more visible, accessible, known". This statement reflects an experiential correlation between an entity moving upwards towards eye level and its being noticed more easily than when being located below eye level, e.g. on the ground. Consequently, the particle *up* profiles becoming visible of what was previously hidden, as exemplified by the following sentences:

(20)

- a. *It was still only a quarter to eight – exactly the time when, last Friday, Alan turned up.* (BNC)
- b. *Off to the sides is tall grass coming up from red dirt.* (OED)

³⁰ For relevant examples see section 3.2.4.

Using the IDEAS ARE THINGS metaphor, it is possible to employ the particle *up* to conceptualise the process in which immaterial TRs emerge from oblivion, as demonstrated by:

(21)

- a. *I am glad the matter has been brought up.* (OED)
- b. *Think 'heart disease' and what image pops up?* (OED)

Thus, in (21a) the light verb *bring* is combined with the particle *up* so that the whole expression containing a particle verb conceptualises bringing the *matter* under notice or consideration. The *matter*, which is an abstract entity, is construed as a physical object and it represents the TR of the construal. The activity of bringing the TR under notice is construed in terms of a physical action of moving the object upwards until it reaches the conceptualiser's region of interactive focus, where it can be easily seen. Sentence (21b) construes the TR, i.e. the noun *image*, as a physical entity that suddenly moves upwards, whereby the sudden movement is encoded by the verb *pop*, while the particle *up* encodes the trajectory that ends in the conceptualiser's region of interactive focus, as a result of which it becomes visible.

Interestingly enough, becoming noticeable can be due to inappropriate behaviour, as evidenced by *act up* (22b) which, according to the OED, is used to talk about a person or an animal who misbehaves, or acts in an abnormal or exaggerated manner. Likewise, *play up* used in (22b) profiles a negative aspect of becoming noticeable, as it conceptualises behaving in a boisterous, unruly, or troublesome manner, or causing somebody problems or pain.

(22)

- a. *All children talk back and act up from time to time.* (OED)
- b. *He came home beery, and playing-up, broke the dolly.* (OED)

Thus, becoming noticeable can have both a positive and a negative axiological dimension depending on the context.

The Creating Sense

While Rudzka-Ostyn (2003) does not distinguish this sense at all, Lindstromberg (2010) proposes that the particle *up* can be used to encode the TR coming into view, existence, or public visibility, treating all these instances as one single systemic metaphor. Lindstromberg (2010: 195) further argues that *up* participates in expressions that encode metaphorical visibility, e.g. *to hold sb up as a good/bad example of sth.*, metaphorical appearance, e.g. *crop up* and creation, e.g. *think up*, *dream up*, *draw up (a contract)*. Thus, for the author there is

no real difference between creating an object and an object becoming noticeable. I have not coalesced these two concepts into one semantic category because in the case of the process of creation an entity that did not exist before is brought into being, which is not what actually happens when an entity becomes noticeable.

The Creating Sense has been assigned to the Visibility/Accessibility Cluster on account of the fact that when something is created it becomes noticeable. For example, when a sculpture is produced, it has substantial attention-catching potential because many people may desire to see the newly-created work of art. Besides, it should be noted that the upward trajectory of an entity is frequently linked with an act of creation: erecting a wall correlates with its moving upwards as the process of building proceeds. This experiential correlation has given rise to the CREATION IS UP metaphor, instantiated by the use of the particle *up* in the composite verbs, such as *think up*, *run up*, *punch up*, etc.:

(23)

- a. *With his money and our soul we could think up a scheme to please everybody.* (BNC)
- b. *You can easily run up a simple website in ten minutes without knowing anything about HTML.* (OED)
- c. *She sighed and punched up a star map on the visiscreen.* (OED)

The e-site of the particle *up* is elaborated each time with a different verb that conceptualises – frequently metaphorically – the way in which the process of creation is carried out. For example, the verb *run* (23b) construes hasty creation in terms of moving fast, i.e. running. In (23c) the verb *punch* is an instance of the CAUSE FOR EFFECT metonymy, as it conceptualises the effect, i.e. making the image appear on the computer screen, in terms of its cause, i.e. hitting the appropriate keystrokes.

It should be emphasised that even though the Creating Sense and the Noticeability Sense are treated in the present work as two distinct meanings, they are closely related, as the former entails the latter: when creating a physical entity, or developing an idea or a concept, the object of creation becomes noticeable once it is produced.

The Unexpectedness Sense

There is a close link between unexpectedness of appearance and visibility because when an entity appears unexpectedly in the field of the conceptualiser's vision, it becomes noticeable. The Unexpectedness Sense has turned out to be quite rare as it has been encoded by the particle *up* only 7 times, which amounts to the frequency of 2.42 per cent. As regards the motivation for this

sense, it stems from an experiential correlation between upwards movement and unexpectedness. When the TR advances upwards, especially at a high velocity, it suddenly appears within the eye range of the conceptualiser. Consider instantiations of the particle *up*, profiling unexpectedness:

(24)

- a. *His eyes..cast up to count the peaches on the wall.* (OED)
- b. *We shall have new men cropping up every session.* (OED)
- c. *The subject..having once cropped up in Exeter College common-room.* (OED)

In (24a) the e-site of the particle *up* is elaborated with the verb *cast*, specifying it in terms of fictive motion (Talmy 1983, 2000a), which means that moving one's eyes fast is conceptualised as throwing them. In sentences (24b) and (24c) the contribution of the component verb to the semantics of the particle verb *crop up* is unclear. It may be speculated that, as used here, it is a metaphorical extension of the following sense of the verb *crop* 'of a stratum, vein, etc.: to come up to the surface; to come out and appear on the side of a slope, etc.' (OED, entry 10.a). When seen in this light, the appearance of an entity, either a material (24b) or an immaterial one (24c), is construed as its appearing on the surface by rising from beneath.

The Revealing/Discovering Sense

This is yet another sense whose name has been adopted from CCPVD (2012). Together with the Active Sense it is the least productive sense in the semantic network of the particle *up*, as it barely reaches the frequency threshold required to be included in the analysis, which is four occurrences in the sample.³¹ The Revealing/Discovering Sense is conceptualised by means of the particle *up* because we frequently hide things under other bigger objects, such as a bed, or a table, which keep them out of our sight. When discovering them, we raise them to our eye level for inspection. The co-occurrence of these two types of experience was prevalent especially in the past when it was a common practice to hide precious things by burying them in the ground. Thus, the experiential correlation between lifting a physical entity and its coming into the observer's field of vision has given rise to the Revealing/Discovering Sense of the particle *up*. Note the use of the particle *up* in this sense:

(25)

- Odd pieces of evidence about his movements and early life were all dragged up.* (BNC)

³¹ See section 2.3.3.

In sentence (25) the e-site of the particle *up* is elaborated with the metaphorical meaning of the verb *drag*, whose primary sense is that of drawing or pulling an object which is heavy, or resists motion, hence the activity itself is violent and rough. Consequently, the heaviness of an object is mapped onto the unpleasantness of the story that has been disclosed; the violence and roughness, which characterise pulling a physical entity, are mapped onto introducing a distressing story in a forced manner; while the resisting of motion by an object that is dragged is mapped onto the unwillingness of the person concerned to listen to what has been revealed.

2.3.4.3. Other senses

In this section the senses of the particle *up* that do not belong to any cluster of senses are described in descending order of frequency.

The Preparing/Beginning Sense

The Preparing/Beginning Sense alongside the Togetherness Sense is the third most productive sense of the particle *up* with the number of occurrences amounting to 32. Lindstromberg (2010) perceives this sense in terms of acquisition and adoption; however, as the examples presented below will demonstrate, *up* represents an initiation of an action rather than the process of obtaining or gaining, as the term proposed by Lindstromberg (2010) might suggest. It appears that the Preparing/Beginning Sense may be motivated by the salient aspect of human experience, i.e. getting up from a lying or sitting position, and a subsequent initiation of an intended action. Another motivation for this sense can be the experiential correlation between picking up an entity and the initiation of an action in which this entity is used as an instrument. For instance, picking up a volleyball from the ground correlates with the beginning of playing, picking up a book from a table correlates with the initiation of reading, etc. Note the use of the particle *up* as well as the verb *take* in the bridging context:

(26)

Simply the sense of physical disgust which filled me whenever I took up a brush and dipped it in paint. (BNC)

In (26) the particle *up* encodes spatial movement: the Agent takes hold of the TR, the brush, and lifts it up. At the same time the upwards movement of the TR correlates with the initiation of the painting activity. In the process of pragmatic strengthening, the implicature of beginning has been established as a separate sense in the semantic network of the particle *up*. Consequently, the

particle *up* is used in the Preparing/Beginning Sense in numerous composite particle verbs, such as *take up*, *open up*, *blaze up*, *set up*, *strike up*, etc., as exemplified by the following sentences:

(27)

- a. *And when she found she was putting on some weight, she took up swimming regularly.* (BNC)
- b. *The Board of Trade promptly set up an enquiry into the industry and its methods and techniques.* (BNC)
- c. *Down in the valley, a great light seemed to blaze up towards him.* (BNC)
- d. *The band strikes up, the regiment presents arms.* (OED)

In (27a) and (27b) light verbs, *take* and *set*, are used; therefore, the e-site of the particle *up* is filled with very general meaning. In (27c) the particle *up* is combined with the lexical verb *blaze* and the composite verb *blaze up* profiles an initial stage of the process of burning. In the last example (27d) the verb *strike* stands for striking the keys on the keyboard while playing. Thus, it metonymically represents playing a musical instrument in terms of the manner in which it is performed, which is the MANNER OF ACTION FOR ACTION metonymy. Consequently, the composite verb *strike up* profiles the beginning of the orchestra's playing.

The Enclosing/Restricting Sense

Rudzka-Ostyn (2003) does not distinguish this sense at all, but it is listed as a separate sense in CCPVD. The analysis of the sample of 24 particle verbs extracted from the OED has shown that the earliest occurrences of verbs in which the particle seems to convey the idea of enclosure, fastening or restricting are with the verb *close* (1530), *shut* (1490), *tie* (1530) and *lock* (1549). However, in these instances the meaning of the particle *up* merely overlaps with the semantics of these verbs, all of which express the idea of confinement. Therefore, in the above-mentioned cases the particle *up* performs merely a superlative function (Hampe 2002).

Verbs in which the meaning of the particle can be seen as distinct from that of the verb appeared later, e.g. *rack up* (1743), *choke up* (1673), or *send up* (1852). Therefore, it seems that the attribution of this sense to the particle *up* in later coinages has been triggered by analogy.³² The analogical extension may

³² Analogy, as understood here, should be perceived in terms of paradigmatic substitutions of the variable part through analogical proportions. Mattiello (2017) defines analogy as the process in which a new word is created that is based either on a specific model word, or the whole set of words forming a word family. The former type of analogy is referred to

have been additionally strengthened by spatial motivation, because an upward movement can correlate with the effect of enclosure or restriction. For example, when a wall around an area is built, its erection corresponds to forming an enclosure around this area. At the same time it entails the restriction of freedom of those within its boundaries. Thus, it appears that both an experiential correlation between an upward movement and enclosure as well as analogical extension provide motivation for the Enclosing/Restricting Sense of the particle *up*. Note the following instantiations of this sense:

(28)

- a. *They have bricked up the lower part of the..window.* (OED)
- b. *Only two prisoners, men, occupied the prison-van..Burns was being 'sent up' for wife-beating, and Tannahill for theft.* (OED)
- c. *The stall beasts are..put up in sheds in October.* (OED)
- d. *It is stupid of a groom to rack a horse short up while he is feeding.* (OED)

In (28a) the e-site of the particle *up* conceptualising enclosure is filled with the verb *brick* created in the process of conversion from the noun which metonymically represents laying bricks in terms of the OBJECT FOR ACTION metonymy. Consequently, the verb *brick up* in sentence (28a) conceptualises blocking a window by means of brickwork. Sentences (28b) and (28c) conceptualise restriction of freedom of people (28b) and animals (28c). In (28d) the e-site of the particle *up* is filled with the verb *rack* created in the process of conversion from the noun *rack* which metonymically represents the activity of using a hay rack, or some other fixture in order to fasten a horse in terms of the OBJECT FOR ACTION metonymy.³³

as *surface analogy*, while the latter is *analogy via schema*. The linguist further argues that if a word is analogical, it can be explained by a proportional equation in which a target word equals a model word with respect to certain lexical or grammatical properties. Thus, an analogically formed particle verb *finish off* is assumed to equal its model *kill off* in terms of its axiological value, as can be demonstrated by the following analogical proportion: *kill : off = finish : off*. This should be taken to mean that the negative potential expressed both by the particle and the verb in the particle verb *finish off* matches that of *kill off*.

Particle verb formation by means of analogy is a relatively common phenomenon on account of the fact that analogy plays an extremely important role in the evolution of the lexicon, as has been proved conclusively by Mattiello (2017). Two other scholars, Klégr and Čermák, (2010: 235), have stated that “analogy is the backbone of creativity, i.e. the native speaker’s ability to extend the language system in a motivated but unpredictable (non-rule governed) way which may or may not subsequently become rule-governed, predictable and productive”.

³³ The verb *rack up* has been included in the sample even though at first glance it may appear that the particle *up* performs merely a superlative function. However, this is not the

The Superiority Sense

The Superiority Sense of the particle *up* stems from a socially and culturally deeply entrenched experiential correlation between being up and being socially superior. It has already been proposed by Lakoff and Johnson (1980) that HIGH STATUS IS UP, LOW STATUS IS DOWN. As noted by Boers (1996), this metaphor has two experiential bases. First of all, in certain communities social status depends on physical strength, which, in turn, corresponds to a person's size. Secondly, leaders are spatially elevated above those who are inferior to them not only for psychological but also for practical reasons: to be clearly seen when giving instructions, to be better heard, etc. Thus, an experiential correlation between an upward location or direction and a high social position is a salient aspect of human experience. Note the use of the particle *up* in the Superiority Sense:

(29)

- a. *He expects the..Committee to hand up its long-awaited report on color TV next month.* (OED)
- b. *That could not be now in the Bill, as it was sent up from the Commons.* (OED)

In both (29a) and (29b) the particle *up* metaphorically represents fictive motion towards a higher authority through passing a report (29a) and sending a bill (29b), respectively. In both sentences the LM is implicit, but from the context it can be inferred that it is represented by a person, or a group of people, socially superior to the Agent.

The Active Sense

As noted by Tyler (2015: 22), “a consequence of being up is that the TR/actor is in a state of readiness, or active engagement”. In contrast, being down, understood as lying in bed or on the ground, correlates with being passive and inactive. Consequently, an experiential correlation between being up, understood as remaining in a vertical position, and being occupied oneself has given rise to the Active Sense of the particle *up*:

(30)

- a. *I only had twenty four hours' notice and then I sat up all night learning a speech and then dried flat at the audition.* (BNC)
- b. *Don't wait up for me.* (OED)

case because of the fact that the verb *rack* when used on its own does not convey the idea of fastening or restricting, According to the OED, it means either ‘to put on a rack’, or ‘to adjust by means of a rack’. Therefore, it appears that the sense of restricting should be attributed to the particle *up*.

In (30a) the e-site of the particle *up* is elaborated by means of the verb *sit* which metonymically represents not going to bed although it is quite late. Sitting is the most salient aspect of staying awake for two reasons. First of all, it enables preservation of the vertical position of one's body, at least from the waist upwards, which is in direct contrast with the horizontal position, typically assumed by humans when sleeping. Secondly, the sitting position enables people to be engaged in activities typically undertaken before going to bed, such as reading, working on a computer, or watching TV. Thus, assuming that sitting represents the position of one's body taken when performing typical evening activities, it can be proposed that the verb *sit* is an instance of the BODY POSITION FOR ACTIVITY metonymy. In this metonymic conceptualisation, the sitting position is foregrounded, while activities performed while assuming this body position, such as reading, writing, listening to music, chatting, etc. are backgrounded.

In (30b) the e-site of the particle *up*, conceptualising the Active Sense, is filled with the literal sense of the verb *wait*. As a result, the composite verb profiles deferring going to bed because of expecting someone's arrival.

2.3.5. Functional element of a decrease in accessibility/visibility

The functional element of a decrease in accessibility/visibility is a meaningful consequence of the spatial configuration entailed by the TR reaching the endpoint of a trajectory located beyond the conceptualiser's line of vision (see section 2.3.2). This functional element underlies three senses: the Disrupting/Damaging Sense, the Rejecting/Surrendering Sense, and the Completion Sense II (by depletion), which are presented in this section in descending order of frequency.

The Disrupting³⁴/Damaging Sense

This is the most productive sense of the particle *up* derived from the functional element of the decrease in accessibility/visibility, as its frequency

³⁴ Tyler and Evans (2003) distinguish the Separation Sense, which is related to the present sense on account of the fact that disruption and damage often coincide with the separation of either part of an entity from a larger whole, or several of its parts from one another, as in *blow up*, or *break up*. However, separation does not always entail damage, as is the case with verbs, such as *chop up* or *cut up*, conceptualising an activity which is usually intentional and, therefore, not aimed at causing destruction. Besides, the meaning of the component particle in the aforementioned composite verbs is merely superlative because the verbs *chop* and *cut* themselves encode separation. On the other hand, damage and disruption do not have to involve separation, which is the case with the verbs in (32). Therefore, I have decided to label this sense the Disrupting/Damaging Sense not the Separation Sense.

amounts to 14 occurrences. The term for this sense has been adopted from CCPVD, according to which the particle *up* refers to something that has been spoiled or damaged, or to an object that is not working properly. According to the OED, in the earliest attested instances of the particle *up* in the Disrupting/Damaging Sense the meaning of the verb overlaps with the meaning of the particle, because the concept of DESTRUCTION is an inherent part of the verb semantics, as in *blow up*, dating back to 1599, or *break up*, dating back to 1483:

(31)

- a. *One of our Bombs fell into a Magazine..and blew it up.* (OED)
- b. *Break it up, bring the house down.* (OED)

In the above sentences the particle *up* profiles the end-point of the activity because it does not introduce any new meaning component that is already not inherent in the verb itself: both the verb *blow* and *break* express the idea of disintegration. Consequently, the particle *up* performs merely a superlative function.

As the OED-based research indicates, it was only much later that the particle *up* was combined with verbs other than those encoding the concept of DESTRUCTION i.e. the ones in which the contribution of the particle *up* to the semantics of the whole particle verb is unambiguous and can be clearly distinguished from that of the verb. For example, the verbs *play* and *use* functioning as components of the composite verbs *play up* and *use up* have been attested in 1849 and 1790, respectively. Note the occurrence of the two particle verbs in context:

(32)

- a. *The dishwasher's playing up.., but it should be all right by the time we open.* (OED)
- b. *I saw you were getting used up.* (OED)

Since neither the verb *play* (32a), nor the verb *use* (32b) profile the process of damage, it is the particle *up* that contributes this meaning component to the composite verb. The verb *play*, used in (32a) is highly polysemous as, according to the OED, it may profile various kinds movement, exercise, or activity. Thus, the elaboration of the e-site of the particle *up* is characterised by a low level of specificity as to the nature of damage and disruption. Likewise, the e-site of the particle *up* in (32b) is elaborated with a fairly schematic semantic content, as the verb *use* profiles the process of 'handling, operating, or dealing with something' (OED). When the component verb has been combined with the component particle in the process of composition, the composite particle

verb *use up* (32b) has been formed which profiles the process of producing harmful effects on an individual's physical or mental condition through the exploitation of one's body.

On the whole, it appears that the Disrupting/Damaging Sense is a result of reanalysis and analogical extension. First of all, the completive meaning of the particle *up*, as used in *blow up*, *burst up*, *break up*, etc. has been reanalysed as the Disrupting/Damaging Sense, due to the conceptual overlap between the verb and the particle, and then it has been analogically extended to other particle verbs. However, what needs to be pointed out is that this sense is not deprived of spatial motivation due to an experiential correlation between upwards movement and the process of destruction which is a common aspect of human experience, such as when, e.g. during an explosion, parts of a detonated entity are thrown up into the air high above the conceptualiser's region of interactive focus.

The Rejecting/Surrendering Sense

This is the second most productive sense in the category of senses triggered by the functional element of a decrease in accessibility/visibility. The term for this sense has been adopted from CCPVD, according to which the particle *up* is used to talk about giving things away or indicating that they are not needed any more. This sense may have originated as a result of an experiential correlation between not wanting to keep a physical object and releasing it until it finally disappears from one's field of vision. For example, when children play in the open air with a balloon, once they get bored with it, they let it go. In windy weather the balloon may be carried upwards by the wind. Consider instantiations of the Rejecting/Surrendering Sense of the particle *up*:

(33)

- a. *It is not surprising that many inmates want to give up their appeals.* (BNC)
- b. *He had passed up a job offer with a large accounting firm to cruise the South Seas.* (OED)

In both sentences (33a) and (33b) the e-site of the particle *up*, conceptualising the Rejecting/Surrendering Sense is filled with the literal sense of the verbs *give* (33a) and *pass* (33b), respectively. The particle *up* "encodes the directional orientation of the nucleus" (Foley and Van Valin 1984: 212),³⁵ not towards the Recipient, which would be grammatically encoded by an indirect object, but upwards, which metaphorically construes rejection.

³⁵ See section 1.6.

The Completion Sense II (by depletion)

The name of this sense has been taken from Tyler and Evans (2003), who argue that when the particle *up* construes completion of an activity by the depletion of a resource, it entails the process of its gradual reduction until it is totally exhausted. The authors have suggested that this seemingly contradictory link between an elevated position and the notion of depletion is a result of a tight experiential correlation between taking food and drink up to one's mouth with the aim of consuming it and its ensuing depletion. While this experiential correlation is a deeply entrenched aspect of human experience, it seems that the Completion Sense II may be additionally motivated by other correlations in human experience, such as the one between evaporation of water from water reservoirs during which molecules of liquid change into vapour. This physical phenomenon profiles a conceptual link between the upwards movement of vapour and the exhaustion of a water supply. The Completion Sense II can be exemplified by the following sentences:

(34)

- a. *We may have to use up all our cartridges on him.* (OED)
- b. *Drink up, finish your bottle.* (BNC)
- c. *The sap dries up: the plant declines.* (OED)

In all these sentences the particle *up* conceptualises completion of an activity or process realised by means of depletion of “resources”, such as the set of cartridges, contents of the bottle, and the sap. Once they are exhausted, the activity involving their use (whether volitional (34a), (34b) or not (34c)) can no longer continue.

2.3.6. Semantic network for *up*

Figs. 2-5 and 2-6 present the semantic network of the particle *up* triggered by the functional element of an increase in accessibility/visibility and a decrease in accessibility/visibility, respectively. Distinct senses have been marked by a shaded sphere, while clusters of senses by an open circle (see section 1.3). The primary motivation for a given sense extension is represented by a solid line, while a broken line corresponds to a secondary motivation.

The two figures are accompanied by sentences containing exemplifications of the senses that constitute each semantic network and which have been discussed in sections 2.3.4 and 2.3.5. The exemplifications of the senses of the particle *up* are presented in alphabetical order and given the same numbers as

the corresponding examples in the two aforementioned sections. Consider example sentences containing the senses of the particle *up* that are motivated by the functional element of an increase in accessibility/visibility discussed in section 2.3.4:

The Active Sense

*Don't wait **up** for me.* (30b)

The Approach Sense

*As the car drew **up** outside her flat she turned to Steven.* (19a)

The Completion I (by filling) Sense

*I trenched **up** the whole to the depth of eighteen inches.* (14b)

The Creating Sense

*With his money and our soul we could think **up** a scheme to please everybody.* (23a)

The Enclosing/Restricting Sense

*Only two prisoners, men, occupied the prison-van... Burns was being 'sent **up**' for wife-beating, and Tannabill for theft.* (28b)

The Improvement Sense

*Miss Whitelaw marks **up** her copy of a Beckett manuscript with brief, sometimes cryptic remarks.* (12c)

The More Sense

*Two manipulators...successfully ran **up** the price of the stock over 106,600 percent.* (7a)

The Noticeability Sense

*It was still only a quarter to eight – exactly the time when, last Friday, Alan turned **up**.* (20a)

The Preparing/Beginning Sense

*The band strikes **up**, the regiment presents arms.* (27d)

The Revealing/Discovering Sense

*Odd pieces of evidence about his movements and early life were all dragged **up**.* (25)

The Superiority Sense

*He expects the..Committee to hand **up** its long-awaited report on color TV next month.* (29a)

The Togetherness Sense

*Mr Brown says that he will consider it only if 500,000 people sign **up**.* (17d)

The Unexpectedness Sense

*The subject..having once cropped **up** in Exeter College common-room.* (24c)

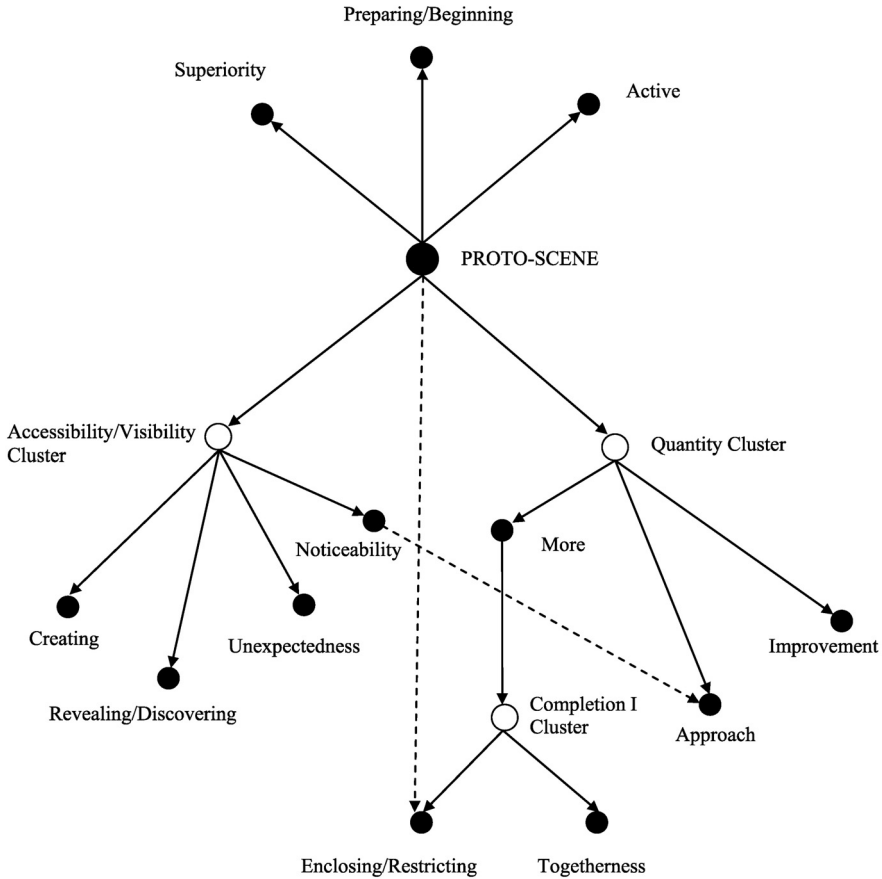


Figure 2-5. Semantic network of the particle *up* triggered by the functional element of an increase in accessibility/visibility

Now consider example sentences containing senses of the particle *up* that are motivated by the functional element of a decrease in accessibility/visibility discussed in section 2.3.5:

The Completion II (by depletion) Sense
*Drink **up**, finish your bottle.* (34b)

The Disrupting/Damaging Sense
*The dishwasher's playing **up**., but it should be all right by the time we open.* (32a)

The Rejecting/Surrendering Sense
*He had passed **up** a job offer with a large accounting firm to cruise the South Seas.* (33b)

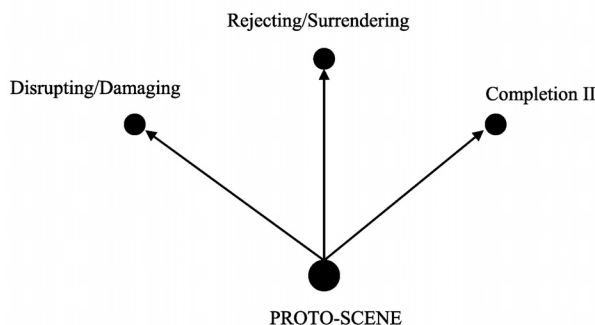


Figure 2-6. Semantic network of particle *up* triggered by the functional element of a decrease in accessibility/visibility

2.4. Semantics of *down*³⁶

The analysis of sense extensions of the particle *down* is based on several earlier works, such as Tyler and Evans (2003), Rudzka-Ostyn (2003) and Lindstromberg (2010). As regards the terms applied for various meanings of the particle *down*, some of them have been derived from the aforementioned works and some of them have been adopted from the particles index section of CCPVD. In several cases I have modified the labels for semantic categories, proposed by the aforementioned authors and I have offered new terms for the senses of the particle *down* that have not been distinguished before.

2.4.1. Proto-scene for *down*

According to the OED, *down* dates back to Old English *dūne*, *dūn* and its oldest attested meaning is ‘in a descending direction; from above, or towards that which is below; from a higher to a lower place or position; to the ground’. This sense is predominant in the semantic network of *down*, which means that the prototypical spatial configuration in which the TR descends towards the LM is involved either explicitly or implicitly (that is in the bridging context or through experiential correlation) in all the senses in the network. Moreover, it is present in numerous composite forms, such as *look down*, *sit down*, *downcast*, *downpour*, which is yet another requirement that must be fulfilled for the sense to be considered primary. As will be demonstrated in the following, the sense

³⁶ This section draws to some degree on the conference paper ‘Metaphor-framed satellites within and beyond satellite-framed languages’ read at the conference *Various Dimensions of Contrastive Studies* at the University of Silesia in Katowice in October 2016.

encoding downwards movement motivates other senses in the semantic network of *down*. Finally, it is the concept of DOWNWARDS MOVEMENT that is used to form a contrast set with the particle *up*, which, as explained in the previous section, construes upwards movement. Consequently, it can be safely assumed that the sense that profiles the TR's movement in a descending direction is the primary sense of *down*.

Even though the primary sense of *down* contrasts with the primary sense of *up*, as has been noted by Lindstromberg (2010), *down* functions only to some extent as the converse of *up*, mostly when encoding a literal or figurative path, e.g. *tear/knock down a building* (versus *put up a building*), *bring down a government* (versus *build/prop up a government*). However, it is not the opposite of *up* with regard to the notion of appearance, visibility and coming into existence, e.g. *turn down* is not the converse of *turn up* and *think down* is not the opposite of *think up*. Neither is *down* the opposite of *up* in its superlative meaning, as they are both used in this sense; however, they are not interchangeable as, e.g. *burn up* is not identical with *burn down* (for a discussion of the differences between the superlative functions of *up* and *down* see section 2.9).

2.4.2. Functional elements encoded by *down*

According to Tyler and Evans (2003), in the proto-scene for *down* it is the bottom part of the human form that is profiled because the TR's movement proceeds in this direction. Tyler and Evans (2003: 142) propose that the functional element associated with *down* is that of negative value. They illustrate their claim with the following sentences:

(35)

- a. *The stone plunged down the well-shaft.*
- b. *The water went down the drain.*
- c. *He stepped down.*
- d. *He fell down.*

Tyler and Evans (2003) argue that the negative value of the particle *down* stems from the negative consequences of the TR's downwards movement in the course of which it becomes invisible (35a), ceases to be accessible (35b), gets into a lower position, which entails a loss of command, or influence (35c), or loses its normative, i.e. vertical position, which creates potential for vulnerability (35d).

However, as the present research has shown, this approach is one-sided, because it leaves the senses in which *down* has a positive value unaccounted

for.³⁷ For example, *down* does not encode a negative value in verbs, such as *write down*, *settle down*, *hold down*, in which it stands for the concept of PERMANENCE and STABILITY (see section 2.4.5 for a detailed discussion).

Therefore, I argue that the experiential patterns of human embodied experience associated with the idealised meaning of the particle *down* can be either positively or negatively loaded (like for the particle *up*), as it is not the direction of movement itself that is meaningfully favourable, or unfavourable but the final point of the TR's path (understood as the goal in the SOURCE-PATH-GOAL schema) in relation to the vantage point and its consequences for the conceptualiser. If the initial point of the TR's path (understood as the source in the SOURCE-PATH-GOAL schema) is located at the vantage point, which is the eye level of the conceptualiser, and its final point below the vantage point, the TR becomes both less visible and less accessible (see Fig. 2-7a.). In contrast, if the TR reaches the conceptualiser's eye level (by moving downwards) and comes to a halt there, it becomes more visible and more accessible, which is considered to be positive in human experience (see Fig. 2-7b.).

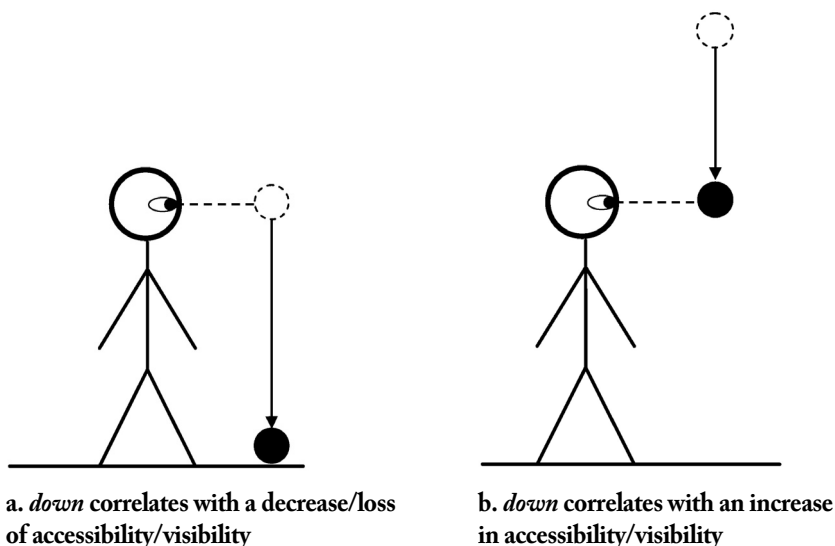


Figure 2-7. Relationship between the final position of the TR and its access to perception conceptualised by *down*

³⁷ The discussion of the axiological value of the particle *down* presented here is based to some extent on the conference paper 'Pressure of coherence: a case study of metaphorical extensions of English verbal particle *down*' read at the conference *Figurative Thought and Language 4* held at the Catholic University of Braga in October 2018.

As remarked by Rudzka-Ostyn (2003), the downwards movement does not have to end with the TR getting to the lower level, but it may involve the change of its position from vertical to horizontal so that the bottom part remains on the same level and it is only the top part that gets lower. In this case the functional element associated with *down* is also that of negative polarity due to the fact that entities that have stopped functioning tend to be no longer erect (Lakoff and Johnson 1980; Grady 1997).

These two distinct functional elements can be entailed not only by the different location of the final point of the TR's path with respect to the vantage point but also by the change in the position of the vantage point itself, represented by the conceptualiser's line of vision, which can move along the vertical axis as well. This is what Talmy (2000a) refers to as *perspectival motility*. Consider Fig. 2-8, which shows how the change in the position of the vantage point affects the TR's access to perception.

Fig. 2-8 represents the construal of the scene in which the conceptualiser's line of vision is not (canonically) directed straight ahead, but upwards (Fig. 2-8a.) and downwards (Fig. 2-8b.). Even though the final position of the TR with respect to the human body remains unchanged in both spatial scenes (when compared with that in Fig. 2-7), a change in the position of the vantage point entails the emergence of reverse functional elements: a decrease in accessibility/visibility (Fig. 2-8a.) and an increase in accessibility/visibility (Fig. 2-8b.).

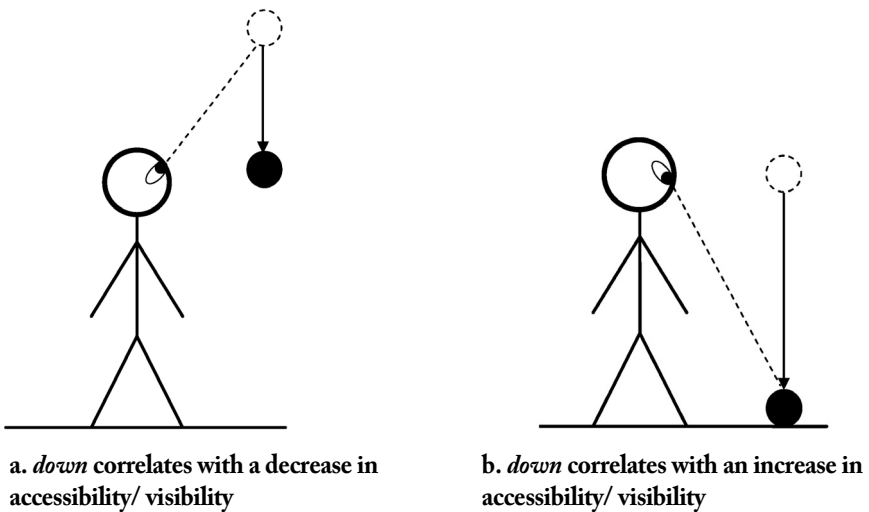


Figure 2-8. Relationship between the position of the vantage point and the TR's access to perception

Consequently, these two distinct functional elements assigned to the proto-scene of the particle *down* are determined both by the location of the final point of the TR's path in relation to the vantage point and the position of the vantage point itself. The two contrasting functional elements underlie different metaphorical extensions of negative and positive polarity, respectively.

2.4.3. Data and frequency of senses

For the purpose of the present analysis a sample of 254 verbs followed by the particle *down* was extracted from *Oxford English Dictionary* by means of an Advanced Search designed to look for the sequence of the verb and particle *down* [*down] in a lemma and headword. 101 verbs were rejected according to the criteria presented in the Introduction, which leaves 153 particle verbs subjected to the analysis. Since many verbs are polysemous and their polysemy can be attributed to the semantic content of the particle, which profiles several distinct concepts while functioning as a component of the same composite verb, the number of particle occurrences is higher than the number of verbs, and it amounts to 209. Table 2-4 presents the frequency of occurrence of the senses of the particle *down* singled out from the sample of 153 verbs, where the frequency threshold was 1.5 per cent.

Like in the case of the data collection for the particle *up*, the applied search did not yield all the possible verb + *down* combinations because it has omitted those instances in which the verb followed by the particle is not listed in the entry or subentry since it is considered to be optional, which should be taken to mean that it performs a superlative function and for this reason it is not included in the sample.³⁸

Table 2-4. Frequency of senses of the particle *down*

Sense of particle <i>down</i>	Number of occurrences	Percentage
1	2	3
Less	53	25.36
Completion	25	11.96
Ceasing to Function	25	11.96
Destruction	23	11.00

³⁸ See section 2.3.3 for an explanation of this issue.

1	2	3
Worse/Inferior	23	11.00
<u>Permanence</u>	22	10.53
Defeat	19	9.09
Control	12	5.74
Depression	7	3.35
Total:	209	100

Altogether nine senses of the particle *down* were distinguished, out of which eight are motivated by the functional element of a decrease in accessibility/visibility. Only one sense that has been marked by underlining, i.e. the Permanence Sense, is motivated by the functional element of an increase in accessibility/visibility.

The next subsection is devoted to a discussion of the non-spatial senses of the particle *down* grouped into two categories, depending on the functional element from which they have been derived. The senses are presented in descending order of frequency.

2.4.4. Functional element of a decrease in accessibility/visibility

The functional element of a decrease in accessibility/visibility underlies eight senses, with three of them belonging to the cluster of senses I refer to as the Scarcity Cluster.³⁹ The Scarcity Cluster is motivated by an experiential correlation between a fall of the level of a substance in a container and a decrease in its quantity, which may lead to its scarcity. Thus, the Scarcity Cluster can be regarded as the converse of the Quantity Cluster, proposed for the particle *up*. I have included four senses in the Scarcity Cluster: the Less Sense, the Completion Sense, the Worse/Inferior Sense and the Control Sense. They are all motivated by a decrease in quantity, which may lead to a shortage of the required attributes, or resources, or even their total exhaustion. Other senses,

³⁹ Tyler and Evans (2003) refer to the cluster of senses motivated by the decrease in quantity as the Quantity Cluster. However, I have decided not to stick to this label because it could be misleading on account of the fact that the noun *quantity* denotes '(usually large or considerable) amount or portion' (OED). Yet, the senses that this particular cluster subsumes are based on the notion of either a decrease in quantity, a small quantity, or a total exhaustion of resources.

which do not belong to any cluster of senses, include the Destruction Sense, the Defeat Sense, the Control Sense and the Depression Sense.

Three out of the aforementioned senses have been distinguished by Tyler and Evans (2003). These are: the Less Sense, the Completion Sense and the Worse/Inferior Sense. However, I do not agree with the authors on the motivation for some of the senses for which I offer alternative explanations. As regards the remaining senses, I propose labels for those relationships profiled by the particle *down* which are sometimes only implicitly mentioned by Rudzka-Ostyn (2003) and Lindstromberg (2010).

The next subsection is devoted to a discussion of the non-spatial senses of the particle *down* belonging to the Scarcity Cluster, which includes the two most productive senses in the semantic network of the particle *down*, i.e. the Less Sense and the Completion Sense.

2.4.4.1. The Scarcity Cluster

The Less Sense

The term for this sense has been adopted from Tyler and Evans (2003). This is the most frequent sense in the semantic network of the particle *down*, as it has been found with over a quarter of all the verbs in the sample with a frequency amounting to 25.36 per cent. This should be taken to mean that an experiential correlation between a downwards movement and a decrease in quantity is deeply entrenched in the human conceptual system. In fact, it is a salient aspect of human experience that when the level of a liquid in a container goes down, its quantity decreases:

(36)

Go to the top floor of your house and remain there till the water goes down. (BNC)

Sentence (36) exemplifies an experiential correlation between a fall in the level of water and the reduction in its quantity. This bridging context triggers the implicature of a decrease in quantity, which has led to the emergence of the Less Sense in the semantic network of the particle *down*, as exemplified by the following sentences, in which the semantics of *down* is detached from the spatial domain:

(37)

a. *Happy hour begins and the price of..drinks goes down to \$2.50.* (OED)

b. *One whole side of the castle had been beaten down.* (OED)

c. *The horn was worked down with a sharp knife to an even thickness.* (OED)

- d. *Though some components, especially clothing, are often marked down for sale because of style cycles, these cycles usually are unrelated to advances in knowledge.* (OED)

In (37a) the e-site of the particle *down* is elaborated with the light verb *go* which provides only very schematic semantic content; consequently, the meaning of the whole particle verb is fairly general, i.e. it does not specify the manner in which the reduction in the price is achieved. Sentence (37b) conceptualises reducing in size one of the sides of the castle, effected by means of beating. As regards example (37c), the e-site of the particle *down* is elaborated by the verb *work*, and, as a result, the whole particle verb *work down* construes the reduction of the thickness of an object (in this case a horn) by putting in some physical effort, which involves using a sharp knife. Finally, in (37d) the reduction in the price of clothing is construed in terms of marking it with a lower price, namely by sticking a label with the reduced price on a price tag. Thus, the component verb *mark* constitutes an instantiation of the RESULT FOR ACTION metonymy (Kosecki 2005) because it conceptualises charging a different price for an item through its most salient stage, i.e. sticking on a new label, which represents the result of the whole process. While the verb *mark* metonymically represents changing the price, the particle *down* metaphorically conceptualises the direction of this change, which is towards the lower value.

The Completion Sense (by depletion)

It has been proposed by Tyler and Evans (2003) that this sense is closely associated with the frame of EATING and DRINKING and it is based on an experiential correlation between a decrease of the level of a beverage or, for example, soup in a container and the process of consumption which is carried on until no more food or drink is left, i.e. until it is finished. Consequently, it is derived from the Less Sense, because completion is strongly related to a decrease in quantity. Tyler and Evans (2003) propose yet another motivation for the Completion Sense of the particle *down*, claiming that it can be additionally linked to an experiential correlation between the entity ceasing to function and the change of its position from a vertical to a horizontal one. As Tyler and Evans (2003) argue, getting down onto the ground corresponds to the end-point of the trajectory. However, such an explanation does not appear to be fully satisfactory, as entities frequently become dysfunctional before completing what they were meant for, e.g. a car may break down in the middle of a journey, or a president may step down before the end of his or her office. Even though the TR is incapable of moving any further, it does not mean that

the action is completed, because it is merely interrupted. This kind of encyclopaedic knowledge speaks against the second motivation for the Completion Sense proposed by Tyler and Evans (2003). Therefore, I suggest that since ceasing to function is different from completion, the Ceasing to Function Sense should be distinguished as a separate sense in the semantic network of the particle *down* (see Table 2-4).

In my interpretation the particle *down* is used in the Completion Sense (by depletion) when it transforms activities into accomplishments (Vendler 1967); that is, when it imposes the resulting state on the event construed by the verb that is temporally unbounded, as demonstrated by these sentences:

(38)

- a. *The young Quaker...strove to wear down malice by his patient and forgiving mood.* (OED)
- b. *The fifty-two cows had...more than they could feed down.* (OED)
- c. *Since the late 1970s, scientists have hunted down potential human cancer agents, known as carcinogens, by feeding very high doses of suspect chemicals to mice and rats.* (BNC)

The verbs *wear* (38a), *feed* (38b) and *hunt* (38c), which are components of particle verbs, construe activities that do not have an inherent end-point. The addition of the particle *down* transforms these atelic verbs into telic ones, i.e. in the framework proposed by Croft (2012) the particle imposes the completion phase, which changes an activity into an accomplishment. This means that the event construed by the verb has progressed from the rest state to the result state. Thus, while the simplex verb *wear* conceptualises the process of steady impairment or weakening going on, the addition of the particle *down* imposes an end-point on the activity construed by the verb. In (38b) the particle *down*, apart from entailing the result state, also conveys an image of the depletion of food resources, which brings the activity of feeding to its end. Finally, in (38c) the verb *hunt*, which metaphorically conceptualises the activity of seeking after something (especially with eagerness and exertion (OED)) in terms of chasing animals, when combined with the particle *down*, denotes a transition to the result state, i.e. finding the object that has been searched for.

The Ceasing to Function Sense

As already remarked in the previous section, Tyler and Evans (2003) include the Ceasing to Function Sense as a subtype of the Completion Sense. Lindstromberg (2010) does not include this sense in his classification, propos-

ing merely a wide semantic category for a decline in quality and circumstance that can be conceptualised by means of the metaphor DOWN IS LESS ACTIVE, NOT IN FORCE. Rudzka-Ostyn (2003) does not distinguish this sense either, merely remarking that the particle *down* conceptualises a decrease in intensity, quality, quantity, size, degree, value, activity, status and strength. Metaphorical senses of the particle *down* mentioned both by Lindstromberg (2010) and Rudzka-Ostyn (2003) encode a decrease in amount, which frequently leads to a device ceasing to function or a human stopping an activity, as will be explained below.

The motivation for this sense stems from the experiential correlation between the change of an entity's position from a vertical to a horizontal one and its functioning or operating being brought to an end. For example, human beings maintain their body in a vertical position, either standing, sitting, or walking while being active, and change this position to a horizontal one with the intention of taking a rest, or because of an injury, illness, or some other indisposition. Moreover, being part of the Scarcity Cluster, this sense is also motivated by a decrease in quantity since the depletion of various resources needed for the appropriate functioning of a particular entity, be it human or non-human, such as physical/psychological energy, fuel or funds, is tantamount to the end of its functioning. For example, if a car runs out of fuel it cannot go any further, or if a runner has no more reserves of stamina he or she has to stop. Consider instantiations of this sense of the particle *down*:

(39)

- a. *Students who ask questions indicating a conservative approach to the law are laughed down by wise-cracking professors.* (OED)
- b. *Henry Ford steps down: Grandson becomes president of motor company.* (OED)
- c. *Rural teachers melted away into the towns as their schools closed down for lack of pupils and funds.* (BNC)

In (39a) the e-site of the particle *down* is elaborated by the verb *laugh*, as a result of which the composite particle verb *laugh down* profiles the process of making students stop asking questions by laughing at them. Example (39b), containing the composite verb *step down*, is based on the metaphor of a social ladder (Boers 1996) which construes a change in one's social position as moving up⁴⁰ or down the ladder. Since the verb *step down* means 'to leave an important job or position' (OALD), the particle *down* does not construe merely

⁴⁰ Note the particle verb *step up*, which denotes rising in the social hierarchy.

movement to a lower level of the ladder, understood as a lower position in the company, but it profiles the lowest possible level which should be interpreted as no position at all. Thus, it evokes an image of depletion and exhaustion, which constitutes a natural consequence of a decrease in quantity, conceptualised by the particle *down*. This image is also present in sentence (39c), which construes the end of functioning of schools as result of the diminishing number of students and financial resources.

The Worse/Inferior Sense

This is the least productive sense (23 occurrences) in the Scarcity Cluster but almost as productive as the Ceasing to Function Sense (25 occurrences). Rudzka-Ostyn (2003) puts forward an extremely broad category into which this sense can be placed, stating that the particle *down* represents a decrease in intensity, quality, quantity, size, degree, value, activity, status, or strength. Tyler and Evans (2003) take a different position in this respect because they see the need for distinguishing this sense from other senses, labelling it the Worse/Inferior Sense, which is the term that I have adopted here.

It can be assumed that this sense constitutes the converse of the Improvement Sense of the particle *up*. The Worse/Inferior Sense is based on an experiential correlation between a decrease in quantity and deterioration. For example, a decrease in the amount of possessed money entails a declining standard of living, a reduction in the quantity of food may trigger malnutrition, or hunger, etc. Lindstromberg (2010) proposes the following metaphor for this sense: DOWN IS LESS IMPORTANT, LOWER IN RANK, WORSE. Consider instantiations of the Worse/Inferior Sense of the particle *down*:

(40)

- a. *One of the requirements of the job was 'an ability to dumb down' for the general reader. (OED)*
- b. *Unemployment is rising fast in all the major economies, partly because the economic cycle is turning down. (OED)*

In (40a) the particle *down* conceptualises a deterioration of the quality of written work by making it less intellectually demanding in order to appeal to a wider audience. The verb *dumb* (40a) is used metaphorically and it conceptualises making a text easier for recipients in terms of a speaker who has become dumb and, consequently, is unable to get his or her message across. The hyperbolic character of this metaphor is aimed at pointing out that dumbing down the written material is tantamount to spoiling it by making it shallow and superficial, which entails a loss of the writer's ideas. In example (40b) the

e-site of the particle *down* is elaborated by the verb *turn*, which represents a change; consequently, the verb *turn down* profiles the process of getting worse.

As already noted, being worse may imply being inferior in a social hierarchy. Presenting inferiority in terms of a low position on a vertical scale is deeply entrenched in our culture: the hierarchical structure of society is depicted by means of the well-known metaphor HIGH STATUS IS UP, LOW STATUS IS DOWN (Lakoff and Johnson 1980). Another common metaphor is that of a social ladder, which maps the shape of a ladder onto the organisation of a society: those who occupy top positions on this ladder are superior to those who are below. As people climb up the social ladder, they attain a higher social position and when they slip down, their social position deteriorates. Consider an example sentence in which *down* conceptualises fictive movement down the social ladder through marrying a person who is socially inferior:

(41)

The one who marries down fears to be humiliated by his spouse,..fears that the children will take after the inferior partner in the marriage. (OED)

It should be pointed out that the particle *down* may represent not only movement towards a lower level of social structure but also it may construe a downward shift in any hierarchically structured system, as demonstrated by the following examples:

(42)

- a. *By selecting directories or folders, you're able to 'drill down' through the directories or folders to access the file you wish to transfer.* (OED)
- b. *He took his place..in the spelling class, and got 'turned down', by a succession of mere baby words.* (OED)

In (42a) the particle *down* stands for the direction in which the computer user navigates in order to obtain data, namely towards the lower level of hierarchically-structured directories. The verb *drill* (42a) profiles the repetitiveness of an activity performed by the subject. As regards (42b), the particle *down* denotes a person's relocation to an inferior position, which, in this context, is a lower class at school.

2.4.4.2. Other senses

This section discusses non-spatial senses of the particle *down* motivated by the functional element of a decrease in accessibility/visibility that do not belong to any cluster of senses.

The Destruction Sense

The Destruction Sense can refer both to a physical and a non-physical domain. As regards the former, I define this sense as a state or process that is a result of applying either a physical or a natural force to an entity which, as a result, undergoes disintegration. The experiential basis for this sense stems from an experiential correlation between applying physical force to an object and the subsequent downwards movement of either this object or the parts into which it has been fragmented. For example, a heavy blow to a person's head may result in her or him losing their balance and falling down. Likewise, hitting a windowpane with a hard object causes it to break into pieces, which drop onto the ground. Thus, the downwards movement of an entity frequently entails its destruction. Note instantiations of the Destruction Sense of the particle *down* both in the physical and in the abstract domain:

(43)

- a. *They were going to pull it down and build a block of flats.* (OED)
- b. *Make a good woman a partner in crime, and you pull down the very foundations of society.* (OED)
- c. *The Athenians..ordered the Potidæans to throw down the walls of their town on the side of the Peninsula of Pallene.* (OED)
- d. *The admiration raised..is often..thrown down.* (OED)
- e. *The anchored schooners and smacks on the Great Bank, any one of which would be ploughed down by this huge vessel.* (OED)

Sentences (43a), (43c) and (43e) pertain to the physical domain and the particle *down* is not detached from its spatial sense, as it conceptualises both destruction and the downwards direction in which fragments of the demolished physical objects are relocated. These bridging contexts have given rise to the implicature of destruction, which through pragmatic strengthening has been established as a distinct sense in the semantic network of the particle *down*. Consequently, the particle *down* may profile destruction in the non-spatial domain, as in (43b) and (43d), which conceptualise ruining the foundations of the society and shattering a feeling of admiration, respectively.⁴¹

⁴¹ It needs to be remarked that the particle *down* conceptualising the Destruction Sense frequently co-occurs with verbs that already convey the idea of destruction, such as *beat*, *tear*, *burn*, *break* and, consequently, the meaning of the particle *down* can be considered merely superlative.

The Defeat Sense

The Defeat Sense is based on the pervasive experiential correlation between a person falling down on the ground in a physical struggle and the high chances of him or her losing the fight, as exemplified by:

(44)

I hit the first man with the wooden end of my gun and he fell down. (BNC)

As a result of pragmatic strengthening, the implicature of defeat associated with the collapse of the human body has been established as a distinct sense in the semantic network of the particle *down*, which can be quite remote from the spatial context:

(45)

a. *Conditions are even clawing down decent people.* (OED)

b. *Mr Delors is said to have threatened to have any deal involving concessions voted down in Brussels.* (BNC)

c. *I do believe I could walk down anybody and perhaps talk down anybody too.* (OED)

In all these sentences based on the LIFE IS A BATTLE metaphor the particle *down* conceptualises defeat, while the component verbs construe the means of inflicting it. As regards example (45a), which contains the composite verb *claw down*, it is not only the particle that is metaphorical but also the verb. This particular sentence represents struggling with difficult conditions in terms of a battle fought by animals in which claws are used. As a result, scratches and wounds inflicted by aggressive predators, using their claws, are mapped onto the disagreeable effects of people trying to cope with harsh living conditions, which eventually bring about their collapse, conceptualised by the particle *down*. In two other sentences, i.e. (45b) and (45c), the component verbs are used in their literal meaning and they denote events and activities by means of which one's opponents are defeated, i.e. other people voting against their proposals (45b) and their being surpassed in walking and talking (45c).

The Control Sense

I define the Control Sense as having power over another person, oneself, or an institution and being able to influence their actions.⁴² The Control Sense is motivated mainly by the Worse/Inferior Sense, which in turn, is closely

⁴² *Down*, profiling the Control Sense, was in wide circulation throughout the spring of 2020 when it was used as a component of the nominal compound *lockdown*, designating an official order issued by most world governments, which made people stay at home in order to flatten the curve of Covid-19 cases.

associated with the Less Sense: the less power and wealth we have, the more inferior we become and as we become inferior we are likely to be controlled by other people. As regards earlier accounts of this sense, it has not been discussed either by Tyler and Evans (2003) or by Rudzka-Ostyn (2003). Lindstromberg (2010) remarks that *down* is used to denote subjection in oppression, as in the phrases, such as *to put down rebellion*, or *to put sb down*. I take subjection and repression to be instances of exercising control over others and subsume them under the Control Sense into which I also include other acts of display of control, such as sharp reprimand and disparagement:

(46)

- a. *A hundred thousand soldiers..will keep down ten millions of ploughmen and artisans.* (OED)
- b. *An unsatisfied dough-faced youth who took delight in 'calling down the old man' and reducing his mother to tears.* (OED)
- c. *School for them is the great game of doing down, or being done down by, the teacher.* (OED)

In (46a) the particle *down* conceptualises a stative sense of subjection: millions of ploughmen and artisans will be kept down, i.e. they will be forced to remain at the bottom of the social ladder, where they are doomed to be subject to control. In (46b) the construal encoded by the particle verb *call down* is dynamic, as the verb profiles exercising power over the *old man* by reprimanding him sharply, where the sharp nature of the verbal action is conceptualised by the verb *call*, while the sense of gaining control over the man is construed by means of the particle *down*. Finally, in (46c) *down* is combined with the light verb *do* to conceptualise making other people not important or valuable in accordance with the metaphor IMPORTANT IS UP, UNIMPORTANT IS DOWN.

The Depression Sense

The Depression Sense is based on the experiential correlation between feeling depressed and remaining either in a horizontal position or sitting with the head drooped or buried in one's shoulders. In any of these cases the position of the body is far closer to the ground than it is when one is happy and full of joy, usually associated with an upright and erect posture. Besides this, a salient aspect of human experience is that frequently on hearing tragic and devastating news, the addressee of the message leans downwards or even falls to the ground in an act of despair. Thus, both being down and downwards movement correspond to feeling depressed and succumbing to depression, respectively.

(47)

- a. [*She*] *didn't let a winless Mountain West Conference record pull her or her team down.* (OED)
- b. *It's just being cooped up in the office gets you down a bit.* (OED)

These two construals: (47a) and (47b) are an example of the CHANGES ARE MOVEMENTS metaphor which is a submetaphor of the EVENT STRUCTURE metaphor (Lakoff 1990, 1993). Drawing on the experiential correlation between downwards position or motion and succumbing to depression, the composite verbs construe a transition from feeling well-balanced to becoming miserable and sorrowful as being moved down towards the ground.

2.4.5. Functional element of an increase in accessibility/visibility

The Permanence Sense

This is the only sense motivated by the functional element of an increase in accessibility/visibility. Since becoming more accessible and more visible are, on the whole, positive aspects of human experience, the Permanence Sense is charged with a positive axiological value. It has turned out to be quite productive, as it has been found with 22 verbs which amounts to 10.53 per cent of the total number of verbs subject to analysis. Neither Rudzka-Ostyn (2003) nor Tyler and Evans (2003) make any mention of this sense; Rudzka-Ostyn (2003: 104) states that “*down* is negative verticality” and Tyler and Evans (2003) attribute exclusively a negative value to this particle. In contrast, Lindner (1983[1981]) and Lindstromberg (2010) do not ignore the fact that the particle *down* may have a positive as well as a negative axiological dimension. For example, Lindstromberg (2010) describes positive meanings of this particle in terms of the DOWN IS SETTLED metaphor, as exemplified by the phrase *to nail down an agreement*. He further argues that “DOWN IS INACTIVE in the positive sense of being fixed and secured” (Lindstromberg 2010: 199), which can be exemplified by the following expressions: *to take down a letter*, *to note down a few thoughts*, or *to lay down the law*.

The concept of SETTLEMENT as well as BEING INACTIVE in a positive sense can be subsumed under the category of permanence, which I propose to be a cover term for all the uses of the particle *down* in which it profiles the permanent, long-lasting and fixed result of an action. I postulate that the Permanence Sense stems from an experiential correlation between an entity moving downwards until it reaches the end-point of a path, located within the

conceptualiser's field of vision, and its accessibility, also in a visual sense to the conceptualiser (see Fig. 2-7b. and 2-8b.). For example, when a book is moved from the highest shelf of a bookcase that is out of our reach to a shelf located at a lower level that is within our reach, it is both accessible and visible. This spatial location corresponds to the concept of PERMANENCE in the sense of being secured for future use, because being located there the book can be accessed easily.

The Permanence Sense of the particle *down* can also be accounted for in terms of a correlation between the downwards movement of an entity and the stability of its position once it reaches the ground, which offers solid support due to gravitational force as well as the fact that no further movement downwards from there is possible. For instance, when a parcel with fragile contents is put onto the ground, its position becomes stable and secure.

The particle *down* encoding this sense combines with state verbs (*keep, hold*), verbs representing the process of fastening (*nail, screw*) and verbs denoting activities aimed at producing tangible and durable results (*print, write*):

(48)

- a. *There are few pleasures in life equal to that of successfully holding down a difficult and responsible job.* (OED)
- b. *The White House missed the chance of nailing down congressional endorsement of its policies.* (OED)
- c. *I write down these opinions, not because I believe that [etc.].* (OED)

In (48a) the state of retaining one's job is conceptualised as keeping it close to the ground, i.e. a position considered to be stable and secure. This sentence is an instance of the STATES ARE LOCATIONS metaphor which is a subtype of the EVENT STRUCTURE metaphor. Likewise, in the example (48b) getting congressional endorsement is perceived in terms of fixing, or pinning it firmly and as if with nails, which is an instance of another EVENT STRUCTURE metaphor, i.e. CHANGES ARE MOVEMENTS. Since the e-site of the particle *down* is elaborated with a verb that profiles the process of fastening an object permanently as if by means of nails (OED), the sense of permanence is particularly strong. Finally, in (48c) the particle *down* profiles making a permanent record of one's opinions by putting them on paper.

2.4.6. Semantic network for *down*

Figs. 2-9 and 2-10 present the semantic network of the particle *down* triggered by the functional element of a decrease in accessibility/visibility and an increase in accessibility/visibility, respectively. Distinct senses have been

marked by a shaded sphere, while clusters of senses by an open circle (see 1.3). The primary motivation for a given sense extension is represented by a solid line, while a broken line corresponds to a secondary motivation.

The two figures are accompanied by sentences containing exemplifications of the senses that constitute each semantic network and which are discussed in sections 2.4.4 and 2.4.5. The exemplifications of the senses are presented in alphabetical order and given the same numbers as the corresponding examples in the two aforementioned sections. First, consider example sentences containing the senses of the particle *down* that are motivated by the functional element of a decrease in accessibility/visibility discussed in section 2.4.4:

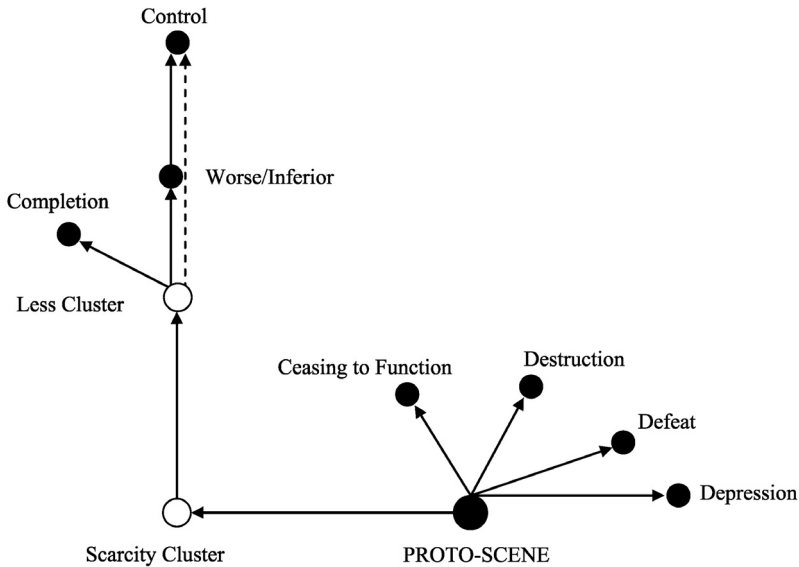


Figure 2-9. Semantic network of the particle *down* triggered by the functional element of a decrease in accessibility/visibility

The Ceasing to Function Sense

Henry Ford steps down: Grandson becomes president of motor company. (39b)

The Completion Sense

The young Quaker..strove to wear down malice by his patient and forgiving mood. (38a)

The Control Sense

A hundred thousand soldiers..will keep down ten millions of ploughmen and artisans. (46a)

The Defeat Sense

*I do believe I could walk **down** anybody and perhaps talk **down** anybody too.* (45c)

The Depression Sense

*It's just being cooped up in the office gets you **down** a bit.* (47b)

The Destruction Sense

*Make a good woman a partner in crime, and you pull **down** the very foundations of society.* (43b)

The Less Sense

*The horn was worked **down** with a sharp knife to an even thickness.* (37c)

The Worse/Inferior Sense

*The one who marries **down** fears to be humiliated by his spouse,..fears that the children will take after the inferior partner in the marriage.* (41)

Now consider an example sentence containing the particle *down* encoding the Permanence Sense, which is motivated by the functional element of an increase in accessibility/visibility discussed in section 2.4.5:

*I write **down** these opinions, not because I believe that [etc.].* (48c)

PROTO-SCENE



Permanence/Stability

Figure 2-10. Semantic network of the particle *down* triggered by the functional element of a decrease in accessibility/visibility

2.5. Particles of oriented space: *over* and *under*

While *up* and *down*, analysed in section 2.3 and 2.4, are particles of orientation in the sense that they relate to the oriented TR and its position or motion with respect to the asymmetric LM, another set of spatial particles, i.e. *over* and *under* (as well as *above* and *below* which are not discussed in the present book), “serve to partition conceptual space in terms of verticality” (Tyler

and Evans 2003: 133). In other words, *over* and *under* conceptualise a spatial configuration in which the position of the TR is specified in relation to the LM along the vertical axis (Langacker 1987).

2.6. Semantics of *over*⁴³

Over has been one of the most frequently studied English particles (Lakoff 1987; Brugman 1988[1981]; Tyler and Evans 2003; Brenda 2014, to name but a few) probably due to the numerous spatial and non-spatial extensions derived from its prototypical sense. While in the case of the particles *up* and *down* it is the functional element that is of primary importance for developing non-spatial meaning extensions, for *over* it is basically the TR–LM configuration, understood as either the shape of the trajectory or part of the trajectory that is profiled.

In the present analysis the emphasis is placed on highlighting the experiential basis of the non-spatial meanings of *over* by accounting for their spatial motivation in a systematic way. Therefore, the discussion begins with a presentation of the spatial senses of *over* that are a result of the reanalysis of the proto-scene in the course of which various parts of the trajectory are profiled. The next step is to account for the emergence of non-spatial senses of the particle *over* through experiential correlation as well as other construal operations.

The names of many senses have been derived from Tyler and Evans (2003). Additionally, some other senses have been put forward that are not included in the analysis carried out by the researchers, such as the Suspension Sense, the Being Successful Sense, the Switching Sides/Allegiance Sense, or the Ignoring/Omitting Sense. The senses that are not encoded by *over* functioning as a verbal particle, such as the More Sense,⁴⁴ have been ignored.

2.6.1. Proto-scene for *over*

As stated by Tyler and Evans (2003), the primary sense of *over* involves a configuration in which the TR is above the LM because it satisfies all five

⁴³ This chapter is based to some extent on the paper ‘Polysemy of verbal prefixes and particles expressing the relation OVER in English, Polish and Italian’ read at the conference *Universals and Typology in Word Formation III*, held at P.J. Safarik University in Kosice in June in 2015 and its subsequent publication (Konieczna 2016).

⁴⁴ By the More Sense, Tyler and Evans (2003: 87) mean the sense motivated by the vertical elevation, conceptualised by *over* which correlates with an increase in quantity and which can be exemplified by the following sentence: *Jerome found over forty kinds of shells on the beach.*

criteria for the centrality of meaning. First of all, according to the OED, the earliest meaning associated with this lexeme relates to the notion of ‘higher than’, or ‘above’. According to the OED, *over* can be traced back to the Old Teutonic preposition and adverb *ufa* ‘above’ which is a cognate of the Sanskrit *upari*, i.e. ‘higher’.

As demonstrated by Tyler and Evans (2003), this sense predominates in the semantic network, as it occurs in eight out of the fifteen senses distinguished by the authors. Besides, it can be found in composite lexical forms, such as *overhang, overboard, overbridge, etc.* It also forms a contrast set with the particle *under*: while *over* encodes a relationship in which the TR is higher than but potentially within the reach of the LM, *under* stands for the configuration in which the TR is lower than the LM. Finally, this is the sense that allows us to form grammatical predictions, which means that it sanctions (in the sense of Langacker 1987) either directly or indirectly other senses.

As a result of analysing several spatial scenes in which the particle *over* has been used in its primary sense, encoded linguistically by sentences, such as *The bee is hovering over the flower*, or *The tree is leaning over the river*, Tyler and Evans (2003) have remarked that in these spatial scenes the TR is not only higher than the LM, but also in range of potential contact with it: bees land on flowers when they want to gather nectar and tree branches may sometimes touch a river surface owing to a gust of wind. The emergence of the functional implicature of potential influence has been explained by O’Keefe (1996: 307) in the following way: “[a]n entity which is vertical to another and in contact with it might exert a gravitational force on it [...]. That might explain why prepositions that convey [...] relationships [of vertical contact][...] are used to represent influence in the metaphorical domain”.

Consequently, the functional aspect emerging from the spatial relationship profiled by *over* is that the TR is conceptualised as being within the sphere of potential influence of the LM, as presented by Fig. 2-11 (the TR is represented by the dark sphere, the LM by the solid line, while the area between the solid and the broken line stands for the sphere of potential influence).

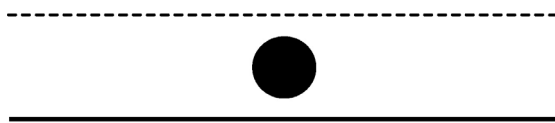


Figure 2-11. Proto-scene for *over* (Tyler and Evans 2003: 66)

2.6.2. Reanalysis of the proto-scene: spatial extensions

The proto-scene, represented by means of Fig. 2-11 is subject to reanalysis, generating several spatial extensions. Even though the proto-scene for *over* (Fig. 2-11) represents a simplex relationship, which does not evolve through time, it is reanalysed as a complex relationship that profiles a series of locations that altogether constitute a spatial path. Thus, while the proto-scene is static, its reanalyses are dynamic.

It has been pointed out by Boers (1996), on the basis of data from his corpus, that *over* is used in a dynamic sense 67 per cent of the time. For this reason, Lindstromberg (2010) argues against regarding the ‘higher than’ sense of *over* as the prototypical one. However, even though some researchers (e.g. Stubbs 2004) equate frequency with prototypicality, it has been repeatedly pointed out that “frequency does not explain everything” (e.g. Gilquin 2006: 169).⁴⁵ Moreover, it is not used as one of the criteria to determine the prototypical sense of a spatial expression in the principled polysemy model. Therefore, it is argued here that the scene representing a complex relationship, i.e. the schematisation referred to as the A-B-C Trajectory Cluster (Tyler and Evans 2003) is a result of the reanalysis of the proto-scene (Fig. 2-12).

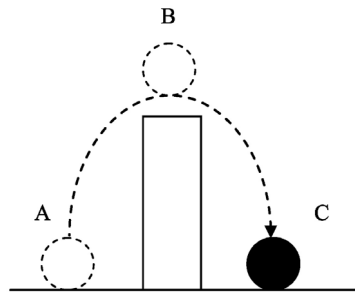


Figure 2-12. The A-B-C Trajectory (Tyler and Evans 2003:71)

It has been observed by Brenda (2014) that this kind of schematisation is typical for spatial scenes involving verbs of motion, as exemplified by the following sentence:

(49)

'I jumped over the wall and ran along the bank and jumped straight into the stream', he said yesterday. (BNC)

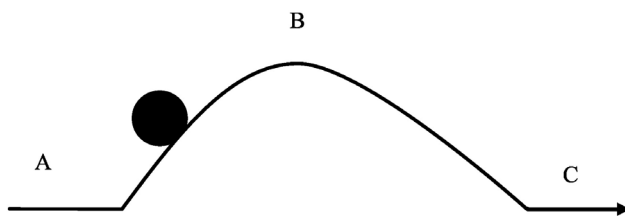
⁴⁵ For more on this issue see Roland and Jurafsky (2002), Nordquist (2004), or Aitchison (2011).

According to Tyler and Evans (2003), the reanalysis of the proto-scene as an A-B-C Trajectory is a consequence of summary scanning (Langacker 1987), which should be taken to mean that even though all the three points: A, B and C do not objectively exist in the world at the same time, they are construed as a single unit. Thus, the TR, which is the subject of sentence (49), i.e. *I*, cannot occupy simultaneously all the three locations in space. In spite of this, the trajectory, which is a collection of single points, is construed as a single entity on account of the fact that point A can be easily related to point B, which, in turn, can be linked to the TR's goal, that is point C.

However, in order to reanalyse a proto-scene as an A-B-C Trajectory by means of summary scanning, first a sequential scanning has to occur, which means that the construer must realise that position B, being the highest possible point on the trajectory, is just one of many points occupied by the TR. Apart from point B, which constitutes an extreme in terms of its height, there are two other extreme points: point A, which is the starting point of the TR's movement, and point C, which is its end-point, located on the other side of the LM.

It is possible to reanalyse the proto-scene for *over* along these lines due to encyclopaedic knowledge that language users have about the world; to be more specific, about gravitational forces, the nature of obstacles positioned on the ground and jumping. In order to jump over an obstacle human beings push off the ground at point A, travel over the obstacle until they reach the highest position at point B, and subsequently land on the other side of the obstacle at point C because they are subject to gravity.⁴⁶

Once established as a distinct schematisation, the A-B-C Trajectory itself becomes subject to reanalysis. Because the proto-scene for *over* does not preclude contact between the TR and the LM, the TR going along the A-B-C Trajectory may be in contact with the LM, as demonstrated in Fig. 2-13.



**Figure 2-13. The A-B-C Trajectory: the TR in contact with the LM
(based on Lindstromberg 2010: 113)**

⁴⁶ This is what Vandeloise (1984, 1986, 1991) would refer to as principles of naive physics.

However, for this to take place the properties of the TR and the LM significantly differ from those schematically represented in Fig. 2-12. The LM is not only an object of some height, but also of considerable length and width, far surpassing that of the TR. The size of the LM is always specified in relation to the TR and it is never absolute. Thus, a plank of wood lying on the ground can be the LM of the construal if the TR is a small animal, such as an insect, but not if the TR is a far larger entity, such as an adult human being. The TR, in turn, is an entity that rises neither above ground level nor above the LM as it moves, therefore, all kinds of flying objects are precluded from this construal. Consequently, if a non-flying insect, such as an ant, needs to reach the other side of the plank, it needs to climb up it and then go down, remaining in contact with the plank all the time. In contrast, if people want to get from one side of the wooden plank to the other, they can do it without touching it at all, e.g. by jumping from one side of it to the other. Consider a linguistic representation of this construal:

(50)

But if you went over the hill, after school time, then you were in for a fairly rough time the other end, you were challenged and all sorts of things. (BNC)

Sentence (50) exemplifies the schematisation presented in Fig. 2-13, where the TR, encoded by the impersonal pronoun *you*, is a human subject, who started his or her journey at point A located at the foot of the hill, continued up the hill until reaching its highest point located at point B, and subsequently went downwards, ending his or her journey at point C on the other side of the hill. On the whole, the shape of the A-B-C Trajectory is preserved and what has changed is the distance between the TR and the LM, which has been reduced to zero. This results from the fact that, along its path of movement, the TR remains continuously in contact with the LM.

The A-B-C Trajectory can be construed differently again due to a shift in the vantage point. As a result, different points of the trajectory as well as different elements of the spatial scene are profiled, which gives rise to numerous sense extensions. For example, if the vantage point is shifted from the default off-stage position to that near point A, the TR is separated from the viewer by the LM and for this reason it is seen as being on the other side of the LM than the conceptualiser, located at point A. This particular reanalysis of the proto-scene yields a simplex relationship, which construes the TR-LM configuration with the TR being located at the end-point of the trajectory, i.e. at point C, which is profiled. The scene in question is presented in Fig. 2-14,

where the eye icon represents a vantage point, the rectangle stands for the LM, while the shaded sphere represents the TR.

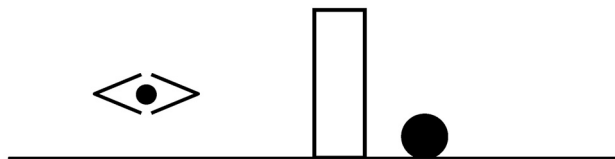


Figure 2-14. The On-the-other-side-of Sense (Tyler and Evans 2003: 81)⁴⁷

(51)

Your own trench is just over the wall in Brigade H.Q. (BNC)

In (51) *trench* functions as the TR and the *wall* as the LM. The TR is situated on the other side of the LM, which is point C on the A-B-C Trajectory. The trench is located there, while the conceptualiser observes the scene from “this” side of the LM, which is point A.

When the A-B-C Trajectory is subject to reanalysis, not only specific points on it may be profiled, but also certain of its parts. For example, if just half of the arching path is profiled, i.e. its part from point B to point C (Fig. 2-15), *over* denotes movement from an upright position to a horizontal one. However, what should be borne in mind is that this kind of movement can take place in the real world only if the entity conceptualised as the TR is characterised by specific physical attributes. First of all, because of real world force-dynamics, it cannot be round, secondly, its vertical dimension must significantly surpass its horizontal one.

As observed by Lindner (1983[1981]) and Tyler and Evans (2003), it is possible to conceptualise a single entity that occupies multiple positions as an integrated TR-LM configuration. This gestalt-like conceptualisation of a dynamic process is possible due to summary scanning (Langacker 1987). Thus, two temporally situated locations are integrated into a single spatial configuration, despite the fact that in the real world such a configuration does not exist. As a result, one and the same entity can be both the TR and the LM. This phenomenon is referred to as *spatial reflexivity* by Lindner (1983[1981]) and on this account the meaning of the particle *over* that conceptualises the process in question has been referred to as the Reflexive Sense by Tyler and Evans

⁴⁷ In this construal the verb conceptualises a state, therefore the A-B-C Trajectory has not been included in the schematisation. However, it plays an important role in non-spatial extensions (see section 2.6.4.2).

(2003). However, what Tyler and Evans (2003) subsume under this category represents in fact two distinct spatial senses. Consider examples provided by Tyler and Evans (2003: 104), representing the Reflexive Sense:

(52)

a. *The fence fell over.*

b. *He turned the page over.*

While sentence (52a) conceptualises the movement of the TR, i.e. the *fence*, from a vertical to a horizontal position, sentence (52b) represents a 180-degree rotation of the TR, i.e. the *page*. Consequently, because of the differences in the shape and length of the trajectory and the physical properties of the objects conceptualised as TRs in these two spatial configurations (for details see Fig. 2-15 and 2-16), Lindstromberg (2010) considers *over* as used in sentences (52a) and (52b) to be two different construals⁴⁸ underlying two distinct meanings, which I am going to refer to as the From-vertical-to-horizontal Sense and the Rotation Sense.

Fig. 2-15 presents a geometrical representation of an oblong TR moving from a vertical to a horizontal position.

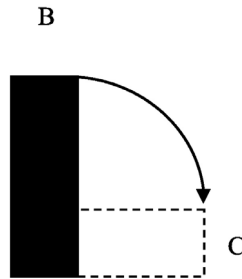


Figure 2-15. Movement from an upright to a horizontal position profiled by *over*

In Fig. 2-15 the shaded vertical rectangle represents the TR in an upright position with its top occupying point B, which is the initial point of this trajectory, constituting just half of the arching path (with the A-B part being excluded from this construal). The rectangle marked by the broken line and located in a horizontal position represents the TR at the end of the path, which is at the same time the LM of the construal in terms of spatial reflexivity. Note that it is the top part of the TR that covers the greatest distance from

⁴⁸ Lindstromberg (2010: 115-116) does not provide any specific labels for the two senses in question but he discusses them in two separate subchapters: 3.2.3 and 3.2.4.

point B to point C, which can be geometrically represented as an arch-like movement. The range of movement of the bottom part of the TR is far narrower and the TR's side facing the direction of movement may not move at all. Consider an instantiation of the spatial sense, conceptualising movement from a vertical to horizontal position:

(53)

At that moment Sally knocked over her glass of wine. (BNC)

Sentence (53) describes a spatial scene in which the TR, i.e. a *glass of wine*, was hit by Sally and, as a result, it changed its position from an upright one in which its top was located at point B, to a horizontal one, with its top moved to point C.

This spatial scene, which is itself an instance of reanalysis, may be further reanalysed by a twofold application of the reflexive schema, as represented in Fig. 2-16.

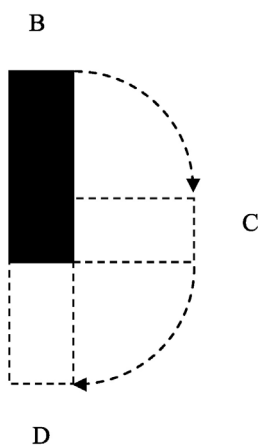


Figure 2-16. The Rotation Sense

When the TR moves from point B to point C and then continues moving in the same direction, it covers distance from point C to point D, which ends up with the TR's bottom part becoming its top part and vice versa in relation to its initial position.⁴⁹ The schema in which the TR goes from point B to

⁴⁹ Tyler and Evans (2003) do not distinguish this sense at all, moving on directly from the Reflexive Sense to the Repetition Sense. However, the process of rotation conceptualised by the particle *over* has been touched upon by Lindstromberg (2010) in his discussion of the verb *roll over* (see chapter 9, section 3.2.4 of his book).

point D can be iterated many times, which should be taken to mean that the TR can rotate repeatedly. When *over* conceptualises the Rotation Sense, the TR does not need to satisfy the criteria that are necessary for the From-vertical-to-horizontal Sense, on account of the fact that most physical objects can rotate irrespective of their shape, provided that they are light enough.

Consider two instantiations of the Rotation Sense:

(54)

- a. *The cat rolled over on to its back and shadow-boxed with imaginary flies, guileless of face.* (BNC)
- b. *Can you turn over the page again now, I want you to direct your attention to paragraph four point six.* (BNC)

In (54a) the particle *over* is used to construe a scene in which the TR, the *cat*, moved 180 degrees from its stomach onto its back. In (54b) the *page* represents the TR and once it is turned over, it is rotated 180 degrees in a sense that its reverse side can be seen and the side that was previously up cannot be seen any longer.

As pointed out by Lindstromberg (2010), when *over* encodes a complex relationship, the trajectory usually has an arching shape, which corresponds to the A-B-C Trajectory. However, *over* can also be used to construe horizontal paths, as demonstrated in Fig. 2-17.

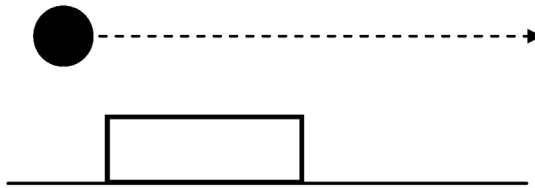


Figure 2-17. Horizontal path encoded by *over*

This construal is exemplified by sentence (55), which conceptualises the TR, i.e. an imaginary bird, following a more or less horizontal path situated over objects located on ground level.

(55)

- It must be great to be a bird – you know, just flying over people and buildings and that.* (BNC)

Fig. 2-17 is an idealised image of the path along which the TR moves and even though in real life the trajectory is hardly ever that even and parallel to

the ground, it encapsulates the idea that the TR moves at a more or less steady altitude above the upper surface of the planar LM.

In sum, the particle *over* can conceptualise both a simplex and a complex relationship. In the latter case the trajectory may be either an arching or a horizontal path. Given this, the range of spatial senses of this particle is quite broad, which, in turn, generates numerous non-spatial extensions. Metaphorical meanings are motivated mainly by the shape of the trajectory and, in the case of the A-B-C Trajectory, given its complex shape, the assumed vantage point or the specific section of the path that is profiled.

2.6.3. Data and frequency of senses

Altogether the OED search has yielded 185 composite verbs containing the component particle *over*, out of which 81 have satisfied criteria for inclusion in the sample, specified in the Introduction. The number of particle occurrences amounts to 96.⁵⁰ Table 2-5 presents the frequency of senses conveyed by the verbal particle *over* in descending order of frequency.

Table 2-5. Frequency of senses of the particle *over*

Sense of particle <i>over</i>	Number of occurrences	Percentage
1	2	3
Switching Sides/Allegiance	14	14.58
Transfer	12	12.5
Focus of Attention	12	12.5
Repetition	10	10.42
Examining	10	10.42
Completion	8	8.33
Suspension	8	8.33
Control	7	7.29
Ignoring/Omitting	5	5.20
Being Successful	4	4.16

⁵⁰ See sections 2.3.3 and 2.4.3 for an explanation of the discrepancy between the number of particle verbs and particles in the sample, which applies to the particle *over* and all other particles.

1	2	3
Covering	4	4.16
Excess	2	2.08
Total:	96	100

Only four non-spatial senses of the particle *over* are derived from its prototypical meaning, i.e. the ‘higher than’ sense. These are: the Focus of Attention Sense, the Suspension Sense, the Control Sense and the Covering Sense. The most productive senses are the those motivated by the reanalyses of the A-B-C Trajectory Cluster,⁵¹ i.e. the Switching Sides/Allegiance Sense, the Transfer Sense, the Repetition Sense, the Examining Sense and the Completion Sense. Consequently, they are discussed first in the analysis to follow.

2.6.4. Senses motivated by the A-B-C Trajectory Cluster and its segments

As pointed out in section 2.6.2, the A-B-C Trajectory Cluster is a result of the reanalysis of the proto-scene and it has given rise to numerous spatial meaning extensions, which can be grouped into three categories, depending on whether the whole trajectory, or just part of it, is brought into focus. These spatial extensions have given rise to non-spatial senses through experiential correlation.

Thus, the A-B-C Trajectory Cluster comprises the senses that are grounded in spatial scenes representing the TR moving along an arching A-B-C path. The A-B-C Trajectory Cluster has given rise to three non-spatial senses: the Ignoring/Omitting Sense, the Being Successful Sense and the Excess Sense. Another cluster of senses that has been identified as a result of reanalysing the A-B-C Trajectory encoded by *over* is the B-C Trajectory Cluster, in which the B-C segment of the A-B-C Trajectory is profiled. The B-C Trajectory Cluster underlies two non-spatial senses: the Examining Sense and the Repetition Sense. If the A-B-C Trajectory is further reanalysed so

⁵¹ Tyler and Evans (2003) have distinguished altogether five spatial and non-spatial senses of the particle *over* derived from the A-B-C Trajectory Cluster: On-the-other-side-of, Above-and-beyond, Completion, Transfer and Temporal. They treat the A-B-C Trajectory as one whole, not making any further distinctions within it. Another difference is that their analysis is broader in its scope without being limited to *over* used exclusively as a verbal particle.

that it profiles the final point of the whole trajectory, i.e. point C, the Point C Cluster is established, which underlies three senses: the Completion Sense, the Switching Sides/Allegiance Sense and the Transfer Sense. The Point C Cluster is motivated by the On-the-other-side-of Sense (see Fig. 2-14).

2.6.4.1. The Point C Cluster

If the final point of the A-B-C Trajectory, which is point C, is profiled and the vantage point is shifted from off-stage to point A, the particle *over* conceptualises the On-the-other-side-of Sense (Tyler and Evans 2003), which is, according to the authors, very productive in English. Because this conceptualisation profiles point C on the A-B-C Trajectory and it motivates several other senses, it is referred to as the Point C Cluster in the present analysis. It comprises three senses: the Switching Sides/Allegiance Sense, the Transfer Sense and the Completion Sense.

The Switching Sides/Allegiance Sense⁵²

This sense is the most productive in the Point C Cluster. It can be perceived as a metaphorical extension of the spatial On-the-other-side-of Sense of the particle *over* which profiles point C of the A-B-C Trajectory with the vantage point shifted from off-stage to point A. The relationship profiled by *over* can be either simplex (see Fig. 2-14), or complex (see Fig. 2-18).

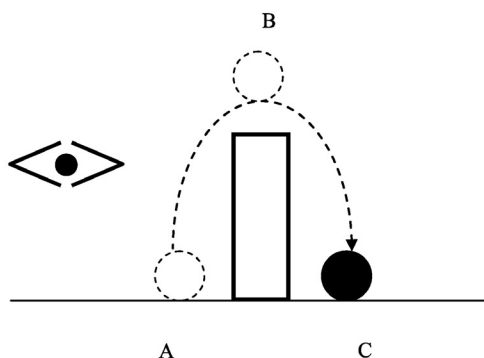


Figure 2-18. The On-the-other-side-of Sense (dynamic)

⁵² In Konieczna (2016) this sense was labelled the Major Change Sense. However, it has been renamed in this work with – what I believe is – a more accurate and specific label, designating a kind of a major change that the TR undergoes, which is changing its allegiance.

Fig. 2-18 represents a TR that begins its ascent at point A, reaches point B and lands at point C situated on the other side of the LM. The vantage point, represented by the eye icon is located on “this” side of the LM: therefore, the final point of the trajectory, i.e. point C, can be conceptualised as the one on the other side of the LM. Point C is a profiled element of this construal, therefore, the TR’s location therein is represented by a shaded sphere.

Consider the bridging context for the emergence of the Switching Sides/Allegiance Sense:

(56)

- a. *Two, or three, of them are in, or moving into, the far from populous row of flats, just over the river in South London [...].* (BNC)
- b. *Just over the mountain in Kentucky is Harlan County, where in 1973 the miners fought a long and bitter strike.* (BNC)

Sentence (56a) conceptualises the TR, i.e. two or three individuals, being at or moving to the other side of the river. It is a salient aspect of human experience that living on the other side of a river may be significantly different than that on “this” side in terms of the landscape, standard of living and infrastructure. Moreover, in the past, when bridges were scarce, especially in the countryside, getting to the other side of the river frequently entailed a considerable amount of effort, especially if the river was wide and deep and its current was powerful and fast-flowing. On top of that, natural barriers, such as rivers, or mountains frequently constitute borders between countries, or different regions of the same country (56b). Consequently, if this is the case, moving to the other side of the river, or the mountain is tantamount to finding oneself in a different administrative, or a political unit. In other words, movement to the other side of a physical barrier is tantamount to a change experienced by the TR.

Thus, this kind of embodied experience, accompanied by encyclopaedic knowledge, has given rise to the implicature of a change that via pragmatic strengthening has become conventionalised as a distinct meaning component and instantiated in the semantic network as a discrete non-spatial sense:

(57)

- a. *Able to bring over a great body of his disciples to the royal side.* (OED)
- b. *Attempting to buy over their chiefs?* (OED)

Sentences in (57) describe a specific kind of change, brought about by making a group of people (57a), or an individual (57b), switch their allegiance. The abstract TR of these two construals is the loyalty of disciples (57a) and

chefs (57b) to their leaders or beliefs, while the LM is their resistance or unwillingness to transfer their allegiance to a different party. The LM is construed as an obstacle on the TR's path. In order to overcome it the TR sets off from point A, which is on "this" side of the LM, rises to point B of the trajectory, which is exactly above the LM, and ends up at point C, which is on the other side of the LM. "This" side of the trajectory, beginning at point A, corresponds to the current allegiance, going over the LM corresponds to overcoming the TR's resistance to switch its allegiance, while reaching point C corresponds to the initiation of support for a new party. Thus, switching allegiance is conceptualised as going from one side of the LM to the other.

As regards the contribution of verbs to the semantics of particle verbs, they elaborate the e-site of the particle *over* by specifying the manner in which switching allegiance is effected. While the verb *bring* (57a) profiles the process of exerting influence over individuals to win their support in terms of the CHANGES ARE MOVEMENTS metaphor, the verb *buy* (57b) profiles the process of bribing other people to convert them to become one's followers.

The Transfer Sense

Another extension of the A-B-C Trajectory Cluster in which point C is profiled, is the Transfer Sense (distinguished by Tyler and Evans 2003), the second most productive sense of the verbal particle *over*. As demonstrated in (58), the Transfer Sense can have both spatial (58a) and non-spatial (58b) instantiations:

(58)

- a. *Columbia University has just come into possession of the famous collection of works on economics which Professor E. R. A. Seligman..has turned over..for a price of one-half, or less. (OED)*
- b. *The final stages of training amount to the handing over of all the responsibility for safety to the student. (BNC)*

In (58a) and (58b) the particle *over* construes a complex relationship and it profiles a series of locations that the TR successively occupies. Thus, the TR's relocation proceeds from point A through point B and it finally ends up at point C. According to Tyler and Evans (2003), a change in the entity's location is experientially correlated with its transfer and through pragmatic strengthening it has been established in the semantic network as a distinct meaning component.

Brenda (2014) proposes that the Transfer Sense of the particle *over* does not encode the presence of an obstacle separating the TR from the LM, but

instead it foregrounds the process of transferring an object from one position (point A) to the other, which is at a certain distance from it (point C). Thus, in the schematisation of the Transfer Sense offered by Brenda (2014: 173), the trajectory is represented as a straight line and there is no LM located between point A and point C. However, this kind of representation of the Transfer Sense misses one important point: if there is no LM clearly separating point A, seen as “this” side, from point C, conceptualised as the other side, the TR’s movement from point A to point C is no longer perceived as a distinct and clearly marked change of the TR’s location but rather as a steady and gradual progression towards the end-point of the trajectory. Consequently, such a shape of trajectory may not be the best possible experiential correlate of transfer, which is far more felicitous if a clear-cut distinction between point A and point C is made. If the LM is located between point A and C, it effectively marks the boundary between the two points. Consequently, the transfer of an entity from point A to point C is clearly delineated. On this account, I reject Brenda’s schematisation of the Transfer Sense and subscribe to the one, proposed by Tyler and Evans (2003) in which the function of the LM separating point A from point C as well as an arching A-B-C Trajectory is preserved.

Given this, in the schematisation underlying the Transfer Sense, the LM’s function is that of a boundary rather than of an obstacle, as in the case of the Switching Sides/Allegiance Sense. The LM, located between point A and point C demarcates the boundary between two groups of individuals involved in the transfer of a physical (58a) or non-physical (58b) entity.

The Completion Sense

The Completion Sense is the least productive sense motivated by the A-B-C Trajectory Cluster (Tyler and Evans 2003) in which the end-point of the trajectory, i.e. point C, is profiled. According to Tyler and Evans (2003), the Completion Sense has arisen due to an experiential correlation between reaching the end-point of the trajectory and the completion of the TR’s motion. This type of correlation is well-grounded in our everyday experience, as when we move from one place to another; once we reach the destination, our journey is completed. Consequently, a distinct sense has been established in the semantic network of the particle *over* through the process of pragmatic strengthening. Lindstromberg (2010) proposes that this sense, which he refers to as ‘finished’, may also be motivated by the fact that getting over something amounts to getting it “behind you”, which in turn implies being finished with it.

This conceptualisation is based on the TIME IS SPACE metaphor, according to which what has not started yet is in front of us and what has finished is behind us (Tyler and Evans 2003). Lindstromberg (2010) remarks that the Completion Sense may be motivated by the LIFE IS A BOOK metaphor, which can be traced back to the Bible, referring to human life as the “Book of Life”. When seen in this light, an episode in one’s life can be perceived as a page, or a chapter in the book, as evidenced by expressions, such as *to turn over a new leaf in life* (where a *leaf* stands for a book page), or *to start a new chapter of one’s life* (Lindstromberg 2010: 120). Note instantiations of the Completion Sense conceptualised by the particle *over*:

(59)

- a. *The work goes on again, I see, now that the – holiday – is over.* (BNC)
- b. *The sooner you get the interview over the better.* (OED)

Sentence (59a) construes the end of a holiday in terms of point C on the A-B-C Trajectory, which implies that the holiday has a starting point, a culminating point when it is in full swing and an end-point when everybody is back at work. To put it differently, the state of holidays being over is construed as point C on the A-B-C Trajectory, which is it an instantiation of yet another EVENT STRUCTURE metaphor, i.e. STATES ARE LOCATIONS. Finishing an interview in (59b) is conceptualised as completing something that is unpleasant.⁵³ Therefore, it can be concluded that the LM functions here as an obstacle (which is not the case in (59a)) that one needs to overcome in order to get to the other side. The TR of this construal is the activity of taking part in an interview, while the LM is represented by the trouble that those involved in it are put to.

2.6.4.2. The A-B-C Trajectory Cluster

As observed in section 2.6.2, the reanalysis of the proto-scene for *over* produces the schematisation referred to as the A-B-C Trajectory, which motivates several non-spatial senses, such as the Ignoring/Omitting Sense, the Being Successful Sense and the Excess Sense.

The Ignoring/Omitting Sense

The Ignoring/Omitting Sense is based on the construal of the scene in which the whole A-B-C Trajectory is profiled: the TR sets off from point A, passes point B without touching it and finally it reaches point C. What is the

⁵³ The OED explains the meaning of *get over* in the following way ‘to finish with, have done with (esp. something troublesome or disagreeable)’.

most important element of this construal is that the TR would benefit from coming into contact with the LM, located below point B; however, this does not happen because of the TR's lack of awareness or unwillingness. The Ignoring/Omitting Sense is based on an experiential correlation between following an arching trajectory and bypassing an entity that one wants to avoid. A curved path is frequently taken in order to steer clear of whatever one wants to stay away from. Consider instantiations of this sense:

(60)

- a. *Mr. Lipsky's account...is full of matter that is passed over gingerly in the usual biographies.* (OED)
- b. *It also skates over the fact that it is an offence to be in possession of the drugs listed if they have not been legally prescribed.* (OED)

In (60a) the LM of the construal is a non-physical entity, represented by the noun *matter*, which refers to some facts from the life of the protagonist of a biographical book that are ignored by all the other writers, apart from *Mr Lipsky*. The TR of the construal is the process of writing a biography, following an arching path and bypassing the LM. As regards (60b), the e-site of the particle *over* is elaborated with the metaphorical sense of the verb *skate*, which construes passing over the LM, i.e. the *fact*, in terms of moving smoothly over the surface of ice.

The Being Successful Sense

In this conceptualisation the TR follows an arching A-B-C Trajectory; however, in contrast with the Ignoring/Omitting Sense, the LM is conceptualised as an obstacle, therefore contact with it is highly undesirable and unwelcome. For this reason, moving from one side of the LM, i.e. point A, to the other, i.e. point C, without coming into contact with the LM correlates with being successful because it amounts to overcoming an obstacle. In fact, many sports disciplines are based on this experiential correlation, such as the high jump, or pole vault, in which jumping over a horizontal bar is tantamount to gaining points, i.e. being successful. Consider instantiations of this sense:

(61)

- a. *Hip hop got over purely on the strength of its exuberance and esprit de corps.* (OED)
- b. *I wish we may be able to tide over this difficulty.* (OED)

In (61a) the particle *over* combines with the light verb *get* and it may be assumed that the LM of the construal, which is implicit, could be represented by the scepticism or even resistance of mainstream music performers and/or

fans towards a new genre. Once the reluctance to accept hip hop was overcome, it gained approval, which can be taken to mean that hip hop caught on in the community of music fans, i.e. it became successful. In (61b) the LM of the construal is the noun *difficulty* and the particle *over* is combined with verb *tide*, which metaphorically construes surmounting a problem ‘as if by rising on the flowing tide, or by taking advantage of favourable tide’ (OED). Thus, the combination of the particle with the component verb conceptualises overcoming an obstacle as being helped by favourable circumstances: one’s moving upwards on the rising tide is mapped onto the TR’s facilitated passage from point A to point C.⁵⁴

The Being Successful Sense can be accounted for in terms of sociodynamics (61a) and psychodynamics (61b), whereby the Agonist, i.e. *hip hop* (61a), and the human Agent, represented by the subject of the subordinate clause, i.e. *we* (61b), overcomes the resistance of the Antagonist, i.e. the unwillingness to accept a new music genre and their own weaknesses and limitations (in dealing with a difficulty), respectively.

The Excess Sense⁵⁵

In the Excess Sense⁵⁶ the LM is reanalysed as a container and the TR as an entity held by this container. As the amount of the entity held in the container exceeds its capacity, it begins to overflow. Lindstromberg (2010) argues that the moment the contents of the container exceed the container’s capacity, they begin to spread in all directions. When observed from a vantage point located off-stage, the contents of the container frequently follow, or appear to

⁵⁴ Point C, located on the other side of the LM, conceptualised as an obstacle, is implicitly assumed in this construal on the basis of our encyclopaedic knowledge, according to which the TR’s rise to the highest point is always followed by its descent.

⁵⁵ The Excess Sense is conceptualised far more frequently by prefixed verbs, where the particle *over* functions as a verbal prefix. The OED search has yielded over 600 verbs, containing the prefix *over* in most of which it profiles excess.

⁵⁶ Tyler and Evans (2003) distinguish two types of the Excess Sense conveyed by the particle *over*: the Above-and-beyond (Excess I) Sense and the Over-and-above (Excess II) Sense. Brenda (2014: 191-192) summarises the difference between these two senses in the following way: “the Excess I Sense is closely related to the motion along a trajectory and going beyond a certain point on the trajectory, whereas the Excess II Sense prompts the conceptualisation of volume and, in particular, exceeding the capacity of containers, standards or norms”. The Excess Sense discussed in the present section corresponds to the Excess Sense II in the sense of Tyler and Evans (2003). The Excess Sense I has not been attested in the sample under analysis.

follow an A-B-C Trajectory. First, they move up the internal side of the container and after reaching the highest point, located slightly above the uppermost part of the brim, they move down the other, i.e. external, side of the brim (see Fig. 2-19). Tyler and Evans (2003) argue that the Excess Sense is closely related to the More Sense, which belongs to the Up Cluster, distinguished in their analysis. However, such a perspective only implicitly suggests the A-B-C Trajectory of the contents of a container, foregrounding the upwards movement, while backgrounding the movement down the other side of the container. Therefore, I argue that the primary motivation for the Excess Sense is the schematisation referred to as the A-B-C Trajectory on the grounds of the fact that it does not relegate the TR's downward movement to the base. Moreover, when the A-B-C Trajectory is taken by the contents of a container in the way described above, it amounts to spillage, which strongly correlates with excess in human experience.

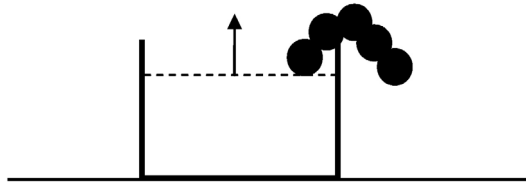


Figure 2-19. The Excess Sense (based on Tyler and Evans 2003: 99)

Consider instantiations of the Excess Sense:

(62)

- a. *If you don't hear the milk boiling over, you won't dash to the rescue in the nick of time.* (BNC)
- b. *On either side of the porch are herbaceous borders which in summer, are a riot of colour, brimming over with flowers which threaten to engulf the ground floor window.* (OED)

Sentence (62a) constitutes an exemplification of the bridging context for the Excess Sense: the TR, represented here by the noun *milk*, follows the A-B-C Trajectory by rising from its initial position until it reaches its highest point located above the brim of the container. From there it begins to flow down the other side because the container cannot hold it any longer due to the fact that its capacity has been exceeded. Consequently, this scene profiles both the A-B-C Trajectory and the notion of excess. The construal in (62b) is different: although it is motivated by the A-B-C Trajectory, the trajectory itself is backgrounded. The flowers do not follow an arching path, they do not even change their loca-

tion – they merely sprout lavishly, creating the impression of excess, as they are likely to completely surround or even cover the ground floor window.

2.6.4.3. The B-C Trajectory Cluster

The reanalysis of the A-B-C Trajectory in the course of which the B-C section is profiled has given rise to the From-vertical-to-horizontal Sense, which has triggered the Rotation Sense by a twofold application of the schema underlying the TR's change of orientation, i.e. from an upright to a horizontal position. The Rotation Sense, in turn, motivates two non-spatial extensions, which have turned out to be equally productive in the sample under study: the Examining Sense and the Repetition Sense.

The Examining Sense

Contrary to the approach developed by Tyler and Evans (2003) and later followed in Brenda's (2014) analysis, I do not regard the Examining Sense as motivated by the Higher-than Sense but as derived from the Rotation Sense on the grounds to be presented below. Lindstromberg (2010: 122) insightfully remarks that "if we want to examine an object, a typical way of doing so is to pick it up and turn it around and over so that we can see it from all sides". This explanation of the origin of the Examining Sense is, in my opinion, more psycholinguistically plausible than the one offered by Tyler and Evans (2003), who argue that looking at an object from above is experientially correlated with examining it, as when for example examining jewellery, or tools. Contrary to what is claimed by the authors, there appears to be more to the examining process than just looking at an object from above, which is not enough if the inspection is to be thorough and detailed. Merely watching an object without turning it amounts to being able to inspect just one side of it, as the opposite side is hidden from view and can be seen only if the object is turned over. For example, if an attempt to check the condition of garden tools is to be successful they need to be turned over, otherwise it may happen that some of their parts that are hidden from view (which happens when they are seen only from above) are covered in rust or seriously faulty.

Consequently, I regard the Rotation Sense, conceptualising the spatial scene in which the TR rotates, or is rotated, as an experiential correlate of the Examining Sense.⁵⁷ Consider two examples of this sense of the particle *over*:

⁵⁷ Interestingly, one of meanings of the particle verb *turn over*, provided by the OED, is 'to agitate or revolve in the mind, go through and examine mentally, consider and recon-

(63)

- a. *In the meantime I shall read over some of these documents, and shall be better able to understand certain things.* (OED)
- b. *Quickly he ran over the article that Leo kept in his wallet.* (OED)

The e-site of the particle *over*, which metaphorically conceptualises the process of examining an entity, is elaborated both by the verb (*read, run*) and the object noun (*documents, wallet*). While the component verb profiles the manner in the which the process of examining is carried out, i.e. by means of perusing (63a) and through casting cursory glances (63b),⁵⁸ the noun specifies the kind of entity subject to examination.

The Repetition Sense

Let me begin this section with a quotation from Lindstromberg (2010: 119):

Over is sometimes paraphrasable as *again* or *re-*, as in *We'll have to do it over ~ We'll have to do it again/redo it*. This sense of *over* almost certainly consists in the association of a deeply ingrained schematic image of turning over an object with the idea of repetition. For example, if you're making a stone arrowhead, you probably chip some bits off one side, then turn the stone over, and do more or less the same thing to the other side, and so on. Also, if you turn an object over more than once, you see the same area of surface again (and again).

In view of the above, it can be assumed that rotating an object is experientially correlated with repetitiveness, which, once pragmatically strengthened, has given rise to the Repetition Sense. Tyler and Evans (2003) argue that this sense can be considered to be the result of an iterative application of the schema underlying what they refer to as the Reflexive Sense,⁵⁹ which in my analysis is the From-vertical-to-horizontal Sense (see Fig. 2-15). If the spatial scene underlying this sense is reanalysed, the 90-degree arc is repeated so that when the TR turns 360 degrees, it returns to its starting point. If the TR does not stop/is not stopped, it keeps moving, which results in a repeated circular movement. This interpretation has been confirmed by the intuition of many native speakers, who have pointed out that the Repetition Sense prompts for

sider'. This can be treated as yet another piece of evidence in favour of perceiving the Examining Sense to be derived from the spatial Rotation Sense.

⁵⁸ The verb *run* in the particle verb *run over* is metaphorical itself, as it conceptualises hasty reading in terms of moving quickly, i.e. running.

⁵⁹ See Tyler and Evans (2003: 103) for details.

a conceptualisation of a wheel or cycle (Tyler and Evans 2003), as demonstrated by Fig. 2-20.

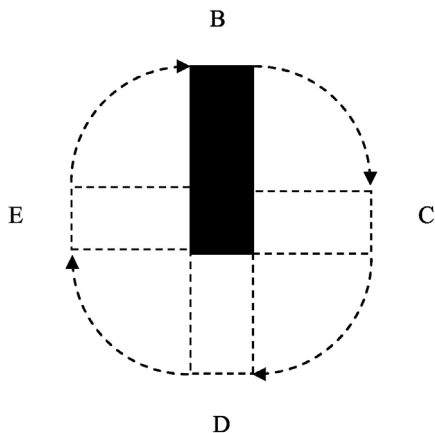


Figure 2-20. The Repetition Sense (based on Tyler and Evans 2003: 105)

In this schematisation the TR represented by the shaded rectangle begins its movement at point B, passes point C, D and E and then comes back to point B, after which the whole cycle starts again.

Consider two instantiations of this sense:

(64)

- a. *Learn a poem by heart and you have it for ever. You never again have to consult a text. You can say it over to yourself in the small hours.* (OED)
- b. *Now go back to the beginning and start over.* (OED)

The e-site of the particle *over* is elaborated with the literal meanings of the two verbs. Consequently, the semantics of *say over* in (64a) is ‘to say again’ and that of *start over* (64b) ‘to start again’.

2.6.5. The Higher-than Cluster

The Higher-than Cluster is motivated by the Higher-than Sense of the particle *over*, which is considered to be prototypical both in the present work and in that of Tyler and Evans (2003). I include in this category both a static and a dynamic construal of the scene encoded by the particle *over*. As regards the former, *over* construes a simplex relationship where the stationary TR is located higher than the LM and is within the sphere of its potential influence (as represented by Fig. 2-11). When it comes to the dynamic construal of the

scene, *over* conceptualises a complex relationship in which the TR moves at a more or less steady altitude over the LM (see Fig. 2-17). Thus, the term as it is used in this study is more encompassing than the one employed by Tyler and Evans (2003), according to whom it covers only simplex relationships.

Another point of divergence between the present approach and the one developed by Tyler and Evans (2003) is of a terminological nature. Tyler and Evans (2003) do not refer to the present cluster of senses as the Higher-than Cluster, but the Up Cluster. I opt for the term the Higher-than Cluster because referring to it as the Up Cluster might suggest that it encompasses senses profiling predominantly upwards movement, which would be misleading.⁶⁰ For this reason, I use the term the Higher-than Cluster to refer to the cluster of senses that is subject to analysis in this section.

The Higher-than Sense of the particle *over* has motivated the following metaphorical extensions, which are presented below in descending order of frequency: the Focus of Attention Sense, the Suspension Sense, the Control Sense and the Covering Sense.

The Focus of Attention Sense⁶¹

If the spatial scene in which the TR is located higher than the LM is re-analysed in such a way that the TR becomes an animate entity whose region of interactive focus (in the sense of Lindner (1983[1981])) is located above the LM,⁶² the particle *over* encodes the Focus-of-Attention Sense. This results

⁶⁰ In the semantic network delineated by Tyler and Evans (2003) there are two senses in which the upwards movement is only implicit: the Control Sense and the Preference Sense. According to the authors' interpretation, these two senses conceptualise the TR as being already physically higher than the LM and in their analysis the TR moving upwards can only be inferred on the basis of our encyclopaedic knowledge (as the stage naturally preceding the TR being located higher than the LM).

⁶¹ The term for this sense has been adopted from Tyler and Evans (2003). The authors regard this sense as an extension of the Examining Sense, which they also see as derived from what I call the Higher-than Sense of the particle *over*. Tyler and Evans (ibid.) claim that examining an object is experientially correlated with focusing one's attention on it by looking at it from above. This view is not taken here, as the Examining Sense is seen as being derived from the B-C Trajectory Cluster (for details, see the preceding section, i.e. 2.6.4.3).

⁶² Note that in this conceptualisation it is not the position of the TR as such that counts. For example, in the construal of the scene represented by the sentence *I leaned over the bed to look at the child* (BNC) the TR, designated by the human being, is probably standing on the floor. Consequently, the bottom part of his or her body is even located lower than the LM, i.e. the bed, and it is only the part from their waist or chest up that is located higher than the LM, i.e. over it.

from the fact that when a human or an animal is located in such a way that their neck is bent, head lowered and positioned over an object located beneath, their line of vision is directed at this object, which results in bringing it into focus. Thus, in this kind of scene the vantage point is that of the TR's interactive focus, which is represented by an eye icon in Fig. 2-21.

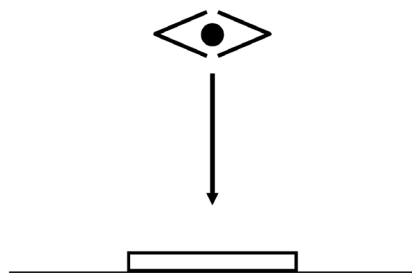


Figure 2-21. The Focus-of-attention Sense (from Tyler and Evans 2003: 96)

Lindstromberg (2010: 119), who labels this sense ‘on account of, because of’, remarks that this particular usage of *over* “may have derived from cases where disputants are literally over something they are contending for”. He exemplifies his point with a list of four examples, which as he claims, show “decreasing degrees of literality”:

(65)

- a. *three bears fighting over one fish*
- b. *two polar bears fighting over territory*
- c. *grizzly bears fighting over a female*
- d. *The committee agonized over the decision.*

While in (65a) the region of the TR's interactive focus, i.e. the bears' heads, is located higher than the LM, represented by the fish, the TR-LM configuration is very much backgrounded in (65b) and (65c). Finally, the use of *over* in sentence (65d) is wholly metaphorical: the noun *decision* is construed in terms of a physical entity, while the process of focusing attention on it (by thinking about it carefully) is conceptualised as looking at it from above.

Through the process of pragmatic strengthening the implicature of focusing one's attention on an object has been established in the semantic network of the particle *over* as the Focus of Attention Sense:

(66)

- a. *For a long time there has existed...a tendency to work over such verbs,...reducing them to accordance with the more numerous class of the 'regularly' inflected. (OED)*

- b. *From Holman's point of view she was only leaving town to 'think things over'.*
(OED)

In (66a) the e-site of the particle *over* is elaborated with the verb *work* which conceptualises the efforts undertaken by individuals, probably learners or teachers, in the course of which they try to detect some patterns that irregular verbs share with the class of “regular” verbs. The composite verb *think over* in sentence (66b) conceptualises the process of focusing one’s attention on some problematic issues in terms of thinking about them.

The Suspension Sense

This sense has not been distinguished by any of the researchers studying the semantics of the particle *over*, such as Tyler and Evans (2003), Rudzka-Ostyn (2003), Lindstromberg (2010), or Brenda (2014). I argue that the Suspension Sense has been triggered by the Temporal Sense, as distinguished and described by Tyler and Evans (2003). The Temporal Sense can be exemplified by the following sentence:

(67)

The festival will take place over the weekend. (Tyler and Evans 2003: 88)

In (67) the TR, i.e. the *festival*, is conceptualised as moving through time and, consequently, co-occurring with the temporal LM, i.e. the *weekend* (Tyler and Evans 2003). The proponents of the principled polysemy model argue that there is a tight correlation between distance and duration, as in:

(68)

*The boy walked over the hill.*⁶³ (Tyler and Evans: 2003: 88)

In (68) the TR follows the A-B-C Trajectory and, because walking over the hill requires some time, traversing this extended LM is experientially correlated with the passage of time. Owing to pragmatic strengthening, the implicature of the passage of time has been conventionally associated with the particle *over*, as schematised in Fig. 2-22.

⁶³ Even though in this construal the TR, represented by the noun *boy*, proceeds along the A-B-C Trajectory, the Suspension Sense is not regarded as being derived from the A-B-C Trajectory Cluster, as it relates to it only indirectly. First, the A-B-C Trajectory is reanalysed as the Temporal Sense (see Fig. 2-22) from which the arching path is already absent, because it construes the passage of time as the TR’s linear progression along the time axis, constituting the LM of the construal. Since the Suspension Sense is considered to be derived from the Temporal Sense, there is only an indirect link between the Suspension Sense and the A-B-C Trajectory.



Figure 2-22. The Temporal Sense of *over* (Tyler and Evans 2003: 89)

In Fig. 2-22 the broken line stands for the passage of time, which correlates with the TR going along the LM which is represented by the solid line.

The Temporal Sense has motivated the Suspension Sense, which can be explained on the basis of the conceptualisation in (67). According to our encyclopaedic knowledge, festivals do not take place non-stop over the whole weekend. If a festival begins on Saturday morning, the performances will last till Saturday evening or night and will be followed by a time at which both the artists and the audience will take a rest. Plays or concerts will start again the next day after being suspended for the night. Hence, this conceptualisation creates the implicature of suspension, which once pragmatically strengthened, has been established in the semantic network as the Suspension Sense, schematically represented by Fig. 2-23.

In this conceptualisation the bold bottom line, ending with an arrow, represents the passage of time, which is the LM, while the two lines with arrows, located above, stand for the activity that continues for some time, then is suspended at point A and is resumed at point B, where A and B, projected onto the time axis, correspond to points in time.

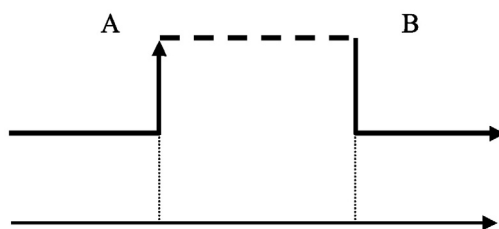


Figure 2-23. The Suspension Sense of *over*

In this conceptualisation the bold bottom line, ending with an arrow, represents the passage of time, which is the LM, while the two lines with arrows, located above, stand for the activity that continues for some time, then is suspended at point A and is resumed at point B, where A and B, projected onto the time axis, correspond to points in time.

The Suspension Sense can be exemplified by the following sentences:

(69)

- a. *Christopher Hubne's economics column has been held over until tomorrow.* (OED)
 b. *The motion was ordered to stand over for a fortnight.* (OED)

The sentences in (69) conceptualise postponing the *economics column* (69a) and the *motion* (69b) until a later date. Publishing the economics column and discussing or/and voting on the motion, represent the TR of the construal. These two activities lasted for some time, were suspended and resumed later, i.e. tomorrow (69a) and in a fortnight (69b). It can be proposed that the Suspension Sense of the particle *over* is an instantiation of the BEING UNRESOLVED IS BEING UP metaphor, which is exemplified by expressions such as *my decision is up in the air*, *a hung jury*, *unsettled business*, *wait until the dust settles*, etc. (Lindstromberg 2010). The author does not explain the origin of this metaphor but it seems that it is grounded in the human experience of finding it difficult, or not being able, to handle objects that are above the region of interactive focus. If this is the case, the entities in question are out of reach and sight, which is the position that is experientially correlated with their being outside the sphere of human influence. If the matter at issue, such as making the economics column ready for publication (69a) or voting on the motion (69b) is beyond human control, it cannot be dealt with successfully, i.e. resolved.

The Control Sense⁶⁴

According to Tyler and Evans (2003), vertical elevation is experientially correlated with having power and being in control of a situation. It stems from early experience in human history of taking part in a battle, ending with the victor in a standing position. The winner is located physically higher than the defeated, who is lying on the ground, and presumably injured or dead, as exemplified by:

(70)

- The fight ended with John standing over Mac, his fist raised.* (Tyler and Evans 2003: 101)

Additionally, as remarked by the authors, it is not enough for the TR to be physically elevated in order to be able to exercise control, because if this were the case, it would be possible to say:

⁶⁴ In Konieczna (2016), which was merely a pilot study, this sense was referred to as the Effect Sense. This label has been discarded here on the grounds of being too general, i.e. failing to specify the kind of effect that the TR exerts on the LM.

(71)

**She has a strange power above me.* (Tyler and Evans 2003: 102)

Because sentence (71) is incorrect, it means that in the construal of the scene encoded by the particle *over* the TR – besides being higher than the LM – needs to be physically proximal to the LM in order to ensure compliance. This should be taken to mean that two aspects of the TR–LM configuration are essential for the construal of control: one of them is the TR's vertical elevation, the other is its physical proximity to the LM.

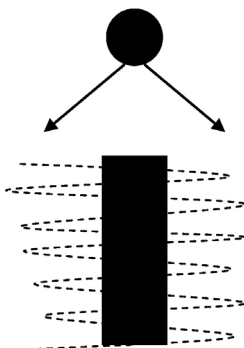


Figure 2-24. The Control Sense (Tyler and Evans 2003: 102)

In the course of pragmatic strengthening, the implicature of control has been established as the Control Sense in the semantic network of the particle *over* and is used to construe non-spatial relations, as demonstrated in:

(72)

- a. *The more ideological among them believe that when the Cold War ended, it was America's duty to take over the world.* (OED)
- b. *A wave of guilt came over me as I realised it had been Donnie whom Ross and I saw get smashed.* (OED)

Sentence (72a) conceptualises *America*, which represents the TR, assuming control of the *world*, which is the LM of the construal. In sentence (72b) the TR, i.e. the feeling of *guilt*, is conceptualised as a physical object, namely a line of raised water which exerts a sudden, powerful and unpleasant influence on the LM, represented by the animate subject of the subordinate clause.

The Covering Sense

Contrary to the prototypical TR–LM configuration, in which the TR is smaller than the LM and which holds for most spatial relationships, in this

spatial sense the TR is bigger than the LM, as demonstrated by sentence (73), or at least the TR is the same size as the LM. Additionally, the vantage point is shifted from being off-stage to one over the TR, as the covering function can be registered by the viewer only from above. Fig. 2-25 represents the spatial configuration for the Covering Sense, which can be exemplified by the following sentence:

- (73)
The tablecloth is over the table. (Tyler and Evans 2003: 90)

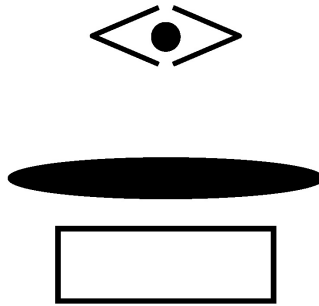


Figure 2-25. The Covering Sense of *over* (based on Tyler and Evans 2003: 91)

In this illustration the eye icon stands for the vantage point and the elongated sphere corresponds to the TR, which when viewed from the vantage point covers the LM, represented by the rectangle. As Tyler and Evans (2003: 91) argue, “the covering implicature can be reanalysed as distinct from the spatial configuration designated by the proto-scene” and, consequently, the concept of COVERING gets instantiated in the semantic network via pragmatic strengthening as a distinct sense. This means that when used in the Covering Sense, the particle *over* does not necessarily involve a spatial configuration in which the TR is located higher than the LM, as exemplified by:

- (74)
They put a transparent plastic sheet over the painted ceiling of the chapel during repairs. (Tyler and Evans 2003: 90)

In (74) the TR, which is a *transparent plastic sheet*, is lower than the LM, i.e. the *painted ceiling*. Thus, it is evident that the initial TR–LM configuration underlying this sense is not only not preserved but even reversed; what remains is the functional element of covering, already established as a distinct sense.

Consider some other instantiations of this sense, where the particle *over* conceptualises the TR–LM configuration in which the TR covers the LM:

(75)

- a. *Only when we were within a few hundred yards of it could we see the waves frothing over and around it, giving just a hint of the menace below.* (BNC)
- b. *The concrete garden path has been bricked over and vines adorn the white-painted exterior.* (BNC)

In both examples the e-site of the particle *over* has been elaborated by verbs characterised by a high degree of specificity in terms of the manner in which the process of covering is implemented, i.e. the verb *froth* in (75a) and the verb *brick* in (75b). Consequently, the particle verb in (75a) construes covering of the surface by the froth created by waves, while that in (75b) construes covering of the garden path by laying bricks on it.

2.6.6. Semantic network for *over*

Fig. 2-26 presents the semantic network of the particle *over* motivated by the reanalyses of the proto-scene. Distinct senses have been marked by a shaded sphere, while clusters of senses by an open circle. The primary motivation for a given sense extension is represented by a solid line. For the sake of clarity Fig. 2-26 is accompanied by sentences containing exemplifications of the senses that constitute the semantic network of the particle and which are discussed in section 2.6. The exemplifications of the senses are presented in alphabetical order and marked with the same numbers as the corresponding examples in the aforementioned section.

The Being Successful Sense

*I wish we may be able to tide **over** this difficulty.* (61b)

The Completion Sense

*The work goes on again, I see, now that the – holiday – is **over**.* (59a)

The Control Sense

*The more ideological among them believe that when the Cold War ended, it was America's duty to take **over** the world.* (72a)

The Covering Sense

*The concrete garden path has been bricked **over** and vines adorn the white-painted exterior.* (75b)

The Examining Sense

*Quickly he ran **over** the article that Leo kept in his wallet.* (63b)

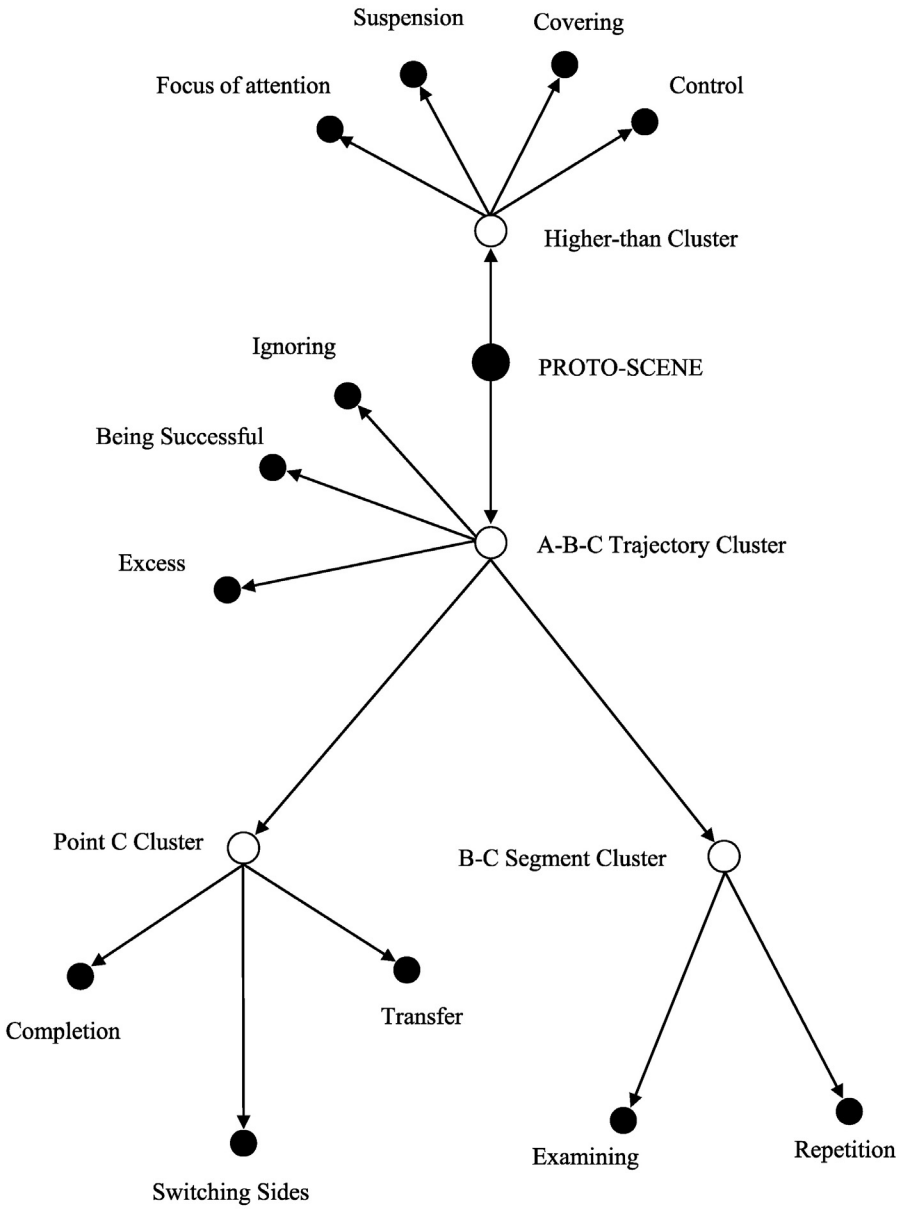


Figure 2-26. Semantic network of the particle *over*

The Excess Sense

*On either side of the porch are herbaceous borders which in summer, are a riot of colour, brimming **over** with flowers which threaten to engulf the ground floor window.* (62b)

The Focus of Attention Sense

*For a long time there has existed...a tendency to work **over** such verbs,..reducing them to accordance with the **more** numerous class of the 'regularly' inflected.* (66a)

The Ignoring/Omitting Sense

*It also skates **over** the fact that it is an offence to be in possession of the drugs listed if they have not been legally prescribed.* (60b)

The Repetition Sense

*Now go back to the beginning and start **over**.* (64b)

The Suspension Sense

*The motion was ordered to stand **over** for a fortnight.* (69b)

The Switching Sides/Allegiance Sense

*Attempting to buy **over** their chiefs?* (57b)

The Transfer Sense

*The final stages of training amount to the handing **over** of all the responsibility for safety to the student.* (58b)

2.7. Semantics of *under*⁶⁵

Under forms a contrast set with *over*, from which it differs in terms of the TR–LM alignment while having the same semantic content and profiling the same relationship (see section 1.5.3). Thus, both *under* and *over* conceptualise a scene in which the TR is proximal to and, therefore, in potential contact with the LM. Consequently, the patterns found with *over* are to some extent replicated with *under*. On the other hand, the semantic network of *under* is far less extensive than that of *over*. According to Tyler and Evans (2003), this stems from the fact that frequently the earth's surface functions as the LM and it is humans' interactions with entities that are above the earth's surface that are much more extensive than their interactions with objects that are below this surface. Consequently, *under* cannot be regarded as straightforwardly oppositional to *over*, as it does not mirror most of its senses.

⁶⁵ This section is based on the paper 'VERTICAL AXIS schema re-examined: metaphorical extensions of the English particle *under* and the Polish verbal prefix *pod-*', read at the conference *Various Dimensions of Contrastive Studies* held in Szczyrk in October in 2015 and its subsequent publication (Konieczna 2018).

2.7.1. Proto-scene for *under*

According to the OED, *under* can be traced back to Old English *under*, which is a cognate of the Sanskrit *ádharas* ‘lower, inferior’ (*adbamás* ‘lowest’, *adbás* ‘below, down’) and Latin *infra*. Thus, the oldest attested meaning associated with the lexeme *under* is ‘lower than’. This is also the sense that is used to form a contrast set with *over*, analysed in the previous section. As regards predominance in the semantic network, the analysis offered in this section will show that all the senses expressed by the verbal particle *under* construe, either explicitly or implicitly, a spatial configuration in which the TR is located lower than the LM. Moreover, *under* is used in this sense in numerous composite forms, such as compound verbs, e.g. *underestimate*, *underrate*, nouns, e.g. *undergrowth*, *undercover*, and adjectives, e.g. *underripe*, *undercooked*. The sense ‘lower than’ is also used to make grammatical predictions, which means that it allows us to account for the motivation of other non-spatial senses.

The semantics of *under* is frequently juxtaposed with that of *below*. As regards comparison between these two prepositions, both of them represent a division of the vertical axis in which the TR is conceptualised as situated lower than the LM. While *below* conceptualises a spatial relation in which the TR is relatively distant from the LM and both of them are rather unlikely to come into contact with each other, *under* profiles a proximity relationship between the TR and the LM and, consequently, the possibility of contact.⁶⁶ Fig. 2-27 shows the proto-scene for the particle *under*. The bold line represents the LM, the TR is designated by the shaded sphere, while the region that is conceptualised as being within reach of the LM is delineated by the dashed line. Consequently, the region of potential contact between the TR and the LM is located between the LM and the dashed line.

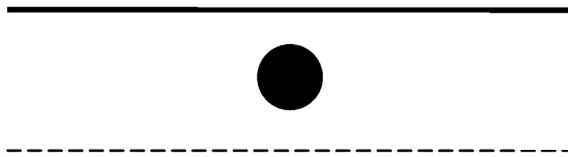


Figure 2-27. Proto-scene for *under* (Tyler and Evans 2003: 122)

⁶⁶ As noted by Tyler and Evans (2003), the choice between prepositions denoting contact, such as *over* and *under*, and those suggesting lack of it, i.e. *above* and *below* correspondingly, is frequently based on the speaker's perspective, which is how they construe the physical distance between the TR and the LM.

As Lindstromberg (2010) notes, in spatial scenes conceptualised by *under* the LM is frequently construed metonymically. This should mean that, for example, the LM, such as *water*, represents metonymically merely its surface in terms of the WHOLE FOR PART metonymy. Another important observation made by the author is that the particle *under* represents the construal in which the whole TR is below the LM. If merely part of the TR is below the LM, the particle *in* is used. Only when the TR is totally submerged is it possible to say that it is located under the LM (understood metonymically).

The proto-scene for *under* may be reanalysed so that *under* profiles a complex relationship, comprising multiple component states, out of which only two are shown in Fig. 2-28. In this schematisation the bold line represents the LM, the dotted sphere stands for the TR located at the beginning of the path, marked as point A, the dotted line represents the direction of the TR's motion and finally the shaded sphere stands for the TR at the end-point of the path, marked as point B, which is located lower than the LM.

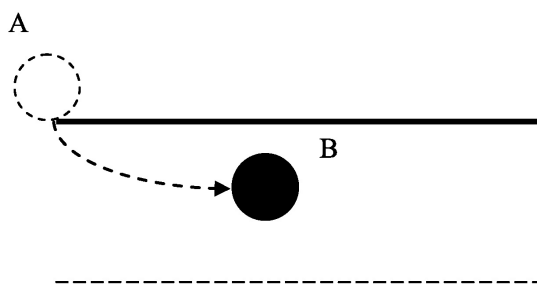


Figure 2-28. A complex relationship construed by *under*

Like in the case of the reanalysis of the proto-scene for *over*, this particular schematisation is a consequence of sequential and summary scanning (Langacker 1987), which means that even though points A and B do not exist in objective reality at the same time, it is possible to relate easily point A to point B. Consequently, a trajectory that consists of multiple points is construed as a single unit.

2.7.2. Data and frequency of senses

Table 2-6 below presents the frequency of senses of *under*, which is the least frequently used particle in the corpus analysed in the present work. The OED search has yielded only 29 particle verbs, out of which only 19 have

been included in the sample on account of the fact that they satisfy the criteria adopted for the present analysis.⁶⁷ The number of particle occurrences amounts to 24.

Table 2-6. Frequency of senses of the particle *under*

Sense of particle <i>under</i>	Number of occurrences	Percentage
Control	9	37.5
Defeat	6	25
Category Member	4	16.67
Unconsciousness	2	8.33
Non-existence	2	8.33
Less	1	4.17
Total:	24	100

2.7.3. Non-spatial senses of the particle *under*

In their analysis of *under*, Tyler and Evans (2003) have distinguished the following senses: the Less Sense, the Control Sense, the Covering Sense and the Non-existence Sense.⁶⁸ The Covering Sense has not been included in the present study because it has not been attested for *under* used as a verbal particle. Its use is restricted to prepositional phrases, as demonstrated by the following sentences (Tyler and Evans 2003: 126):

(76)

- a. *The decorated walls were draped under plastic sheeting while the floor was being sanded.*
- b. *The curator keeps the pictures hanging in the gallery under glass to protect them.*
- c. *The Germans often bombed London under the cover of darkness.*

⁶⁷ For details see Introduction.

⁶⁸ Tyler and Evans (2003) propose that only two senses, i.e. the Less Sense and the Control Sense, belong to the *down* cluster, which construes the TR proceeding in the downwards direction. However, this approach is not followed in the present work because the analysis of the spatial motivation of other senses has revealed that all of them are motivated by the downwards movement of the TR.

The present analysis has yielded three more senses, none of which has been attested by Tyler and Evans (*ibid.*), i.e. the Defeat Sense, the Category Member Sense and the Unconsciousness Sense. All the non-spatial meanings of the particle *under* are motivated by a spatial scene in which the TR proceeds along a trajectory whose end-point is located lower than the LM (see Fig. 2-28). All the senses attested in the corpus under study are presented in the section to follow in descending order frequency.

The Control Sense

The term for this most productive sense in the semantic network of *under* has been adopted from Tyler and Evans (2003: 125), who account for its emergence in the following way: “[b]ecause *under* prompts for a relation which includes both being physically lower than and within potential contact with the LM as meaning components [...] it is ideally suited to developing a Control Sense”. They illustrate this claim with the following example:

(77)

The boy trapped the fly under his hand.

Sentence (77), besides constituting an instantiation of the proto-scene, as the TR, i.e. the *fly*, is located under the LM, i.e. the boy's *hand*, also implies that the fly is under the boy's control owing to its location. The implicature of control has been established as a distinct sense in the semantic network of *under*, as demonstrated by the following sentences:

(78)

- a. *They had each come under liability to pay the balance due.* (OED)
- b. *She had been accustomed to be kept under all her life.* (OED)
- c. *He 'sat under' a bank clerk in Glasgow, a chap from Uist, and swotted up some Gaelic.* (OED)

In (78b) and (78c) the TR is construed as being located lower than the LM and within the sphere of its influence, while (78a) is an instance of a dynamic construal in which the TR eventually ends up in a position that is lower than the LM. Thus, (78b) and (78c) instantiate the STATES ARE LOCATIONS metaphor, while (78a) is an exemplification of the CHANGES ARE MOVEMENTS metaphor, both of them being submetaphors of the EVENT STRUCTURE metaphor. As the TR is located under the LM or ends up therein, the freedom of its movement is or becomes constrained from above, which is tantamount to its being controlled by the LM.

In (78a) and (76c) it is legal responsibility and the supervision of the bank clerk, respectively, that control the TR, influencing its course of actions. In (78b) the LM is implicit and it should be understood as subjection exercised by those who are socially superior.

The Defeat Sense

The Defeat Sense has not been included by Tyler and Evans (2003) in the semantic network of the particle *under*. This sense stems from the human experience of a tough physical fight between two people with the body of a wounded or dead loser located under the head or foot of a triumphant winner. Consider the bridging context for the emergence of the Defeat Sense:

(79)

*By performing part of an opera, you call forth spectral illusions of mounted knights to trample your foes under the hooves of their glorious steeds.*⁶⁹

The above sentence, taken from the description of an online game, embodies a proto-scene in which the TR, i.e. *your foes*, representing the group of defeated individuals, is located under the LM, i.e. the *hooves* of horses, mounted by warriors. Through correlating the position of an entity (the TR) being under another object (the LM) and the human experience of being beaten, the implicature of defeat has become established as a distinct sense in the semantic network of *under*, as exemplified by:

(80)

- a. *Of the Metropolitan second Division Clubs Clapton Orient went under for the first time at home.* (OED)
- b. *Our government is not going to knock under because it has suffered a few reverses.* (OED)

These sentences, respectively, conceptualise the defeat of the sports club *Clapton Orient* (80a) and the *government* (80b) as going under the implicit LM, which can be an imaginary surface or level at which one should remain to maintain proper functioning. The fact that the particle verb *go under* is also used in the sense ‘to go underwater, to submerge also: (of a boat, etc.) to sink; (of a person or animal) to drown’ (OED) lends further credence to this interpretation. Since, according to the OED, *go under* in the sense of ‘to drown/sink’ dates back to 1820, while the sense ‘to be beaten’ was first attested in 1896, it is possible that not only the particle, but the whole particle verb as

⁶⁹ <http://www.d20pfsrd.com/magic/all-spells/d/dirge-of-the-victorious-knights>.

such underwent metaphorical extension. As being able to keep one's head above water so as to be able to breathe freely represents the human capability of avoiding being consumed by a stressful or difficult situation (note the idiom *to keep one's head above water*), going under water should be seen as the opposite, i.e. not being able to cope any more, which is tantamount to giving in, i.e. to being defeated. Besides, the imagery of sea battles may have played a role in triggering the Defeat Sense: a ship of the defeated navy is frequently destroyed, and, as a result, it sinks.

The Category Member Sense

Consider an exemplification of this sense, where *under* is used as part of a prepositional phrase:

(81)

It was a brief paragraph under the heading 'temporary investments'. (BNC)

In (81) *under* is used as predicted by the proto-scene: the TR, i.e. a *brief paragraph*, is located physically lower than the LM, i.e. the *heading 'temporary investments'*. However, at the same time, this particular contextual usage triggers the implicature that the TR belongs to the category represented by the LM; being written under the name of a certain class correlates with being a member of this class.

Consequently, as evidenced by the sentences below, the Category Member Sense has become a distinct meaning component, non-spatial in nature, even though derived from the spatial domain:

(82)

a. *The...earlier work which I have lumped together under the wide title of Moralities.* (OED)

b. *The ceaseless surge of fevers which, in a time of pre-bacteriology, passed under names like 'putrid fever'.* (OED)

In (82a) the TR, the *earlier work*, is seen as belonging to the category represented by the LM, i.e. the *wide title of Moralities*, while in (82b) the *ceaseless surge of fevers*, is a member of the category of '*putrid fever*', representing the LM.

The Unconsciousness Sense

The Unconsciousness Sense has a double motivation. First of all, the basis for the emergence of this sense is purely spatial: when people lose consciousness suddenly and unexpectedly, they fall down and when others approach them to provide medical assistance, they are physically lower than those who

have come to the rescue. In this construal, the person who has become unconscious is the TR, while other people trying to make him or her come round represent the LM. Secondly, the Unconsciousness Sense can be seen as an extension of the Control Sense, as when used in this sense the particle *under* usually profiles becoming unconscious by means of anaesthetic. Therefore, it can be argued that losing consciousness is controlled by the anaesthetic, its dose, time of application, etc. The Unconsciousness Sense can be exemplified by the following sentence:

(83)

As the doctor came up with injection to put me under I asked him the time. (OED)

In (83) making the patient unconscious is construed in terms of the EVENT STRUCTURE metaphor. In this particular case the change from being conscious to becoming unconscious is construed as the downwards movement that ends lower than the implicit LM (i.e. the state of consciousness).

The Non-existence Sense

The experiential basis of this sense of *under* has been accounted for by Tyler and Evans (2003: 127) in the following way:

A salient aspect of human experience is death. In many cultures, and traditionally in western cultures, the dead are buried underground. This gives rise to a recurring correlation between being *under* and no longer being alive. For instance, dead people are often buried underground; drowning, resulting in death, correlates with disappearing under the water's surface, etc.

The authors suggest that the experiential correlation between being *under* and no longer being alive has triggered the implicature of non-existence on account of the fact that being located under the LM is correlated with death:

(84)

Typically, to prevent animals from disturbing the grave, the dead person is buried under six feet of dirt. (from Tyler and Evans 2003: 127)

The implicature of non-existence has been conventionally associated with the particle *under* and established as a separate sense in its semantic network:

(85)

a. *During the past few years three tool firms have gone under.* (OED)

b. *All our hopes for winning the election were ploughed under when the votes were counted.* (LDPV)

This is yet another instance of the CHANGES ARE MOVEMENTS metaphor, a submetaphor of the EVENT STRUCTURE metaphor, which construes the entities coming into non-existence in terms of moving under an implicit LM, as demonstrated by (85a) and (85b). While in (85a) the particle *under* combines with the light verb *go* and its e-site remains far from being fully specified, in (85b) the e-site of the particle *under* is elaborated with the semantic content of the verb *plough*. As a result, the particle verb *plough under* metaphorically conceptualises the destruction of hopes as burying them under layers of soil, which are turned over during the activity of ploughing.

The Less Sense⁷⁰

The Less Sense stems from an experiential correlation between vertical elevation and quantity. As the TR located higher than the LM corresponds to a larger quantity (see e.g. Tyler and Evans 2003), the TR being lower than the LM implies having less of something. This particular experiential correlation stems from our everyday experience; e.g. taking away books stacked on a table makes the pile lower, which means that the number of the books decreases. The Less Sense of *under* has been attested in only by one particle verb, i.e. *cut under*:

(86)

The spirit of competition on the part of the masters – the same universal desire to cut under. (OED)

Sentence (86) concerns selling goods at a lower price than competitors. The process of the reduction in price represents the TR and it is construed as being brought under the implicit LM, representing the previous price, which used to be higher.

2.7.4. Semantic network for *under*

Fig. 2-29 presents the semantic network of the particle *under*. Distinct senses have been marked by a shaded sphere and clusters of senses by an open circle. The primary motivation for a given sense extension is represented by a solid line, while the broken line corresponds to a secondary moti-

⁷⁰ The Less Sense is realised more productively by means of *under* used as a prefix in composite verbs, such as *underachieve, undercook, underexpose, underestimate*, etc., in which it conceptualises doing less of what is construed by the component verb.

vation. Fig. 2-29 is accompanied by example sentences containing exemplifications of senses that constitute each semantic network and which are discussed in section 2.7. The exemplifications of the senses are presented in alphabetical order and given the same numbers as the corresponding examples in the aforementioned section.

The Category Member Sense

*The...earlier work which I have lumped together **under** the wide title of Moralities.* (82a)

The Control Sense

*She had been accustomed to be kept **under** all her life.* (78b)

The Defeat Sense

*Of the Metropolitan second Division Clubs Clapton Orient went **under** for the first time at home.* (80a)

The Less Sense

*The spirit of competition on the part of the masters – the same universal desire to cut **under**.* (86)

The Non-existence Sense

*All our hopes for winning the election were ploughed **under** when the voices were counted.* (85b)

The Unconsciousness Sense

*As the doctor came up with injection to put me **under** I asked him the time.* (83)

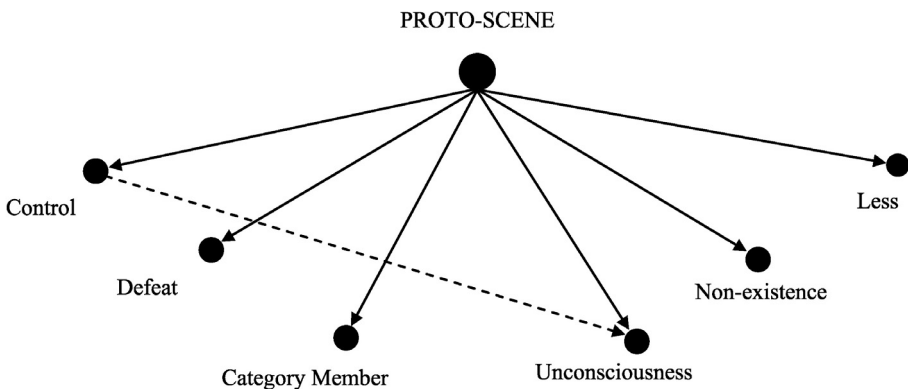


Figure 2-29. Semantic network of the particle *under*

2.8. Semantics of *on*⁷¹

The semantics of *on* has already been studied by Rudzka-Ostyn (2003), Navarro (1998, 2006) and Lindstromberg (2010), among others.⁷² The central point of Rudzka-Ostyn's (2003) analysis is that when used in its prototypical meaning, *on* encodes the presence of contact. The author distinguishes the following senses, motivated by the central sense of *on*: 'getting closer to make contact' (*sew on, put on, etc.*), 'closeness' (*on your side, on Lake Ontario, etc.*), 'time as surface' (*on Sunday, on my birthday, etc.*), 'continuation' (*drag on, move on, etc.*) and 'cause-effect viewed as two entities in contact' (*bring on, act on sth.*).

Another scholar, Navarro (2006), adhering to the view that semantic structure has a multi-modal character (as demonstrated by Deane 1993; Correa-Beningfield et al. 2005, among others), argues that *on* can be described in terms of three modes: a topological mode, a dynamic mode and a functional mode. As regards the topological dimension, the TR and the LM are in a relation of contact, which should be taken to mean that the resting part of the TR is contiguous to the outside part of the LM. According to Navarro (2006), this construal inevitably entails on the one hand, the TR's control of the LM, and on the other hand, support that the LM offers for the TR. Despite the fact that control and support are frequently seen as two distinct functional consequences of the spatial configuration encoded by *on* (see, e.g. Beitel et al. 2001), Navarro (2006) coalesces them into one functional element of support, claiming that even while exercising control the TR still uses the LM as support.⁷³ This view is not shared here, as it is proposed that support and control constitute two distinct functional elements (see section 2.8.2 for an explanation).

Considering the semantics of *on* in terms of force-dynamics, Navarro (2006) states that *on* prototypically encodes forces operating along the vertical axis: it is either the TR being located on top of the LM, exerting force downwards, or the TR moving downwards in the direction of the LM. In either case the forces exerted both by and on the TR and LM operate along the vertical axis.

⁷¹ This section is an extended version of the paper by Konieczna (2017).

⁷² Contrary to the other spatial particles that are discussed in the present work, *on* has not been even superficially analysed by Tyler and Evans (2003).

⁷³ However, in his earlier work Navarro (1998) notices the significance of perspective in the process of developing metaphorical extensions. Thus, as he argues, from the TR's perspective, the TR-LM configuration is perceived in terms of support, while adopting the LM's position as the vantage point amounts to perceiving the same configuration as a source of burden.

Lindstromberg (2010), despite working within the cognitive framework, quite surprisingly proposes that *on* is an unusual English preposition in the sense that it has two distinct meanings, which only sometimes may blend into one sense. He calls one of these meanings ON^1 and classifies it as opposite of ‘off’, which amounts to stating that its basic spatial meaning is that of the TR being in contact with the surface of the LM. The other meaning is referred to as ON^2 and it is considered to be a preposition of path, indicating movement ‘in the direction being faced’, or ‘in the same direction as before’, which means that in this sense *on* is the opposite of ‘back’. Lindstromberg (2010: 69) states that ON^1 and ON^2 can only incidentally be related to each other, as in the expression *to be on the way*:

[...] [I]t is possible to be *on* a way (road, path, etc.) in the static sense of ON^1 , e.g. *There’s a dead fox on the road*. But, being *on a way* metonymically suggests movement in the case of words for beings or things that move (people, cars...) since the most typical reason to be *on* a way is to follow it. This fact brings ON^2 into play.

Lindstromberg’s position is not taken in the present work, in which all the senses of the particle *on* are related to its primary sense, represented by means of a proto-scene.

2.8.1. Proto-scene for *on*

According to the OED, *on* dates back to Germanic and it is cognate with, among others, Old Frisian *an*, *on*, Old Dutch *ana*, *an* (Middle Dutch *ane*, *an*, *aen*, Dutch *aan*), Old Saxon *an* (Middle Low German *an*) and Old High German *ana*. Its oldest attested meaning, as stated by the OED, is ‘above and in contact with; at rest on the upper surface of; above and supported by’. Another important piece of information provided by the OED is that even though *on* primarily expresses a static relation of contact with an object, or proximity to its surface (which entails being supported and held up by it), since the earliest times it has also conveyed the concept of MOTION towards such a position. In Old English this distinction was reflected on the morpho-syntactic level: when *on* construed a simplex relationship it was combined with the noun in the dative case and when it construed a complex relationship it was combined with the noun in the accusative case. In Middle English the case distinction disappeared but *on* was still used to indicate either location, or motion, which could be distinguished by the accompanying verb, such as *lie on* versus *lay on*.

As indicated by the OED entry, it is difficult to distinguish between these two senses in figurative uses, as “in some of them the point of view has gradually changed since they first arose, so that what was originally felt to express a direction of the mind towards something is now felt as a static attitude or mental state”.⁷⁴ In view of this it, it appears reasonable to assume that it is the static sense of the particle that is the primary sense, the more so that it satisfies other criteria of prototypically, adopted by the principled polysemy model.

First of all, the following analysis will provide extensive evidence that most distinct senses conceptualised by *on* pivot around a spatial configuration in which a TR is located on the surface of the LM. The sense at issue is found in numerous composite forms, such as *on-pack, on-road, on-street, on-the field, on-track*, etc. As regards relations to other spatial particles, *on* in its static sense is capable of forming a contrast set both with *off* and *in*.⁷⁵ Finally, all the non-spatial senses of the particle *on* discussed in the following sections can be derived either directly or indirectly from the sense that is considered to be prototypical.

Thus, when used in the primary sense, the particle *on* conceptualises a spatial relationship in which the TR is higher than the LM and at the same time it remains in contact with it: the lower part of the TR touches the upper surface of the LM. The TR and the LM are located on the vertical axis with respect to the human canonical position. This spatial configuration is presented in Fig. 2-30, in which the TR is represented by the shaded square, and the LM by the rectangle.



Figure 2-30. Proto-scene for *on*

Beitel et al. (2001) describe several meaningful interactions taking place between the TR and the LM in the spatial scene construed by *on*. Consider the following sentence:

⁷⁴ <http://www.oed.com/view/Entry/131297?rskey=ZdytcQ&result=5&isAdvanced=false#eid>.

⁷⁵ These two types of contrast have been proposed by Lindstromberg (2010).

(87)

The boy sat on the table. (Tyler and Evans 2003: 51)

In this spatial scene the LM, i.e. the *table*, has two main functions. First of all, it supports the TR, i.e. the boy's body, and secondly, it constrains the boy's movement by not letting him go beneath the table top. As regards the boy's role in this interaction, his body is a source of pressure for the table and at the same time the boy's body covers part of the table. As a result, the boy is more visible than the section of the table that he has contact with. What Beitel et al. (2001) do not mention explicitly is that the TR and LM remain in contact with each other.

Given this, I argue that the spatial configuration between the TR and the LM gives rise to several functional elements, which depend on three factors: perspective, the profiling of selected elements of the spatial scene and the properties of entities that are conceptualised as the TR and the LM.

2.8.2. Functional elements encoded by *on*

Taking the first variable into account, i.e. perspective, it turns out that if the scene is construed from the perspective of the TR, i.e. if the TR figures prominently in the scene as the conceptualiser, the functional element of support is triggered. This is due to the fact that the LM upholds the TR and prevents it from falling. This kind of construal, in which the relationship of contact is backgrounded and the relationship of support is foregrounded, constitutes an example of objective construal on account of the fact that the conceptualiser is internal to a spatial scene and figures in it as an object of conception (see section 1.5.4).

Evans (2010: 241) remarks that when *on* describes purely spatial scenes, it always encodes both contact and support, as in the phrase *the apple on the table*; however, when it is combined with parts of the body, the functional element of support is privileged at the expense of the functional element of contact:

(88)

- a. *on one's feet/legs*
- b. *on tiptoe*
- c. *on all fours*

In the phrases in (88) "the use of *on* relates to that part of the body which provides support, rather than being concerned with contact" (Evans 2010:

241). The construal of support is schematically represented in Fig. 2-31, in which the LM (represented by the rectangle) prevents the TR (represented by the shaded square) from falling down, counteracting the force of gravity. The LM can be a part of the body, as in (88), or some other entity, solid and large enough to carry the TR's weight.

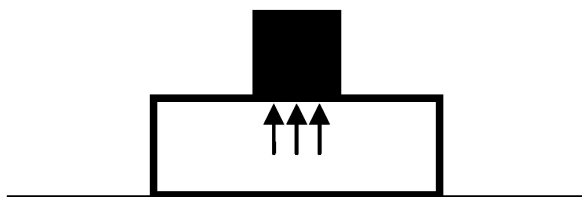


Figure 2-31. Functional element of support profiled by *on*

At this point it needs to be remarked that the functional element of support does not trigger any further sense extensions and, for this reason, it is considered to be a distinct sense in its own right, referred to as the Support Sense.

In contrast, when the perspective of the LM is adopted, i.e. when the conceptualiser figures in the scene as the LM, and the dominant feature of the TR is its considerable weight, whether literal or metaphorical, then the functional element of control is brought to the fore. In this construal the TR is viewed as a burden that controls the LM's movement to a greater or lesser extent. This is yet another instance of the objective construal because the conceptualiser constitutes an important element of the scene. This particular conceptualisation is grounded in our everyday experience of carrying a heavy object on our back and not being able to move freely because of the weight of the carried object, which limits our pace. Thus, being located on the surface of the LM is correlated with being in control of it. Analogously to the functional element of support, the functional element of control does not generate any further metaphorical extensions, therefore, it is regarded as a distinct sense, i.e. the Control Sense. While the Support Sense profiles the LM counteracting the force of gravity, what is foregrounded in the Control Sense is the TR's weight that the LM is supposed to carry.

The construal of control is depicted in Fig. 2-32, in which the TR (a shaded square) has control over the LM (a rectangle), which is represented schematically by arrows pointing downwards. The arrows stand for the direction of force exerted by the TR, which is a result of its weight and the force of gravity.

The functional element of control is a fundamental element of the construal of the scene in (89), where the TR is the child's body (89a) and serious-

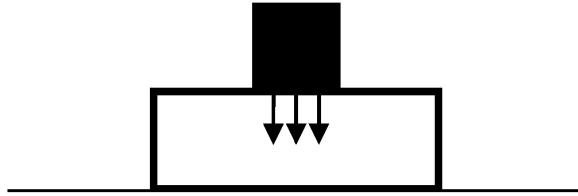


Figure 2-32. Functional element of control profiled by *on*

ness of *problems* (89b), both of which exercise control over the LM, i.e. the *father* (89a) and the person, represented by the subject of the sentence (89b).

(89)

- a. *Father brought me up here on his back in the spring one year, and I sat in the moor while he and old Donald were digging peats.* (BNC)
- b. *'Sometimes I think I have the problems of the world on my shoulders.'* (BNC)

When the vantage point is shifted to its default position, which is off-stage and the conceptualiser is external to the spatial scene, the TR becomes more visible than the LM due to the fact that it is at a higher, i.e. more prominent, location than the LM, which is at least partially covered. This way of construing a spatial scene represents a subjective construal because the conceptualiser figures in the scene as the subject of conception. The construal in question triggers the functional element of visibility, as represented by Fig. 2-33, in which the TR is represented by the shaded square and the LM by the rectangle, while the eye-icon stands for the conceptualiser.

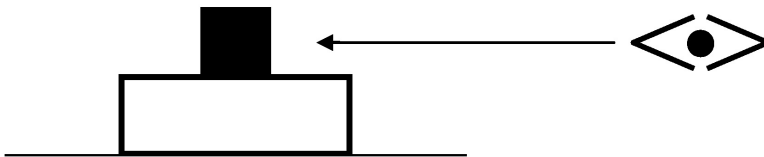


Figure 2-33. Functional element of visibility profiled by *on*

Since the TR is located higher than the LM and it is not obscured by the LM, the construer's attention is focused exclusively on it. Consider the sentence in which *on*, being part of a prepositional phrase, conceptualises the functional element of visibility:

(90)

- The torch was still on the shelf where he'd put it when he came in.* (BNC)

In yet another construal of the scene encoded by *on* (Fig. 2-34) the perspective of both the TR and the LM is adopted and their *active zones*,⁷⁶ i.e. the external side of the LM and the resting side of the TR, are profiled simultaneously. A meaningful consequence of construing the scene in this way is the emergence of the functional element of contact.

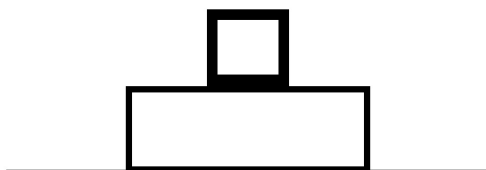


Figure 2-34. Functional element of contact encoded by *on*

As shown in Fig. 2-34, the functional element of contact results from profiling the lower surface of the TR and the upper surface of the LM, fitting tightly together. In the prototypical scenario the interaction between the TR and the LM proceeds along the vertical axis, as in:

(91)

They sleep on the floor without mattress or bedcover. (BNC)

However, this element of the spatial configuration between the TR and the LM may be backgrounded so that only the relation of contact remains, as demonstrated by:

(92)

Unfortunately, there was a row of mirrors on the wall opposite me. (BNC)

On the whole, the particle *on* encodes four functional elements which are brought about by differences in profiling and distinct features of the physical environment (in the sense of Kövecses 2015): support, control, visibility and contact. Two of these functional elements (visibility and contact) trigger further metaphorical extensions to be discussed in the following sections.

2.8.3. Data and frequency of senses

The sample of verbs obtained for the present analysis consists of 169 particle verbs that have been selected out of 324 instances yielded by the search designed to find all the combinations of the verb followed by the particle *on*

⁷⁶ *Active zone* is that part of an expression's profile that is relevant in a given conceptualisation (Evans and Green 2006).

that occur in the lemma, or the headword. The total number of particle occurrences is 176. The frequency threshold has been 1.5 per cent.

Table 2-7 below presents the frequency of occurrence of all the attested senses of the verbal particle *on* beginning with those that are the most frequent. Meaning extensions are not assigned here to the functional elements they are based on, as this categorisation is carried out in the subsequent sections.

Table 2-7. Frequency of senses of the particle *on*

Sense of particle <i>on</i>	Number of occurrences	Percentage
Intended Target	56	31.82
Continuation	39	22.16
Future	16	9.09
Support	14	7.95
Addition	13	7.39
Functional Actioning	8	4.55
Control	7	3.98
Attachment	6	3.41
Approach	5	2.84
Discovering	5	2.84
Encouragement	4	2.27
Pretending	3	1.70
Total:	176	100

2.8.4. Reanalysis of the proto-scene

The proto-scene for *on* can be reanalysed by applying two types of scanning. First, the operation of sequential scanning is carried out, in the course of which the TR–LM configuration represented by the proto-scene is construed as one of many points occupied by the TR, which implies that before reaching the LM's surface the TR must have covered a certain distance. Next, the operation of summary scanning is applied, through which all the points on the TR's path are construed as one unit even though they do not objectively exist in the world at the same time. As a result, *on* profiles a series of locations occupied by the TR, as shown in Fig. 2-35.

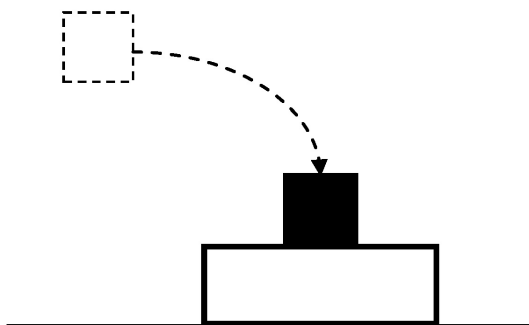


Figure 2-35. Reanalysis of the proto-scene for *on*

The position of the TR (symbolised by the square) at the beginning of the trajectory is represented by the dashed line, its final position is marked by the shaded square, while the LM is symbolised by the rectangle. The beginning of the trajectory does not need to be higher than the LM; it can be located at any point in space provided that it is not on the surface of the LM. Consider sentence (93) in which *on* profiles a complex relationship, being a result of the reanalysis of the proto-scene:

(93)

She stared at the doll which Nanny had put on the shelf, and the doll stared back at her with cold blue eyes. (BNC)

This particular reanalysis of the proto-scene has motivated the Intended Target Sense to be discussed below.

The Intended Target Sense

The Intended Target Sense is by far the most frequent sense in the semantic network of the particle *on*, as it occurs with 56 verbs. It is based on the dynamic schema encoded by the particle *on* conceptualising – frequently human-propelled – movement of the TR that ends with it coming into contact with the surface of the LM. In this schema the final point of the trajectory is profiled. This goes in line with general human cognitive principles, according to which, when the SOURCE-PATH-GOAL schema is combined with the DOING schema,⁷⁷ the goal of the action is far more salient than the starting point or the path, due to the fact that we are more interested in the goal of the action than its source. Consequently, this principle is referred to as the *goal-over-source principle* (Dirven and Verspoor 2004). On the linguistic level it is

⁷⁷ The DOING schema is characterised as the one in which one entity is the source of energy and it instigates the action (Dirven and Verspoor 2004).

realised by expressing always the goal of the action, while frequently disrespecting its source: while it is natural to say *I climbed onto the roof*, it is rather unacceptable to say **I climbed from my room*. Thus, in (93), the TR, the *doll*, set into motion by the human, *nanny*, comes into contact with the surface of the LM, the *shelf*, which is its intended destination. In this construal *on* profiles the goal of the TR's movement (the *shelf*), backgrounding at the same time both the source and the path. Consider the bridging context for the emergence of the Intended Target Sense:

(94)

In the eighth minute Leicester drew level as Wright pounced on a loose ball after Gee's shot had been blocked. (BNC)

In (94) the TR, i.e. *Wright*, not only comes into contact with the LM, i.e. a *loose ball*, but also he reaches it, which is what he has intended. Thus, there exists an experiential correlation between coming into contact with the surface of the LM and achieving the intended goal of one's action. The implicature of the intended goal has given rise to the Intended Target Sense, which has been established as a separate sense in the semantic network of the particle *on*.

In the previous analysis of this particular complex relationship profiled by the particle *on*, Navarro (1999) has remarked that *on* combines with verbs conceptualising actions aimed at people, objects, or immaterial entities that constitute the TR's goal, which is at the same time the LM of the construal. If the undertaken action is perceived as an act of aggression, the spatial scene underlying this conceptualisation portrays the TR coming into forceful contact with the LM from a higher position, which amounts to making a damaging or devastating impact on the LM. As noted by Navarro (2006), in this sense *on* combines mainly with verbs of mental activity that are understood as aggressors:

(95)

- a. *About a year later Joe's eighth or ninth novel came out, and the critics fell on it and tore it to pieces.* (OED)
- b. *If you still want to be a 'hater', there are plenty of people left for you to hate on.* (OED)
- c. *Wearing glasses and having braces getting picked on is just your life. You have to deal with it.* (OED)
- d. *I have never liked being pissed on, Sir. Even by a non-commissioned officer.* (OED)

In (95a) and (95b) the spatial particle *on* conceptualises the goal of verbal aggression: the TRs of the construal, i.e. the attack by means of hostile words (95a) and harsh criticism or abuse (95b), are aimed at the LMs, i.e. *Joe's novel* and *plenty of people*, respectively. In (95c) and (95d) *on* construes the goal of psychological aggression, i.e. victimising a person wearing glasses and having braces (95c) and humiliating the subject of the sentence (95d), who is probably a soldier. In these examples the particle *on* encodes forceful contact.

However, the dynamic schema of the particle *on* representing the Intended Target Sense frequently does not involve forceful contact. Instead, it may conceptualise merely the goal of the TR's fictive motion with the aim of profiling the TR coming into contact with the surface of the LM. In this construal *on* is combined mainly with verbs denoting mental activities and verbs of looking, as exemplified by:

(96)

a. *Her sweet eyes turned and gloated on the little face..in silence.* (OED)

b. *As soon as she started to go through the bundle of letters, all Moran's attention was fixed on the sorting.* (BNC)

Thus, in (96a) the TR is the woman's gaze, which "moves" until it rests on the face of another person, while in (96b) the TR is the process of directing one's attention to the activity of sorting, which constitutes the LM of the construal.

All in all, in the Intended Target Sense the particle *on* conceptualises the goal of a psychological, verbal, mental, or visual activity aimed at a person, an object, or a non-physical entity. As already remarked, besides being triggered by the reanalysis of the proto-scene, the Intended Target Sense is also motivated by the functional element of contact, which is discussed in the following section.

2.8.5. Functional element of contact

The functional element of contact has given rise to several implicatures, leading to the emergence of the following senses: the Addition Sense, the Functional Actioning Sense, the Attachment Sense and the Discovering Sense, where the Addition Sense is the most frequent while the Discovering Sense is the least frequent. The analysis begins with a description of the most frequent sense, which is the Addition Sense, and proceeds in descending order of frequency.

The Addition Sense

This is the most productive sense motivated by the functional element of contact. When used in this sense, the particle *on* conceptualises adding the

TR to the LM by placing the former on the surface of the latter. Thus, the Addition Sense has been triggered by an experiential correlation between putting the TR on the surface of the LM and addition of the TR to the LM, so that the TR becomes part of the LM itself. The experiential correlation in question is a salient aspect of human experience. For example, if there is a pile of plates, lying on the table, putting one more plate on top of the pile amounts to adding it to the pile of other plates. Consider instantiations of the Addition Sense:

(97)

- a. *Some turkeys put on 50 or 60 pounds if they are destined for the burger and turkey roll market.* (OED)
- b. *The Knights put on 12 points in the last minutes of the first half.* (OED)
- c. *More beliefs are pieced on, while the earlier ones remain as they were.* (OED)
- d. *'The chefs who have signed on are leading a new golden era of culinary craft', said Peter Taylor, associate director of the academy.* (OED)
- e. *You take this [card] up to the Social Security office and sign on at the time it says here.* (OED)

In (97a) it is the process of developing additional weight that functions as the TR of the construal; as a result, some extra flesh and fat become part of the implicit LM, i.e. the turkey's body. In two other examples: (97b) and (97c) the LM is also implicit and it can be inferred from the context as the *Knights'* score (97b) and a certain set of beliefs (97c), while the TR is the process of getting points and affirming new beliefs, which are added to the score and to the set of earlier beliefs, respectively. In (97d) and (97e) the particle verb *sign on* conceptualises joining a group of people by means of putting down one's name on the list, containing the names of its members. The verb *sign* is metonymic here, as it conceptualises making a certain declaration in terms of putting one's signature on the list. Hence, it may be argued that it constitutes an instance of the MEANS OF ACTION FOR ACTION metonymy. Thus, the particle verb *sign on* stands for joining an organisation for chefs in (97d) and a group of jobless people (97e) by signing the list of those who are already their members.

The Functional Actioning Sense

Yet another sense based on the functional element of contact is the Functional Actioning Sense which profiles physical or metaphorical contiguity between the TR and the LM. This sense is rooted in an experiential correlation between being in physical contact with a surface and acting on this surface. According to Evans (2010: 242),

[...] [A] consequence of contact is that the TR, as it comes into contact with a particular surface, becomes functional [...]. For example, it is by facilitating contact between the appliance and the electrical circuit that an appliance is rendered functional. A switch provides a means of facilitating this contact, which is why we employ the term *switch on* in English.

Thus, experiential correlations of this type have given rise to the implicature of functional actioning.⁷⁸ It may be argued that the Functional Actioning Sense is also based on a metonymic conceptualisation in which the cause of the action stands for its result: the TR coming into contact with the LM represents the TR becoming functional. Consider some examples in which the particle *on* is used in the Functional Actioning Sense:

(98)

- a. *Philip put his glasses on and stared at the boy.* (BNC)
- b. *If too many users attempt to access LIFESPAN at once, it will not be possible to log on, and a Transaction Failure message will appear.* (BNC)

In (98a) physical contact is still present although two other elements of the proto-scene, i.e. fitting tightly and vertical alignment, are not preserved. The Functional Actioning Sense of the particle *on* resides in conceptualising glasses as coming into contact with the line of human vision. In this way the glasses become functional because they improve the person's ability to see. As regards (98b), physical contact between the TR and LM is backgrounded because the particle verb *log on* profiles getting access to a computer system by means of logging. The process of logging constitutes the TR of the construal, and through logging on the user metaphorically establishes contact with the computer system.

The Attachment Sense⁷⁹

The Attachment Sense is an extension of the functional element of contact but it is also closely related to the Addition Sense, which should be taken to mean that attachment is experientially correlated both with the TR coming into contact with the surface of the LM and the TR being added to the LM through contact. These two types of experiential correlation constitute a salient aspect of

⁷⁸ This term has been coined by Evans (2010) and in his model of LCCM, based on the framework of principled polysemy, Functional Actioning is considered to be an instance of a new parameter being encoded. In the LCCM approach the notion of a parameter roughly corresponds to that of implicature, as used by Tyler and Evans (2003) (see section 1.3).

⁷⁹ The name of this sense has been adopted from Navarro (1998).

human experience. For example, when attaching a TR to a LM, we both put the TR on the surface of the LM so that the two enter into contact with each other and at the same time we add the TR to the LM. This type of experiential correlation can be exemplified by the scene of gluing some kind of ornament to a wall: first it must be put on the wall to see if it fits there, then the glue is spread onto the ornament's surface and the ornament is pressed against the wall with the aim of it being fixed. Thus, both addition and contact are experientially correlated with attachment. Consider instantiations of this sense:

(99)

- a. *One afternoon I had seen him painfully sewing on a shirt-button.* (BNC)
- b. *This covering [of wax] may readily be run on with the assistance of a hot iron.* (OED)

Sentence (99a) conceptualises a physical TR, a *shirt-button*, being attached to the LM, which is some implicitly suggested garment, through contact. First, the button is put on the surface of the garment and then it is fastened to it with a needle and thread. In (99b) the LM is unexpressed and the TR is the *covering* made of wax, which gets attached to the implicit LM by means of pressing it against its surface with a hot iron.

Even though the Addition Sense and the Attachment Sense are related as regards the overall features of contact between the TR and the LM, what should be borne in mind is that two distinct aspects of contact are profiled in each case. As regards the Addition Sense, it is the TR becoming part of the LM and constituting together with it a more or less uniform whole that is foregrounded: when a new member joins an organisation, he or she becomes part of it, when one puts on weight, newly gained kilograms become an indistinguishable part of the person's body. In contrast, in the Attachment Sense it is the strength of the contact that is profiled: when a button is sewn on, it means that it is attached to the shirt and that it is not going to be removed easily. Another difference between the Addition Sense and the Attachment Sense is that in the case of the former the TR may be indistinguishable from the LM (newly gained kilograms melt into the person's body), while in the latter case it stands out against the LM (e.g. a button-shirt can be quite easily distinguished from other parts of the garment).

The Discovering Sense

This is the least productive sense based on the functional element of contact. The TR is the activity undertaken by a human being, in the course of which contact with the LM is made that is neither volitional nor planned,

therefore, it comes as unexpected and surprising. In this respect the Discovering Sense is different from the Intended Target Sense, which construes the contact between the TR and the LM as planned, purposeful and deliberate. The Discovering Sense is a result of an experiential correlation between the TR moving in space and coming upon the LM, which finds itself in its way. In this construal it is important that the LM is not the end-point of the TR's path, because the goal of the TR's movement is located further away from the LM (see Fig. 2-36).

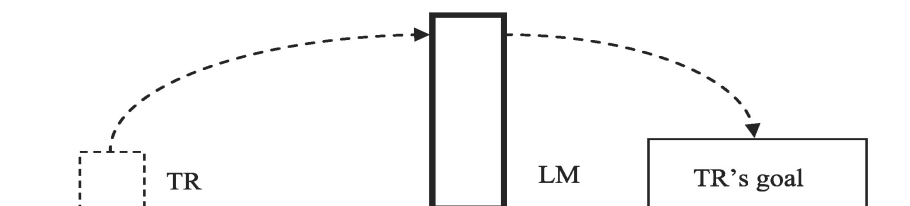


Figure 2-36. The Discovering Sense of *on*

In this construal the TR comes into contact with the LM because the LM is salient and its presence cannot pass unnoticed. Consider example sentences, in which the particle *on* conceptualises a fortuitous contact between the TR and the LM:

(100)

- a. *They were not the fittest companions she could have stumbled on.* (OED)
- b. *I lucked on a page who told me he heard Caldwell gassing with Franklin.* (OED)
- c. *I have as yet only once lighted on the use of the word in the singular.* (OED)

In (100a) the LM is a physical entity, expressed by means of the personal pronoun *they*, and the fortuitous contact conceptualised by the particle *on* should be understood as an interaction between individuals taking place in social space that has not been sought. This construal does not necessarily imply physical contact, even though some of its manifestations, such as shaking hands, or patting one's shoulder are not precluded. In (100b) the subject of the sentence has not been in pursuit of the particular page referred to but he or she found it by chance, probably while concentrating on another issue. In these two sentences the fortuitous nature of coming across the LM has been further emphasised by the choice of verbs: *stumble* (100a) and *luck* (100b), which match the lexical profile of the particle *on*, used in this sense, because they both denote an activity that has not been planned by the Agent. Likewise, in (100c) the Agent did not mean to find the use of a particular word in a singu-

lar form but he or she has probably come across it while doing research into the grammatical patterns of this lexeme or some other lexemes.

2.8.6. Functional element of support

As already remarked, the scene underlying the functional element of support embodies the TR–LM configuration from the TR’s perspective, which means that the TR figures prominently in the scene as a conceptualiser. The TR is located on top of the LM, which guarantees its stability and prevents it from falling down. Consequently, the functional element of contact is backgrounded.

The functional element of support does not give rise to any extensions and it represents an individual sense in its own right. When *on* is used in the Support Sense⁸⁰ as a component of a composite particle verb, the LM of the construal is frequently an abstract entity. Even if it is a concrete entity, it does not offer support by carrying the TR’s weight but by providing the TR with the necessary resources, or means. Thus, the LM can be the substance, such as food or medicines, which ensures the TR’s existence or health and well-being, as exemplified by:

(101)

a. *Lewis’s doctor put him on tranquilizers and advised him to go away on holiday.*

(BNC)

b. *Some of these parasites, after having killed the host, live on the corpse.* (OED)

In (101a) the LM is represented by the noun *tranquilizers*, which is conceptualised as support from the TR’s perspective because it provides it (*Lewis*) with the necessary treatment, without which he would collapse. In (101b), the LM is the *corpse* on which the TR (*parasites*) depends on. The LM provides support for the TR because it is the source of nourishment, essential for the parasites’ survival.

⁸⁰ In Konieczna (2017), which was merely a pilot study, it was argued that the functional element of support underlies the following three senses of the particle *on*: the Means of Transport Sense, the Drug Dependency Sense and the Psychological Sense. However, as the present research has demonstrated, it is the conceptual content of the noun, following the particle, which elaborates its e-site by specifying in finer detail the LM (representing the kind of support available to the TR), that turns out to be responsible for meaning distinctions between the phrases, such as *to get on the bus*, *to be on antibiotics* and *to count on sb.* (Konieczna 2017: 144). Because these distinctions are context-dependent, in the principled polysemy model they should not be classified as separate senses (see section 1.3).

However, as the study of the sample of verbs extracted from the OED has shown, the particle *on* conceptualises support predominantly in the abstract domain, where the LM sustains the TR by ensuring psychological support, or constituting the basis for further developments, as demonstrated by:

(102)

- a. *Golf: Feherly feeds on friendly advice.* (BNC)
- b. *The two young men were again reduced to living on hope.* (OED)
- c. *She could not presume on more than limited understanding. Her sisters alone saw her unshaded self.* (OED)

Sentences (102a), (102b) and (102c) conceptualise psychological support given to the TR (represented by the subject of the sentence in each case) by the LM, i.e. *friendly advice, hope* and *limited understanding*, respectively, due to which the TR's situation may improve to a greater or a lesser extent.

2.8.7. Functional element of control

While the Support Sense construes the scene from the perspective of the TR, held up by the LM, which prevents it from falling down onto the ground, the functional element of control, which at the same time functions as a distinct sense, conceptualises the reverse point of view. When *on* profiles control, the scene is construed from the LM's perspective. Because the LM figures in the scene as a conceptualiser, the TR is viewed as a burden, which controls the LM's freedom of movement.

Through the process of pragmatic strengthening the implicature of control has been reanalysed as distinct from the spatial configuration which initially gave rise to it, and it has been established in the semantic network as the Control Sense, as evidenced by the following examples:

(103)

- a. *Disinfectants act on bacteria in two main ways [...].* (BNC)
- b. *The ad plays on our emotions, showing a doctor holding a newborn baby.* (OED)
- c. *The wilful amateurism and naïveté started to grate on everybody's nerves.* (BNC)
- d. *I'm going to lean on him until I get to know that contact.* (OED)
- e. *If you're going to sit on me every time I open my mouth, I'd better shut up.* (OED)

In (103a) the TR (*disinfectants*) controls the LM (*bacteria*), by destroying them, or limiting their spread, while in (103b) the *ad*, which is the TR, controls *emotions*, i.e. the LM, by using them in an unfair way in order to boost the product's sales. Sentence (103c) conceptualises the *wilful amateurism*, i.e. the TR, as an object of considerable weight that the LM, i.e. *everybody's*

nerves, is straining under. In (103d) and (103e) the LM, i.e. *him* and *me*, respectively, are conceptualised as the objects of pressure exerted by the action carried out by the subject of the sentence, i.e. *leaning* and *sitting*, respectively. The verbs *lean* and *sit* are used metaphorically as well and they strengthen the Control Sense of the particle *on* by construing the exercising of control in terms of applying pressure of one's body to the LM.

2.8.8. Functional element of visibility

Yet another functional element of the spatial configuration encoded by *on* is visibility. In this construal the vantage point is off-stage, which means that the construer is external to the spatial scene. In this construal it is the TR that is foregrounded, while the LM is backgrounded on account of the fact that the TR is situated on the upper surface of the LM and it can be seen in all its entirety, in contrast to the LM, which is at least partially obscured by the TR.

The functional element of visibility has given rise to several meaning extensions, such as the Continuation Sense, the Future Sense, the Approach Sense, the Encouragement Sense and the Pretending Sense. All the senses derived from the functional element of visibility are presented in descending order of frequency in the following section.

The Continuation Sense⁸¹

Consider the bridging context for the Continuation Sense in (102), where *on* profiles both the prototypical TR–LM configuration and the concept of CONTINUATION:

(104)

That too lacked the warmth and comfort of the morning, though her picture was still on the mantelpiece. (BNC)

The subordinate clause in (104) construes a static spatial scene, in which the TR, *her picture*, remained in contact with the upper part of the LM, i.e. the *mantelpiece*. A consequence of this particular TR–LM configuration was that the TR was not only more visible than the LM but that it continued to be in the place in which it had been positioned. The implicature of continuation is

⁸¹ Navarro (1999) accounts for this sense of *on* in prepositional phrases by means of the TIME metaphor, according to which time is understood as a path in physical space (Lakoff and Johnson 1980). He proposes that in the phrase *from* + [*period of time*] + *on* the span of time indicated by *on* remains in contact with the period referred to, which means that it begins immediately after that period.

a result of a salient aspect of human experience of perceiving an object located on the surface of another object and realising that its presence there is not momentary. Thus, it can be argued that there is a recurring correlation in human experience between being visible and continuation. Consequently, the implicature of continuation has been conventionally associated with *on* and established as a separate sense in the semantic network of the particle.

Needless to say, continuation is not only a lexical but also a grammatical notion. According to Thim (2012), *on* functions as an atelic, i.e. a continuative aspectualiser. As Rice (1999: 228) insightfully remarks,

[...] [S]ignalling aspect isn't such a strange or unexpected function for [particles] to have, considering that their aspectual meanings seem to be natural extensions of certain spatial meanings. Just as they can modulate the location of an entity in space or highlight the relevant contours or topography of a landmark object, so too can they modulate or reshape the contours of an event.

Note the aspectual use of *on*, i.e. the Continuation Sense, which is the second most productive sense in the semantic network of this particle:

(105)

- a. *For the next few weeks the debate on the reforms rolled on.* (BNC)
- b. *He struggled on, dragging the bag as he half-crawled up the steep bits.* (BNC)
- c. *Sir Richard Body, a farmer who has kept pigs himself for many years, explained that he intends to press on with his Private Member's Bill since it would phase out the sow stalls within five years instead of the Minister's eight years.* (BNC)
- d. *They jogged on through the scrub.* (BNC)
- e. *I expect you're waiting for some sort of erotic-neurotic grand finale... Well, dream on.* (BNC)

In all the sentences in (105) the particle *on* conceptualises the continuation of an action, specified by the verb which begins in the present and continues into the future. What should be remarked at this point is that *on* exhibits conceptual overlap with all the component verbs, i.e. *roll, struggle, press, jog* and *dream*, which are atelic. Thus, it may be argued that the particle *on* does not so much add the concept of CONTINUATION to the semantics of the verb, but that it merely profiles it, making it more salient. This stems from the fact that the idea of perseverance is inherent in the semantics of the component verbs that the particle *on* combines with.

In the framework proposed by Croft (2012), the particle verbs containing the particle *on* in (103) should be classified as activities on account of the fact that they denote events that are dynamic, durative and unbounded (Vendler 1967). According to Croft's typology supplemented by additions suggested by

Janda (2015b), the verb *jog on* in (103d) constitutes an instance of a *directed activity* as it construes an incremental change along the q dimension (see section 1.7); however, without a transition to the result state. This should be taken to mean that it conceptualises a steady progression of the subject through the scrub which continued for some time without being brought to an end. All the other verbs, i.e. those in (105a), (105b), (105c) and (105e), represent *heterogenous activities* in the sense of Janda (2015b), because they involve many different subactivities without going in a single direction: for example, one may dream (103e) for a while, then stop dreaming and afterwards have another dream.

The Future Sense⁸²

The Continuation Sense motivates the Future Sense on account of the fact that if an activity or a state continues, it is presumed that it will span from the present into the future. For instance, if we take into consideration example (105e) from the previous section, the imperative *dream on* implies that the action of dreaming will continue into the future. Thus, it can be argued that the Future Sense has emerged as a result of profiling further stages of carrying on with any activity due to the fact that continuation and future are frequently correlated in human experience. Consider instantiations of the Future Sense:

(106)

- a. *If you plan on travelling in the beginning of summer, the nights will bring a slight chill, so jeans and sweats are necessary.* (OED)
- b. *My physical strength has shot on wonderfully.* (OED)
- c. *My brother and I have never figured on building large passenger-carrying machines.* (OED)

All these sentences conceptualise the activity expressed by the verb as the TR of the construal, which can be conceptualised as an entity moving forwards in accordance with the TIME IS SPACE metaphor in which going forwards is seen as moving towards the future. This stems from the fact that in Western languages time is conceptualised as a horizontal axis. Consequently, the future is seen as being in front of an imaginary observer, as remarked by Radden (2004: 3):

The preference for the longitudinal axis may be due to our spatial experience of motion, which is almost invariably directed to the front. The front-back orienta-

⁸² In Konieczna (2017) this sense is referred to as the Future Plan Sense.

tion of time shows up in expressions such as *the weeks ahead of us* or *the worst behind us*. In Western cultures, the front-back orientation predominates in temporal scenes.

As regards the conceptualisation of future, in (106a) the semantics of the particle and the verb overlaps because both components of the composite verb, i.e. the verb *plan* and the particle *on*, refer to a future event: we always plan events that are ahead of us not behind us. In two other examples: (106b) and (106c) the particle *on* alone contributes the semantic component of 'future' to the construal, which is further elaborated by the component verbs. Thus, for example, the verb *shoot* (106b) represents, also metaphorically, swift movement, and the composite verb *shoot on* conceptualises making rapid progress. Another verb, *figure* (106c) profiles the process of forming an opinion about a particular situation and when combined with the particle *on* it refers to forming such an opinion about the future, i.e. anticipating or expecting future events.

The Approach Sense

This sense can be considered to be motivated by the Future Sense, which, as stated above, conceptualises the future in terms of the TR moving forwards. Taking into account the assumption that all human action, including movement, is goal-oriented, it should be taken to mean that as the TR proceeds forwards, it gets closer and closer to the goal of its motion. The experiential correlation between moving forward and approaching a goal has given rise to the Approach Sense of the particle *on*, as exemplified by:

(107)

- a. *Evening again drew on.* (OED)
- b. *We are gaining on⁸³ them quick.* (OED)
- c. *A ship is said to gather on⁸⁴ another, as she comes nearer to her.* (OED)

Sentence (107a) constitutes yet another exemplification of the well-entrenched TIME IS SPACE metaphor in which the time of day is the TR of the construal. Thus, an evening is conceptualised as a physical entity, gradually coming closer to the implicit LM, which is the conceptualiser. Sentence (107b) and (107c) conceptualise a physical TR, i.e. *we* and a *ship*, approaching a physical LM, i.e. *them* and *another* [ship], respectively.

⁸³ According to data provided by the OED, the verb *gain on* is a calque from the French composite verb *gagner sur*.

⁸⁴ The use of this verb is restricted to nautical register.

The Encouragement Sense

In this sense the particle *on* conceptualises encouragement to continue one's efforts in order to achieve a goal. Even though the concept of CONTINUATION is present in this sense, because if the goal is to be achieved it is necessary for an individual to persist in the activities undertaken, it is the notion of a goal – which, when pursued, is a matter of the future – that is foregrounded. Therefore, it can be argued that even though the Encouragement Sense is characterised by a double motivation, it is basically an extension of the Future Sense. What should be remarked at this point is that there exists an experiential correlation between achieving a future goal and encouragement, as the former is frequently facilitated by the latter. Consider sentences in which the particle *on* conceptualises encouragement to achieve a future goal:

(108)

- a. *Roared on by a massive contingent of supporters, Gloucester then went for the kill.* (BNC)
- b. *He rode back along the column to hearten us on.* (OED)

While the particle *on* stands for encouragement, the verb elaborates its e-site by specifying the manner in which it is provided: by means of roaring (108a) and through generating positive energy and enthusiasm (108b).

The Pretending Sense

The Pretending Sense is motivated by the functional element of visibility on account of the fact that when pretending that a situation is different from the actual facts, one's behaviour must be conspicuous. Otherwise it will not be noticed and, consequently, the act of pretence will be unsuccessful. For example, when people pretend that they agree with what is being said, they may become excessively expressive by nodding their head all the time. Therefore, it can be argued that there exists an experiential correlation between pretence and visibility, which has given rise to the Pretending Sense of the particle *on*, as in:

(109)

- a. *I put on I was giving the goofy idea some thought.* (OED)
- b. *We..found out that Mr. Van let on to take the proposal seriously.* (OED)

Both in sentence (109a) and (109b) *on* is combined with light verbs that have schematic conceptual content and which do not elaborate the semantics of the particle in any significant way. The LM is sublexicalised while the TR is the activity of pretending, conceptualised as BEING ON, which amounts to the TR being visible.

2.8.9. Semantic network for *on*

Fig. 2-37 presents the semantic network of the particle *on*. Distinct senses have been marked by a shaded sphere and clusters of senses by an open circle. The primary motivation for a given sense extension is represented by a solid line, while a broken line corresponds to a secondary motivation. Fig. 2-37 is accompanied by example sentences containing exemplifications of senses that constitute the semantic network of the particle *on* and which are discussed in section 2.8. The exemplifications of the senses are presented in alphabetical order and given the same numbers as the corresponding examples in the aforementioned section.

The Addition Sense

*Some turkeys put **on** 50 or 60 pounds if they are destined for the burger and turkey roll market.* (97a)

The Approach Sense

*Evening again drew **on**.* (107a)

The Attachment Sense

*This covering [of wax] may readily be run **on** with the assistance of a hot iron.* (99b)

The Continuation Sense

*I expect you're waiting for some sort of erotic-neurotic grand finale... Well, dream **on**.* (105e)

The Control Sense

*The wilful amateurism and naïveté started to grate **on** everybody's nerves.* (103c)

The Discovering Sense

*I lucked **on** a page who told me he heard Caldwell gassing with Franklin.* (100b)

The Encouragement Sense

*He rode back along the column to hearten us **on**.* (108b)

The Functional Actioning Sense

*Philip put his glasses **on** and stared at the boy.* (98a)

The Future Sense

*If you plan **on** travelling in the beginning of summer, the nights will bring a slight chill, so jeans and sweats are necessary.* (106a)

The Intended Target Sense

*If you still want to be a 'hater', there are plenty of people left for you to hate **on**.* (95b)

The Pretending Sense

*I put **on** I was giving the goofy idea some thought.* (109a)

The Support Sense

*The two young men were again reduced to living **on** hope.* (102b)

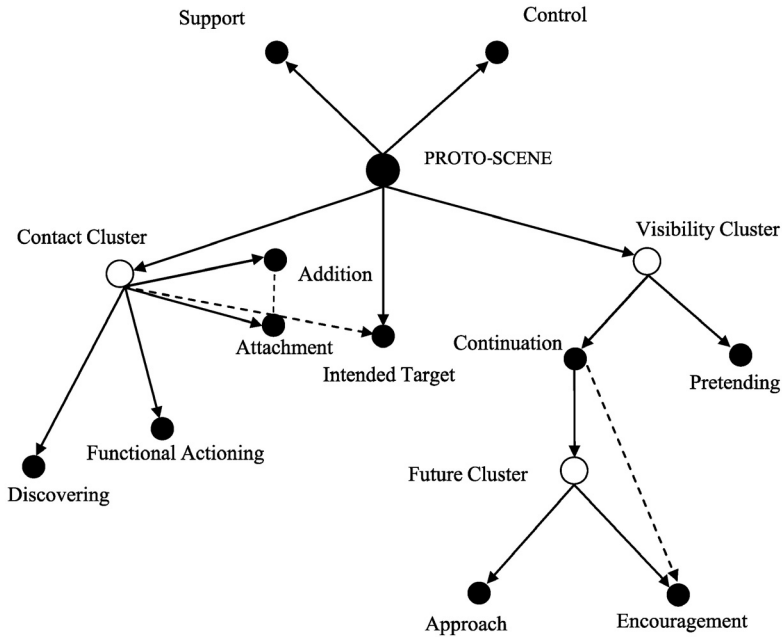


Figure 2-37. Semantic network of the particle *on*

2.9. Conclusions

Altogether in the present chapter the analysis of 794 tokens of verbal particles has been conducted, out of which the particle *up* has turned out to be the most frequent (289 instances)⁸⁵ and the particle *under* the least frequent (only 24 instances). The second least productive particle is *over* with 96 occurrences. The remaining two particles, *over* and *on*, are characterised by comparable frequencies: *down* has occurred 209 times and *on* has occurred 176 times in the corpus. The number of senses of a given particle produced in the course of metaphorical extensions corresponds to its number of occurrences in the sample, with the particle *up* being most productive (16 senses) and the particle *under* the least productive in this respect (only 6 senses). Other particles have generated the following number of metaphorical meaning extensions: *down* 9, *over* 12 and *on* 12 as well.

Several particles have produced “the same” metaphorical senses: the Completion Sense has been conceptualised by *up*, *down* and *over*, the Control Sense by *up*, *down*, *on*, *over*, and the Approach Sense by *up* and *on*. However, for

⁸⁵ This finding confirms Rudzka-Ostyn’s (2003) claim that *up* is the most frequent particle (see section 2.3).

each of the above-mentioned senses the use of a different particle profiles different aspects of a specific scene. This is due to the differences in the construal resulting from the diverse TR–LM configurations which are part of the respective proto-scenes profiled by the given particles.

For example, the Completion Sense encoded by the particle *up* profiles completion as reaching a goal by moving along an upwards-oriented trajectory. In contrast, the Completion Sense construed by the particle *down*, conceptualises completion in terms of reaching the end-point on a downwards-oriented trajectory. These two different construals trigger different semantic and pragmatic effects and on this account the particles *up* and *down* are not exchangeable in many contexts. This phenomenon can be best observed by comparing two particle verbs that share a component verb, differing only in the particle, such as *burn up* and *burn down*.⁸⁶

Thus, the sense of completion conceptualised by the particle *up* in the particle verb *burn up* can metaphorically represent a positive axiological value because, as already remarked by Lakoff and Johnson (1980), happiness, health, life, and control, i.e. things that principally characterise what is good for a person, all are up, hence the GOOD IS UP metaphor.⁸⁷ Consequently, the semantic content of positive polarity appears in collocations, which are extremely frequent in BNC, such as *to burn up calories/food/energy*. The positive axiological value of the particle *up* is grounded in the cultural context because in contemporary culture exercising and being fit, during which you burn up calories, are considered to be positive. Besides, the Completion Sense of the particle *up* may additionally convey the idea of briskness in terms of the BRISK IS UP metaphor (Lindstromberg 2010), which can be treated as a sub-type of the MORE IS UP metaphor. Higher velocity can be conceptualised in terms of bigger quantity on account of the fact that greater speed is represented by higher numerical values. Consequently, the verb *burn up* construes a rapid consumption by fire,⁸⁸ as exemplified by the following sentence:

⁸⁶ Some of the examples used here have been taken from the paper entitled 'Between a spatial domain and the grammatical meaning: the semantic content of telic particles', presented at PTJK conference in Poznań in 2018 and to be published as a research paper in *PSiCL* (Konieczna forthcoming).

⁸⁷ This cannot be denied with the caveat that when the location of the end-point of the trajectory or the position of the vantage point changes, the axiological value of the particle changes as well (see section 2.3.2).

⁸⁸ It is common knowledge that on entering the atmosphere, meteors burn extremely fast. Thus, the particle *up* construes a fast termination of the burning process.

(110)

The meteor burned up in the Earth's atmosphere creating a light spectacle. (BNC)

Additionally, the Completion Sense encoded by the particle *up* evokes an image of big quantity, grounded in the primary metaphor MORE IS UP, as demonstrated in (111), where both the verb *burn* and the particle *up* are used metaphorically and they construe using a lot of money in a careless way:

(111)

It [Alibaba.com] didn't have a business model, it burned up money, it had to fire most of its workers and mainly, it couldn't raise a dime. (BNC)

Thus, it is possible to differentiate several meaning foci (Kövecses 2010 [2002]), i.e. aspects of the process of upwards movement that are habitually profiled in metaphorical conceptualisations construed by *up*, the most important of which are: a positive axiological value, big quantity and high velocity.

In contrast, the particle *down*, when combined with the component verb *burn*, conceptualises the completion of the process of burning, which is either brought about by a decrease in quantity (see section 2.4.4.1), or is tantamount to destruction (see section 2.4.4.2), as exemplified by (112a) and (112b), respectively:

(112)

a. *When I wake the candle has burned right down so that in the enamel holder there is nothing but a lava flow or wax.* (BNC)

b. *When his house burned down he bought a smaller four-bedroomed replacement.* (BNC)

Another particle that may conceptualise the completion of an action is *over*, which construes finishing an activity in terms of reaching point C, located at the end of the A-B-C Trajectory (see 2.6.4.1). This construal evokes the image of getting what needs to be done “behind you”, which implies being finished with it on the grounds of the TIME IS SPACE metaphor.

As regards the Control Sense, it is conceptualised by all of the particles analysed in this chapter apart from the particle *up*, which indicates that vertical alignment and movement of objects along a vertical axis appears to be essential for the construal of control. However, each of the particles in question foregrounds different aspects of control. For example, in the construal of control, encoded by the particle *over* (cf. example (70) and (71) in this chapter) the TR is a controlling entity and the LM is the controlled entity. Conversely, when control is conceptualised by *under* the LM is the controlling entity, while the TR is a controlled entity (see (78a), (78b) and (78c)). In the case of the particle

on the TR is the controlling entity as in the case of *over*; however, it exerts control not because of its proximity to the LM but because of being in contact with it. As a result, it is the TR's weight that the LM is supposed to carry which constitutes the source of control (see (103a), (103b), (103c), (103d) and (103e)). Finally, the particle *down* foregrounds the social aspect of control because it encodes being controlled as a result of moving down the social hierarchy in terms of the well-entrenched LOW STATUS IS DOWN metaphor (see (46a), (46b) and (46c)).

The third sense, which is expressed by more than one particle, i.e. the Approach Sense, can be encoded by the particle *up* and *on*. The particle *on* construes approach as an extension of the Future Sense that conceptualises future in terms of the TR moving forwards (see section 2.8.7). This construal is grounded in the well-entrenched TIME IS SPACE metaphor. As regards the Approach Sense encoded by the particle *up*, it is brought about by an experiential correlation between an increase in quantity, understood as the TR "becoming bigger" in the eyes of the conceptualiser and its coming closer to the vantage point (see section 2.3.4.1)

Thus, in view of the above, there are considerable conceptual differences between seemingly "the same" particle senses and, therefore, they should not be considered exchangeable with one another. These divergences stem from different kinds of experience of verticality mediated by the human body, which have been established by linguistic convention as separate lexemes. Consequently, the Completion Sense, the Control Sense and the Approach Sense, each encoded by different particles, merely create the impression of being uniform. In fact, each particle construes the concept of COMPLETION, CONTROL and APPROACH differently, which triggers different semantic and pragmatic effects.

Besides, the analysis presented in this chapter confirms the statement made by Langacker (2010) that configurational and functional properties are not equal in status and that their importance may vary depending on the particle (see 1.3). Thus, while for the particle *on* the TR–LM configuration is virtually the same throughout all the senses because it encodes the TR being located on the surface of the LM and remaining in contact with it,⁸⁹ for the particle *over* it is very much dependent on the geometric properties of the construed scene, i.e. mainly the shape of the trajectory. Thus, in the case of *on* it is basically functional elements triggered by a change of the perspective that de-

⁸⁹ The only reinterpretation that this spatial configuration undergoes is when the scene is reanalysed as a dynamic one, i.e. when the TR reaches the goal located on the surface of the LM.

termine the development of the semantic network of the particle. For example, it has been proposed that an objective construal of the scene may trigger the functional element of either support or control, which have motivated the Support Sense and the Control Sense. A subjective construal encoded by *on* may trigger a functional element of contact or visibility (see section 2.8.2), which has motivated the following senses: the Continuation Sense, the Future Sense, the Approach Sense, the Encouragement Sense and the Pretending Sense. In contrast, for the particle *over*, it has been both the shape and length of the trajectory that has triggered metaphorical extensions. Consequently, non-spatial senses of *over* have been assigned to four clusters of senses: the Point C Cluster, the A-B-C Trajectory Cluster, the B-C Trajectory Cluster and the Higher-than Cluster. The functional element of proximity that has been proposed for this particle by Tyler and Evans (2003) appears to be irrelevant from the point of view of motivating meaning extensions of *over* used as a component in composite particle verbs, since the present research has not produced any findings as to its significance.

As regards the factors determining the semantics of the particles *up* and *down*, it is both the TR-LM spatial configuration and the functional element that are equally important as they are closely intertwined: the end-point of the trajectory located within the conceptualiser's field of vision triggers the functional element of an increase in accessibility/visibility. In contrast, location of the end-point of the trajectory beyond the conceptualiser's line of sight entails the functional element of a decrease in accessibility/visibility. Therefore, it can be stated that the findings of the present research are in line with another claim put forward by Langacker (2010) that particle meanings are complex and they cannot be captured exclusively by the semantic specification that pertains exclusively to function, or configuration.

On the whole, the analysis of non-spatial senses of particles encoding verticality has revealed that their semantics can be guided either by functional properties (*on*), configurational properties (*over*), or a combination of both of them (*up* and *down*).⁹⁰

⁹⁰ As regards the fifth particle, i.e. *under*, the sample is too small to draw any valid conclusions.

CHAPTER 3

Non-spatial extensions of the Polish prefixes *nad-*, *pod-*, *na-*, *w-*, *wz-* and *z-*

3.1. Introduction

The aim of this chapter is to present semantic networks of verbal prefixes, encoding position or movement along a vertical axis in Polish. Since, as stated in chapter 1 (section 1.6), prefixes in Slavic languages, including Polish, semantically correspond to the prepositions from which they have been derived, each subsection begins with a description of the primary sense of the preposition¹ that a given prefix is related to both historically and semantically. The prototypical sense is established on the basis of five criteria that are the basis of the principled polysemy framework and proposed by Tyler and Evans (2003). Next, other spatial senses of a particular preposition are presented, but only those that motivate non-spatial senses of verbal prefixes through metaphorical extensions as well as other construal operations (discussed in section 1.5).

The order in which Polish verbal prefixes and cognate prepositions are described, mirrors – to the extent to which it is possible – the sequence followed in chapter 2, devoted to English particles. Thus, since in Polish there are no prepositions or prefixes that would directly correspond to the particles *up* and *down*, which open the analysis in chapter 2, the present discussion begins with the prefix *nad-*, corresponding to the English particle *over*, the analysis of

¹ In the analytic part devoted to Polish I stick to the term *preposition* because in the Polish linguistic tradition the notion of the particle has never been used in the context of spatial language. Instead, this concept is restricted to uninflected and dependent sentence parts, such as the interrogative particle *czy* ‘whether’ or *chyba* ‘perhaps, maybe’. Grochowski (1986) distinguishes two types of particles: *partykuły adverbialne* ‘adverbial particles’, such as *niech* ‘let sb. do sth.’, which combine with verbs, and *partykuły adnominalne* ‘adnominal particles’, which enter into syntagmatic relations with nouns, such as *lada* ‘the slightest’.

which follows the study of the *up – down* contrast set. Because *nad* occurs in the contrast set with *pod*, the prefix *pod-* is discussed next, which is followed by a study of the prefix *na-*, corresponding to the particle *on*, which closes the analysis of the English sample carried out in chapter 2. The present chapter finishes with a study of prefixes that only very roughly correspond to the English particles *up* and *down*, i.e. *w-*, *wz-* and *z-*, which may conceptualise upwards and downwards movement, respectively; however, these are by no means their basic or frequent senses.² On the contrary, the senses in question are quite marginal and for this reason they are described at the end of the present chapter.

One of the objectives set to the analysis carried out in the present chapter is to establish whether non-spatial senses of the five Polish prefixes are primarily motivated by the specific TR–LM configuration or functional element(s).³ Accordingly, in the sections to follow, the senses of prefixes under study are organised (in descending order of frequency) around either a particular spatial TR–LM configuration or a specific functional element, depending on which of them plays a decisive role in generating meaning extensions. Another objective of the study to follow is to come up with a semantic network of non-spatial senses of each verbal prefix (presented at the end of each subsection) and to account for the mechanism(s) of semantic extension from the primary sense of the cognate preposition.

The description of prepositional meanings draws to a certain degree on the work of Przybylska (2002), while the analysis of verbal prefixes is based to some extent on the list of senses distinguished by Śmiech (1986) and Szymanek (2010). Because the aim of the present work is to formulate hypotheses concerning metaphorical conceptualisations, made at the supra-individual level (see section 1.2), a lexical approach (Kövecses 2011, 2017) is implemented, which means that lexicographic data is used for the construction of the semantic network of each prefix. Consequently, the meanings of prefixes

² For example, SJP PWN (CD version) provides the following information concerning the meaning of the prefix *z-* in entry 2b) “this prefix combines with verbs that denote the removal of an entity from a place or surface, or moving away from a place, usually from the upwards location to the downwards location, from inside to outside, or in connection with changing the direction of movement” [translation mine]. Thus, as can be seen, the downwards movement is not even listed as a separate dictionary entry for the prefix *z-*, let alone the fact the sub-entry defining this particular sense comes as the third one in the entry for the prefix *z-*.

³ Cf. section 1.3 and 2.1.

are identified on the basis of data provided by distinct entries in SJP PWN (*Słownik języka polskiego PWN*) (CD edition). The explanation of the embodied senses of prefixes is followed by the study of their instantiations derived mostly from NKJP corpus (*Narodowy Korpus Języka Polskiego*), supplemented with examples from SJP PWN corpus (PWN corpus which accompanies the online version of SJP PWN).

3.2. Semantics of *nad-*⁴

The aim ascribed to this subchapter is to demonstrate that non-spatial meanings of the verbal prefix *nad-* stem from human experience of spatial relations, conceptualised by the preposition *nad*. Therefore, the present section starts with a description of the primary sense of the preposition *nad*.

3.2.1. Proto-scene for *nad*

Since verbal prefixes are derived from prepositions and are closely related to them,⁵ I will begin my analysis by presenting a proto-scene for the preposition *nad*, which like many other Polish prepositions may combine with the noun in two or more cases.⁶ According to Przybylska (2002), *nad* is not frequent in Polish corpora and it is combined far more frequently with the noun in the instrumental case than that in the accusative case. This should be taken to mean that it specifies more frequently the location of the TR as being higher than the LM, rather than the TR's movement to this position. Thus, within the principled polysemy framework, it satisfies the criterion (2) of prototypicality laid down by Tyler and Evans (2003: 47), which is predominance in the semantic network. The force-dynamic structure of events, conceptualised by this sense of the preposition *nad* (as used in (1)) is neutral (Croft and Cruse 2004), which means that it is construed as static. Consequently, no forces participate in it, apart from the force of gravity. Consider an instantia-

⁴ This chapter is based to some extent on the conference paper 'Polysemy of verbal prefixes and particles expressing the relation OVER in English, Polish and Italian' read at the conference *Universals and Typology in Word Formation III*, held at P.J. Safarik University in Kosice in June in 2015, and its subsequent publication (Konieczna 2016).

⁵ Bańkowski (2000) claims that the meanings of the preposition *nad* and the prefix *nad-* are incompatible; however, as will be argued in the following, it is not the case.

⁶ For instance, the preposition *w* 'in' and *na* 'on' may combine with the noun in the locative and accusative case, *pod* 'under' combines with the noun in the instrumental and accusative case, etc. (Przybylska 2002).

tion of the ‘higher than’ sense of the preposition *nad* in (1) in which the TR, represented by the noun *lampa* ‘lamp’, is positioned higher than the LM, *stół* ‘the table’:

(1)

Od 100 lat z górą ta sama lampa wisi nad stołem w salonie. (NKJP)

[over table.INS]

‘For over a hundred years the same lamp has been hanging over the table in the living room’.

According to Bańkowski (2000), the earliest meaning of the preposition *nad* in Proto-Slavic conveyed the position ‘higher than’, at the same time precluding the possibility of contact.⁷ Bańkowski (ibid.) claims that in Old Polish *nad* had a far wider range of meanings than nowadays, because in contemporary Polish some of its senses have been taken over by *ponad* ‘above/over’. As regards other criteria laid down by Tyler and Evans (2003), which should be met if a given sense is to be regarded as primary, *nad* forms a contrast set with *pod* ‘under/lower than’ and it is the sense ‘higher than’ that is used in the formation of this set.⁸ It is also used in composite forms, such as *nadinspektor* ‘the officer higher in rank than the inspector’ and *nadkole* ‘protective anticorrosive shield located over the car wheel’, etc. Finally, as will be shown below, the sense at issue constitutes a basis for metaphorical extensions.

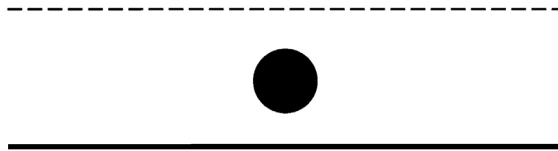


Figure 3-1. Proto-scene for *nad*

Fig. 3-1 shows a proto-scene for the Polish preposition *nad*, which represents its primary sense. The TR is symbolised by the dark sphere and the LM

⁷ Similarly, in modern Polish *nad* dismisses the possibility of contact unlike English particle *over*, which allows for it.

⁸ While claiming that the sense ‘higher than’ is the oldest meaning of *nad*, common to other Slavic languages, Bańkowski (2000) also proposes that the prototypical meaning of *nad* is a result of secondary juxtaposition of this preposition with *pod* ‘under’ so that *nad* and *pod* would function as exact antonyms. The author suggests that the meaning of the prefix *nad-* is more archaic than the meaning of the preposition *nad*. This would explain why the prefixes *nad-* and *pod-* are not antonymic in many complex verbs, such as *nadjechać* [over-go] and *podjechać* [under-go].

by the horizontal solid line. The area between the solid line and the dashed line stands for the sphere of mutual influence between the TR and the LM, which is a meaningful consequence of this particular TR-LM configuration (see section 3.2.2 for an explanation). Thus, as regards the graphic representation of the proto-scene of the preposition *nad*, it is exactly the same as that for the English particle *over* (see Fig. 2-11). Notwithstanding that, the two proto-scenes are reanalysed very differently in the two languages, which gives rise to quite dissimilar meaning extensions. Consequently, as will be shown in the following sections, the semantic networks of the English particle *over* and the Polish verbal prefix *nad-* are largely incompatible.

3.2.2. Functional elements encoded by *nad*

The spatial configuration between the TR and the LM, represented by the proto-scene in Fig. 3-1 has triggered several functional elements. First of all, the functional element of mutual influence is a direct consequence of the TR and the LM being close to each other. Consider the following sentence:

(2)

[*Żona*] *stała nad kołyską i przyglądała się dziecku.* (NKJP)

‘[The wife] was standing over the cradle and looking at the baby’.

As regards the scene in (2), the wife is not only physically higher than the cradle, but also she is close enough to hear her baby crying. At the same time the baby can see his or her mother and probably feels more secure on account of this. Thus, it can be stated that the baby and his or her mother are within the sphere of each other’s influence. Another consequence of the spatial configuration, construed by sentence (2) is that the TR, represented by the mother, wields power over the LM, i.e. the child, which amounts to the functional element of domination. Associating an elevated position with domination is deeply entrenched in both human culture and experience. For example, the winner of a fight, such as e.g. wrestling, ends up being higher than the loser and the person who is socially superior, such as an employer, can frequently be found in a position in which they stand over their employee to check the results or progress in their work.

The aim of the following sections is to investigate whether it is the functional elements or the reanalyses of the proto-scene that trigger the emergence of non-spatial senses of the preposition *nad* and the abstract meanings of the prefix *nad-* closely related to them.

3.2.3. Reanalysis of the proto-scene: spatial extensions of the preposition *nad*

A full list of the senses of the preposition *nad* can be found in Przybylska (2002), and the present discussion will focus only on those senses of the preposition *nad* that are related to the non-spatial meaning of the verbal prefix *nad-*.

The proto-scene for the preposition *nad* can be reanalysed so that the relationship of closeness is profiled, while the relationship of vertical alignment is backgrounded or even relegated to the base. This happens when *nad* is used to describe the location of an area (functioning as the TR) situated over topographic objects, such as, the river, the sea or the lake (LM), etc., naturally located below the surface of the earth. Przybylska (2002) states that even though the TR is physically higher than the LM, which can be exemplified by the phrase *Kraków nad Wisłą* ‘Cracow upon the Vistula’, the topological configuration of one entity situated over another entity is backgrounded because of the implicature provided by the context, which is that the TR is situated close to the LM. This conceptualisation is graphically represented in Fig. 3-2, where the TR, represented by the shaded sphere, is located close to and at the same time higher than the LM, designated by the rectangle.

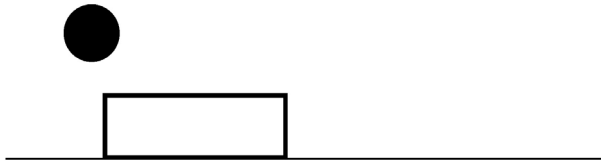


Figure 3-2. Preposition *nad* profiling being close to and higher than the LM

If the relationship of verticality is shifted to the base, the preposition *nad* merely profiles the TR being located close to the LM. Consequently, the TR and the LM are located on the same level without the former towering over the latter, as exemplified by sentence (3), which conceptualises the TR, represented by the subject of the sentence *wnuk* ‘grandson’, being in close proximity to the LM, i.e. *granica z Chinami* ‘border with China’:

(3)

Wnuk przemierza z bronią dżungle Kampuczy lub czuwa nad granicą z Chinami.
(NKJP) [over border.INS with
China.INS.PL]

‘The grandson tramps through the jungles of Kampuchea with arms or keeps watch near the border with China’.

Thus, the proto-scene for *nad* has been reanalysed in the way shown in Fig. 3-3. In the spatial scene, representing the Closeness Sense, the TR, represented by the dark circle, is close to the LM, which is represented by the rectangle. Thus, the spatial relationship of verticality is absent from this construal.



Figure 3-3. The Closeness Sense of the preposition *nad*

The preposition *nad* can also be used in the construal of a scene that has a force-dynamic value. In this case it conceptualises the direction of the TR's motion towards the LM, represented by the noun in the accusative case. The preposition is combined with the verb, encoding the manner of motion, such as, e.g. *dojść/dotrzeć/dojechać nad* 'to go/get to'. In this sense the preposition *nad* conceptualises the TR's movement towards the location that is higher than and close to the LM (4a), or only close to the LM (4b):

(4)

a. *We czwórkę ruszyli nad przepaść.* (NKJP)

[over precipice.ACC]

'In a group of four they set off towards the precipice'.

b. *Trzeba minąć kościół i dotrzeć na kraniec wsi, niemal nad granicę z wioską Ropa.*

(NKJP)

[over border.ACC]

'You need to pass the church and reach the edge of the village, almost on the border of the village Ropa'.

The emergence of the dynamic sense of the preposition *nad* can be regarded as a consequence of both sequential and summary scanning (Langacker 1987), similarly to that for the particle *over*.⁹ This should be taken to mean that by analysing the spatial scene in which the TR is located higher than the LM (encoded by sentence (1)), the construer carries out the operation of sequential scanning thanks to which they realise that point B is only one of many points on the trajectory. Next, they perform the operation of summary scanning through which the whole trajectory, encompassing the starting point of the path, the path itself as well as the end-point, is construed as a single unit even though in the real world neither two extreme points of the trajectory,

⁹ See section 2.6.2.

(marked as A and B in Fig. 3-4) nor the intermediate points between them, objectively exist in the conceived time.

While sentence (4a) conceptualises the TR moving along a trajectory whose end-point is located not only close to but also higher than the LM, the topographic aspect of verticality is not present in sentence (4b), in which *nad* construes motion towards the LM, located on the same level as the TR. Consider Fig. 3-4, graphically representing the construal encoded by sentence (4a), in which the semantic component ‘higher than’ is still part of the preposition’s profile.

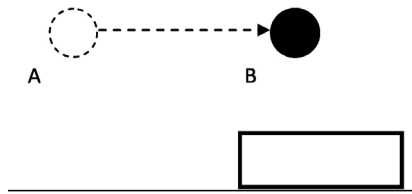


Figure 3-4. The Approach Sense I of the preposition *nad* (containing a ‘higher than’ semantic component)

In this sense of the preposition *nad*, which I will refer to as the Approach Sense I,¹⁰ the TR represented by the dark circle, has reached a point located higher than the LM. At the same time the TR is closer to the LM at point B than it was at point A. The TR typically proceeds on the horizontal plane and its movement is represented by means of a broken horizontal line.

Consider Fig. 3-5, which is a graphic representation of the scene linguistically encoded by (4b), where the semantic component of verticality is absent from the profile of the preposition *nad*.

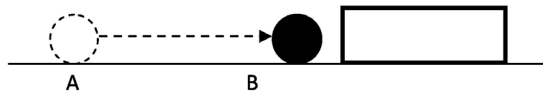


Figure 3-5. The Approach Sense II of the preposition *nad* (horizontal approach)

¹⁰ Since the preposition *nad* also encodes approaching the LM without encoding the concept of verticality, I have decided to make a formal distinction between these two conceptualisations. Consequently, the Approach Sense I contains the semantic component of verticality, while the Approach Sense II does not. As regards, the Approach Sense I, it can be argued that *nad*, which is used as a preposition of path, is metonymic as it conceptualises the TR’s path in terms of its end-point through END-POINT OF A PATH FOR THE WHOLE PATH metonymy.

In this sense of the preposition *nad*, which I refer to as the Approach Sense II, the TR, represented by the dark circle, has moved from point A to point B, i.e. towards the LM (the TR's movement is represented by means of a broken horizontal line). This should be taken to mean that while the TR has approached the LM, it has not got to it, as there is still some distance between point B and the LM to be covered if the LM is to be reached.

The scene construed by *nad* may acquire a force-dynamic value not only in the course of the reanalysis carried out along the lines described above, but also through reanalysing a proto-scene in the way presented in Fig. 3-6 by means of sequential and summary scanning. Thus, the construer realises that the TR's location in a place higher than the LM has been entailed by its moving or being moved there from the previously occupied point in space. Through the operation of sequential scanning the conceptualiser realises that point B is merely one of many points occupied by the TR. Next, the conceptualiser carries out the operation of summary scanning through which the whole trajectory, encompassing the starting point of the path, the path itself as well as the end-point, is construed as a single unit even though in the real world neither two extreme points of the trajectory, (marked as A and B in Fig. 3-6) nor the intermediate points between them, objectively exist at the same time.

In the graphic representation of the sense of the preposition *nad* that I refer to as the Vertical Elevation Sense, the starting point of the trajectory is located close to the LM, either on its surface or in its vicinity, at point A, and its end-point, marked as point B, is positioned higher than the LM.¹¹ Even though the TR ends up higher than the LM it is close to it and, in a vast majority of cases, also perpendicular to it.

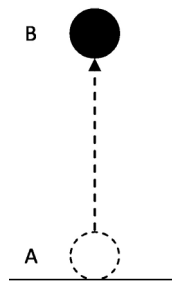


Figure 3-6. The Vertical Elevation Sense of the preposition *nad*

¹¹ This construal corresponds to the Vertical Elevation Cluster, referred to as the Up Cluster as well, proposed for the particle *over* by Tyler and Evans (2003: 96). For an explanation of the distinction between the authors' (ibid.) approach and my approach see section 2.6.3.

Consider sentence (5), in which the preposition *nad* encodes the Vertical Elevation Sense: the TR, represented by the noun *kursor* ‘cursor’ moves from point A located near the LM, i.e. *okno* ‘window’, and terminates its movement at point B located higher than the LM.

- (5)
Przesuń kursor myszy nad okno 3D. (NKJP)
 [over 3D window.ACC]
 ‘Move the cursor over the 3D window’.

3.2.4. The Approach Sense II of the prefix *nad-*

Even though the aim of the present monograph is to provide an account of the non-spatial senses of verbal prefixes in Polish that encode verticality, the present section constitutes an exception because its purpose is to focus on the Approach Sense (II) of the prefix *nad-*.¹² The reason for the departure from the usual procedure is an attempt to demonstrate an extremely close correspondence between this particular spatial sense of the preposition *nad*, and the most productive non-spatial meaning of the prefix *nad-*, which is the Partial Effect Sense (see 3.2.5.2).

For the purpose of the present research, 48 verbs from SJP (CD version) have been extracted. The prefix *nad-*, which occurs in the Approach Sense II (as presented in Fig. 3-5) seven times combines with verbs, expressing the manner of motion, such as *jechać* ‘to go, to drive’, *lecieć* ‘to fly’, *ić* ‘to walk, to go’, *biec* ‘to run’, *płynąć* ‘to swim, to sail’, as exemplified by the following sentences:

- (6)
 a. *Tam z naprzeciwka nadjeżdża autobus, a droga wąska.* (NKJP)
 [over-go.3SG.PRS.PROG]
 ‘There from the opposite direction the bus is arriving but the road is narrow’.
 b. *Niedługo nadlecą bociany.* (NKJP)
 [over-fly.3PL.FT]
 ‘Soon storks will come flying’.
 c. *Nadbiegł doktor, chłopcy i Kasia.* (SJP PWN corpus)
 [over-run.3SG.PT.PF]
 ‘The doctor, the boys and Kasia came running up’.
 d. *Nadpłynęli od strony otwartego morza.* (SJP PWN corpus)
 [over-swim.3.PL.PT.PF]
 ‘They came in from the side of the open sea’.

¹² The same exception has been made for the prefix *pod-* ‘under’.

- e. *Od strony szatni nadeszła drobna, kasztanowatowłosa jeszcze dziewczyna i już kobieta.* (NKJP) [over-come.3SG.PT.PF]

‘From the direction of the cloak room came a petite, chestnut-haired girl, who was about to become a woman soon’.

As Śmiech (1986) has observed, and the above examples demonstrate, motion verbs with the prefix *nad-* can denote either gradually approaching a goal: (6a), (6b) or reaching it: (6c), (6d) and (6e), depending on the grammatical form of the component verb.¹³ According to Wróbel (1999), when used in the sense I refer to as the Approach Sense II, the prefix *nad-* construes the scene in such a way that the destination point is the same as the vantage point, and the observer expects the arrival of the entity expressed by the subject of the sentence. Consequently, as observed by Szymanek (2010), composite verbs, containing the prefix *nad-* used in the sense at issue do not appear with first person subjects (7a) and are not followed by locative adverbials realised as prepositional phrases (7b):

(7)

- a. **Nadjechałem.*

‘I arrived’.

- b. **Janek nadjechał na dworzec.*

‘Janek arrived at the station’.

This tendency stems from the construal of the scene, encoded by the prefix (cf. observation made by Wróbel 1999), in which the LM corresponds to both the vantage point and the observer. Thus, the knowledge of real-world force-dynamics (Tyler and Evans 2003) excludes the observer from the role of the subject, as it is unfeasible to observe the action we perform ourselves. Besides, since the implicit LM, i.e. the vantage point, corresponds to the ultimate goal of the movement, there is no need to mark explicitly the TR’s goal¹⁴ by means of a prepositional phrase. In this construal the conceptualiser figures in the scene, so it is construed with a high degree of objectivity.

At this point it is worth remarking that two verbs containing the prefix *nad-* profiling the Approach Sense II, which are very common: *nadchodzić* and *nadciągać* (364,000 and 580,000 Google hits, respectively, on June 21th, 2016),

¹³ In this particular case it is the distinction between past and non-past verb forms that is relevant in the sense that in the former case the prefixed verb encodes reaching the destination point, while in the latter merely approaching it.

¹⁴ Understood as the goal in the SOURCE-PATH-GOAL schema, i.e. the final point of the TR’s path.

are most frequently used metaphorically, as they denote approach in time not in space. This conceptualisation has been triggered by a well-entrenched TIME IS SPACE metaphor through which the domain of time is mapped metaphorically onto the domain of space, as exemplified by sentences in (8) which conceptualise the coming of an autumn (8a) and fashion (8b):

- (8)
- a. *Kiedys nadejdzie jesień.* (NKJP)
'Some day the autumn will come'.
 - b. *Moda nadciąga z zachodu.* (SJP PWN corpus)
'Fashion trends are coming from the West'.

Importantly, when the prefix *nad-* is used in this sense it is usually only the domain of SPACE that is activated, as demonstrated in (6). In certain communicative situations also the domain of SOCIAL RELATIONS (9a) as well as the frame of UNEXPECTED ARRIVAL (9b, 9c) may be activated besides the domain of SPACE. This happens under the influence of contextual factors, such as the social situation (9a) or physical environment (9b, 9c):

- (9)
- a. *Uwaga! Dyrektor nadchodzi.*¹⁵ (NKJP)
'Look out!. The boss is coming'.
 - b. *Po raz kolejny odniósł wrażenie, że pociąg nadjechał z niewłaściwej strony.* (NKJP)
'Again he had the impression that the train had come from the wrong direction'.
 - c. *Jakby znikąd nadpłynęła cała ławica srebrzystego narybku.* (NKJP)
'As if from nowhere the whole shoal of silvery fry swam up'.

The concept of the TR's superiority, encoded by the prefix *nad-*, as exemplified by (9a), has been activated by the contextual factor that is referred to as social situation by Kövecses (2015). Social interaction can frequently be described in terms of the scene, characterised by an experiential correlation between vertical elevation and superiority: during many official events those who are socially superior occupy places of honour, such as VIP boxes or parade stands, towering over common people. The conceptual link between vertical elevation and superiority is formed as early as in our childhood: our parents, who are then superior to us in every respect, are also taller.

As regards the frame of the UNEXPECTEDNESS of the TR's appearance in the vicinity of the LM (which corresponds to the vantage point), ex-

¹⁵ <http://johann-vreen.blogspot.com/2012/02/jeden-dzien-z-zycia-dyrektora.html>. Compare this sentence with *Podejdz tu do mnie!* 'Come up to me' in which the prefix *pod-* 'under' marks the inferiority of the person who is supposed to fulfil the order.

emplified by sentences (9b) and (9c), it can be proposed that it has been activated under the influence of the physical environment in which the spatial scene is construed. This should be taken to mean that when an object, representing the TR is initially located higher than the conceptualiser and then reaches the conceptualiser's eye level, its appearance therein is seen as unexpected on account of the fact that its trajectory remains out of sight. For example, if an object such as a leaf lands in front of us from above, we usually do not expect it because before making its appearance it is above our heads and we do not see it with our eyesight canonically oriented towards objects located in front of us, not above us. Therefore, following a trajectory located higher than the line of the conceptualiser's eyesight is experientially correlated with making an unexpected appearance.¹⁶

3.2.5. Non-spatial senses of the prefix *nad-*

3.2.5.1. Data and frequency of senses

Table 3-1 below presents the frequency of senses of the Polish verbal prefix *nad-*, which is a fairly infrequent prefix in modern Polish, as has already been noted by Szymanek (2010). The SJP search has yielded 48 verbs containing the prefix *nad-*, out of which 7 have been excluded from the analysis in the present section¹⁷ on the grounds of the fact that they profile coming closer to the LM. This gives 41 verbs subjected to analysis, one of which is polysemous, hence 42 occurrences of the prefix *nad-* in the sample. The numbers in the percentage column are rounded off to two decimal places.¹⁸

As Table 3-1 reveals, the inventory of senses of the verbal particle *nad-* is very limited, which stands in sharp contrast to the semantic network of the English particle *over*. The semantic network of the prefix *nad-* comprises merely three semantic categories: the Partial Effect Sense, which is the most productive, the More Sense, and the virtually unproductive Excess Sense. In the following sections I am going to present the three senses in question organised around spatial senses of the preposition *nad* with the aim of demonstrating a close correspondence between prepositional and prefixal meaning.

¹⁶ Probably because the activation of the semantic component of social superiority and unexpected appearance is heavily context dependent, SJP PWN does not attest either of them as distinct senses of the prefix *nad-*.

¹⁷ They have been discussed in section 3.2.4.

¹⁸ The same procedure is applied for all the Polish prefixes analysed in the present chapter.

Table 3-1. Frequency of senses of the prefix *nad-*

Sense of prefix <i>nad-</i>	Number of occurrences	Percentage
Partial Effect	27	64.28
More	13	30.95
Excess	2	4.76
Total:	42	100 ¹⁹

3.2.5.2. The Approach Sense II and its extension

The Approach Sense II of both the preposition *nad* and the prefix *nad-* has triggered the Partial Effect Sense of the verbal prefix *nad-*. The name of the sense is based on Śmiech (1986: 106), who remarks that verbs prefixed by *nad-* denote “performing an action only partially, approaching a target without reaching it” [translation mine]. This sense has originated as a result of an experiential correlation between coming close to a destination and partial attainment of one’s goal. As exemplified by sentence (4a) and (4b), approaching the precipice and the border, respectively triggers the implicature of partial attainment of the goal of the undertaken action. Due to the shift in profile of the preposition *nad* the concept of partial goal attainment is foregrounded, while the original concept of approaching a physical object in space is backgrounded. When the implicature of partial attainment of the goal is pragmatically strengthened, the concept of partial attainment of the goal undergoes a schematisation through which it is dissociated from the spatial domain. Subsequently, it becomes possible to conceptualise partial attainment of the goal through cross-domain mapping in terms of the PARTIAL ATTAINMENT OF THE GOAL IS COMING CLOSER metaphor. I refer to the sense of the prefix *nad-* produced in the course of the above-described construal operations as the Partial Effect Sense.²⁰ Consider an instantiation of this sense:

¹⁹ This is 100 per cent in round figures (99.99 to be precise) due to the fact that individual percentages have been rounded off to two decimal places.

²⁰ The emergence of this sense can also be accounted for in terms of the EVENT-STRUCTURE metaphor in which actions that are conceptualised as self-propelled movements and working towards a goal can be construed as approaching the intended destination, which is represented by the goal in the SOURCE-PATH-GOAL schema.

(10)

I nadciął skórę puginatem. (NKJP)

‘And he scored the skin by means of the dagger’.

In the construal of the scene in (10) the action of cutting the skin was performed only partially, which means that the skin has not been divided into two parts by means of the dagger but that its surface has only been marked with notches. Additionally, the verb *nadciąć* ‘to score’ implies that the action of cutting has been directed onto the surface of the skin from above, so the prototypical spatial configuration in which the TR is located above the LM at the beginning of its trajectory is preserved. Note some other sentences, in which the prefix *nad-* designates the Partial Effect Sense:

(11)

a. *Wystarczyło nadpruć poszewkę.* (NKJP)

‘It was enough to unstitch the pillowcase a little’.

b. *Czasem trafi się też nadpsuta²¹ kielbasa [...].* (NKJP)

‘Sometimes it is also possible to come across a sausage, which has started to spoil’.

c. *Wybuchł pożar, wóz został nadpalony – ale nie zniszczony dokumentnie.* (NKJP)

‘The fire broke out, the cart was burnt partially, but not totally destroyed’.

The prefix *nad-* construes a partial performance of an action conceptualised by the base verbs, i.e. unstitching (11a), spoiling (11b) and burning (11c), respectively, which elaborate the e-site of the prefix by specifying the kind of the undertaken action. The TR of the construed scene is the action encoded by the prefixed verb and the implicit LM is the ultimate goal of the action, which would only be achieved if the action was fully implemented, i.e. if the final boundary transition to the result state was carried out.

In fact, composite verbs, containing the component prefix, encoding the Partial Effect Sense, profile merely an initial boundary transition (in the sense of Croft 2012, as laid out in section 1.7), which means that the aspectual contour of an event begins with a bounded point to be followed by the transition from the rest phase and then unbounded continuation (see Fig. 3-7). Janda (2015b) classifies such verbs as *ingressive phasal perfectives*.²²

²¹ *Nadpsuć* (*się*) occurs mainly in the form of passive participle: *nadpsut/y/a/e*. NKJP contains merely isolated instances of this verb used in any other form.

²² Szymanek (2010) refers to this kind of aspectual meaning as *inceptive aspect*. In order to construe the final boundary transition to the result state, a telic prefix *s/z/ze-* would have to be used yielding: *spruć* ‘to unpick’, *zepsuć się* ‘to spoil’ and *spalić* ‘to burn’.

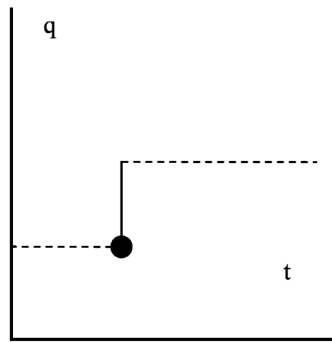


Figure 3-7. Janda's (2015b: 14) phasal perfectives

Interestingly, the prefix *nad-* designated the Partial Effect Sense far more frequently in the past than in modern Polish, as attested by numerous examples from the dictionary compiled by Doroszewski (online edition²³). Let me present some verbs with the prefix *nad-*, encoding the Partial Effect Sense, which are now obsolete and not listed in the dictionaries of contemporary Polish: *nadrąbać* [over-chop] 'to chop a little', *nadniszczyć*²⁴ [over-destroy] 'to destroy a little', *nadrujnować*²⁵ [over-ruin] 'to ruin a little', *naddziobać* [over-peck] 'to peck a little', *nadkręcić* [over-twist] 'to twist a little', *nadczekać* [over-wait] 'to wait for a short time', etc.

The construal of partial performance of an action encoded by the prefix *nad-* can be rendered neither by the particle *over* nor by the corresponding prefix *over-* on account of the fact that none of the reanalyses of the proto scene for the preposition *over* allows for the construal of being close to the LM or approaching it. Verbs prefixed by *nad-*, whereby the prefix encodes the Partial Effect Sense, are usually translated into English by combining the base verb with an adverb *slightly*, *partially*, *a bit*, or *a little*, e.g. *nadpalić* 'to burn partially', *nadłupać* 'to chip slightly', *nadpsuć* 'to spoil a little' or the infinitive

²³ The dictionary can be accessed at: <https://sjp.pwn.pl/doroszewski>.

²⁴ In modern Polish *nadniszczyć* has been replaced by the verb combined with the prefix *pod-* i.e. *podniszczyć*. At the time at which the Doroszewski dictionary was compiled the two verbs functioned as synonyms, as verified by Doroszewski.

²⁵ As attested by Doroszewski, *nadrujnować* used to be synonymous with *podrujnować*. Nowadays neither of the two verbs is listed in dictionaries of modern Polish, e.g. SJP PWN. Only *podrujnować* has generated a significant number of Google hits, i.e. 388 (June 22nd, 2016), and as the Internet search has shown its use is limited to informal language or word games.

construction with the verb *start*, e.g. *nadgnić* ‘to start to rot/decay’ (English equivalents have been taken from *PWN Oxford Polish English Dictionary*).

3.2.5.3. The Vertical Elevation Cluster

The Vertical Elevation Sense of the preposition *nad* has given rise to two metaphorical extensions of the prefix *nad-*: the More Sense, represented by 13 occurrences and the Excess Sense, represented only by 2 occurrences in the sample. As the Vertical Elevation Sense has triggered the emergence of two senses of the prefix *nad-*, it constitutes the basis of the Vertical Elevation Cluster.

The More Sense

The More Sense of the prefix *nad-* is motivated by the Vertical Elevation Sense of the preposition *nad*, which is represented in Fig. 3-6. Consider the bridging context for the emergence of this sense:

(12)

a. *A dopiero w 1962 roku odważyły się siostry oficjalnie nadbudować piętro.* (NKJP)
[over-build.INF]

‘And only in 1962 did the nuns officially agree to add yet another floor’.

b. *Główny trzon katedry trzeba było nadmurować o wysokość jednego metra.* (NKJP)
[over-build.INF from bricks]

‘The main skeleton of the cathedral had to be made higher by one metre’.

The scenes represented by (12a) and (12b) exemplify an experiential correlation between vertical elevation and an increase in quantity: erection of the building is accompanied by an increase in its height. Accordingly, this type of contextual use of the prefix *nad-* has given rise to the implicature of an increase in quantity. This should be taken to mean that within the conceptual base, represented by the prefix *nad-*, the concept of an increase in quantity has been profiled, while that of vertical elevation has been relegated to the base. When the implicature of an increase in quantity is pragmatically strengthened, the concept of the rise in amount undergoes schematisation through which it becomes detached from the spatial domain. Consequently, it is possible to conceptualise an increase in quantity metaphorically through cross-domain mapping.

According to Śmiech (1986), verbs from (12) were created from the component verbs followed by prepositional phrases: *budować nad czymś* ‘to build over something’ and *murować nad czymś* ‘to build out of bricks over something’.²⁶ In

²⁶ The emergence of the verbs in question exemplifies a typical instance of the development of prefixed verbs, which, as it has been elucidated in section 1.6, evolved from the verbs combined with prepositions or prepositional phrases.

the construal, represented by sentences (12a) and (12b) the implicit LM should be understood as the level that each of the buildings reached before the action of adding another layer to them commenced. The TR is represented by the process of making the building higher.

As regards the use of the prefix *nad-* in this sense in modern Polish, it is not productive (cf. Szymanek 2010), still it can be exemplified by several verbs, such as: *nadrobić* ‘to make up for’, *nadwżyć* ‘to weigh more than requested’, *nadstuchiwać* ‘to listen out for’ or *nadpłacić* ‘to overpay’.²⁷ These verbs conceptualise going over the norm, usually represented by a non-physical LM, which is implicit:²⁸

(13)

- a. *Media poświęcają hokejowi na trawie mało miejsca. Można to będzie nadrobić.*
(SJP PWN corpus) [over-do.INF]
‘The media devote little attention to field hockey but there will be an opportunity to make up for it’.
- b. *Lubiła oczywiście aplauz widzów i nadstuchiwała oklasków; kiedy opadła kurtyna.* (NKJP) [over-listen.3SG.PT.IMPf]
‘Obviously, she liked the acclaim of the audience and was listening out for their applause when the curtain dropped’.

In (13a) the amount of time that is normally devoted to broadcasting field hockey tournaments is conceptualised as the implicit LM of the construal, while the TR is the process of increasing it. Thus, making up for the insufficient coverage of hockey is construed in terms of a submetaphor of the EVENT STRUCTURE metaphor, namely CHANGES ARE MOVEMENTS. In this particular case a change that consists in extending the stretch of time put into transmitting hockey is conceptualised in terms of upwards movement in accordance with the primary metaphor MORE IS UP. As regards (13b), the implicit LM of the construal is the regular intensity of the

²⁷ Szymanek (2010) underlines the difference between *nadpłacić* [over-pay] and *przeplacić* [across-pay], which are both translated by the *PWN Oxford Polish English Dictionary* as ‘to overpay’. As a result, the difference in the meaning and use of the two verbs is lost, because the former one is used in the context of official dealings with a bank or revenue office and it refers, e.g. to a situation in which clients pay higher instalments than those established in the agreement because they intend to pay off the credit earlier. *Przeplacić*, in turn, is used in the context of a buying event when the customer pays more than necessary for the goods because he/she does not bargain for the price, or does not know market prices, as in *Przeplaciłeś za to mieszkanie* ‘You paid too much for this flat’.

²⁸ The exception to this rule is the verb *nadwżyć*, which construes exceeding the norm in physical terms, i.e. weighing more than originally requested or intended.

listening process, which corresponds to the TR. If the need arises, (to make sure that an artist will hear applause once it begins), the listening process should become more intense, which is conceptualised as going over the LM. Similarly to sentence (13b) a change from the norm to a higher intensity is conceptualised in terms of a submetaphor of the CHANGES ARE MOVEMENTS metaphor, i.e. BECOMING MORE INTENSE IS MOVING UP.

At this point it needs to be remarked that even though the prefix *nad-* is not used productively in the More Sense in contemporary Polish, in the past it used to be far more common, as attested by data from Doroszewski's dictionary, which contains verbs that are not used any longer, such, for example, *nad-lać* [over-pour] 'to pour more', *nadliczyć* [over-count] 'to count more than necessary', *nadnieść* [over-bring] 'to bring something additionally' or *nad-pisać* [over-write]²⁹ 'to write too much', etc.

The Excess Sense

The Excess Sense is motivated by the Vertical Elevation Sense and the More Sense (construed as vertical elevation) on the grounds of the fact that a big quantity can sometimes become larger than expected or desired and, consequently, it becomes excessive. For example, eating more than necessary ends up in feeling gorged, and taking on more work or duties that one is capable of coping with leads to both physical and mental fatigue and may result in exhaustion. Thus, given an experiential correlation between vertical elevation and surplus, it is possible to construe the Excess Sense in terms of going higher than the LM, i.e. by means of the prefix *nad-*.

²⁹ The verb *nadpisać* is used in contemporary Polish but not in either of the two senses, attested by Doroszewski, i.e. 1. 'to write sth. above the text at its beginning' 2. 'to write too much'. Nowadays its use is restricted to the IT register and it means 'to remove information in the file or on a screen by means of placing other information there'. Thus, it can be treated as a semantic borrowing from English, in which the verb *overwrite* is used in the same meaning. Szymanek (2010) notices that the prefixed verb *nadpisać* 'to overwrite' was not attested in the dictionaries of contemporary Polish, such as Dubisz (2003), at the time at which he was working on *A Panorama of Polish word formation*; however, it returned as much as c. 36,000 Google hits on February 1, 2009. A few years later, in June 2016, the verb got twice as many Google hits, i.e. about 78,600, and it is now listed in an online dictionary of Polish SJP PWN, which is an indication of its growing popularity. The NKJP search for [base=*nadpisać*], aimed at finding all the forms of this verb has produced 77 results, out of which merely a few are used in the sense 'to write higher than' (these instances come from the novel by Maria Dąbrowska *Noce i dnie* 'Nights and days', written at the beginning of the 20th century). All the remaining tokens are used in the aforementioned sense typical for the IT register,

The prefix *nad-* is not productively used in the Excess Sense, as the sample of verbs from SJP PWN contains only two with *nad-* in this sense, that is *nadużyć* [over-use] ‘to abuse’ and *nadpłacić* ‘to overpay’.³⁰ It needs to be stressed that while this sense is very marginal, the frequency of these two verbs is high especially in comparison with some other *nad-* verbs: a Google search has yielded about 84 400 hits for *nadpłacić* and 708 000 for *nadużywać* (June 27th, 2016).³¹ Consider two sentences in which the Excess Sense is construed as the TR going higher than the implicit LM:

(14)

- a. *Jej ojciec często nadużywa alkoholu.* (NKJP)
‘Her father frequently abuses alcohol’.
- b. *Państwo będzie musiało oddać przedsiębiorstwom nadpłacony podatek.* (NKJP)
‘The state will have to return the overpaid tax to the entrepreneurs’.

In (14a) the socially accepted norm for alcohol consumption constitutes the LM. The TR, represented by the activity of drinking alcohol, exceeds this limit, which is construed as upwards movement, the goal of which is located higher than the LM. Sentence (14b) conceptualises the amount of tax due to be paid to the revenue office as the LM of the construal, while the action of paying more tax than required is construed as the TR, which moves upwards until it stops higher than the LM.

While both senses motivated by the Vertical Elevation Cluster, i.e. the More Sense and the Excess Sense encode the TR moving upwards until it reaches a goal located higher than the LM, it is the features of the LM that make these two senses distinct. In the case of the More Sense the LM may be thought of not only as a boundary that can be crossed without any negative consequences, but also as one whose crossing entails positive results. In contrast, when encoding the Excess Sense, the prefix *nad-* conceptualises the LM as an unsurpassable boundary, whose overstepping produces unfortunate outcomes.

3.2.5.4. Semantic network for *nad-* versus semantic network for *over*

Fig. 3-8 presents the semantic network of the prefix *nad-* motivated by the reanalyses of the proto-scene. Distinct senses have been marked by a shaded sphere and the primary motivation for a given sense extension is represented by

³⁰ See the discussion concerning the distinction between *nadpłacić* and *przeplacić* in the previous section.

³¹ NKJP search for [base=*nadpłacić*] and [base=*nadużyć*] has produced 344 and 456 results, respectively.

means of a solid line. For the sake of clarity Fig. 3-8 is accompanied by sentences containing exemplifications of senses which constitute the semantic network of the prefix *nad-* and which are discussed in section 3.2. The exemplifications of the senses are presented in an alphabetical order and marked with the same numbers as the corresponding examples in the aforementioned section.

The Excess Sense

Jej ojciec często nadużywa alkoholu. (14a)

'Her father frequently abuses alcohol'.

The More Sense

Główny trzon katedry trzeba było nadmurować o wysokość jednego metra. (12b)

'The main skeleton of the cathedral had to be made higher by one metre'.

The Partial Effect Sense

Wystarczyło nadpruć poszewkę. (11a)

'It was enough to unstitch the pillowcase a little'.

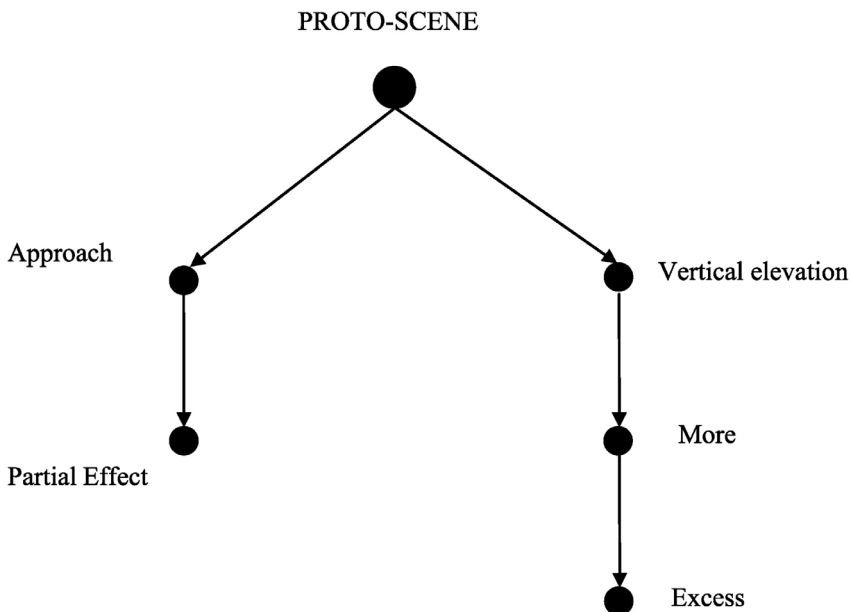


Figure 3-8. Semantic network of the prefix *nad-*

The semantic network of the prefix *nad-*, presented in Fig. 3-8, is very much different from the semantic network of the English particle *over*. First of all, while *over* is frequently used as the verbal particle, *nad-* is “rarely used in

verb derivation” (Szymanek 2010: 151). Consequently, the list of non-spatial senses of the prefix *nad-* is very short (3 senses) when compared with that of the particle *over* (12 senses). Secondly, even though the proto-scene for the Polish preposition *nad*, to which all the senses of the prefix *nad-* can be traced, and that for the English particle *over* is practically the same,³² the two proto-scenes are reanalysed very differently. The main difference is that while in English the reanalysis of the proto-scene has led to the establishment of a schematisation referred to as the A-B-C Trajectory (constituting a representation of an arching path), in Polish it has produced a schematisation referred to as Vertical Elevation³³ and the Approach Sense II, (constituting a representation of a horizontal approach). As regards English, the A-B-C Trajectory can be further reanalysed, which in sum triggers three clusters: the A-B-C Trajectory Cluster, the Segment B-C Cluster and the Point C Cluster, each of them generating further meaning extensions. Thus, the shift in profile of the verbal prefix *nad-* and verbal particle *over* proceeds very differently, which has a significant impact on the emergence of non-spatial meaning extensions. As the present analysis has shown, there is merely one sense that is shared by the two semantic networks, i.e. the Excess Sense, although the underlying spatial scene is different in the two languages: in Polish it is Vertical Elevation and in English the A-B-C Trajectory. Thus, at the supraindividual level (Kövecses 2010, cf. section 2.1) *nad-* and *over* are largely incompatible because they reflect different metaphorical patterns, resulting from significant disparities in the reanalyses of the two proto-scenes.

Finally, as regards the perspectival mode in which the scene is construed in the two languages, in the construal of the scene encoded by the prefix *nad-*, the LM is always implicit, which triggers the sequential perspectival mode on account of the fact that the TR is the focus of attention. In contrast, in the construals of the scene encoded by the particle *over*, the LM can be either implicit (e.g. the Switching Sides/Allegiance Sense, the Excess Sense, the Repetition Sense, the Suspension Sense) or explicit (e.g. the Examining Sense, the Focus of Attention Sense, the Control Sense).

³² As demonstrated in section 2.6.1 and 3.2.1, the graphic representation of the proto-scene for *over* and *nad* is the same. However, English *over* recognises the possibility of contact between the TR and the LM, which is not the case with Polish *nad*.

³³ The English particle *over* may construe vertical elevation as well referred to as the Up Cluster by Tyler and Evans (2003) and the Higher-than-Cluster in the present work. However, when used in this sense, the particle *over* does not occur as a component of particle verbs.

3.3. Semantics of *pod-*

The purpose of the present section is to demonstrate that non-spatial meanings of the verbal prefix *pod-* stem from human experience of spatial relationships, construed by the preposition *pod*. Therefore, this section begins with a description of the primary sense of the preposition *pod*.

3.3.1. Proto-scene for *pod*

The preposition *pod* forms a contrast set with the preposition *nad* from which it differs in terms of the TR–LM alignment, sharing the same profile and the same conceptual content (see 1.5.3). It means that both *pod* and *nad* profile a spatial relationship between two objects that are positioned with respect to each other on the vertical axis. However, the two prepositions differ from each other as regards the prominence that is assigned to the two entities that participate in the profiled relationship. While in the case of *nad* the object that is located higher than another object is assigned focal prominence, in the case of *pod* it is the object that is located lower than another object that is given focal prominence. Thus, what constitutes the semantic contrast between the two prepositions is the choice of the TR.

The semantics of *pod* has been studied by Przybylska (2002), who claims that it is used more frequently with the noun in the instrumental case than in the accusative case. When *pod* is used in the instrumental case, it construes a static scene, in which the TR is located lower than the LM without touching it; however, the possibility of contact is not precluded.³⁴ In other words, the force-dynamic structure of events, conceptualised by this sense of the preposition *pod* (as represented by Fig. 3-9) is neutral (Croft and Cruse 2004). Consequently, like in the primary sense of the preposition *nad*, no forces participate in it, apart from the force of gravity.

The static ‘lower than’ sense of the preposition *pod* is a primary sense on the following grounds. First of all, it is predominant in the semantic network of the preposition *pod*, because four out of five senses (i.e. all the senses apart from the Partial Effect Sense) involve a spatial configuration in which the TR is located lower than the LM. As regards other criteria of prototypicality put forward by proponents of the principled polysemy approach (Tyler and Evans

³⁴ This is very much different from the semantics of the preposition *nad* because a spatial scene in which the TR is located higher than the LM but remains in contact with it is construed by means of the preposition *na* ‘on’.

2003), the sense ‘lower than’ satisfies all of them. It is regarded as the oldest sense by Bańkowski (2000), who asserts that in Polish *pod*, like its cognates in other Slavic languages, specifies the position of an object, located lower than another object, which is higher and serves as a point of reference.³⁵ It also forms a contrast set with the preposition *nad*, which conceptualises the spatial relationship ‘higher than’. Moreover, it is used in numerous composite forms, such as *podskórny* ‘hypodermic’, *podkreślić* ‘to underline’, *podkładać* ‘to lay under’, etc. Finally, the sense ‘lower than’ forms the basis for several meaning extensions, as will be demonstrated in the following sections.

On the whole, the primary sense of the preposition *pod* is an equivalent of that for English *under* (see Fig.2-27), as shown in Fig. 3-9, which depicts the proto-scene for the preposition *pod*.

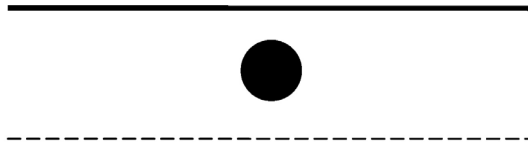


Figure 3-9. Proto-scene for *pod*

In Fig. 3-9 the bold line represents the LM and the TR is designated by the shaded sphere. The TR is not only located lower than the LM but also close to it without precluding the possibility of contact. Consequently, in this graphic representation of the proto-scene, the area that is conceptualised as being close to the LM is delimited by the dashed line.

In contrast, the preposition and adverb *poniżej*, which corresponds to *below*, implies greater distance between the TR and the LM, and usually no possibility of contact:

(15)

Na wieszaku wisiał męski kraciasty szlafrok, poniżej duże ranne pantofle. (NKJP)

‘There was a man’s checked dressing gown, hanging on the hook, below it, big bedroom slippers’.

The most likely interpretation of sentence (15) guided by our encyclopaedic knowledge is that there is no contact between the dressing gown and the slippers as the hooks are placed high enough to prevent the clothes hung on them from touching the floor or objects located on it. On the whole, the spa-

³⁵ Bańkowski (2000) points out that this particular spatial configuration entails the concept of proximity (see section 3.3.3).

the Antagonist is stronger, it is capable of withstanding pressure exerted by the Agonist from above. Pressure applied to the TR may be of a physical (18) or non-physical (19) nature:

(19)

Oskarżony działał pod presją otoczenia. (NKJP)

‘The defendant acted under the pressure of the environment’.

The conceptualisation in (19) is the result of a shift in profile, in the course of which the relationship of verticality is backgrounded, while the relationship of pressure applied to the TR is foregrounded. Consequently, it is possible to construe non-spatial experience in spatial terms: the pressure of the environment, is conceptualised as weight that is borne by the TR, i.e. the defendant. The LM influences the TR’s freedom of movement, which in this particular context, should be understood as the defendant acting under the influence of demands made by the environment.

The functional element of pressure has triggered the Subordination/Control Sense of the preposition *pod* (discussed in 3.3.5.3). The experiential basis of this sense has been explained in the previous section devoted to the discussion of superiority sense of the preposition *nad*. At this point, suffice it to say that the sense of subordination is a result of the following metaphor: A CONTROL OR FORCE IS UP, BEING SUBJECT TO CONTROL OR FORCE IS DOWN (Lakoff and Johnson 1980). In the construal of subordination by means of the preposition *pod*, the person who is socially superior and in power is conceptualised as the LM, while the person who is socially inferior, devoid of power and subordinate, is conceptualised as the TR.

In Polish it is possible to distinguish two main semantic classes of nouns that function as the LM and combine with the preposition *pod* to construe the relationship of subordination, as pointed out by Przybylska (2002: 422). The first semantic group consists of nouns, denoting various forms of exercising authority or control, e.g.

(20)

<i>pod dowództwem</i>	‘under sb’s command’
<i>pod strażą</i>	‘under guard’
<i>pod panowaniem</i>	‘under the rule (of)’
<i>pod kontrolą</i>	‘under sb’s control/direction’

Consider sentence (21) containing one of the phrases from (20), in which being subject to control is construed as being under the LM, represented by the teacher’s inspection:

(21)

Dawniej były spacery na przerwach szkolnych pod kontrolą nauczyciela [...]. (NKJP)
 ‘In the past during breaks walks were taken under the teacher’s inspection’.

Two other semantic classes of nouns combined with the preposition *pod*, encoding the concept of subordination and control, comprise names of instruments (22a) or body parts (22b), functioning as the LM, which are used to keep control over the TR:

(22)

- a. *110 młodych muzyków wystąpi dziś w Filharmonii Narodowej pod batutą wybitnego dyrygenta holenderskiego Edo de Waarta.* (NKJP)
 ‘110 young musicians will perform today under the baton of an eminent Dutch conductor Edo de Waart’.
- b. *Najlepiej dokonywać wyboru pod okiem doświadczonego weterynarza.* (NKJP)
 ‘It is best to make a choice under the guidance of an experienced vet’.

Thus, in (22a) the *baton of Edo de Waart* functions as the LM, which controls the orchestra’s playing and in (22b) the vet’s eye metonymically standing for the vet, acts as the LM, which controls the TR, i.e. making a choice (of the horse to be bought).

Another type of subjective construal encoded by the preposition *pod* is when the conceptualiser figures in the scene as the LM. If this is the case, and at the same time the TR and LM remain in contact with each other, the TR supports the LM. Consider the construal of the scene in (23), in which the LM, (the conceptualiser’s feet) is supported by the TR (the pavement):

(23)

Bruk pod moimi stopami lśnił od mżawki, która właśnie zaczęła padać. (NKJP)
 ‘The pavement under my feet was glittering from the drizzle, which had just started falling’.

One more consequence of a spatial configuration in which the TR is located lower than the LM is the TR’s invisibility. The TR may cease to be visible provided that the spatial configuration is characterised by several features. First of all, the vantage point needs to be located higher than the LM, because only then the conceptualiser may register the TR being hidden from view by the LM.³⁶ Besides, the TR and the LM must be characterised by specific properties so as to ensure occlusion of the former. This should be taken to

³⁶ Cf. the location of the vantage point for the Covering Sense encoded by *over*, discussed in section 2.6.5.

mean the LM should be non-transparent and at least the same size as or bigger than the TR. Thus, if the features of the spatial configuration between the TR and the LM, representing the proto-scene, fulfil the criteria listed in the foregoing, a consequence of the TR being located under the LM is the invisibility of the former. Consider sentence (24), conceptualising a spatial scene in which the TR, i.e. the *toy gun*, remains hidden because of being located under the LM, i.e. the *newspaper*. The conceptualiser witnesses the scene from a vantage point located higher than the LM.

(24)

Żądając pieniędzy, groził kasjerowi pistoletem-zabawką, ukrytym pod gazetą. (NKJP)
 ‘Demanding money he threatened the cashier with a toy gun hidden under a paper’.

Due to the shift in profile the concept of invisibility is foregrounded, while the spatial relation of verticality (i.e. the TR’s being located lower than the LM) is backgrounded. Consequently, it is possible to construe non-spatial experience of invisibility in terms of the spatial relation between the TR and the LM, as exemplified in:

(25)

a. *A Zagroda aż się pieni pod maską spokoju.* (SJP PWN corpus)

‘And Zagroda is foaming with rage under a veneer of composure’.

b. *I narwet próbowała wyłudzić od matki śniadanie do łóżka pod pozorem bólu gardła.* (SJP PWN corpus)

‘And she was even trying to trick breakfast out of her mother under the pretext of a headache’.

In (25) real feelings and motives are conceptualised as the TR, located under the LM, i.e. pretended feelings or false motives. In (25a) the LM, i.e. the veneer of composure, acts as a cover spreading over the TR, i.e. the subject’s foaming with rage, which owing to this can be perceived as invisible. Sentence (25b) conceptualises hiding the real cause of wanting to have breakfast in bed under the LM, which is the false reason of having a headache.

3.3.3. Reanalysis of the proto-scene

The proto-scene for the preposition *pod* can be reanalysed so that it produces a schematisation with a force-dynamic value shown in Fig. 3-10. In Fig. 3-10 the bold line represents the LM, the dotted sphere stands for the TR located at the beginning of the path, marked as point A, the dashed line repre-

sents the direction of the TR's motion and finally the shaded sphere stands for the TR at the end-point of the path, marked as point B, which is located lower than the LM. This particular schematisation is a consequence of both sequential and summary scanning (Langacker 1987).

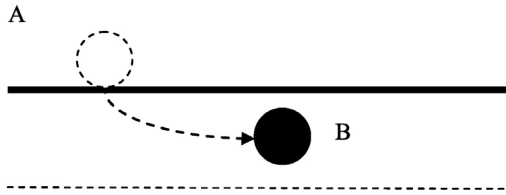


Figure 3-10. A dynamic sense of the preposition *pod*

Moreover, the spatial configuration between the TR and the LM, represented by the proto-scene, can undergo reanalysis so that the element of verticality becomes less prominent in the construal of the scene (26) or can even be relegated to the base (27):

(26)

Umówiliśmy się pod³⁷ centrum handlowym [...]. (NKJP)

'We arranged to meet near the shopping mall'.

In the conceptualisation encoded by (26) the position of the TR is determined in relation to the upper part of the LM, metonymically singled out on account of being more conspicuous than the bottom part of the LM. The upper part of the LM is located on the vertical axis, slightly deviated from the perpendicular and higher than the TR, which means that the TR is relatively close to the foot of the LM. An important element of this construal is the perceptual salience of the LM and the small distance between the TR and the LM. If the spatial relationship of the TR being located lower than the LM ceases to be focally prominent and instead the relationship of the TR being close to the LM becomes focally prominent, the preposition *pod* profiles the relationship of the TR being near in space to the LM. Consider Fig. 3-11a., which is a graphic representation of the Closeness Sense, resulting from the aforementioned shift in profile:

In Fig. 3-11a. the dark circle stands for the TR, and the rectangle represents the LM. In this construal of the scene the TR is located close to the

³⁷ Przybylska (2002) notices that this type of *pod* corresponds to what Weisenberg (1973: 31) refers to as *pod zbliżeniowe* 'pod encoding closeness'.

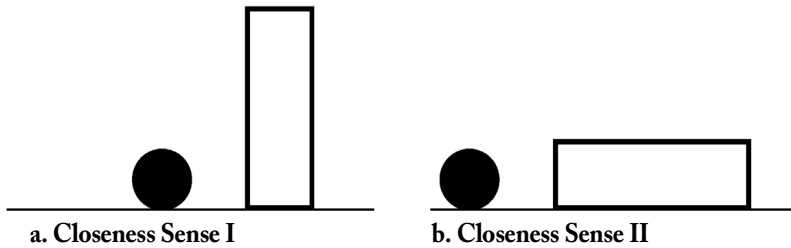


Figure 3-11. The Closeness Sense of the preposition *pod*

LM but at the same time the relationship of verticality is still present: the TR is located lower than the upper part of the LM. However, it is possible for the relationship of verticality to be removed from the profile of *pod*, i.e. relegated to the base so that only the relationship of closeness remains. This relationship is graphically represented by Fig. 3-11b. and exemplified by sentence (27):

(27)

To właścicielka pałacu w Lechicach pod Warszawą [...] (NKJP)
 [under Warsaw.INS]

‘It is the owner of the palace in Lechice near Warsaw.’

In (27) the TR is represented by the proper noun *Lechice*, which used to be a village located near Warsaw, functioning as the LM of the construal. Even though the TR is not located lower than the LM (the verticality relationship is absent from this conceptualisation), its position is construed metaphorically as such on account of the LM being far larger and more conspicuous than the TR. Consequently, in the course of reanalysing the spatial scene, the meaning of *pod* can be reinterpreted as ‘being close to a place or an object that is big or important enough to serve as a point of reference’. Thus, sentence (27) implies that *Warszaw* (LM) is big and important enough to serve as a point of reference for locating *Lechice* (TR), which used to be an insignificant settlement.

The preposition *pod* can also be used in the construal of a scene that has a force-dynamic value. If this is the case, it conceptualises the direction of the TR’s motion towards the LM, represented by the noun in the accusative case. In this sense the preposition *pod* conceptualises the TR’s movement towards the location that is lower than and close to the LM (28a) or only close to the LM (28b):

(28)

- a. *Z banku pojechali pod zamek, gdzie czekał na nich organizator.* (NKJP)
[under castle.ACC]

'From the bank they went up to the castle, where the organiser was waiting for them'.

- b. *Jeździł nawet gdzieś pod Poznań żeby pogadać z ludźmi z firmy meblarskiej.* (NKJP) [under Poznań.ACC]

'He even used to go somewhere near Poznań in order to talk to people from the furniture company'.

In (28a) the preposition *pod* profiles the goal of the TR's movement, located at point B, which is both near the LM (the *castle*) and lower than its upper part. In (28b) the end-point of the trajectory, i.e. point B, is located in the vicinity of the LM without the position along the vertical axis being part of the preposition's profile. The two construals of the scene are graphically represented in Fig. 3-12a. and 3-12b., respectively. They are labelled the Approach Sense I if the relationship of verticality is part of the preposition's profile and the Approach Sense II if it is not.³⁸

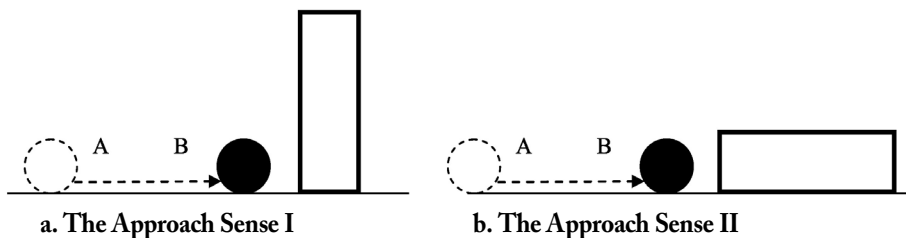


Figure 3-12. The Approach Sense of the preposition *pod*

The emergence of the dynamic sense of the preposition *pod* can be regarded as a consequence of both sequential and summary scanning (Langacker 1987). In other words, analysing the spatial scene in which the TR is located close to the LM, i.e. at point B, the construer carries out the operation of sequential scanning by which he or she realises that point B is only one of many points on the trajectory. Next, they perform the operation of summary scanning through which the whole trajectory, encompassing the starting point of the path, i.e. point A, the path itself as well as the end-point, is construed as a single unit even though in the real world neither two extreme points of the

³⁸ The same criteria have been adopted to differentiate between the two senses of the preposition *nad* (see 3.2.3).

trajectory, (marked as A and B in Fig. 3-12) nor the intermediate points between them, objectively exist at the same time.

3.3.4. Spatial senses of the prefix *pod-*

Before the discussion of the abstract senses of the prefix *pod-* commences, I would like to focus on a few selected composite verbs in which the prefix *pod-* profiles a spatial relationship of coming closer to the LM.³⁹ I depart from the usual procedure adopted for the analysis carried out in the present work because my intention is to point to an extremely close correspondence between the Approach Sense II of the preposition *pod* (as graphically represented in Fig. 3-12b.), and the most productive non-spatial meaning of the prefix *pod-*, which is the Partial Effect Sense (see 3.3.5.2).

³⁹ In addition to encoding a spatial relationship of approach, the prefix *pod-* may also encode coming under the LM (as represented graphically in Fig. 3-10). I would like to touch upon two lexicalised verbs, containing the prefix *pod-*, encoding the aforementioned sense, which used to have a clear semantic and morphological motivation; however, at present they are non-transparent to native speakers of Polish due to changes in extra-linguistic reality that have taken place since the verbs were first coined:

(i)

a. *Podlicz punkty i sprawdź wynik.* (SJP PWN corpus)

[under-count.2SG.FT]

‘Count up your points and check the score’.

b. *Obiecała tym swoim znajomym, że ich podwiezie.* (NKJP)

[under-drive.3SG.FT]

‘She promised those acquaintances of hers that she would give them a lift’.

It may be speculated that the semantics of the prefix *pod-* in the verb *podliczyć* ‘to count by means of adding’ (ia) can be traced back to a method of adding numbers, which was common in the past and consisted in writing down the numbers to be added in one column, and placing the obtained result at the very bottom of the column, that is under the numbers whose sum was previously found. Thus, in the construal that sentence (ia) represents, the activity of doing the sum stands for the TR, while the LM is construed as the numbers that are meant to be added to one another. Additionally, the verb *podliczyć* constitutes an example of the EFFECT FOR ACTION metonymy, because the final effect of the action of finding the sum represents the activity of making the calculation.

As regards sentence (iib), the use of the prefix *pod-* probably goes back to the beginnings of the automotive industry when cars were usually roofless. Consequently, occupying a place in such a car could be conceptualised as having the car under oneself, since in the past the driver was located physically higher than the car body. Likewise, passengers waiting for a lift saw the approaching car as ‘being under’, i.e. located lower than their line of vision.

In Polish it is possible to distinguish a considerable number of verbs denoting movement in which the component prefix *pod-* profiles the process of coming closer to the destination, i.e. approaching an external boundary of the LM. When used in this sense, the prefix *pod-* is combined with verbs of motion, which elaborate its e-site by specifying the way in which the TR comes close to the LM, i.e. whether by running, driving, walking, swimming, etc. Consequently, *pod-* functions as the profile determinant of the following composite verbs: *podbiec* ‘to run up to’, *podjechać* ‘to drive up to’, *podejść* ‘to come up to’, *podpłynąć* ‘to swim up to’, respectively. Consider some composite verbs in which the prefix *pod-* construes approaching the LM:

(29)

- a. *Chłopcy podbiegli do niej w chwili, gdy sięgała do torebki.* (NKJP)
 ‘The boys ran up to her at the moment she was reaching into her handbag’.
- b. [...] [*P*]od szkołę podjadą autokary [...]. (NKJP)
 ‘The coaches will drive up to school’.

Verbs prefixed by *pod-* from (29) can be contrasted with verbs prefixed by *w-* ‘into’, where the prefix, related to the spatial preposition *w* ‘in’ profiles crossing an external boundary of the LM, as for example when forming part of composite verbs, such as *w-biec* ‘to run into’ or *w-jechać* ‘to drive into’:

(30)

- a. *Wbiegli do budynku, który dokładnie przeszukali.* (NKJP)
 [in-run.3PL.PT.PF]
 ‘They ran into the building, which they searched thoroughly’.
- b. *Bez wizy nie można wjechać do Indonezji.* (NKJP)
 [in-go.INF]
 ‘You cannot enter Indonesia without a visa’.

Thus, while in the construal of the scene, encoded linguistically by sentence (29a) and (29b) the TR comes close to the external boundary of the LM, in the construal of the scene expressed by (30a) and (30b) it crosses the LM’s outer edges so that it eventually enters the LM, which is construed as a bounded object.

Moreover, various types of context, such as social situation (31a) or physical environment ((31b), (31c) and (31d)) (Kövecses 2015), may activate other meaning components besides approaching the LM:

(31)

- a. *Pati – zawałat w stronę baru – podejdź tutaj!* (NKJP)
 ‘Pati – he called towards the bar – come up here!’

- b. *Nowak podjechał pod swój żółty blok.* (NKJP)
‘Nowak drove up to his yellow block of flats’.
- c. [...] *Pogański wódz z wielką potęgą podszedł pod Płock* [...] (NKJP)
‘The pagan leader with a large army approached Płock’.
- d. [...] *Skowroński podbiegł pod pole karne rywali* [...] (NKJP)
‘Skowroński ran up to the penalty area of the rivals’.

The imperative form *podejdz* ‘come up’ in (31a) construes not only approaching the LM but also subordination due to an experiential correlation between being down and being subordinated. In sentence (31b) the verb *podjechał* ‘[he] drove up’ encodes additionally the sense of topographic prominence, which is a result of an experiential correlation between being up and being used as a point of topographic reference. The LM of the construal is the *yellow block of flats*, which towers over other objects and people, including the TR, and because of its height it is conspicuous enough to be used to orientate oneself or other people or objects in relation to it. The sense of topographic prominence is frequently strengthened by the simultaneous use of the preposition *pod* together with the prefixed *pod-* verb, as in (31b), (31c) and (31d).

As evidenced by the English glosses, and elucidated in section 2.3.4, English construes approaching the LM by means of the particle *up*, combined with verbs of motion. Since the Approach Sense conceptualised by the particle *up* is motivated by the functional element of an increase in accessibility/visibility, coming near to the LM is construed in terms of an increase in size, measured with respect to the vertical axis. Because the underlying spatial scenes are different in the two languages under study, evoking dissimilar trajectories: horizontal progression towards the LM’s external boundary (Polish) and fictive upwards motion (English), approaching the LM is conceptualised differently at the supraindividual level (Kövecses 2015).

3.3.5. Non-spatial senses of the prefix *pod-*

3.3.5.1. Data and frequency of senses

Table 3-2 presents the frequency of the senses of the Polish verbal prefix *pod-*, which is far more frequent than the prefix *nad-*, discussed in section 3.2. The SJP PWN search yielded 181 verbs containing the prefix *pod-*, out of which 64 were excluded on the grounds of the fact that the prefix profiles purely spatial relationships, such as coming closer to a physical destination (discussed in the preceding sections), or performing an activity directed at the

bottom part of an object, such as *podważyć* ‘to prise sth. open’ and *podszyc* ‘to line with sth.’. As a result, a sample of 97 verbs has been obtained in which the prefix *pod-* encodes non-spatial senses. Since several verbs are polysemous (and the polysemy is attributed to the prefix, which profiles two different relationships) the total number of particle occurrences amounts to 106.

Table 3-2. Frequency of senses of the prefix *pod-*

Sense of prefix <i>pod-</i>	Number of occurrences	Percentage
Partial Effect	53	50
Surreptitiousness	19	17.92
Subordination/Control	17	16.04
Support	12	11.32
Cause	5	4.71
Total	106	100 ⁴⁰

As demonstrated in Table 3-2, the verbal prefix *pod-* encodes five non-spatial senses, the most productive of which is the Partial Effect Sense and the least productive is the Cause Sense. Three other senses: the Surreptitiousness Sense, the Control/Subordination Sense and the Support Sense, are all characterised by average productivity and a comparable number of occurrences. While the Partial Effect Sense is triggered by the reanalysis of the proto-scene, all the remaining senses are motivated by functional elements, described in section 3.3.2.

3.3.5.2. Non-spatial senses of the prefix *pod-* triggered by the reanalyses of the proto-scene

As Śmiech (1986) remarks, *pod-* verbs denoting movement, such as *podjechać* ‘to drive up to’, *podbiec* ‘to run up to’ and *podejść* ‘to come up to’, discussed in 3.3.4 as well as many others such as, *podfrunąć* ‘to fly up to’, *podpłynąć* ‘to swim up to’, *podczołgać się* ‘to crawl to’ and *podpełznąć* ‘to creep up to’, etc. have influenced the formation of verbs, encoding activities other than movement. These are verbs that represent coming closer to the final result of an

⁴⁰ This is not exactly 100 per cent, but 100 per cent in round figures due to the fact that individual percentages have been rounded off to two decimal places.

action, e.g. *podładować* ‘charge partially’, *poduczyć* ‘teach the basics’, *podpiłować* ‘cut halfway through’, etc.⁴¹

On account of the fact that the prefix *pod-* conceptualises producing only a partial effect of action, construed by the simplex verb, I have decided to refer to this sense as the Partial Effect Sense.⁴² I propose that this sense has originated as a result of an experiential correlation between coming close to a destination and not achieving the pursued aim of the undertaken travel. For example, when we come close to the border of the country we would like to visit and stop a few kilometres before reaching it, it is evident that because the ultimate destination has not been reached, the aim of our action has not been fulfilled. After the profile of the prefix *pod-* is shifted from the process of not reaching the LM to that of partial achievement of the aim, the conceptualiser may construe the latter in terms of the former. When failing to reach the aim of the undertaken action is schematised and dissociated from the spatial domain (see 1.3.1), the process of not bringing an action to an end may be construed in terms of the primary metaphor PARTIAL PERFORMANCE OF AN ACTION IS APPROACHING THE GOAL,⁴³ hence the Partial Effect Sense.

The Partial Effect Sense has turned out to be the most productive in the semantic network for the prefix *pod-* since it has been found in almost half of the verbs in the sample with a frequency of occurrence amounting to 50 per cent. Consider several representative instances of this sense:

(32)

- a. *Mięso zalej 3 l wody i podgotuj przez 40 minut.* (SJP PWN corpus)
‘Pour 3 litres of water over the meat and pre-cook it for 40 minutes’.
- b. *Teresa [...] włosy podsuszyła na wietrze.* (SJP PWN corpus)
‘Teresa partially dried her hair in the wind’.
- c. *Można tu odpocząć i podreperować zdrowie.* (SJP PWN corpus)
‘You can rest here and recuperate a little’.

⁴¹ The completion of an action would be conceptualised by a combination of the verb and a prefix, such as *na-* ‘on’ or *prze-* ‘across’, that is *naładować* ‘to charge (completely)’, *nauczyć* ‘to teach’ and *przepiłować* ‘to saw through’, respectively.

⁴² Even though the name of this sense is the same as the term coined for an analogical meaning of the prefix *nad-*, there are conceptual differences between the Partial Effect Sense construed by the prefixes *nad-* and *pod-*, which are accounted for in section 3.6.

⁴³ Accordingly, the emergence of this sense can also be explained using the EVENT STRUCTURE metaphor, which represents actions as movements. Consequently, the fact of the TR stopping before the goal in the SOURCE-PATH-GOAL schema is metaphorically conceptualised as performing an action only to some extent.

- d. *Drobno posiekaną cebulę podsmażyć na tłuszczu.* (SJP PWN corpus)
 ‘You should stir-fry the finely chopped onion in fat’.

Szymanek (2010: 159) refers to this particular sense of the prefix *pod-* as *attenuative*,⁴⁴ stating that:

The attenuative prefix like *pod(e)-* can be said to measure events, i.e. to show their slight intensity (Romanova 2004: 266) [...]. The implication is that the activity has not been fully (or properly) accomplished/executed and hence its results may be only approximate, approaching the expected outcome.

As regards the construal of the scene encoded by sentences in (32), the ultimate aim of the action expressed by the verbal base has not been achieved, therefore, it either is or will be pursued. The eventual goal of each of the activities in (32) is conceptualised as the LM, while each activity represents the TR progressing in the direction of the LM. The LM representing the ultimate goal of each activity in (32) is within the maximal scope; however, an intermediate aim, understood as achieving a partial effect of each action, is within the immediate scope. Such a construal imposes an intermediate end-point on the event. Consequently, the aspectual construals at issue should be regarded as two types accomplishments: incremental (32a), (32b) and (32d) and non-incremental (32c) (Croft 2012). In sentence (32a) the use of the imperative form of the verb *podgotować* [under-cook] implies that the meat should be boiled or stewed for some time to prepare it for further cooking. Three other sentences: (32b), (32c) and (32d) in which the prefix *pod-*, encoding the Partial

⁴⁴ Janda et al. (2013) in her classification of Russian perfectives beginning with *pod-* distinguishes two subcategories in this group: ‘increment’ and ‘minimal’ meaning. The semantic basis of ‘increment’ is not explained but from the examples provided by Janda it appears that the essence of this category is the addition of some substance or ingredient, as in *podsolit* ‘to add more salt to’, increase in intensity, feature, or value, as exemplified by *podrabotać* ‘to earn additionally’ or the addition of a physical object *podstroić* ‘to add on’ (e.g. a porch to a house). In Polish ‘increment’ meaning can also be found and expressed, e.g. by *podchowić* ‘to take care of’ and *podczepić* ‘to hook up’. ‘Minimal’ meaning is defined by Janda as one denoting actions with minimal impact, which in Polish can be represented by *podgotować* ‘to precook’ and *podładować* ‘to charge partially’.

The senses of *pod-* have also been studied in Bulgarian by Tchizmarova (2012), who has remarked that attenuative verbs created by means of this prefix can be divided into two groups: those exemplifying the SUPPORT schema, which evoke positive or neutral connotations and the UNDERMINE schema, entailing negative connotations. The same distinction can also be made in Polish, in which the former schema would be represented by *podładować* ‘to charge partially’, while the latter by *podkpiwać* ‘to make fun of’.

Effect Sense has been used, express analogical conceptualisations: the process of drying hair, recovering from an illness and frying the onion, which function as the TR of the construal, do not lead to attaining the ultimate goal, i.e. making one's hair completely dry, becoming perfectly healthy and making the onion thoroughly fried, respectively, which stand for the LM of the construal.

The prefix *pod-* may also be used as a component of secondary imperfectives (see section 1.7), formally encoded by the morpheme *-ywa/-iwa* (Szymanek 2010). The verbs in question are as a rule always imperfective because they lack their perfective counterparts:

(33)

- a. *śpiewać* 'sing' → *podśpiewywać* 'to hum, sing in a low voice from time to time' (**podśpiewać*⁴⁵)
- b. *szeptać* 'whisper' → *podszeptywać* 'to say sth. in a whispering voice' (**podszeptać*)
- c. *kpić* 'make fun of' → *podkpiwać* 'to chaff' (**podkpić*)

Consider the use of two of these composite verbs in context:

(34)

- a. *Aleksander ciągle podkpiwał z Nadii, która na szczęście nie zawsze się w tym orientowała.* (NKJP)
'Aleksander kept chaffing Nadia, who, fortunately, did not always realise this'.
- b. *Sluchają nas i młodzi i starsi, a nawet małe dzieci podśpiewują nasze piosenki.* (NKJP)
'The young and the elderly listen to us and even small children hum our songs'.

While in (32) each event is conceptualised as a single instance of the TR approaching the LM, in (34) it is construed in terms of approaching the TR in a serial manner. In this construal of the scene the TR comes close to the LM, moves back to the initial position and then approaches the LM again. The cycle can be repeated an infinite number of times and the TR does not intend to reach the LM. In (34a) it was not the Aleksander's aim to ridicule Nadia, because his intention was merely to make jokes about her in a friendly way. Likewise, in (34b), it is not the intention of children to sing the songs in full but to hum them to themselves. Since there is no transition to the result state, and each of the events constitutes a "cyclic repetition" (Janda 2015b: 6), the predicates in (34) construe *cyclic activities*.

⁴⁵ An asterisk is used to mark a non-existent perfective form.

The Cause Sense

The Cause Sense is the least productive sense in the semantic network of the prefix *pod-*, as it has been attested in merely 5 verbs. It can be argued that it has emerged as a result of an experiential correlation between making physical contact with the bottom part of an object and causing this object to divert its direction of movement, or change its shape as a result of this contact. For example, the verb *podpiąć* [*zastony*] ‘to draw back [curtains]’ construes shortening a fabric by means of fastening it from underneath, and *podchwycić* ‘to grasp a bottom part’ conceptualises preventing a person or an object from falling by grabbing them from below. Consequently, an action directed to the bottom part of an object is experientially correlated with causing some kind of a change to an object of this action. Consider the following instantiations of the Cause Sense:

(35)

- a. *Potem ktoś domek podпалиł [...].* (NKJP)
‘Later somebody set the little house on fire’.
- b. *Nie bardzo rozumiem dlaczego tak wszystkich podekscytował podatek liniowy?*
(NKJP)
‘I do not quite understand why everybody got so excited about the linear tax’.

In (35a) the strength of the contribution of the component prefix *pod-* to the composite verb *pod-palić* [under-burn] ‘to set fire’ is considerable because the two structures in question are proximate to each other on the compositional path (see 1.5.2). This is so because of the fact that it is the bottom part of an object, such as a heap of leaves or sticks, that is frequently set on fire. This kind of differential experience (physical environment) available to the conceptualiser allows to leave the TR–LM configuration, representing the primary sense of the preposition *pod* relatively foregrounded. In contrast, the contribution of the prefix *pod-* in (35b) to the composite verb *podekscytować* [under-excite] is far weaker on account of the fact that the prefix and the composite verb are farther away from each other on the compositional path due to the process of metaphorisation. Consequently, the TR–LM configuration underlying the proto-scene is backgrounded.

The prefix *pod-*, as used to encode the Cause Sense, is *inceptive*, as it profiles an initial phase of an action, implying that it occurs at least for a brief moment. Consider Fig. 3-13, in which the beginning of an action, which is profiled in this construal, is marked by means of a bold line, while the activity itself, which follows the transition phase and is unprofiled, is represented by the dashed line.

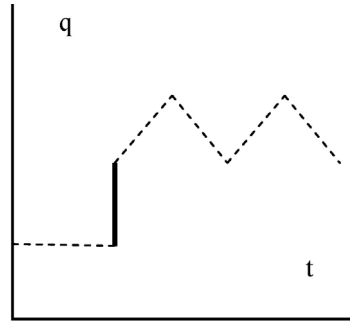


Figure 3-13. Inceptive construal (Croft 2012: 106)

Inceptive construals do not presuppose the completion of an event, which should be taken to mean that, for example, setting the house on fire (35a) does not entail its burning down.

3.3.5.3. Non-spatial senses of the prefix *pod-* triggered by functional elements

The Surreptitiousness Sense

The Surreptitiousness Sense is the second most productive sense of the prefix *pod-*, as it has been attested in 19 verbs, which is equivalent to a frequency amounting to 17.92 per cent.⁴⁶ This sense is grounded in the functional element of invisibility (see section 3.3.2), which has originated from a tight experiential correlation between locating the TR under the LM and the TR becoming invisible, provided that the LM covers the TR completely (this is the case when the LM is non-transparent and is spread over a wider area than the TR), as exemplified by:

(36)

Już dawno wyrosłem z chowania się pod koldrę w obawie przed duchami. (NKJP)
 'I grew out of hiding under the eiderdown in fear of ghosts'.

This experiential correlation has given rise to the implicature of surreptitiousness, which has been detached from the spatial context and through pragmatic strengthening established as an independent sense in the semantic network of the prefix *pod-*. Consider instantiations of the Surreptitiousness Sense construed by the prefix *pod-*:

⁴⁶ The Surreptitiousness Sense occurs also in German verbs prefixed by *unter-*, as evidenced by Dewell (2015).

(37)

- a. *W efekcie w ciągu dnia podjadasz różne zbędne słodkości.* (NKJP)
‘In effect you sneak all kinds of unnecessary sweets during the day’.
- b. *Dyrektor teatru miał podrobić podpis na umowie.* (NKJP)
‘The director of the theatre was to forge the signature on the agreement’.
- c. *Kiedyś w autobusie podstuchałem rozmowę, że będą tutaj robione łodzie podwodne.* (NKJP)
‘Once on the bus I eavesdropped on a conversation where it was said that submarines would be manufactured there’.
- d. *Mamy im podpowiadać na egzaminie?* (NKJP)
‘Should we whisper the answers to them during the exam?’
- e. *Nakręcmy film – taki pomysł podpowiedział im Adam Ciupak, szkolny polonista i opiekun koła filmowego.* (NKJP)
‘Let us make a film – this is the idea suggested by Adam Ciupak, the Polish school teacher and tutor of the film group’.
- f. *Policyjne maskotki podejrzat⁴⁷ u funkcjonariuszy niemieckich i austriackich insp. Eugeniusz Szczerbak, śląski komendant policji.* (NKJP)
‘The superintendent Eugeniusz Szczerbak, the Silesian police chief, copied the police toy animals from German and Austrian officers’.

In (37) the *pod-* verbs denote an action that is considered to be secret to a greater or lesser extent, and therefore conceptualised as one performed in hiding, i.e. under an implicit LM, which is represented by the surreptitious conduct of the doer of the action. In (37a) the activity of sneaking sweets, encoded by the verb *podjadać* [under-eat] represents the TR, while the efforts to hide it from others stand for the LM, which remains unexpressed in this construal. The verb *podrobić* [under-do] ‘to forge’ in (37b) represents an activity that needs to be clandestine not only while being performed but also afterwards because it is illegal. Another verb, *podstuchać* [under-listen] ‘to eavesdrop’ in (37c) denotes an activity that is performed secretly because the conversation is not intended to be heard by outsiders. The verb *podpowiedzieć* [under-say] can be used in two senses, differing from each other in the degree of surreptitiousness: in (37d) it stands for whispering answers during an exam, which is not allowed and when discovered may end up with being expelled for cheating, therefore, in order to be successful, it needs to be carried out secretly

⁴⁷ *Podejrzec* can be used interchangeably with its synonym *podpatrzeć*, whose equivalent used to be the form *podpatrzyć*, now obsolete. The secondary imperfective form of the verb *podejrzec* is *podejrzewać* ‘to suspect’, which can also be assigned to the Surreptitiousness Sense. This verb construes having an idea that something is true or that somebody is guilty as the TR, while the barrier to finding out the truth stands for the LM.

and cautiously. In (37e) the same verb represents a far lower degree of surreptitiousness, as the intention of the speaker is not to keep his action in hiding but to give their advice discreetly and diplomatically. As regards the verb *poddejrzyć* [under-see] in (37f), it has the same connotations as *podpowiedzieć* in (78e), which implies that it construes the action of taking a look at police stuffed toys as one that is diplomatic rather than furtive.

The Subordination/Control Sense

The Subordination/Control Sense of the prefix *pod-* is motivated by the functional element of control, triggered by the objective construal, in which the conceptualiser figures prominently in the scene as the TR (see section 3.3.2). Since there is a close relationship between subordination and control as the latter is inherently connected with the former, I have chosen to subsume these two concepts under a single category.

In the sample of verbs collected for the purpose of the present research it is possible to distinguish two classes of verbs in which the prefix *pod-* construes subordination. The first group includes verbs that conceptualise putting somebody in a less important position or being in control of them because they have less power. This category is represented by verbs such as *podnająć* ‘to sublet’, *poddzierżawić* ‘to sublease’, *podbić* ‘to conquer/subdue’, *poddać* ‘to surrender, to subject’, *podporządkować* ‘to subdue’, *podlegać* ‘to come under/to be subordinate’ or *podpadać* ‘to fall under, to fall within’, to name but a few:

(38)

- a. *Slabsi i biedniejsi muszą się podporządkować regułom, które służą tylko bogatym i silnym.* (SJP PWN corpus)
‘The weaker and poorer must submit to the rules, which are good only for the rich and strong’.
- b. *Mongolowie nie zdołali podbić miasta ani jego posiadłości.* (NKJP)
‘The Mongols did not manage to conquer the city and its dominions’.
- c. *Nie mówiąc już o np. fermach kurzych czy chlewniach, z których największe podpadają pod dyktando.* (NKJP)
‘Not to mention, for example, poultry farms or pig farms, the biggest of which fall under the directive’.

All the prefixed verbs in (38) constitute an instance of the double metaphorisation process, in the sense that both the prefix and the verb are metaphorical. While the prefix encodes subordination of the TR, i.e. *the weaker and poorer* (38a), *city* (38b) and *farms* (38c) to the LM, i.e. *the rules*, *the Mongols* and *the directive*, respectively, the verb metaphorically conceptualises the way

in which this subordination is effected. Thus, as regards the e-site of the prefix *pod-* in (38a), it is elaborated with the metaphorical sense of the verb *porządkować* 'to tidy up/to organise', which construes introducing law and order in terms of arranging physical objects in order. In (38b) the e-site of the prefix is elaborated by the component verb *bić* 'to beat'. In the process of composition (see 1.5.2) the frame of defeating an opponent is activated, and the composite verb conceptualises victory over an enemy in terms of winning a physical fight. Finally, the component verb *padać* 'to fall' (38c) elaborates the e-site of the prefix with its metaphorical meaning, which conceptualises losing one's position as sudden downwards movement. Consequently, the composite verb *podpadać* combined with the preposition *pod* construes being subject to law (which represents the LM) as the TR's fictive movement along a path whose endpoint is located lower than the LM (see Fig. 3-10).

Another class of verbs in which the prefix *pod-* construes subordination denote pressing another person to commit a hostile or provocative act, as exemplified by the following verbs: *podpuścić* 'to egg sb. on to do sth.', *podkusić* 'to tempt sb. into doing sth.', *podżegać* 'to incite, to instigate' and *podjudzić* 'to put sb. up to doing sth.'. In this case, subordination is construed as being brought under pressure by an individual who is in control of the situation or succumbing to negative influence, as in:

(39)

- a. *Nie wiem co go podkusiło, dlaczego sfalszował dokumenty o zatrudnienie.* (NKJP)
'I do not know what tempted him into forging the employment documents'.
- b. *Ciekawe kto pana podpuścił, że my potrzebujemy kogoś takiego.* (NKJP)
'I wonder who egged you on to think that we need somebody like that'.
- c. *[Rzeźnik] podżegał do zabójstwa Sylwestra O., bielskiego biznesmena.* (NKJP)
'[The butcher] incited [somebody] to the murder of Sylwester O., the businessman from Bielsko-Biała'.

In all these conceptualisations the TR is subject to subordination, by coming under the influence of an individual, as in (39b) and (39c), or yielding to the power of one's own thoughts or emotions, as in (39a). Szymanek (2010) argues that in instances like these the prefix *pod-* construes predominantly actions that are done furtively. While this can be the case with the verb *podpuścić* (39b), as it conceptualises persuading a person using a trick or deception, in other cases, such as *podżegać* (39c),⁴⁸ the sense of surreptitiousness in not

⁴⁸ Other verbs belonging to this category are *podkusić* 'to tempt sb. into doing sth.', *podjudzić* 'to put sb. up to doing sth.', *podburzyć* 'to stir sb. up', to name but a few.

part of the prefix's profile, as the exerting of pressure can be executed openly. For this reason I do not conform to the classification proposed by Szymanek (2010) and I do not classify this particular meaning of the prefix *pod-* as the Surreptitiousness Sense.

Instead, I follow an explanation offered by Viimaranta (2012), who has studied *pod-* verbs in Russian and observed that this type of relationship between the TR and the LM encoded by the prefix *pod-* may be accounted for by means of the HARMER IS UP, HARMED IS DOWN metaphor, which she proposes to be a subtype of the DOMINATION metaphor. Since the concept of DOMINATION is inherent in that of SUBORDINATION because the former represents the converse of the latter, I include the sub-sense in question in the Subordination/Control Sense. When seen in this light, the prefix *pod-* combined with the base verb construes the process of exerting pressure on those who are subordinate by those who dominate them, because they have more power or authority. Additionally, the oppressors inflict harm on the oppressed, who are manipulated to commit illegal (39a), (39c) or socially unacceptable (39b) acts.

The construal of subordination/control constitutes yet another instance of a socio-dynamic model of conceptualisation in which an oppressed entity represents the Agonist, which tends towards rest, while the oppressing entity stands for the Antagonist, which tends towards action, i.e. subjecting the Agonist to control or subordination. If the Antagonist is stronger, the Agonist becomes subordinated or brought under control.

The Support Sense

The Support Sense of the prefix *pod-* is motivated by the functional element of support, which is yet another instance of objective construal in which the conceptualiser figures prominently in the scene as the LM (see section 3.3.2). When the TR is located under the LM and remains in contact with it, it offers support for the LM on account of carrying its weight. By the same token, the prefix *pod-* construes supporting the LM either in a physical (40a) or a non-physical (40b) domain:

(40)

a. *„Pastor” jedynie podkleił swoje zdjęcie w „rozpadającym” się ze starości dowodzie osobistym.* (NKJP)

‘The “Pastor” merely glued his photo from beneath in his “crumbling, decrepit” old ID card’.

b. *Dyrektor podpisał oficjalne i tajne dokumenty.* (NKJP)

‘The director signed official and secret documents’.

In (40a) the e-site of the prefix *pod-* is elaborated by the verb *kleić* ‘to glue’, which specifies the means of providing support for the LM, i.e. the *photo*. In (40b) the relationship of support encoded by the prefix *pod-* is elaborated by the verb *писаć* ‘to write’. As a result, the composite verb *podpisać* ‘to sign’ construes support in terms of putting one’s signature under the LM, represented by the contents of the document. Thus, as demonstrated in (40), the relationship of support is conceptualised in terms of the fictive movement of the TR (represented by the composite verbs *podkleić* (40a) and *podpisać* (40b)), which progresses along the downwards oriented path and reaches its end-point located lower than the LM (as shown in Fig. 3-10).

3.3.5.4. Semantic network for *pod-* versus semantic network for *under*

Fig. 3-14 presents the semantic network of the prefix *pod-* motivated by both the reanalyses of the proto-scene and functional elements. Distinct senses have been marked by a shaded sphere and the primary motivation for a given sense extension is represented by means of a solid line. For the sake of clarity Fig. 3-14 is accompanied by sentences containing exemplifications of senses which constitute the semantic network of the prefix *pod-* and which are discussed in section 3.3. The exemplifications of the senses are presented in an alphabetical order and marked with the same numbers as the corresponding examples in the aforementioned section.

The Cause Sense

*Potem ktoś domek **pod**palił [...]. (35a)*

‘Later somebody set the little house on fire’.

The Partial Effect Sense

*Teresa [...] włosy **pod**suszyła na wietrze. (32b)*

‘Teresa partially dried her hair in the wind’.

The Subordination/Control Sense

*Mongolowie nie zdołali **pod**bić miasta ani jego posiadłości. (38b)*

‘The Mongols did not manage to conquer the city and its dominions’.

The Support Sense

*Dyrektor **pod**pisal oficjalne i tajne dokumenty. (40b)*

‘The director signed official and secret documents’.

The Surreptitiousness Sense

*W efekcie w ciągu dnia **pod**jadasz różne zbędne słodkości. (37a)*

‘In effect you sneak all kinds of unnecessary sweets during the day’.

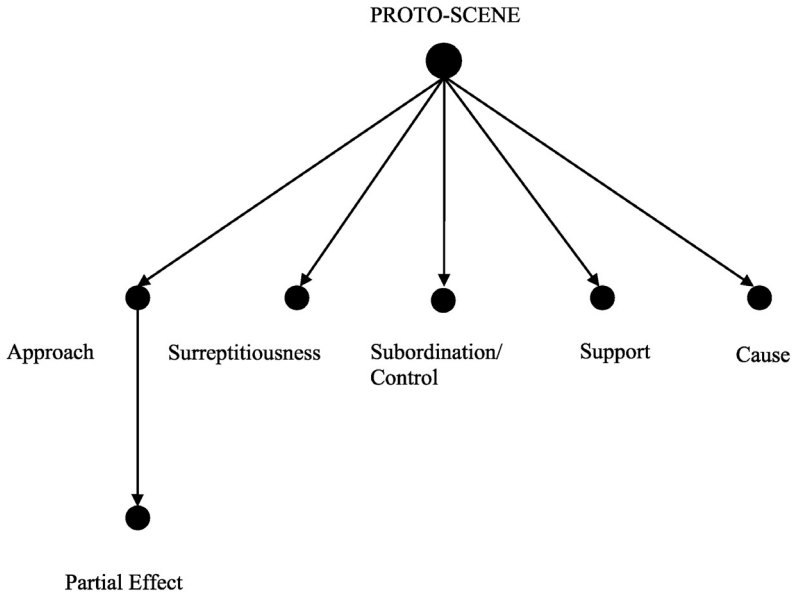


Figure 3-14. Semantic network of the prefix *pod-*

The prefix *pod-* is used far more productively in modern Polish than the prefix *nad-*, discussed in the previous section (3.2). This pattern contrasts sharply with the frequency of occurrence of their English equivalents, i.e. the particles *under* and *over*, respectively, with the former being used as a component of particle verbs very rarely while the latter – on the contrary – quite frequently. The frequency of occurrence is not the only difference between Polish *pod-* and English *under* because as demonstrated by Fig. 3-14 and Fig. 2-29, the two semantic networks are largely incompatible with each other, like those for *nad-* and *over*. The only point of convergence between the two networks is the Subordination/Control Sense of the prefix *pod-* and the Control Sense of the particle *under*. However, as the labels indicate, the prefix *pod-* provides access to two related domains (SUBORDINATION and CONTROL), while *under* only to one (CONTROL), therefore the two senses in question cannot be put on a par with each other (despite being motivated by the same spatial scene, i.e. the TR moving downwards so that it eventually ends up lower than the LM).

Because the proto-scene for the preposition *pod*, closely related to the prefix *pod-*, has undergone reanalysis in the course of which the relationship of verticality has been relegated to the base, producing the schematisation referred to as the Approach Sense II, the TR–LM alignment along the vertical

axis may become very much backgrounded. Consequently, it remains within the maximal scope in the most productive sense of the prefix *pod-*, i.e. the Partial Effect Sense (which is a result of the aforementioned reanalysis of the proto-scene), as exemplified by the following verbs: *podkształcić* [under-educate] ‘to provide basic training’, *podleczyć* [under-cure] ‘to provide basic treatment’, *podniszczyć* [under-destroy] ‘to begin to wear out’, to mention but a few. However, through the composition process in some composite verbs containing the prefix *pod-* in the Partial Effect Sense, the domain of SPACE and the relationship of verticality are activated and even though not focally prominent, they constitute part of the prefix profile. For example, the prefix *pod-*, functioning as the component of the composite verb *podsmażyc* [under-fry] ‘to stir-fry’ conceptualises not only achieving the partial effect of the activity of stir-frying but also the direction from which the process of stir-frying proceeds, i.e. from below.⁴⁹

As regards all the remaining senses of the prefix *pod-*, the relationship of verticality remains within the immediate scope, being far more salient than it is in the case of the Partial Effect Sense. By the same token, since the reanalysis of the proto-scene for the particle *under* has not resulted in removing the relationship of verticality from the profile of the particle, the original TR–LM configuration (i.e. the one characterising the proto-scene) underlies each of the senses of the particle *under*.

Despite the fact that when used as part of composite verbs, *pod-* and *under* are very much different from each other on the supra-individual level, at the sub-individual level, understood as universal aspects of embodiment (Kövecses 2015), the two spatial expressions share several similarities. The basic correspondence between *pod-* and *under* results from a uniform reanalysis of the proto-scene (with the exclusion of the Approach Sense II) through sequential and summary scanning in the course of which the TR reaches the end-point of the path located lower than the LM (as represented graphically in Fig. 3-10 and Fig. 2-28, respectively). Consequently, the same primary metaphors underlie various senses of the prefix *pod-* and the particle *under*: WEAKER IS UNDER (senses of *pod-*: the Subordination/Control Sense, the Support Sense, senses of *under*: the Defeat Sense, the Control Sense, the Unconsciousness Sense) LESS IMPORTANT IS UNDER (senses of *pod-*: the Subordination/Control Sense, senses of *under*: the Control Sense, the Category Member Sense).

⁴⁹ For a more detailed discussion of this issue see section 3.6.

Lastly, when it comes to the perspectival mode in which the scene is construed by the prefix *pod-* and the particle *under*, the LM can be either implicit (the Surreptitiousness Sense of *pod-*) or explicit (the Category Member Sense of *under*) in the two languages under study. Consequently, the distribution of focal attention over the TR only, or both the TR and the LM, triggers either a sequential or synoptic perspectival mode, respectively.

3.4. Semantics of *na-*

The purpose of the present subchapter is to demonstrate that non-spatial meanings of the verbal prefix *na-* stem from human experience of spatial relationship of verticality, construed by the preposition *na*. Therefore, this section begins with the description of the primary sense of the preposition *na*.

3.4.1. Proto-scene for *na*

The prefix *na-* is derived from and closely related to the preposition *na* 'on', therefore, in order to trace its meaning development from the spatial to the non-physical domain, it is necessary to begin with establishing the primary sense of the preposition *na*. According to Przybylska (2002), *na* is a very frequent preposition and it occurs more frequently with the noun in the accusative case than with the noun in the locative case. When it is followed by the noun in the locative case, it encodes the spatial scene in which the TR is located on the surface of the LM. This meaning is regarded as the oldest one by Bańkowski (2000), who remarks that this is the earliest sense of the cognates of this preposition in other Slavic languages as well. As regards other criteria for determining the centrality of meaning (Tyler and Evans 2003), the candidate for the primary sense of *na* occurs in composite expressions, such as *nadrzewny* 'arboreal', *nabłotny* 'marsh', *nakolannik* 'knee-pad', etc., in which it encodes the TR's contact with the upper surface of the LM, i.e. *drzewo* 'tree', *błoto* 'mud' and *kolano* 'knee', respectively. It is also used in the formation of the contrast sets of the preposition *na* with other prepositions, e.g. *na* 'on' – *w* 'in' and *na* 'on' – *under* 'pod'. Finally, this sense sanctions several meaning extensions, as will be demonstrated in the following sections.

On the whole, the sense of the preposition *on*, encoding the spatial scene in which the TR is located on the surface of the LM, satisfies all the criteria of the centrality of meaning established by Tyler and Evans (2003), and on this account it can be considered to be a primary sense. Consider the proto-scene for the preposition *na*, presented in Fig. 3-15.



Figure 3-15. Proto-scene for *na*

In the spatial configuration presented in Fig. 3-15 the TR (represented by the shaded square) is higher than the LM (represented by the rectangle); however, it remains in contact with it. This should be taken to mean that the bottom part of the TR remains in contact with the upper surface of the LM. Because the TR is located higher than the LM, it is visually more prominent. Consider an instantiation of the primary sense of the preposition *na*:

(41)

Nóż do chleba leży na stole. (NKJP)

‘The bread knife is lying on the table’.

As Przybylska (2002) insightfully remarks, in the prototypical spatial relationship, construed by the preposition *na* ‘on’, the LM is deprived of any vertical elements screening its sides. If the interior space of the LM is enclosed by vertical sides, it is interpreted as a container. Consequently, the position of the TR is seen as being within the interior region of the LM and it is then conceptualised by means of the preposition *in* ‘w’. For example, in the case of a dinner plate, which is construed as a planar object, the food is considered to be on the plate (*jedzenie jest na talerzu*), while in the case of a bowl, construed as a container, the food is said to be in the bowl (*jedzenie jest w misce*).⁵⁰ An interesting case is the soup plate, as it is possible to say both *zupa w talerzu* ‘the soup in the plate’ and *zupa na talerzu* ‘the soup on the plate’. Thus, it appears that if the conceptualiser considers the sides of the soup plate as enclosing its interior, they use the preposition *w* ‘in’, otherwise, i.e. when the contact with the surface of the plate bottom is profiled, they employ the preposition *na* ‘on’. Surprisingly, the latter conceptualisation is five times as frequent as the former according to a Google search conducted on September 8th 2016 (approximately 10 000 hits for *zupa na talerzu* versus 2000 hits for *zupa w talerzu*). It seems that the predominance of the phrase *zupa na talerzu* over *zupa w talerzu* is due to analogy, as the former one is far more frequent in the

⁵⁰ The phrase *na misce* ‘on the bowl’ is justified on condition that the TR is located on the bowl’s edge.

language for extralinguistic reasons, namely due to the fact that a vast majority of dishes are served on dinner plates or small plates.

Przybylska (2002: 286) presents other examples of LMs that can be conceptualised either as containers (42a) or as horizontal open surfaces (42b):

(42)

- | | | |
|----|---|---|
| a. | <i>Sklep znajduje się w podwórzu.</i> | 'The shop is located in the yard'. |
| | <i>Firma ma swe biuro w rynku.</i> | 'The company's office is in the market square'. |
| | <i>Samochód stoi w wąskiej uliczce.</i> | 'The car is in a narrow little street'. |
| b. | <i>Dzieci bawią się na podwórzu.</i> | 'Children are playing outside'. |
| | <i>Wiec odbył się na rynku.</i> | 'The rally took place in the market square'. |
| | <i>Samochód stoi na ulicy.</i> | 'The car is on the street'. |

Besides, in Polish there are several competing phrases, such as:

(43)

<i>w mieście</i>	<i>na mieście</i>
[in town.LOC]	[on town.LOC]
<i>wie wsi</i>	<i>na wsi</i>
[in village.LOC]	[on village.LOC]
<i>w świecie</i>	<i>na świecie</i>
[in world.LOC]	[on world.LOC]
<i>w polu</i>	<i>na polu</i>
[in field.LOC]	[on field.LOC]

As evidenced by the examples in (42) and (43), the same noun can constitute the basis for creating alternative conceptualisations of the position of the TR in relation to the LM. Prepositional phrases containing the preposition *w* 'in' followed by the noun in the locative case conceptualise the LM as a concentrated area clustered around some central point, while phrases containing the preposition *na* 'on' and the noun in the locative case conceptualise the LM as a peripheral area, distant from some other central region and not delimited by distinct boundaries. Thus, the prepositional phrase *wie wsi* [in village.LOC] should be understood as 'in the central part of the village, clearly specified' and the phrase *w świecie* [in world.LOC] as 'at some specific place in the world'. In contrast, the phrase *na wsi* [on village.LOC] means 'somewhere in the village: either in its central or peripheral part', while *na świecie* [on world.LOC] 'at some unspecified/undetermined place in the world'.

Moreover, the choice between the preposition *na* and *w*, as used in the phrases *na mieście* [on town.LOC] and *w mieście* [in town.LOC] is subject to

contextual priming⁵¹ (Kövecses 2017c). To be more precise, the conceptualiser selects either one preposition or the other, depending on the vantage point. If they are outside the area that the noun denotes, the sentence *Janek jest w mieście* means that Janek is within the boundaries of the town or in the town centre. If they are in the town, then the same sentence *Janek jest w mieście* means that Janek is in the centre of the town, while the sentence *Janek jest na mieście* means that Janek is in some other part of the town, away from the place currently occupied by the conceptualiser. If the conceptualiser is inside a building, the sentence *Janek jest na mieście* should be understood that Janek is within the town boundaries but definitely not inside the same building. Thus, the opposition between *w* 'in' and *na* 'on' in prepositional phrases consists in contrasting a closed section of the space/interior in which a centre can be distinguished with a complementary outside and open area with no definite boundaries. The complementary character of the concept of the closed interior and that of adjoining peripheral exterior with vague boundaries finds its reflection in the antonymic construction of the following phrases: *w mieście i na wsi* 'in the town and in the country', *w domu i na polu* 'at home and outside home', *w kraju i na świecie* 'in the country and in the world', etc.

3.4.2. Functional elements encoded by *na*

Because the bottom part of the TR and the upper part of the LM touch each other, fitting tightly, a natural consequence of this spatial configuration is the emergence of the functional element of contact, which is a feature of the spatial scene described by sentence (41), conceptualising the TR, i.e. the *bread knife* being in contact with the LM, i.e. the *table*. To be more specific it is the active zones of the TR and the LM that are in contact with each other, i.e. the external side of the LM and the resting side of the TR. If the profile of the preposition *na* is shifted from the relationship of verticality (the TR located on the surface of the LM) to the relationship of contact, the implicature of contact undergoes pragmatic strengthening. When the relationship of contact is schematised and dissociated from the spatial domain it can be construed in terms of the primary metaphor CONTACT IS ON. Consider the construal of the scene in (44) in which the location of verticality is backgrounded while the relationship of contact of the TR (the *watch*) with the LM (the *hand*) is foregrounded:

⁵¹ Kövecses (2017c) restricts contextual priming to metaphorical conceptualisations; however, here it is used to refer to any kind of construal that is influenced by the context.

(44)

Zerknął na zegarek na ręce. (NKJP)

'He looked at the watch on his hand'.

Since according to our encyclopaedic knowledge, in this spatial scene the position of the LM frequently changes, the canonical position of the TR with respect to the LM encoded by the proto-scene for *on* is not preserved in a vast majority of cases. The only exception is the situation when the hand rests on a table, or some other planar object, perpendicular to an individual's region of interactive focus and its palm is oriented downwards. Thus, generally the original TR-LM configuration is not maintained and it is only the relationship of contact that holds between the two entities.

Another functional element entailed by the spatial configuration between the TR and the LM, represented by the proto-scene, is visibility. If the TR is located on top of the LM, it means that it is more perceptually salient as it remains uncovered, covering part of the LM at the same time, as demonstrated by the following sentence:

(45)

Ta pani siedziała sobie na krześle przy wejściu do budynku. (NKJP)

'This lady was sitting on the chair near the entrance to the building'.

Thus, in (45) the TR, the *lady*, is more easily seen than the LM, the *chair*, whose substantial parts, such as the seat and the backrest, are covered by her body. In this construal the perceptual salience of the TR is profiled while the TR-LM configuration (as represented by the proto-scene) is backgrounded. Therefore, this particular spatial configuration triggers the functional element of visibility.⁵²

Two other meaningful consequences of the proto-scene are: support experienced by the TR and pressure, which the TR exerts on the LM (see 3.4.4.5). However, unlike in the English sample, they have turned out to be insignificant in triggering meaning extensions of the prefix *na-* and for this reason they are not discussed here.

3.4.3. Reanalysis of the proto-scene

The proto-scene, which encodes the TR being located higher than the LM and remaining in contact with it, can be reanalysed in the course of se-

⁵² Apart from the functional elements discussed in section 3.4.2 the TR-LM configuration encoded by the preposition *na* may also trigger the functional element of accumulation. However, because it is a consequence of the reanalysis of the proto scene it is discussed in the next section, devoted to this phenomenon, i.e. 3.4.3.

quential and summary scanning, similarly to the proto-scene for the preposition *nad* and *pod*.⁵³ Thus, first the conceptualiser employs the operation of sequential scanning through which they focus on the successive stages of an event leading to locating the TR on the surface of the LM. To put it differently, the trajectory, whose end-point is located on the surface of the LM is construed as a collection of individual points. Next the operation of summary scanning is carried out through which the conceptualiser focuses on all the stages of an event despite the fact that they have occurred sequentially in the conceived time. Consequently, the reanalysis of the proto-scene results in the schematisation presented in Fig. 3-16.

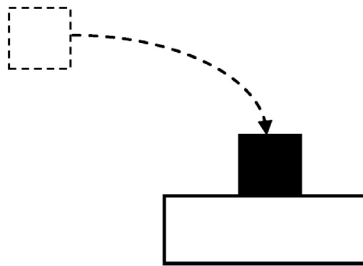


Figure 3-16. Reanalysis of the proto-scene for *na*

In this schematisation, the TR located at the beginning of the trajectory is represented by means of the dashed square, the path followed by the TR is marked by a line ending with an arrow, while the position of the TR that has reached the end-point of the trajectory, located on the surface of the LM, is marked by a shaded square. In the course of the above-described reanalysis the preposition *na* ceases to be force-dynamically neutral. When *na* acquires a force-dynamic value, it can be combined with the noun either in the locative (46a) or accusative case (46b):

(46)

- a. *Ląduje na dachu garażu i po kilku godzinach wyjeżdża.* (SJP PWN corpus)
[land.3SG.PRS.IMPF on roof.LOC]
'He lands on the roof of the garage and leaves after a few hours'.
- b. *Drzewo, które spadło na dach, wyhamowało pojazd.* (SJP PWN corpus)
[which fall.3SG.PT.PF on roof.ACC]
'The tree, which fell onto the roof, stopped the vehicle'.

⁵³ See section 3.2.2 and 3.3.3.

of which the TR comes into contact with a restricted area on the surface of the LM, conceptualised as the goal in the SOURCE-PATH-GOAL schema. The sense of directed movement aimed at coming into contact with the surface of the LM has been extended to non-physical LMs, such as the ones representing the aim of the action. This sense of the preposition *na* can be attributed to an experiential correlation between reaching a goal, understood as coming into contact with the surface of the LM, and achieving the aim of one's action. This sense can be instantiated by phrases such as *na wycieczkę* [on trip.ACC], *na zebranie* [on meeting. ACC], *na polowanie* [on hunting], etc.

When used in a dynamic sense and combined with the noun in the accusative case, the preposition *on* may trigger the functional element of accumulation if the action of putting an object, or a collection of objects, on a surface is of a repetitive nature, as in:

(48)

Pomagał ładować siano na⁵⁴ wóz. (NKJP)
 'He helped to load hay onto the cart'.

Sentence (48) construes accumulation of the TR, i.e. *hay* on the interior surface of the LM, i.e. the *cart*. Thus, the functional element of accumulation⁵⁵ stems from an experiential correlation between putting objects on the surface of the LM and the accumulation of these objects therein, as shown in Fig. 3-17.

In Fig. 3-17 the multiplex TR (cf. Brugman and Lakoff 1988) consists of many individual elements (represented by small squares) placed successively on the surface of the LM (represented by a rectangle), which entails their accumulation. The functional element of accumulation is of paramount importance for the emergence of the quantificational meaning of the prefix *na-*, discussed in section 3.4.4.2.

⁵⁴ Even though the cart is usually perceived as a container as its interior is delimited by the vertical sides, in this conceptualisation the preposition *na* 'onto' is used due to the fact that merely the initial stage of the loading activity consists in putting hay into the cart. Once the cart is filled, the upper part of the cart with hay inside is conceptualised as a surface. Therefore, from then on the activity of loading hay is seen as putting hay onto the surface.

⁵⁵ Both vertical ascent and accumulation are conceptualised in English by means of the particle *up*:

(ii)

a. *I pinned the notice up on the wall.* (vertical ascent) (OALD)

b. *She gathered up her belongings.* (accumulation) (BNC)

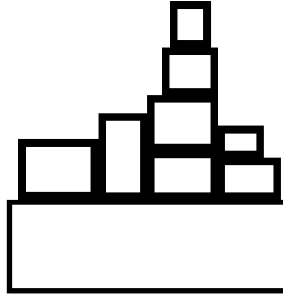


Figure 3-17. Functional element of accumulation profiled by *na*

3.4.4. Non-spatial senses of the prefix *na-*

3.4.4.1. Data and frequency of senses

Table 3-3 shows the frequency of senses of the prefix *na-*, which is by far the most frequent prefix in the sample under study. The SJP PWN search yielded 425 verbs prefixed by *na-*, including verbs with the postfix *się*, which have been counted as separate entries. Only in 53 verbs the meaning of the prefix *na-* is purely spatial, as e.g. in *namacać* ‘to feel, to find by feeling’, which altogether gives 372 verbs subject to analysis. The senses are arranged on the basis of their frequency in descending order. Since many of the composite prefixed verbs are polysemous the number of occurrences of the prefix *na-* in the sample amounts to 423.

Table 3-3. Frequency of senses of the prefix *na-*

Sense of prefix <i>na-</i>	Number of occurrences	Percentage
High Intensity	198	46.81
Goal Attainment	63	14.89
Excess	63	14.89
Intended Target	38	8.98
Saturation	23	5.44
Sufficiency	18	4.26
Partial Effect	12	2.84
Filling	8	1.89
Total	423	100

As the data in Table 3-3 shows, the prefix *na-* has produced 8 non-spatial meaning extensions, the most productive of which is the High Intensity Sense, which occurs in slightly less than a half of all the verbs with the frequency of occurrence amounting to 46.81 per cent. The least productive is the Filling Sense, which has been attested in merely 8 verbs, which constitutes 1.89 per cent of the corpus under study.

3.4.4.2. Functional element of accumulation

As stated in section 3.4.3, a natural consequence of the dynamic sense of the preposition *na*, conceptualising the multiplex TR coming into contact with the LM, may be its accumulation on the surface of the LM, as exemplified by:

(49)

Na talerz nałożył dużo szynki, kielbasy, cielęciny i zabrał się do jedzenia. (NKJP)
 ‘He put a lot of ham, sausage and veal on the plate and got down to eating’.

Sentence (49) describes a spatial scene of placing the multiplex TR, i.e. *ham, sausage and veal*, on the surface of the LM, i.e. the *plate*, which entails their accumulation. I propose that the functional element of accumulation motivates the quantificational meaning of the prefix *na-*, which goes in line with the findings of the research into the Croatian prefix *na-* carried out by Šarić (2013).⁵⁶ As has been observed by Šarić (ibid.), in this context quantification should be understood as the assignment of a certain quantity to an instance of a thing (Radden and Dirven 2007). While in (49) quantification pertains to a substantial quantity of physical entities, which accumulate on the surface of the LM, it may also refer to an intensity of an action or multiplicity of single acts:

(50)

Ale w swojej książce z 1954 roku „Podróż na Zachód” sam pan wiele nafantazjował, wymyślając nieistniejących krytyków i fabuły filmów. (NKJP)
 ‘But in your book from 1954 “Journey to the West” you have fantasised a lot, inventing non-existent critics and plots of the films’.

The component prefix *na-* in the composite verb *nafantazjować* [on-daydream], representing the TR, construes telling a large number of invented stories in terms of amassing them during a conversation, standing for the im-

⁵⁶ Šarić (2013) remarks that this sense occurs not only in Croatian, but is common in many Slavic languages, including Czech, as evidenced by Filip (2000, 2005), and Russian, as demonstrated by Geniesiene (1987). Szymanek (2010) refers to this sense as *cumulative*.

plicit LM. Since the degree of the intensity of the process conceptualised by means of the prefix *na-* varies, I propose the following terms for the senses motivated by the functional element of accumulation: the Sufficiency Sense, the High Intensity Sense and the Excess Sense. The Sufficiency Sense represents the lowest degree of intensity of a process and the Excess Sense stands for the highest degree of intensity. Because the High Intensity Sense is the most productive, it opens the discussion to follow.

The High Intensity Sense

I define the High Intensity Sense of the prefix *na-* as a ‘a quantity that is bigger than the norm’, where quantity is viewed in terms of the intensity of the action, understood by Szymanek (2010) either as an aggregate of singular acts (51a), (51b) or the multiplicity of the action (51c), (51d). I argue that the High Intensity Sense is a result of an experiential correlation between accumulation and the high intensity of an action on the grounds of the fact that a gradual increase in the amount of objects is brought about by iterating the operation of placing objects on the surface, as instantiated in (49). Due to the shift in profile in the course of which the process of the accumulation of objects is backgrounded, while the high intensity of an action is foregrounded, the prefix *na-* can be used to conceptualise high intensity in a non-spatial domain. Consider exemplifications of the High Intensity Sense, encoded by the prefix *na-*:

(51)

- a. *Nauczycielka nakłamała o swoim majątku.* (NKJP)
‘The teacher told a lot of lies about her fortune’.
- b. *Ach, ciężko się nagrzeszycyło, ciężko się pokutuje teraz.* (NKJP)
‘Oh, many sins have been committed and now they must be repented’.
- c. *Nasiej mi tu maku.* (NKJP)
‘Sow here a lot of poppy seeds for me’.
- d. *Na wiosnę można lodu narąbać⁵⁷ w jeziorze.* (NKJP)
‘In the spring a lot of ice can be cut in the lake’.

⁵⁷ The verb *narąbać* when occurring in the reflexive form, *narąbać się*, is used in colloquial Polish to refer to getting drunk, i.e. it means ‘to get smashed’. Alternatively, the verb *narąbać się* may mean ‘to eat hastily a lot’ but its use is also limited to informal language. Note the instantiations of these two senses of the verb:

(iii)

- a. *Rafał narąbał się już w drodze.* (SJP PWN corpus)
‘Rafał got smashed already on his way’.

The verbs *nakłamać* [on-lie] and *nagrzeszyć* [on-sin], used in (51a) and (51b), respectively, construe high intensity in terms of performing a great number of acts, which exceed what is considered to be the norm, i.e. telling one lie, or committing a single sin, respectively. What is important in these two construals is that each of the prefixed verbs represents not a repetition of exactly the same action, i.e. telling the same lie, or committing the same sin, but it stands for performing many different acts of the same type, i.e. telling many various lies or committing miscellaneous sins. Two other verbs, i.e. *na-siać* [on-sow] in sentence (51c) and *narzbać* [on-cut] in (51d), conceptualise high intensity as repeating basically the same action many times. This should be taken to mean that an act of sowing and cutting is replicated in the sense that each time it proceeds along more or less the same lines. On the whole, when the prefix *na-*, encoding the High Intensity Sense, is combined with the simplex verb, the activity conceptualised by the composite prefixed verb stands for the TR, while the LM, which usually remains unexpressed, can be inferred from the context as what is presumed to be the norm.

As Śmiech (1986) notices, derivatives expressing multiplicity of the action, as used in phrases such as *nabudować domów* ‘to build many houses’, *nakłasiać cegieł* ‘to put many bricks’, *nakrajać buraków* ‘to cut many beetroots’, *namyc talerzy* ‘to wash many plates’, etc.⁵⁸ can take an object, which can be separated into distinct elements on which the action is performed. If the action involving these distinct elements is repeated many times, this leads to a piling up of whatever objects are involved, hence the concept of accumulation, leading to the High Intensity Sense. As Tabakowska (2001b) states, conceptualising a process in terms of accumulation is possible in the case of countable objects that can be divided into portions. The repetitiveness of an action implies multitude

b. *Jak się narzbał tych różnych przysmaków ich, no to nie mógł całą noc spać.* (SJP PWN corpus)

‘When he had stuffed himself with all their various delicacies, he couldn’t sleep all night’.

These two senses of the verb at issue seem to be motivated both by the prefix and the verbal base: the prefix *na-* points to the high intensity of the action, i.e. drinking a lot alcohol, or eating huge amounts of food, while the component verb *rzbać* ‘to cut, to chop’ conceptualises the process of immoderate drinking or eating in terms of quick and violent movements, executed when chopping hard physical objects, such as wood or meat. When used metaphorically, the component verb profiles both the greediness of a human subject engaged in hasty consumption and the destruction inflicted on himself by immoderate drinking and eating.

⁵⁸ For a substantial list of verbs representing this category see Śmiech (1986: 44).

(hence the plural number and genitive case), including the notion of absolute quantification. Alternatively, the derivatives prefixed by *na-* denoting the high intensity of an action can take an object, that is treated as one whole, and cannot be divided into separate parts since the action is directed at the object viewed as one entity, as exemplified by the following phrases: *naważyć cukru* ‘to weigh a lot of sugar’, *nagotować klusek* ‘to cook many noodles’, *narąbać drzewa* ‘to chop a lot of wood’, etc.

When the prefix *na-* encodes the High Intensity Sense, its meaning frequently overlaps with the meaning of base verbs, which already imply the high intensity of an action, as is the case with all the verbs from (51), which are iterative. Thus, the combination of the prefix *na-* encoding the High Intensity Sense with many base verbs confirms the *overlap hypothesis*, put forward by Janda et al. (2013), according to which the meaning of the component verb is frequently the same as that of the component prefix.⁵⁹

The Excess Sense

The Excess Sense is the second most productive sense in the Accumulation Cluster, as it has been attested in 63 verbs. The Excess Sense is motivated by an experiential correlation between the accumulation of objects on a surface and their unrestrained build-up so that the capacity of the surface is exceeded. For example, it is a salient aspect of human experience that when a substantial number of books, newspapers, documents, etc. is put on a desk, their amount is going to become excessive if the accumulation process does not stop. If the profile of the relational expression is shifted from the experience of accumulation to the experience of excess, it is possible to construe excess by means of the prefix *na-* in non-spatial domains. For example, *na-* may conceptualise excess when used with verbs of eating and drinking, as demonstrated in (52b).

At this point it needs to be remarked that both the Excess Sense and the Sufficiency Sense (discussed in the next subsection) are heavily context-dependent. It has been observed by Szymanek (2010: 150) that the meaning of prefix *na-* in the

⁵⁹ Janda et al. (2013) have formulated the *overlap hypothesis* while working with Russian perfective verbs; however, their findings can be applied to Polish prefixed verbs as well, as the present research has shown. The *overlap hypothesis* argues against the so-called *empty prefixes*, by claiming that in some aspectual pairs, such as *писаć* [write.IMPF] – *написаć* [on-write.PF], the prefix is not meaningless (even though it appears to be) but it profiles the same TR–LM relationship as the verb. For example, the prefix *na-* used in the composite verb *написаć* overlaps with the verb *писаć* as both component structures profile the relationship of the TR coming into contact with the LM. See also section 3.4.4.3.

sense that he refers to as *distributive/cumulative*, and that encompasses all the senses I distinguish in the Accumulation Cluster, is not unequivocal:

[...] [I]t [*na-*] may connote both pleasure and satisfaction as well as excess and fatigue. Evidently then, the prefix *na-* can express attitudinal meaning [...]. Depending on the context, intonation, etc. such verbs may have either positive connotations (joy, pleasure, satisfaction) or negative ones (tiredness, fatigue, anguish), respectively. Cf. *Najeździłem się na nartach, ile dusza zapragnie* 'I have been skiing to my heart's content' vs *Nachodziłem się w tej sprawie co niemiara* 'This matter has given me a lot of trouble'.

Consider the following two sentences, which are an exemplification of this semantic ambiguity:

(52)

- a. *Zakończył pracę, najadł się, napił i w dobrym nastroju ułożył do snu.* (NKJP)
'He finished work, ate and drank to his fill and went to bed in a good mood'.
- b. *Ale się najadłem!* (NKJP)
'I have eaten too much!'

Thus, *najeść się* [on-eat.INF.PF.REFL] is the composite verb in which the prefix *na-* may construe either the Sufficiency Sense (52a) or the Excess Sense (52b). This distinction is conditioned by the local context in the sense of Kövecses (2015) (see section 1.2), i.e. the knowledge concerning a particular situation involving particular individuals. In (52a) the person represented by the subject of the sentence drank and ate enough, i.e. as much as he wanted, while in (52b) the process of food consumption has turned out to be excessive. The composite verb *się najadłem* (52b) is part of a frequently used exclamative construction, beginning with the conjunction *ale* 'but' used to conceptualise excess.

On the whole, outside of context the meaning of many verbs prefixed by *na-* is ambiguous, as many of them may encode both the Sufficiency Sense and the Excess Sense. Therefore, the dictionary entries in SJP PWN usually do not make any distinction between these two senses, listing them as alternative meanings that can be interpreted only in context. For instance, the verb *napolować się* [on-hunt.INF.PF.REFL] is provided with two meanings in one entry: 'to take part in many hunts' and 'to get fed up with hunting'.

In the Excess Sense the prefix *na-* is in a vast majority of cases accompanied by the reflexive postfix *się*. There is just one instance of a verb in which the Excess Sense is construed merely by the prefix *na-*, namely *nawrócić* 'to drag sb. too much'. Therefore, the Excess Sense cannot be attributed to the prefixal element alone since it is encoded both by the prefix *na-* and postfix *się*.⁶⁰

⁶⁰ The same constructional pattern has been attested in Czech, Russian and Croatian, as evidenced by Šarić (2013).

The Sufficiency Sense

The Sufficiency Sense is the least productive out of all the senses belonging to the Accumulation Cluster, with the number of occurrences amounting to 18. It is motivated by an experiential correlation between the accumulation of objects on a surface and the obtaining of a sufficient amount of these. For example, if a publishing house organises a display of its latest books at a scientific conference, the books are usually put one by one on a table until there are enough of them to cover the whole surface. If the profile of *na* is shifted from the experience of accumulation to that of sufficiency, and the concept of sufficiency is schematised and dissociated from the spatial domain, it is then construed metaphorically by means of the prefix *na-*.

The label for the Sufficiency Sense has been inspired by the notion of sufficient quantity relied on by Šarić (2013) in her discussion of verbs prefixed by *na-* in Croatian to convey the idea of ‘doing enough of something’. The Sufficiency Sense, like the Excess Sense, is encoded by the prefix *na-* when it is a component of reflexive verbs, such as, e.g. *napatrzeć się* [on-look.INF.PF.REFL] ‘to feast one’s eyes’ and *napalić się* [on-smoke.INF.PF.REFL] ‘to enjoy smoking cigarettes/grass to the full’:

(53)

- a. *Możesz się napatrzeć do woli, chyba że...* (NKJP)
‘You can feast your eyes as long as you want, unless...’
- b. [...] [*K*]iedyś *napaliliśmy się trawy z Kaczorem* [...]. (NKJP)
‘Once together with Kaczor we enjoyed smoking grass to the full’.

The e-site of the prefix *na-*, encoding the Sufficiency Sense is elaborated by simplex verbs: *patrzeć* ‘to look’ (53a) and *palić* ‘to smoke’ (53b). Consequently, the composite verb in (53a) profiles the process of looking long enough at an object of interest, while the one in (53b) profiles the process of smoking as much grass as one wanted.

3.4.4.3. Functional element of contact

The functional element of contact is a meaningful consequence of the prototypical spatial configuration between the TR and the LM⁶¹ in which the TR is located on the surface of the LM. As a result, the underside of the TR remains in contact with the upper surface of the LM. This functional element has triggered the emergence of five senses: the Goal Attainment Sense, the

⁶¹ See section 3.4.1.

Intended Target Sense, the Saturation Sense, the Partial Effect Sense and the Filling Sense, which are presented in descending order of frequency in the section to follow. All these senses make up the Contact Cluster.

The Goal Attainment Sense

The Goal Attainment Sense is the most productive in the Contact Cluster with the frequency of occurrence amounting to 14.89 per cent. The term for this sense has been taken from Šarić (2013: 61), who in her paper on spatial and non-spatial senses of the prefix *na-* in Croatian has observed that “becoming visible on a surface transforms into leading to a result and attaining a goal (e.g., *učiti* – *naučiti* ‘to learn’)”. She terms this sense Goal Attainment and considers it to be a result of metaphorical extension in which the concept of visibility plays an important part. Relying on the principled polysemy framework for explaining the motivation behind this meaning of the prefix *na-*, the Goal Attainment Sense can be seen as stemming from an experiential correlation between seeing the final result of the action and the completion of this action. Being able to see the result of the action means that the action has been finished, otherwise it would be impossible to become aware of the effects that the action has produced. Another consequence of this particular experiential correlation is that the aim for which this action was undertaken has been attained, hence the term for this meaning of the prefix *na-*, i.e. the Goal Attainment Sense.

One more explanation of the motivation for the Goal Attainment Sense that may be offered is that it stems from an experiential correlation between placing the TR on the surface of the LM, or its self-propelled movement there so that the two entities come into contact with each other, and the TR reaching the goal, understood as the end-point of the trajectory in the SOURCE-PATH-GOAL schema. Thus, when the TR is relocated onto the surface of the LM, it attains the goal, which is tantamount to the completion of its motion. This conceptualisation is based on the notion of completion of an action in terms of the EVENT STRUCTURE metaphor, which conceptualises purposes as destinations (Lakoff 1990). Consequently, the destination reached by the TR, i.e. the goal, is reinterpreted as the purpose that has been accomplished, and this, in turn, amounts to the completion of the action.

It is possible to distinguish three classes of verbs in which the prefix *na-* conveys the Goal Attainment Sense. First of all, similarly to the classification provided by Šarić (2013) for Croatian, I identify subtype (I) which includes creation verbs, denoting an action of producing a piece of writing, a drawing, or a painting on the surface, such as *namalovati* ‘to paint’, *narysovati* ‘to draw’,

nakreślić ‘to sketch’, *namazać* ‘to scribble’, *napisać* ‘to write’, *naznaczyć* ‘to mark’, *namydląć* ‘to scrawl’, *nabazgrać* ‘to scroll’, etc. Secondly, subtype (II) profiles the process of applying some substance to the surface of the LM and it includes verbs such as *naoliwić* ‘to oil’, *nasmarować* ‘to grease’, *namydląć* ‘to soap’, *nawoskować* ‘to wax’, etc. Szymanek (2010) terms these verbs *ornative* on account of the fact that their meaning can be paraphrased as ‘to provide with N’ or ‘to cause to have N’ (Szymanek 1998: 296). Both subtypes, i.e. (I) and (II), encode physical contact between the TR and the LM, which is not the case with subtype (III) to be discussed below. Consider instantiations of verbs, representing subtype (I):

(54)

- a. *Po przyjeździe do Polski Janek napisał, że u swoich to był w Kazachstanie.* (NKJP)
‘After coming to Poland Janek wrote that it was in Kazakhstan that he was at home’.
- b. *Na dole narysowałam dwa barany.* (NKJP)
‘I drew two rams at the bottom’.

Both sentences (54a) and (54b) conceptualise an action performed by means of an instrument, such as a ball-pen or a pencil, on the surface of the LM, which is most probably paper. The composite verbs *napisać* [on-write] (54a) and *narysować* [on-draw] (54b) exemplify conceptual overlap between the prefix and verbal base, because simplex verbs, i.e. *rysować* ‘to draw’ and *pisać* ‘to write’, already imply actions performed on the surface of the LM. This line of thinking provides evidence in favour of the overlap hypothesis and against the so-called *empty prefix hypothesis* (Janda et al. 2013), according to which certain prefixes are devoid of meaning. In formal approaches to Polish prefixation, such as for example that of Śmiech (1986), the prefix *na-* in verbs *napisać* ‘to write’, *narysować* ‘to draw’ as well as in some other derived verbs denoting an activity taking place on the surface of the LM, such as *nabazgrać* ‘to scribble’, *nakreślić* ‘to draw, to cross out’, *naznaczyć* ‘to mark’ etc., is considered to be meaningless, i.e. it is thought to have merely a perfectivising function.⁶²

In cognitive linguistics the notion of a meaningless prefix has already been dismissed many times. For example, Sarić (2013: 60), who has investigated the polysemy of the prefix *na-* in Croatian, (a cognate with Polish *na-*) has proposed

⁶² Despite claiming that the prefix *na-* is meaningless in these verbs, Śmiech (ibid.) contradicts this view by saying that it constitutes just a repetition of the preposition’s meaning from the prepositional phrase that can accompany the verb, by encoding an activity that can only be performed on the surface of an object, e.g. *pisać* [write.IMPF.INF] *na czymś* ‘to write on something’ → *napisać* [write.PF.INF] *na czymś* ‘to write on something’.

that “the prefix *na-* and the base verb are semantically compatible”. Janda et al. (2013), who have analysed prefixed verbs in Russian, have argued extensively against the concept of meaningless, i.e. empty, prefixes (cf. section 3.4.4.2), claiming that this meaninglessness is merely an illusion. In Janda’s et al. (ibid.) view, the semantics of the prefix is camouflaged by the semantic profile of the verb with which it co-occurs on account of the fact that both the prefix and the verbal base construe the same spatial configuration between the TR and the LM. Consequently, the meaning of the prefix does not stand out against the meaning of the verbal base, which, however, should not be taken to mean that the prefix is meaningless. What is worth emphasising is that the spatial component of the action can be construed not only by the verb and the prefix but also by means of the prepositional phrase: *na* + N (LOC), as exemplified in:

(55)

- a. *Wily, chłopak z Indonezji, napisał na tablicy „I love you.”* (NKJP)
‘Wily, a boy from Indonesia, wrote on the blackboard “I love you”’.
- b. *Ktoś nam swastykę namalował na murze.* (NKJP)
‘Somebody painted a swastika on the wall’.

As regards the aforementioned subtype (II), encoding the application of some substance to the surface of the LM, the verbs representing it are usually denominal as they are created from the names of substances or material by means of which the action is performed, as exemplified by *namydlić* ‘to soap’, *naświecać* ‘to phosphoresce’, *naświetlić* ‘to irradiate’, *namagnesować* ‘to magnetise’, *nathucić* ‘to grease’, *naoskować* ‘to wax’, etc. (Śmiech 1986). However, if the noun forming the base of the verb has a general meaning, or if the name of the substance that the verb denotes is not suitable for performing a particular action, the verb is followed by an object specifying the kind of substance or instrument that should be used, as in (56c):

(56)

- a. *Najwyższa pora naoliwić zawiasy.* (NKJP)
‘It is high time somebody oiled the hinges’.
- b. *Ale nie było już czasu nasmarować (drzwi).* (NKJP)
‘But there was no time to grease (the door)’.
- c. *Kasia nasmarowała twarz kremem.*⁶³ (NKJP).
‘Kate applied cream to her face’.

⁶³ Note the alternative construal, in which the same verbal base *smarować* ‘to grease’ is used preceded by the prefix *po-* related to the preposition *po* denoting a wide variety of meanings, e.g. ‘after, all over, around, on, along’:

The ornative verbs in (56) conceptualise application of the substance implied implicitly (56a) and (56b) or expressed explicitly (56c) to the surface of the LM. In the conceptualisation expressed by sentences (56a) and (56b) the denominal verb itself specifies the name of the substance that will be used to perform an activity (i.e. *oliwa* ‘oil’ and *smar* ‘grease’, respectively). However, in (56c) the base noun does not denote the proper kind of the substance (*smar* ‘grease’ cannot be applied to the face), therefore, it is necessary to use the noun, such as *krem* ‘cream’, which specifies the substance needed to carry out the action in question. As Śmiech (1986) remarks, it is the phrase *nasmarować twarz kremem* ‘to apply cream to one’s face’ that has given rise to the verb *nakremować* ‘to cream’.⁶⁴ In (56a), (56b) and (56c) the prefix conceptualises the surface-oriented effect of the action in the course of which the oil, grease and cream come into contact with the surface of the LM. Thus, like in the case of verbs representing subtype (I), the relationship of contact profiled by prefix *na-*, is also profiled by the verbal base. All in all, the Goal Attainment Sense, expressed by verbs representing subtypes (I) and (II), is characterised by a conceptual overlap between the prefix and the component verb.

Subtype (III) is different from both subtype (I) and subtype (II) because the relationship of contact between the TR and the LM is either very marginally present in the profile of the prefix *na-* (57a) and (57b) or totally absent from it (57c).

(57)

- a. *Jak mam napoić zwierzęta?* (NKJP)
 ‘How shall I water the animals?’

(iv)

- [...] [*P*]osmarowała ramiona kremem [...]. (NKJP)
 ‘She has applied cream to her shoulders’.

The sense of the prefix *po-* as used in the above sentence is related to one of the meanings of the preposition *po* that can be glossed ‘all over, around’ and exemplified by the following sentence:

(v)

- Chodzę sama po lesie* [...]. (NKJP)
 ‘I walk around in the forest on my own’.

Thus, the use of the prefix *po-* implies the idea of covering the entire surface of the LM, as observed by Dąbrowska (1996), while the prefix *na-* profiles primarily contact with the LM’s surface.

⁶⁴ Śmiech (1986) proposes that other ornative verbs may have been created in the same way, e.g. *natrzeć balsamem* ‘to rub body lotion into the skin’ → *nabalsamować*.

- b. *Ktoś nakarmił konie żeby pociągnęły wóz.* (NKJP)
 ‘Somebody fed the horses so that they would pull the cart’.
- c. *Schmoll nadąsał się⁶⁵ i wyszedł bez słowa.* (NKJP)
 ‘Schmoll went into a sulk and left without saying a word’.

In the construal of the scene in (57a) and (57b) water and food come into contact with the mouth of an animal during the process of watering and feeding, respectively, therefore, it can be stated that the relationship of contact is marginally present in the profile of the prefix *na-*. In contrast, (57c) constitutes an instantiation of the shift in profile of the prefix *na-* from the relationship of contact to the process of attaining a goal. Consequently, the relationship of contact has been relegated to the base, while the process of goal attainment becomes dissociated from the spatial domain and is conceptualised metaphorically.

The Saturation Sense

As Szymanek (2010: 149) notices, “occasionally, the surface oriented orative sense is modified in another way, when the verb denotes saturation with a substance, so that a three-dimensional interpretation prevails”. When seen in this light, a possible motivation for the emergence of the Saturation Sense is the occurrence of the prefix *na-* in verbs that denote saturation of the LM with the TR, beginning with the TR coming into contact with the LM’s surface. Note the use of the prefix *na-* in such bridging contexts:

(58)

- a. *Krem na dzień intensywnie nawilża i chroni skórę i dodaje jej energii.* (SJP PWN corpus)
 ‘The day cream moisturises the skin intensely, protects it and makes it more energetic’.
- b. *Wtedy podejrzane miejsce lekarze zaczynają naświetlać laserem.* (NKJP)
 ‘Then the doctors begin to irradiate the suspicious spot with laser light’.

Sentence (58a) conceptualises a scene in which the TR, i.e. *the day cream*, first comes into contact with the surface of the LM, i.e. the person’s *skin*, and after it is absorbed, it permeates through the epidermis to deeper layers of the skin. As regards sentence (58b), it refers to the use of laser light in cancer treatment, which consists in directing a laser beam onto a spot on the surface of the skin that might contain cancerous tissue. Laser light func-

⁶⁵ Additionally, the verb *nadąsać się* ‘to go into a sulk’ can be perceived as an instantiation of the Filling Sense since sulking is conceptualised here as filling oneself with the sulks.

tions as the TR initially acting on the surface of the skin and only afterwards permeates through it to deeper skin layers in order to destroy potential cancerous cells.

Thus, as the above sentences imply, there is an experiential correlation between the TR coming into contact with the surface of the LM and saturation of the LM with the TR. The implicature of saturation has been pragmatically strengthened, which has triggered the shift in profile of the prefix *na-* from the relationship of contact to the process of saturation. Consequently, the Saturation Sense has been established as a separate sense in the semantic network of the prefix *na-*, in which the two-dimensional LM, i.e. the surface of the object, is replaced by a three-dimensional LM, as exemplified by:

(59)

a. *Spróbujcie nawilżyć powietrze.* (NKJP)

‘Try to humidify the air’.

b. *Był jednak pewien kłopot – należało nawodnić ziemię.* (NKJP)

‘There was, however, some problem – the soil had to be irrigated’.

Both (59a) and (59b) conceptualise saturation of the three-dimensional LM, i.e. *air* and *soil*, with the LM, i.e. *water*. The LM is represented as a three-dimensional entity either devoid of surface (59a) or with the concept of surface being backgrounded (59b). This stems from the nature of the process encoded by means of the verb prefixed by *na-*, which affects the entire object and may proceed without contact with the surface of the LM (one of the irrigation techniques consists in employing underground drip lines).

The verb *nawodnić* can also be used in a different context, namely it may refer to saturation of the human body with water, as exemplified by the following sentence:

(60)

Organizm trzeba nawodnić. (NKJP)

‘The body needs to be hydrated’.

In this construal the LM is the human *body*, which needs to be saturated by means of water or some other liquid. In this construal the process of hydration begins with the contact of the liquid substance with the surface of the LM, which might be the mouth, if the hydration is to take place through drinking, or skin if the patient is put on a drip. However, in this conceptualisation the relationship of contact is backgrounded with the process of saturation being foregrounded.

The Partial Effect Sense⁶⁶

Another sense motivated by the functional element of contact stems from an experiential correlation between performing an action on the surface of the LM and achieving only partially the effect for which the action was meant, as in (61). In contrast, if the action, which represents the TR of the construal, affects not only the LM's exterior but also it proceeds through its interior, it is regarded as one that has produced a full effect, as demonstrated in (62).

(61)

- a. *Aby przepołować małego kurczaka, najlepiej naciąć⁶⁷ go wzdłuż grzbietu.* (SJP PWN corpus)
'In order to bisect a small chicken it is best to notch it along its back'.
- b. *Owoce z twardą skórką należy nakłuć aby nie pękły podczas smażenia.* (NKJP)
'Fruit with hard skin should be pricked so as to prevent them from cracking during frying'.
- c. *Właśnie kiedy nagryzłem pierwszą figę, zainspirowało mnie to do przeczytania terminu ważności na opakowaniu.* (NKJP)
'Just when I gnawed at the first fig, it inspired me to read the expiry date on the package'.

(62)

- a. *Po wystudzeniu przeciąć w poprzek na trzy plastry.* (SJP PWN corpus)
'After cooling down cut it across into three slices'.

⁶⁶ In Konieczna (2017) this sense is referred to as the Partial Fulfillment Sense.

⁶⁷ The verb *naciąć się* has also developed another sense, as exemplified by the following sentence:

(vi)

Nie tak dawno nacięłam się na jogurty Bakomy. Po otwarciu opakowania okazało się, że całe wewnętrzne obrzeże kubeczka było obrośnięte obrzydliwą pleśnią. (NKJP)
'Not so long ago I got conned by buying Bakoma yoghurts. After opening the container it turned out that the whole interior edge of the small carton was covered with disgusting mould'.

The verb at issue *naciąć się* 'to get conned' is a reflexive form of the verb *naciąć* 'to notch'. The extension of meaning in this direction may be motivated by the conceptualisation underlying a non-reflexive form which pertains to the TR's activity that may be potentially harmful. Such an interpretation stems from the contribution of the component verb *ciąć* 'to cut', which may also mean 'to harm using a sharp tool'. This meaning is then transferred to a non-spatial domain and as a result of the addition of the reflexive pronoun it is interpreted as causing harm to oneself by not being careful, experienced or knowledgeable enough to avoid certain dishonest practices. The contribution of the prefix *na-* suggests a slight intensity of the action: the verb *naciąć się* is used to talk about not being able to avoid minor deceits, rather than major frauds or financial catastrophes.

- b. *Ja w każdym razie na pewno nie przekłułabym uszu tak małemu dziecku.* (NKJP)
 ‘Anyway, I would never get the ears of such a small child pierced’.
- c. *Pies przegryzł⁶⁸ jednak smycz.* (NKJP)
 ‘The dog, however, bit through the leash’.

The verbs *naciąć* (61a), *nakłuć* (61b) and *nagryźć* (61c) construe only a partial performance of an action of cutting, piercing and biting. In fact, they pro-

⁶⁸ Note that the verb *przegryźć* also has a variety of other meanings, such as ‘to have a quick snack’ (viia) or ‘to eat into/away at something’ (viib):

- (vii)
- a. *Może pan przegryzie coś?* (NKJP)
 ‘What about having a quick snack?’
- b. *Jutro powiem, że łańcuchy rdza przegryzła.* (NKJP)
 ‘Tomorrow I will say that the rust ate away at the chains’.

It seems that the motivation for the sense of the verb *przegryźć* in (viia) is conceptualising having a snack as one-time biting through a piece of food, such as a sausage or a cake, As regards (viib), the rust is conceptualised as a physical TR, capable of ‘eating away’ at the LM, which amounts to destroying it.

Besides, *przegryźć* may occur also in a reflexive form, i.e. as *przegryźć się*, and then it means ‘to blend together well’ (viii) or ‘to get through’ (viii):

- (viii)
- a. *Chodzi o to, że składniki muszą się przegryźć.* (SJP PWN corpus)
 ‘The thing is that the ingredients must blend’.
- b. *Ale żeby to zauważyć trzeba przegryźć się zarówno przez fizykę statystyczną jak i statystykę matematyczną.* (NKJP)
 ‘But in order to notice it, it is necessary to get through both statistical physics and mathematical statistics’.

As regards (viii), the semantics of the verb in question can be explained in terms of each ingredient being conceptualised as the TR and the LM at the same time, whose smell and flavour both permeates that of other ingredients and is simultaneously permeated by them. The mutual permeation of smell and flavour is conceptualised as ‘biting through each other’, which is rooted in an experiential correlation between biting through an entity and virtually penetrating into it. The meaning of *przegryźć się* in (viii) is motivated by an experiential correlation between the difficulty that one runs into when trying to bite through a hard object and the struggle one faces in an attempt to understand or master some difficult and new subject. In this conceptualisation the difficulty in getting through a sophisticated subject is construed as problems encountered when dealing with hard or tough food. Moreover, the meaning of this verb stems from yet another experiential correlation, this time between the way of dealing with an item of food and a method applied when tackling subjects that are difficult to understand: in order to bite through any item of food it is necessary to bite through each of its layers; likewise so as to comprehend a complicated issue it is essential to go through it part by part.

file merely an initial boundary transition, which means that the aspectual contour of events profiled by them begins with a bounded point to be followed by the transition and then unbounded continuation. Therefore, after Janda (2015b) I include these verbs in the category of ingressive phasal perfectives, alongside verbs prefixed by *nad-* (see Fig. 3-7, section 3.2.5.2).

On the other hand, the verbs in (62), i.e. *przeciąć* (62a), *przekłuć* (62b), and *przegryźć* (62c), created by means of the prefix *prze-* derived from the preposition *przez* ‘through, across’ construe a scene in which the TR (represented by the process of cutting, piercing and biting) begins its motion at the LM’s external boundary and moves along a path, which proceeds through the three-dimensional LM so as to reach the goal, located on the opposite side of the LM. Since in the EVENT STRUCTURE metaphor, actions are conceptualised in terms of movements, and consequently purposes are construed as destinations, verbs prefixed by *prze-* construe completed actions, i.e. achievements if the verb is punctual, which is the case with (62a) and (62b) or accomplishments if the verb is durative, as in (62c).

The Filling Sense

The Filling Sense is the least productive in the semantic network of the prefix *na-*, as the SJP PWN search has yielded merely 8 verbs with the prefix *na-*, encoding this meaning.⁶⁹ Consider instantiations of this sense:

(63)

- a. *Wyjęła firmowy balonik i go nadmuchała.* (NKJP)
‘She took out a company balloon and inflated it’.
- b. *Powolnymi ruchami nalewa sobie kawę.* (NKJP)
‘She is slowly pouring coffee for herself’.

As demonstrated by the above examples, the Filling Sense is motivated by the Contact Sense, as there is an experiential correlation between coming into contact with the surface of the LM and filling the LM. If the LM is conceptualised as a container,⁷⁰ it is usually its bottom that comes into contact with the substance that is going to fill it up, as exemplified by sentence (63b). It is

⁶⁹ This finding confirms an observation already made by Śmiech (1986), who has also pointed out the low frequency of occurrence of the prefix *na-* in this sense.

⁷⁰ This seems to run counter to the conceptualisation of the LM for both the preposition *na* and prefix *na-*; however, this contradiction is only apparent as in the construals expressed by sentence (63a) and (63b) it is not the interior of the container that is foregrounded but rather one of its two-dimensional parts, conceptualised as surface, such as its bottom or outer edges.

a well-known aspect of human experience that when a liquid, such as coffee, comes into contact with the surface of a container, it is likely to fill it if the process continues. In (63a) the relationship of contact is also present because the LM's outer edges, i.e. the edges of the balloon, come into contact with the Agent's lips in the process of inflating it. Additionally, the Filling Sense is motivated by the Saturation Sense due to the possible experiential correlation between the process of saturation and the state of fullness in the sense that that the former may presuppose the latter.⁷¹

3.4.4.4. Reanalysis of the proto-scene: the Intended Target Sense

Reanalysis of the proto-scene has produced merely one sense extension, which is the Intended Target Sense.

The Intended Target Sense

The Intended Target Sense is motivated both by the reanalysis of the proto-scene for the preposition *na*, through which the TR's position is reinterpreted as the goal of the TR's movement (see Fig. 3-16), and the functional element of contact. Accordingly, this sense results from the dynamic sense of the preposition *na*, followed by the noun in the accusative case. Consequently, when encoding the Intended Target Sense and combined with the verb, the prefix *na-* conceptualises relocating the TR so that it ends up coming into contact with a specific area located on the surface of the LM:

(64)

- a. [...] [*N*] *aciagnął czapkę głębiej na oczy i zbliżył się do tamtego*. (NKJP)
'He pulled the hat further over his eyes and approached that one'.
- b. *Mock wyszedł z kosza i narzucił płaszcz na ramiona*. (NKJP)
'Mock left the basket and flung the coat over his shoulders'.

Thus, the prefix *na-* construes a scene in which the TR reaches the specific area located on the surface of the LM, which is conceptualised as the intended target on account of the fact that it has been deliberately chosen by the Agent as the point at which the TR is directed. The intended target reached by the TR is the eye area (64a) and the Agent's shoulders (64b). Consequently, there exists an experiential correlation between the TR arriving at

⁷¹ For example, if a non-human or human entity is saturated with water, as demonstrated by (59b) and (60), respectively, it can be conceptualised as a container that is filled with it.

the goal, located on the surface of the LM, and the TR reaching the intended target, understood as a specific area on the surface of the LM (see also the discussion in 3.4.3). Since the process of reaching the intended target has been schematised and dissociated from the spatial domain, it is now conceptualised metaphorically by means of the prefix *na-*. In the non-spatial domain the TR is represented by the action aimed at the LM:

(65)

- a. *Od dawna sektor prywatny naciskał na rząd w celu przyjęcia odpowiednich przepisów o rozwoju usług i handlu elektronicznego.* (NKJP)
 ‘The private sector has been pressing the government for a long time with the aim of passing regulations concerning the development of the service sector and electronic commerce’.
- b. *Kto ci czegoś nagadał na mój temat?* (NKJP)
 ‘Who blabbed about me to you?’

In (65) the TR, i.e. the activity of pressing (65a) and blabbing (65b), is aimed at the LM, i.e. the intended target of the action, represented by the noun *government* and the *speaker* in (65a) and (65b), respectively.

Verbs in which the prefix *na-* encodes the Intended Target Sense usually conceptualise exerting psychological pressure or making a verbal assault aimed at an individual, as exemplified by: *nasyłać na* ‘to send after’, *nastawać na* ‘to threaten’, *nalegać na* ‘to insist on’, *napsioczyć na* ‘to beef about’, *naplotkować na* ‘to gossip a lot about’,⁷² to mention but a few. As demonstrated above, the composite verbs containing the prefix *na-* encoding the Intended Target Sense are combined with a prepositional phrase, consisting of the preposition *na* followed by the noun in the accusative case.

3.4.4.5. Semantic network for *na-* versus semantic network for *on*

Fig. 3-18 presents the semantic network of the prefix *na-* motivated by both the reanalyses of the proto-scene and functional elements. Distinct senses have been marked by a shaded sphere and clusters of senses by means of an open circle. The primary motivation for a given sense extension is represented by means of a solid line and the secondary motivation by means of a broken line. For the sake of clarity Fig. 3-18 is accompanied by sentences containing exemplifications of senses which constitute the semantic network of the prefix

⁷² The two last verbs in the list, i.e. *napsioczyć na* ‘to beef about’ and *naplotkować na* ‘to gossip a lot about’, can be also regarded as examples of the High Intensity Sense.

na- and which are discussed in section 3.4. The exemplifications of the senses are presented in an alphabetical order and marked with the same numbers as the corresponding examples in the aforementioned section:

The Excess Sense

Ale się najadłem! (52b)

'I have eaten too much!'

The Filling Sense

Wyjęła firmowy balonik i go nadmuchała. (63a)

'She took out a company balloon and inflated it.'

The Goal Attainment Sense

Najwyższa pora naoliwić zawiasy. (56a)

'It is high time somebody oiled the hinges.'

The High Intensity Sense

Nauczycielka nakłamała o swoim majątku. (51a)

'The teacher told a lot of lies about her fortune.'

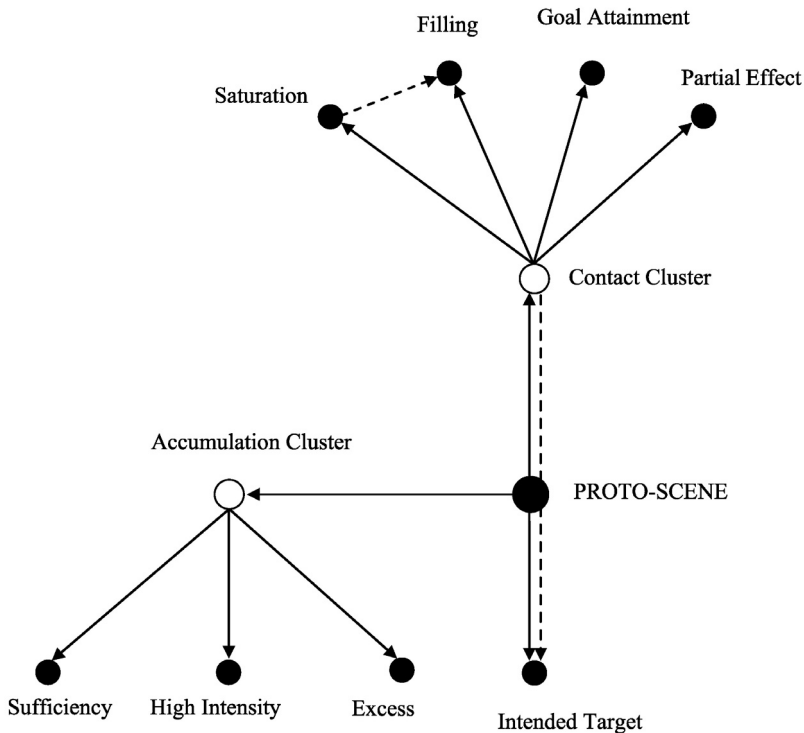


Figure 3-18. The semantic network of the prefix *na-*

The Intended Target Sense

*Kto ci czegoś **nagadał** na mój temat?* (65b)

'Who blabbed about me to you?'

The Partial Effect Sense

*Owoce z twardą skórką należy **naktuć** aby nie pękły podczas smażenia.* (61b)

'Fruit with hard skin should be pricked so as to prevent them from cracking during frying.'

The Saturation Sense

*Spróbujcie **nawilżyć** powietrze.* (59a)

'Try to humidify the air.'

The Sufficiency Sense

*Możesz się **napatrzeć** do woli, chyba że...* (53a)

'You can feast your eyes as long as you want, unless...'

The prefix *na-* has turned out to be over twice as frequent as the particle *on* with the number of occurrences amounting to 423, while the particle *on* has occurred 176 times in the corpus under study. Since as already observed by Langacker (1988), frequency is closely related to polysemy, in the sense that very frequent lexical items are highly polysemous, it is hardly surprising that the prefix *na-* has turned out to produce the largest number of metaphorical extensions (as regards the Polish sample), almost all of which are triggered by two functional elements: the functional element of contact and the functional element of accumulation. There is just one sense, which has emerged through the reanalysis of the proto-scene, i.e. the Intended Target Sense, which is the only sense shared by the semantic network of the prefix *na-* and the particle *on*. Another similarity between the two semantic networks is that both of them contain a Contact Cluster. However, the senses belonging to the Contact Cluster in the semantic network of the prefix *na-* and that of the particle *on* are very much different from one another, with no single overlap. The Contact Cluster for the prefix *na-* comprises the following senses: the Saturation Sense, the Filling Sense, the Goal Attainment Sense and the Partial Effect Sense and that for the particle *on* includes the Discovering Sense, the Functional Actioning Sense, the Addition Sense and the Attachment Sense.

The other cluster of senses attested in the semantic network of *na-*, i.e. the Accumulation Cluster, has not been distinguished in the semantic network of the particle *on*, which instead comprises the Visibility Cluster, non-existent

in the semantic network of the prefix *na-*. The functional elements of support and control, which function as two distinct senses of the particle *on*: the Support Sense and the Control Sense, have not been attested for the prefix *na-*. Nevertheless, support and control are encoded by the preposition *na*, as instantiated by the phrases, such as *opierać się na łokciu* ‘to lean on one’s elbow’ and *wpływać na kogoś* ‘to influence sb.’, respectively.

On the whole, the prefix *na-* and the particle *on* differ significantly from each other on the supra-individual level, despite being very much the same at the sub-individual level in terms of the TR–LM configuration involved in the proto-scene of the preposition *na* (closely corresponding to the prefix *na-*) and the proto-scene of *on* (see Fig. 3-15 and Fig. 2-30) as well as the ensuing schematisations resulting from the reanalysis of the two proto-scenes (see Fig. 3-16 and Fig. 2-35). Despite this identity of spatial scenes, the semantic networks of the prefix *na-* and particle *on* converge in merely two points, as demonstrated above. Given this, it appears that the source of this considerable disparity between the non-spatial senses of *na-* and *on* lies in the diachronic development of the two semantic networks, which proceeded differently in the two languages. This in turn may be attributed to the differences on the individual level, i.e. different cognitive systems used by individual language speakers in the past, who, relying on the construal operations available to them, have profiled different aspects of the same spatial scene, which has led to the emergence of different primary metaphors and, consequently, different metaphorical extensions.⁷³

Finally, when it comes to the perspectival mode in which the scene is construed by the prefix *na-* and the particle *on*, the LM can be either implicit (the Future Sense of *on*) or explicit (the Partial Effect Sense of *na-*) in the two languages under study. Consequently, the distribution of focal attention over the TR only, or both the TR and the LM, triggers either a sequential or synoptic perspectival mode, respectively.

3.5. Marginal cases: *w-*, *wz-* and *z-*

As stated in section 3.1, the prefixes *w-*, *z-* and *wz-* as well as the prepositions *w* ‘in’ and *z* ‘from’ to which they are closely related can mark movement up and down the vertical axis; however, these are their peripheral senses.

⁷³ This issue is discussed in more detail in the final part of the present monograph, i.e. Conclusions.

When used in its primary sense, the preposition *w* profiles the position of the TR inside the LM, while only its meaning extension represents movement in the upwards direction along the vertical axis. It is when used in this sense that the preposition *w* roughly corresponds to the English particle *up*. As regards the preposition *z*, when used in its primary sense, it profiles the TR's movement away from or out of the LM. Only its meaning extension denotes movement down the vertical axis, encoded in English by the particle *down*. The prefix *wz-*, unlike the majority of Polish prefixes does not have its prepositional counterpart. It has three allophonic variants: *ws-*, *wesz-* and *wes-* and its prototypical sense is 'upwards'.

Because the aim of the present section is not to conduct an in-depth analysis of the prepositions and prefixes in question but to demonstrate that their peripheral senses conceptualise upwards and downwards movement triggering a handful of meaning extensions, the following discussion offers neither a semantic network of these prefixes, nor data on the frequency of their occurrence. Instead, it focuses on the description of the proto-scenes standing for their primary senses and accounts for their reanalyses, leading to the emergence of schematisations encoding movement along the vertical axis, which underlie meaning extensions.

3.5.1. Prefix *w-*

Even though the prefix *w-* is virtually unproductive as regards developing meaning extensions of its spatial sense, encoding movement up the vertical axis, I have decided to include it in my analysis because the other member of the contrast set, i.e. the prefix *z-*, has developed several extensions. This is important in light of the fact that, according to Tyler and Evans (2003), the meaning of a spatial expression is determined to some extent by contrast with the other member of the contrast set. When seen from this perspective, the meaning of the prefix *z-* derived from the preposition *z* is partially determined by the meaning of the preposition *w* and prefix *w-*; consequently, the discussion of the latter may contribute to a better understanding of the former.

As far as *w* 'in' is concerned, it is the most frequent Polish preposition, according to Przybylska (2002). Its high frequency also makes it highly polysemous.⁷⁴ Przybylska (*ibid.*) notices that its occurrence with the locative

⁷⁴ Fenk-Oczlon and Fenk (2010) notice that it is a high token frequency that triggers polysemy as it plays an important role in the bleaching of meanings, as well as in the creation of metaphors and metonymies which are the main sources of polysemy.

case far surpasses that with the accusative case. Since, when followed by the noun in the locative case, the preposition *w* expresses a static meaning, encoding a TR located inside a bounded LM, this should be taken to mean that this is a likely candidate for the primary sense in the methodology adopted by Tyler and Evans (2003). According to Brückner (1974), the preposition *w* is related to Greek *en*, Prussian *en*, Latin and German *in* and its oldest meaning was ‘where’ and ‘where to’ (both in a spatial and temporal sense). Even though the scanty etymological data makes it impossible to state whether it was the static or dynamic meaning that was the earliest one, Polish linguists (e.g. Kochańska 1996; Suchostawska 2005) who have studied the semantics of this preposition consider the static meaning (‘where’) to be the primary sense. This perspective is adopted here, all the more so that this sense satisfies all the remaining criteria for the centrality of meaning in the principled polysemy model. Thus, the primary sense occurs in numerous composite forms, such as *wdychać* ‘to breathe in’, *wlewać* ‘to pour in’, *wlot* ‘inlet/intake’, etc. Besides, it is used to form contrast sets with other prepositions, such as *poza* ‘outside’ and *na* ‘on’. Additionally, as remarked above, the primary sense, encoding a TR located inside a bounded LM, is predominant in the semantic network of this preposition.⁷⁵ Finally, as will be demonstrated in the following discussion, the primary sense is relied on in triggering meaning extensions.

Consider Fig. 3-19, representing the proto-scene for the preposition *w* ‘in’, in which the TR, marked by a shaded sphere, is located inside the bounded LM:



Figure 3-19. Proto scene for *w*

The following sentence is an instantiation of the primary sense of the preposition *w*:

⁷⁵ Having studied various non-digital corpora and dictionaries of spoken and written Polish, e.g. Miodunka (ed.) (1992) and Zgólkowa (1980), Przybyszewska (2002) has noted that the frequency of the preposition *w* with the locative is much higher than its frequency with the accusative. For example, in Zgólkowa’s sample *w* + LOC is nearly ten times as frequent as *w* + ACC.

(66)

Przechowuję je zamknięte w pudetku by nie uległy zniszczeniu. (NKJP)
[in box.LOC]

'I store them shut in the box so that they will not get destroyed.'

When used in the primary sense the preposition *w* profiles a simplex relationship; however, it can also profile a complex relationship, in which the TR occupies a series of locations before going into the bounded LM, as demonstrated by Fig. 3-20.

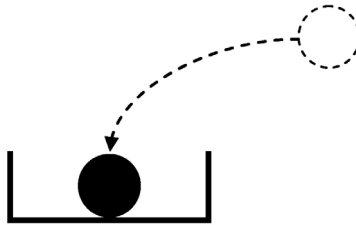


Figure 3-20. Complex relationship profiled by the preposition *w*

In Fig. 3-20 the TR located outside the LM is represented by a dashed sphere, its trajectory is marked by means of the line ended with an arrow, while the TR located inside the LM is represented by a shaded sphere. The development of this sense of the preposition *w* from the primary sense can be accounted for in terms of two construal operations, i.e. sequential and summary scanning. First the conceptualiser employs the operation of sequential scanning through which he or she focuses on the successive stages of an event leading to the locating of the TR inside the LM. As a result, the trajectory, whose end-point is located inside the LM, is construed as the collection of individual points. Next the operation of summary scanning is carried out through which the conceptualiser focuses on all of the stages of an event despite the fact that they occurred sequentially in the conceived time. Consequently, the reanalysis of the proto-scene results in the schematisation presented in Fig. 3-20. Consider now an instantiation of this sense:

(67)

Zanim jednak skręciło [BMW], wjechało w kałużę przy przejściu dla pieszych. (NKJP)
[into pool.ACC]

'However, before it turned, it drove into the pool near the pedestrian crossing.'

The two spatial senses of the preposition *w*, i.e. 'in' and 'into' have given rise to numerous, both spatial and non-spatial, sense extensions. However, their analysis falls outside the scope of the present work, which focuses exclu-

sively on spatial expressions encoding movement and location along the vertical axis. Consequently, in the following I am going to focus merely on one sense extension, encoding movement into bounded space, a subtype of which is the sense conceptualising upwards movement. Przybylska (2002: 258) notes that the preposition *w* can be used with nouns denoting isolated and spatially oriented segments of the spatial continuum, as exemplified by the following phrases:

- (68)
- | | |
|----------------|---------------------|
| <i>w górę</i> | ‘upwards’ |
| <i>w dół</i> | ‘downwards’ |
| <i>w przód</i> | ‘forwards’ |
| <i>w tył</i> | ‘backwards’ |
| <i>w bok</i> | ‘to the side’ |
| <i>w prawo</i> | ‘to the right’ |
| <i>w lewo</i> | ‘to the left’, etc. |

In (68) the preposition *w* conceptualises the TR’s movement into the most central and innermost isolated segment of space, such as ‘up’, ‘down’, ‘front’, ‘back’, etc., which may be regarded as an implicit LM. As remarked by Rudzka-Ostyn (1984) and Suchostawska (2005), an area around the TR’s final location can also be construed as a bounded space. When seen from this perspective, the end-point of the TR’s path is located within the boundaries of the bounded LM. Relying on the principled polysemy framework for an explanation of this particular sense of the preposition *w*, it can be proposed that the TR’s movement into what can be construed as bounded space and what is the direction in which it moves (e.g. ‘upwards’ or ‘to the left’) is experientially correlated with the TR entering a bounded area. Consequently, this type of physical environment constitutes context for triggering the implicature of what may be referred to as directed movement, which has become part of the profile of the preposition *w*, as exemplified by the following sentence:

- (69)
- [...] [*T*] *am skręcamy w lewo do osady Leśnictwa Muza.* (NKJP)
 ‘There we turn left to the settlement of the Muza forest administration’.

Consequently, since an upwards direction is one of the possible directions that the TR may take, it can be proposed that the sense of the preposition *w* that I refer to as the Movement Upwards Sense (after Suchostawska 2005) is a result of an experiential correlation between moving into a bounded LM and going up. Consider a graphic representation of this sense in Fig. 3-21:

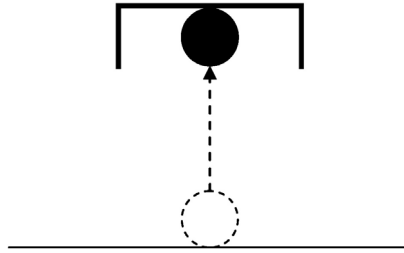


Figure 3-21. The Movement Upwards Sense of the preposition *w*

Thus, when the preposition *w* and the related prefix *w-* express the Movement Upwards Sense the final location of the TR is an area above the initial location of the TR conceptualised as a container. In some cases, the area entered by the TR is actually a bounded container-like entity (e.g. a room, a part of a building), as in (70a). However, the LM may not have apparent boundaries, as in (70b):

(70)

- a. [...] [*W*]eszła po schodach do obszernego holu. (NKJP)
[in-walk.3SG.PT.PF]
'She climbed the stairs into a spacious hall'.
- b. *Pies momentalnie wskoczył na biurko* [...]. (NKJP)
[in-jump.3SG.PT.PF]
'The dog instantly jumped onto the desk'.

It is noteworthy that the Movement Upwards Sense has given rise to very few non-spatial meaning extensions of the prefix *w-*, which may be due to two factors. First of all, this sense is a sense extension itself, which can decrease the likelihood of it producing further extensions. Secondly, in Polish there is a prefix *wz-* (to be discussed below), whose primary sense is 'to move upwards'. The prefix *wz-* has developed a few extensions, possibly blocking the development of extensions of the prefix *w-*.

The SJP PWN dictionary search has yielded just a few verbs, which are derived from the Movement Upwards Sense of the prefix *w-*, such as, e.g. *wpienić* (infml.) 'to make mad' or *wnieść* 'to bring/submit':

(71)

- a. *Strasznie mnie to wpieniło* [...]. (NKJP)
'What happened really got my goat'.
- b. *Niezręcznie było wnosić z tego powodu pretensje*. (NKJP)
'It was inappropriate to bear any grudges because of this'.

As regards the verb *wpienić się* (71a), it metonymically conceptualises becoming angry in terms of an increased secretion of saliva.⁷⁶ This metonymic construal in which the PHYSICAL EFFECTS OF EMOTION represent EMOTION is primed by the global context, i.e. human knowledge of symptoms of becoming enraged. When people get angry, their bodies produce several symptoms, such as increased blood pressure and muscular tension, red face and an increased production of saliva (Lakoff 1987; Mikołajczuk 1998). Consequently, the prefix *w-* conceptualises a rise in the production of saliva on the grounds of an experiential correlation between movement upwards and an increase in quantity. In this construal the TR is the process of getting angry: mounting anger is construed as an upwards movement.⁷⁷

The conceptualisation, encoded by the verb *wnieść* (71b) can be accounted for in terms of a metaphorical shift that has affected the whole verb. Consequently, bearing grudges, which are construed as things (on the basis of the metaphor IDEAS ARE THINGS) has been conceptualised as taking them upwards. This construal may be explained by an experiential correlation between relocating the TR to a more prominent position and being able to take notice of it (if the grudges are to be dealt with, they cannot pass unnoticed).

3.5.2. Prefix *wz-*

The prefix *wz-* is one of very few Polish prefixes that do not have their prepositional counterparts.⁷⁸ The primary spatial sense of this prefix is the same as its Russian equivalent, i.e. *vz-/voz*,⁷⁹ which is referred to as Move Upward by Janda et al. (2013). The prefix *wz-* has three phonologically conditioned allomorphs: *ws-*, *wz-* and *wes-*. The primary spatial sense of this prefix encodes the TR's upwards movement so that it eventually ends up

⁷⁶ The verb *wpienić się* has been created from the noun *piana* 'foam', drawing on the perceptual resemblance between a substantial amount of saliva and foam in living organisms, especially animals affected by rabies.

⁷⁷ Alternatively, this sense of the prefix *w-*, as used in this complex verb can be accounted for in terms of the metaphor based on the CONTAINER image schema (Johnson 1987). Since Kövecses (1990) proposes that feelings and emotions can be conceptualised as containers, becoming overcome with an emotion can be conceptualised as moving into a container.

⁷⁸ Two other verbal prefixes belonging to this category are *roz-* and *wy-*.

⁷⁹ According to *Russisches Etymologisches Wörterbuch*, both *vz-* and *voz-* are etymologically related to Indo-European **ud-* 'up', which yielded *vъz-*.

higher than the LM. As regards the end-point of the TR's path, it is quite vague in contrast with other prefixes, denoting movement upwards (e.g. *w-* encodes either the central region of the LM, or its top as the goal of the TR's movement and *nad-* specifies the goal as 'higher than the LM but close enough to it'):

(72)

Śnieg wzbił się w górę i zalsnił milionem iskier w słońcu. (NKJP)

'Snow rose upwards and sparkled with a million sparks in the sun'.

In (72) the prefix *wz-* profiles the TR's path, which leads in the upward direction, not the end-point of the path, which is unknown and irrelevant. Consider Fig 3-22, which represents the proto-scene for the prefix *wz-*:

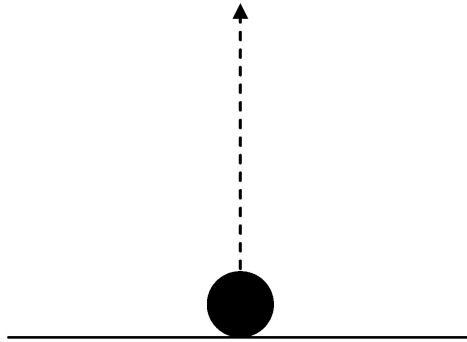


Figure 3-22. Proto-scene for the prefix *wz-* (the Movement Upwards Sense)

In this construal the starting point of the TR's movement is usually on the surface of the LM, while the end-point of the trajectory is located above the LM at some unspecified position, as remarked above.⁸⁰ The e-site of the prefix *wz-* is elaborated with component verbs denoting the manner of movement, such as *nieść* 'to bring' and *skoczyć* 'to jump', which triggers the formation of composite verbs, denoting upwards motion: *wznieść* 'to lift, to raise' (73a) and *wskoczyć* 'to jump onto sth.' (73b), respectively:

⁸⁰ The end-point of the TR's path can be made specific only by the incorporation of an adverbial phrase into the structure of the sentence, as in the example below, in which the adjunct of place represents the goal of the TR's movement:

(ix)

Kotka wskoczyła na biurko. (NKJP)

'The cat jumped onto the desk'.

(73)

a. *Starzec wzniosł rękę w górę.* (NKJP)

‘The old man raised his hand’.

b. *Wreszcie zaskrzeczał, rozpostarł skrzydła i wzleciał w powietrze.* (NKJP)

‘Eventually, it croaked, spread its wings and flew up into the air’.

Both sentences in (73) are instantiations of the construal in which the TR moves upwards so that it eventually ends up in a location somewhere above the starting point of its movement.

The Movement Upwards Sense of the prefix *wz-* has motivated several meaning extensions, such as the More Sense, which is a result of an experiential correlation between upwards movement and an increase in quantity. When used in the More Sense, the prefix *wz-* combines with component verbs created from adjectives,⁸¹ e.g. *wzmocnić* ‘strengthen’ from *mocny* ‘strong’ and *wzbogacić* ‘enrich’ from *bogaty* ‘rich’. The composite verbs denote an intensification of the feature represented by the adjective from which the verbal base has been created, i.e. making the headache stronger (74a) and making the offer richer in anti-spam solutions (74b):

(74)

a. *Plecami oparł się o ścianę i zapalił papierosa, który zdecydowanie wzmocnił jego ból głowy.* (NKJP)

‘He leaned his back against the wall and lit a cigarette, which definitely enhanced his headache’.

b. *Ostatnio zaś zdecydował się wzbogacić swoją ofertę o rozwiązania antyspamowe [...].* (NKJP)

‘However, recently, he decided to enhance his offer with anti-spam solutions’.

The LM is an initial stage of the headache (74a) and the preliminary version of the offer prior to the addition of anti-spam solutions (74b), while the TR is the verb encoding the process of enhancing the headache and introducing anti-spam solutions, respectively, both of which are conceptualised as upwards movement.

Another meaning motivated by the primary spatial sense of the prefix *wz-* is the Agitation Sense. The name of this sense has been adopted from Janda et al. (2013), who have used it for the cognate of the Polish prefix *wz-*, i.e. the Russian formative *vz-/voz-*. As Janda et al. (2013: 37) propose, “agitation is applied to the upper part of the landmark, namely the surface, often

⁸¹ This semantic category also includes a deverbal verb *wzrosnąć* ‘to increase’, which constitutes yet another instance of conceptual overlap between the verbal base and the prefix.

invoking domains of either landscape surfaces (water and soil) or human surfaces (skin and hair)". According to Janda et al. (ibid.), this sense is connected to the Movement Upwards Sense⁸² in two ways. First of all, agitation affects the upper surface of the LM and, secondly, it involves raising the energy level, which evokes the MORE IS UP metaphor. Accounting for this sense in terms of the principled polysemy framework, it can be proposed that the Agitation Sense has originated as a result of an experiential correlation between stirring up a liquid and its subsequent moving upwards. Due to the shift in profile from the relationship of upwards movement to an experience of agitation, it has become possible to conceptualise agitation in terms of the AGITATION IS UP metaphor:

(75)

- a. *Sposób użycia: nanieść szampon na wilgotne włosy, masującymi ruchami wspięć i dokładnie spłukać.*⁸³
'The way of use: put the shampoo on damp hair, foam by means of a massaging movement and rinse thoroughly'.
- b. *Przed użyciem należy dobrze wstrząsnąć zawartością [butelki].* (NKJP)
'It is necessary to shake [the bottle] well before use'.
- c. [...] *[Z]erwał się wieczorny wiatr i wzburzył morze [...].* (NKJP)
'The evening wind got up and churned up the sea'.
- d. *Materiały, które wzbudzą ich wątpliwości, będą badane.* (NKJP)
'The materials that will arouse their doubts will be examined'.

In (75a) the component verb *pienić* constitutes an example of the RESULT FOR ACTION metonymy (the creation of foam is the final stage of using the shampoo), while the prefix *ws-* pertains to the agitation taking place in the upper part of the LM, which is the top of the head covered in the shampoo layer. Another verb *wstrząsnąć*⁸⁴ in (75b) conceptualises the

⁸² As pointed out above, Janda et al. (2013) use for the analogical, i.e. prototypical, sense of the Russian prefix *wz-/voz-* a slightly different label, i.e. Move Upward.

⁸³ The verb *wspięć* is quite rare in modern Polish, hence its absence in the two corpora of Polish relied on in the present work and the necessity to rely on a Google search: <https://zumari.pl/szampon-babci-agafii-jajeczny-do-wlosow-normalnych,3,313,5237>.

⁸⁴ Not only can the prefix *ws-* be used metaphorically, but also the whole verb can undergo a metaphorical shift and it may be used in the sense 'to shock', as exemplified by the following sentence:

(x)

A po drugie, blahy wydał jej się temat, który mną wstrząsnął. (SJP PWN corpus)
'And secondly, the topic, which shocked me, seemed trivial to her'.

agitation of the contents of the bottle brought about by shaking it. The predicate in (75c) contains the verb *wzburzyć*, which has been created from the component verb *burzyć*, ‘to cause intense rippling and/or billowing of the liquid’. Consequently, the semantics of the prefix overlaps with the meaning of the component verb, which itself profiles the process of agitation. The verb *burzyć* has been created from the noun *burza* ‘storm’, and it conceptualises agitation in terms of the EFFECT FOR CAUSE metonymy: rippling and billowing of the sea represents its cause, i.e. the storm.⁸⁵ The final example (75d) contains the component verb *budzić*, whose basic meaning is ‘to wake’, but it may metaphorically construe evocation of feelings, reactions, emotions or doubts (as in the analysed example). Thus, like in the case of the verb *wzburzyć*, in (75d) the prefix *wz-* overlaps conceptually with the verbal base (*budzić*), as both components encode the sense of stirring and commotion.

Finally, the Movement Upwards Sense motivates the Resistance Sense, also attested in Russian and given its name after Janda et al. (2013: 38), according to whom “raising resistance has a metaphorical vertical dimension, and thus a connection to the prototype”. This statement is not elaborated on by Janda (ibid.) any further, but it can be proposed that in human experience there exists a close correlation between moving upwards and resistance, which can be exemplified by the activity of erecting walls around the area to be protected in an act of defence. The implicature of resistance has triggered a shift in profile from the process of upwards movement to the relationship of resistance, which having undergone schematisation and dissociation from the spatial domain can be construed metaphorically by means of the prefix *wz-*. The Resistance Sense appears to be virtually unproductive in Polish, as the SJP PWN search has yielded merely two verbs, in which the prefix *wz-* profiles resistance:

The SHOCKING IS SHAKING metaphor is based on an experiential correlation between moving suddenly and violently and feeling upset on hearing some unwelcome or tragic news.

⁸⁵ The verb *wzburzyć* can construe psychological agitation as well on account of the double metaphorisation process: ANGER IS THE AGITATION OF FLUID IN A CONTAINER and THE BODY IS THE CONTAINER FOR EMOTIONS, as exemplified by the following sentence:

- (xi)
Ale wzburzył się tak, że już krzyżeć prawie zaczął. (NKJP)
 ‘But he got so agitated that he almost started screaming’.

(76)

a. *Powinien był się wzbraniać i nie rozmawiać z nim o tej dziwacznej zamianie.* (NKJP)

'He should have shied away and not talk to him about this strange exchange'.

b. *Nikomu nie przychodzi nawet do głowy, żeby wzdragać się przed ich [przekleństw] użyciem.* (NKJP)

'It occurs to nobody to recoil from using them [swear words]'.

The reflexive verb *wzbraniać się* 'to shy away from' in sentence (76a) has been created from the bound base **braniać* also used in the verb *zabraniać* 'forbid', while the verb *wzdragać się* 'to recoil from' is lexicalised in modern Polish.

3.5.3. Prefix *z-*

From a diachronic perspective, the preposition *z* is a result of the conflation of two completely different prepositions (Brückner 1974): *iz*⁸⁶ functioning in West Slavic, which was reduced to *z* and encoded the direction 'from the place', as in the phrase *ze*⁸⁷ *szkoły* 'from school', and *s*⁸⁸ meaning 'together', as in the phrase *z sąsiadem* 'with the neighbour'. It is Proto-Slavic *iz* that has given rise to the contemporary Polish *z*, which may profile downwards movement.

In the first subentry for *z* SJP PWN explains that this preposition encodes movement away from a location understood as a surface (see Fig. 3-23) or a container (see Fig. 3-24). Unfortunately, the available etymological sources⁸⁹ make it impossible to state which of the two schematisations represents the earliest meaning. For this reason, the distinction between these two schematisations cannot serve as a basis to single out the candidate for the primary sense of the preposition *z*. Consequently, I regard as the candidate for the primary sense the 'away from' sense of the preposition *z* in which the TR moves away from the LM, irrespective of the nature of the starting point of a trajectory, i.e. whether it is a surface or a bounded container. The candidate for the primary sense is attested in composite forms, such as *zbieg* 'fugitive', *zostać* 'to send into exile', and *zmykać* 'to run away' and it is used in the forma-

⁸⁶ As noted by Brückner (1974), *iz* was cognate with Lithuanian *isz* and probably Greek and Latin *eks*.

⁸⁷ The allomorph *ze* is used before nouns beginning with the consonants *sz* and *s*, as in *ze Szwecji* 'from Sweden' and *ze skały* 'from rock'.

⁸⁸ According to Brückner (1974), *s* was cognate with Lithuanian *su* and Prussian *sen*.

⁸⁹ For the list of etymological sources that have been consulted see Introduction and References.

tion of contrast sets with other prepositions, such as *do* ‘to’ and *na* ‘on’. Moreover, its prototypical spatial meaning, i.e. ‘away from’ is predominant, albeit only implicitly, in the semantic network of the preposition. Finally, as will be demonstrated in the following, it is used to make predictions, concerning both spatial and non-spatial meaning extensions. Thus, because the sense in question satisfies the criteria for the centrality of meaning put forward by Tyler and Evans (2003), it can be concluded that it is a primary sense of the preposition *z*. It is represented schematically in Fig. 3-23 and Fig. 3-24.

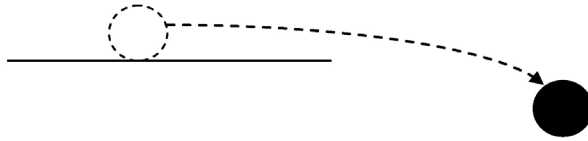


Figure 3-23. The Away-from Sense (I) of the preposition *z*

Fig. 3-23 shows a spatial scene in which the TR, marked by a dashed line, is relocated from the surface of the LM, represented by means of a horizontal line, so that it reaches the goal, located off the LM's surface. In this spatial scene the orientation of the goal with respect to the LM on the vertical plane is not specified and the TR may end up being located either over (77a)⁹⁰ or under it (77b):

(77)

- a. *Heinz szybko ruciem wziął butelkę ze stołu.* (NKJP)
‘Heinz quickly took the bottle off the table’.
- b. *Godzinami ściagam pajęczyny z sufitu.* (NKJP)
‘I have been taking the spiderwebs off the ceiling for hours’.

Now consider the spatial scene in which the preposition *z* profiles movement out of and away from a container in Fig. 3-24:

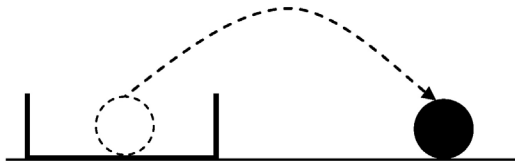


Figure 3-24. The Away-from Sense (II) of the preposition *z*

⁹⁰ The upwards movement of the TR is implicitly assumed in the surrounding discourse (the bottle was lifted so as to pour its contents into the glasses).

In this spatial scene the TR is represented by the sphere, while the LM is symbolised by the open rectangle. When the TR reaches the goal of its movement (which is marked by means of a shaded sphere), it finds itself not just exterior to the bounded LM but also away from it. This sense of the preposition *z* is instantiated in:

(78)

Agnieszka również dawno wyszła ze szkoły. (NKJP)
 ‘Agnieszka also left the school building a long time ago’.

Similarly to the sense encoding movement away from the LM, construed as a surface (see Fig. 3-23), the location of the goal of the TR’s movement remains unspecified with respect to the LM on the vertical plane: it may be located on the same level as the LM (78), or below it, as in (79):

(79)

a. *Raz prawie wyskoczyła z trzeciego piętra.* (NKJP)
 ‘Once she almost jumped out from the third floor’.

The construal of the scene in (79) contains the implicature of downwards movement, which through the process of pragmatic strengthening has led to the reanalysis of the proto-scene, as demonstrated in Fig. 3-25a. and Fig. 3-25b. Fig. 3-25a. is a representation of the reanalysis of the Away-from Sense (I) while Fig. 3-25b. portrays a reanalysis of the Away-from Sense (II) of the preposition *z*. Because in these two schematisations the TR moves downwards, I label the construal of the scene represented by Fig. 3-25 as the Movement Downwards Sense.

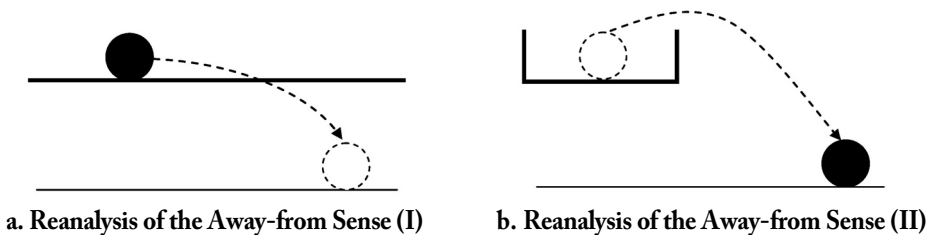


Figure 3-25. The Movement Downwards Sense of the preposition *z*

As regards the Polish verbal prefix *z-*, closely related to the preposition *z*, it occurs in three allomorphic variants, which are phonologically conditioned: *ze-*, *s-* and *ś-*,⁹¹ as demonstrated by the following derivatives: *zepchnąć* ‘to push down/off’,

⁹¹ For a discussion of this particular allomorphy consult Szymanek (2010: 175).

stoczyć ‘to roll down’, and *ściągnąć* ‘to pull down’, respectively. Like the preposition *z*, it may encode movement down the vertical axis, and in this sense it corresponds roughly to the English verbal particle *down*. Śmiech (1986) defines this sense of the prefix *z-* as ‘movement from the top down’. Thus, in composite verbs prefixed by *z-* the component prefix profiles the TR moving downwards:

(80)

- a. *Ubrał się, zbiegł na dół i obudził zaspanego portiera.* (NKJP)
‘He got dressed, ran downstairs and woke up the sleeping doorkeeper’.
- b. *Uśmiechnęła się i strzepnęła dłonią kruszyny cukru ze stołu.* (NKJP)
‘She smiled and shook off crumbs of sugar with her hand from the table’.

In (80a) the TR is represented by the human agent, who moved downwards by running downstairs from the room located above. In (80b) the direct object of the verb, i.e. *kruszyny* ‘crumbs’ stands for the TR of the construal and the e-site of the prefix *s-* is elaborated with the component verb denoting the manner of downwards movement.

I propose that the Movement Downwards Sense of the prefix *z-* has given rise to three non-spatial meaning extensions: the Less Sense, the Removal Sense and the Exhaustion Sense. The Less Sense derives from an experiential correlation between quantity and descent: as the quantity of a substance in a container decreases, its level goes down, as demonstrated in (81), which constitutes a bridging context for the emergence of the Less Sense:

(81)

- Poniżej minimum notowanego w ostatnim 60-leciu spadł poziom wody w Warcie.* (NKJP)
‘The level of water in the Warta fell below the minimum recorded level for the last sixty years’.

Through pragmatic strengthening, the implicature of a decrease in quantity has been established as a distinct semantic component in the semantic network of the prefix *z-*, as exemplified by verbs such as *zmaleć* ‘to diminish’, *zredukować* ‘to reduce’, *skurczyć się* ‘to shrink’, *stopnieć* ‘to melt’, *ściszyć* ‘to turn down’, etc.:

(82)

- a. *Jezioro, w którym nauczył się pływać, zmalowało.* (NKJP)
‘The lake, in which he learned to swim, diminished’.
- b. *Zauważyłem, że śnieg stopniał.* (NKJP)
‘I noticed that the snow had melted’.
- c. *Czas pokoju skurczył się do sześciu godzin.* (NKJP)
‘The period of peace shrank to five hours’.

In (82) the TR is represented by a process, encoded linguistically by the composite verb, which denotes activity that reduces the size of the LM. According to Śmiech (1986), the prefix *z-*, denoting what I call the Less Sense is semantically empty. However, all the component verbs: *redukować*, *kurczyć się*, *topnieć*, already profile the process of decrease, just as the prefix *z-* does, therefore, the verbs in question prefixed by *z-* constitute yet another instance of semantic and conceptual overlap between the prefix and the component verb (cf. Janda et al. 2013).

Another sense triggered by the Movement Downwards Sense is the Removal Sense. When used in this sense, the prefix *z-* profiles the process of removing the TR from the surface of the LM, as exemplified by *skosić* 'to scythe', *sczyścić* 'to clean off', *zdrapać* 'to scrape off', *zeszlifować* 'to sand off', *złuszczyć* 'to strip off, to exfoliate', *zmazać* 'to wipe off, to rub out', *zmieść* 'to sweep, to blow away', *zmyć* 'to wash away', etc.⁹² I argue that the Removal Sense has been triggered by two types of experiential correlation. First of all, there exists an experiential correlation between an entity moving down and removing it from the surface, as demonstrated by sentence (83b), which can be regarded as the bridging context between the Movement Downwards Sense and the Removal Sense. Secondly, in human experience there is a tight experiential correlation between going down and a decrease in quantity. If the TR is represented by a substance, which is located inside a container, or on the surface, a decrease in its quantity may ultimately lead to the TR's removal from wherever it has been previously placed. Szymanek (2010) refers to this sense as *privative/ablative* and proposes that the prefix *z-* may mean 'to deprive of something' and in particular 'to remove something from the surface'. Consider verbs prefixed by *z-*, encoding the Removal Sense:

(83)

- a. *Babcia od razu farbę zdrapała z podłogi.* (NKJP)
'Granma scraped off the paint from the floor immediately'.
- b. *Deszcz zmył farbę z mojej twarzy.* (NKJP)
'The rain washed away the paint from my face'.
- c. *Wykonany długopisem kulkowym napis można z łatwością zmazać zwykłą plastikową gumką.* (NKJP)
'The notice made with a ballpoint pen can be erased by means of a usual plastic rubber'.

⁹² For a more extensive list of verbs containing the prefix *z-*, encoding this meaning consult Śmiech (1986).

Each of the above sentences conceptualises the TR's removal from the surface of the LM, namely the paint from the floor (83a), the paint from the face (83b) and the inscription from a sheet of paper (83c). The e-site of the prefix *z-* is elaborated with verbs specifying in finer detail the manner in which the TR's removal is carried out, i.e. by means of scraping (83a), washing (83b) and erasing (83c).

Finally, the Less Sense has triggered the Exhaustion Sense, which is not very productive. Śmiech (1986) lists merely a few verbs in which the prefix *z-* conceptualises exhaustion of an entity, such as e.g. *zetrzeć* [buty] 'to wear out [shoes]', *znosić* [ubranie] 'to wear out [clothes]' and *zuzżyć* 'to use up'. The extension of meaning in this direction has been made possible owing to an experiential correlation between a decrease in the quantity of a substance or resource and its exhaustion.

Consider the use of verbs with the prefix *z-*, encoding the Exhaustion Sense:

(84)

- a. *Przez chodzenie po wsi zdarł sobie trzewiki.* (NKJP)
'He wore out his boots by walking round the village'.
- b. *Turoń popatrzył na jego znoszoną marynarkę, krawat na gumce i zakurzone buty.* (NKJP)
'Turoń looked at his worn out jacket, a tie fastened by means of an elastic band and shoes covered with dust'.
- c. *Kupił teczkę, bo stara się zużyła.* (NKJP)
'He bought a briefcase because the old one wore out'.

The activity of extensive use is conceptualised as the TR, having effect on the object(s), such as *boots* (84a), *jacket* (84b), and *briefcase* (84c). As a result, the object becomes worn out and unsuitable for further use. While the prefix *z-* construes the state of exhaustion that the object has been reduced to, the verb elaborates its e-site by conceptualising the way in which it has been brought about, i.e. by long-term wearing (84a), (84b) or use (84c).

3.5.4. Basic contrasts between Polish and English

The conceptualisation of movement along the vertical axis encoded by Polish prefixes *w-*, *z-* and *wz-*, discussed in the present section, and the English particles *up* and *down*, analysed in section 2.3 and 2.4, exhibits large asymmetries at the supraindividual level. First of all, when used in the primary sense, *up* and *down* profile the TR's upwards and downwards movement, proceeding along a trajectory whose end-point is located higher than and lower

than the LM, respectively, *w-* and *z-* encode upwards and downwards movement only in their meaning extensions, triggered by the reanalysis of the proto-scene. Secondly, the primary sense of both *up* and *down* underlies numerous non-spatial extensions: 16 of them for *up* and 9 for *down*. In contrast, as the present preliminary and selective research into the semantics of the two prefixes in question has shown, merely a handful of non-spatial senses are motivated by the Movement Upwards Sense of the prefix *w-* and the Movement Downwards Sense of the prefix *z-*.

As regards another prefix analysed in the present section, i.e. the prefix *wz-*, when used in the primary sense, it profiles the process of upwards movement along the vertical axis, which constitutes a point of similarity with the particle *up*. Notwithstanding this, *wz-* and *up* differ very much from each other in terms of their frequency and, consequently, the range of senses derived from their primary sense. Besides, the two relational expressions at issue are different as regards their grammatical status and valence relations: since *wz-* functions exclusively as a prefix while *up* may function as both a preposition and a particle, the e-site of the former can be elaborated exclusively by the verb, while the e-site of the latter can be elaborated both by the verb and the noun.

At the subindividual level there is far more common ground between the three prefixes discussed in the present section (*w-*, *z-* and *wz-*) and the particles *up* and *down*. This should be taken to mean that the relational expressions in the two languages have been found to profile the same non-spatial relationships. For example, both the particle *up* and the prefix *wz-* profile the relationship of an increase in quantity (by encoding the More Sense) and both the prefix *z-* and the particle *down* profile the relationship of a decrease in quantity and destruction (both of them encode the Less Sense and the prefix *z-* encodes the Exhaustion Sense, while the particle *down* encodes the Destruction Sense). Thus, it can be safely assumed that the physical environment understood as physical circumstances, i.e. the direction of the trajectory and both the initial and final position of the TR with respect to the LM profiled by the relational expressions in the two languages, primes the same metaphors, such as MORE IS UP, LESS IS DOWN and DESTRUCTION IS DOWN.

3.6. Conclusions

The present chapter has been devoted to the analysis of three prefixes *nad-*, *pod-* and *na-*, related to prepositions *nad*, *pod* and *na*, which profile the relationship of verticality in their construal of the proto-scene. Altogether,

using the lexical method, a sample of 571 tokens of verbal prefixes has been collected, out of which the prefix *nad-* has turned out to be the least frequent (42 occurrences) while the prefix *na-* the most frequent (423 occurrences). The frequency of the prefix *pod-* amounts to 106 occurrences. Two other prefixes encoding movement up and down the vertical axis, i.e. *w-* and *z-*, respectively, have not been thoroughly studied on account of the fact that the relationship of verticality is not part of the profile of the corresponding prepositions, i.e. *w* and *z*, when they construe a proto-scene, underlying a primary sense, i.e. ‘inside’ and ‘away from’, respectively. Another prefix analysed in the present chapter, the prefix *wz-*, has also been given merely a brief description due to its marginal status in modern Polish resulting from a very low frequency (Śmiech 1986).

Since a comparison of the semantic networks of the Polish prefixes and those of the corresponding English particles has been carried out at the end of each subsection (section 3.2.5.4 is devoted to the prefix *nad-* and the particle *over*, section 3.3.5.4 focuses on the differences and similarities between the prefix *pod-* and the particle *under*, section 3.4.4.5 is concerned with the comparison and contrast between the prefix *na-* and the particle *on*, and finally section 3.5.4 juxtaposes the prefixes *w-*, *wz-* and *z-* with the particles *up* and *down*), this issue is not re-examined here. Instead, the construal of the scene by means of particle verbs and prefixed verbs is re-considered (see 1.6. for some preliminary analysis). Besides this, the present section offers a comparison of the semantic networks of the Polish prefixes studied in the foregoing.

As stated in section 1.6, both verbal particles and verbal prefixes are schematic, dependent elements, whose e-site is elaborated with component verbs that are conceptually autonomous. Thus, the particle/prefix, which conceptualises a complex and temporal relationship, is conceptually integrated with the component verb that specifies the nature of this relationship in a finer detail. Another similarity between English particle verbs and Polish prefixed verbs is that they do not impose any restrictions with regard to the distribution of focal attention: both types of composite expressions permit a sequential and synoptic perspectival mode.⁹³ However, despite these similarities, particle verbs and prefixed verbs differ from each other in terms of how they package their semantic content (Schröder 2011). As pointed out in section 1.6, while parti-

⁹³ In contrast, in German, prefixed verbs are associated with the synoptic perspectival mode, while particle verbs with the sequential perspectival mode (Dewell 2011).

cle verbs are characterised by “semantic spreading”, prefixed verbs exhibit “semantic concentration” (Claridge 2000: 41) and a greater specialisation of meaning. This is caused by their internal makeup: while particle verbs are made up of (at least) two individual lexemes, i.e. free morphemes,⁹⁴ prefixed verbs constitute a single lexeme, made up of a bound and a free morpheme. Another obvious difference between particle and prefixed verbs is the order in which their components are combined: while in the former type the dependent element follows the autonomous one, in the latter type of composite expressions the opposite is the case. Consequently, these two crucial differences in “packaging” the semantic content must affect the meaning of the types of verbs under study.

Even a cursory investigation of the integration of the component structures of English particle verbs and Polish prefixed verbs reveals that prefixes affect the meaning of component verbs to a greater extent than particles do, as demonstrated in (85) and (86), where a comparison of two English particle verbs and their Polish equivalents, represented by prefixed verbs, is made. First, consider the range of meanings,⁹⁵ conceptualised by the English particle verb *think up* (85a), analysed in section 2.3.4.2, in which the particle *up* conceptualises the Creating Sense, and its Polish equivalent, i.e. the prefixed verb *wymyślić* (85b):

(85)

a.

think up ‘to make up or compose by thinking; to devise, invent, contrive or produce by thought or cogitation’

b.

wymyślić [out-think.INF.PF]

I. ‘to think up, to contrive’

II. ‘to have delusions’

III. *wymyślać* [out-think.INF.IMPF] ‘to hurl insults’

While the process of thinking conceptualised by the component verb *think* and its Polish equivalent *myśleć* constitutes part of the profile of the composite particle verb *think up*, it is far less prominent in the sense (85bII) of the composite prefixed verb *wymyślić* and relegated to the base in sense (85bIII). Whereas the composite verb *wymyślić* ‘to have delusions’ weakly activates the

⁹⁴A free morpheme is an independent word, while a bound morpheme can never occur in isolation, as it needs to combine with other morphemes (Szymanek 1998).

⁹⁵ Verb senses have been derived from the OED and SJP PWN, respectively.

frame of THINKING, as it is disputable to what extent one uses consciously his or her own mind in producing delusions, the frame of THINKING is not activated for *wymyslać* 'to hurl insults', as this particular composite verb profiles the process of verbal abuse not the process of thinking.

Let me now turn to a cursory examination of another verb, *zedrzyć* [off-tear] (see example (84) this section), in which the prefix *z-* construes the Exhaustion Sense and its English equivalent, i.e. the particle verb *wear out*. In this case the lexicographic search has demonstrated a far greater extent of semantic overlap between the senses of these two composite verbs:

(86)

a. *wear out*

I. 'to make someone feel very tired'

II. 'to use something a lot so that it no longer works'

III. 'to make a hole in something, or make it thinner and weaker by using it a lot'

b. *zedrzyć*

I. 'to destroy something by continuously using it'⁹⁶

II. 'to undermine one's health, to stretch one's nerves'

III. 'to charge an exorbitant fee'

Thus, it appears that both composite verbs are characterised by referential identity⁹⁷ since they both denote the process of becoming either unsuitable for further use (because of being used too much) or becoming very tired or exhausted. However, the corpus-based investigation (335 concordances from BNC with the verb *wear out* and 171 concordances from NKJP containing the verb *zedrzyć*) has clearly shown that they are semantically distinct, since the Polish prefixed verb demonstrates a far higher degree of semantic specialisation. While the particle verb *wear out* conceptualises the exhaustion of a human being, a damage, or a loss of quality of a material object in general terms, and its occurrence is not restricted to any collocational patterns, the use of the prefixed verb *zedrzyć* is limited to a specific set of collocations, such as *zdzierać ubranie/buty* 'to wear out one's clothes/shoes', *zdzierać nerwy* 'to shatter one's nerves', *zdzierać gardło* 'to shout oneself hoarse', *zdzierać głos* 'to lose one's voice', *zdzierać sobie zdrowie* 'to ruin one's health', *zdzierać pieniądze/opłaty*

⁹⁶ This sense is an extension of the primary sense, in which the verb *zedrzyć* conceptualises the removal of an external layer of an item by means of tearing it.

⁹⁷ In fact, it is only the gloss (86b. III) that does not have its equivalent in the other language.

podatki/składki ‘to fleece sb. of money/fees/taxes/contributions’, *zdzierać sobie nogi* ‘to get exhausted by walking’, recurring throughout the corpus.

Even though the selection of verbs in (85) and (86) is random, it represents a prevalent trend in the sense that in the case of the English particle verbs the notions conceptualised by the component verb and particle figure more saliently in the scene than when construed by the component prefix and verb in the Polish prefixed verbs. According to Langacker (2008), the higher the degree of the composite expression’s analysability, the higher the salience of its components. As regards degrees of analysability, they depend on “how consistently and saliently the component conceptions are accessed along with the composite conception” (Langacker 2008: 61).

Since the components of prefixed verbs are integrated at the phonological pole in the sense that they constitute a single lexeme, they are also integrated at the semantic pole, which is a direct consequence of the *diagrammatic principle of iconicity*, according to which the form of an expression constitutes a reflection of its semantic content (Tabakowska 2007).⁹⁸ Accordingly, one of the diagrammatic principles,⁹⁹ the *principle of proximity*, explains the syntagmatic organisation of components of a linguistic expression in the following way: “things that are conceptualised as being close conceptually tend to be put close together in linguistic expressions” (Tabakowska 2007: 417). Consequently, when two component structures constitute a composite structure, encoded linguistically as a single lexeme, it means that they are conceptually very close to each other. This, in turn, leads to a high degree of conceptual integration in which the specifications of component elements are merged (Langacker 2008). As a result, the component elements of prefixed verbs are less analysable and less salient than those of particle verbs, which should be taken to mean that their semantic content is accessed only to a certain extent and remains more implicit. A lower degree of analysability and salience of component elements, accompanied by a higher degree of their conceptual integration, evokes a greater specialisation of meaning of the Polish prefixed verbs in comparison with the English particle verbs.

As already mentioned, Polish prefixed verbs differ from English particle verbs in terms of another aspect of syntagmatic organisation, namely the sequence of their component elements. While Polish prefixed verbs are composed of a dependent element followed by an autonomous one, English parti-

⁹⁸ The notion of a *diagram* goes back to Peirce (1965), who defines it as a type of icon that shows analogy between signans and signatum.

⁹⁹ Other diagrammatic principles are: the principle of sequentiality and the principle of quantity.

cle verbs consist of component elements arranged in reverse order, whereby a dependent element is preceded by an autonomous one. The order of component elements triggers differences in the construal of the scene, which can be accounted for in terms of another diagrammatic principle of iconicity, i.e. the *principle of sequentiality*. According to this principle, the order that the component elements of the composite expression are arranged in analogically diagrams the semantic construal (Dirven and Radden 2001). Since it is a well-known cognitive principle that “what is uppermost in mind comes up first” (Bolinger 1977 quoted in Tabakowska 2007: 411), it may be stated that when a dependent element comes first, as in prefixed verbs, it is more prominent than when it comes second, as in particle verbs.

Given that in the composite expressions under study, the dependent element conceptualises a path of (fictive) motion while the autonomous element construes the manner of motion, it is the path of motion that receives more focal attention in prefixed verbs than in particle verbs. In the latter type of composite expressions the opposite is the case, i.e. it is the manner of motion conceptualised by the composite verb that is more focally prominent than in prefixed verbs. For either of these conceptualisations to be formed, the component states of the scene need to be traced by the conceptualiser in a specific order, i.e. they need to be subject to sequential scanning. In other words, when the event is construed by the prefixed verb, the conceptualiser first mentally accesses the path and only then zooms in to focus on the manner of motion. In contrast, in the construal of the scene by particle verbs first the manner of motion is accessed and then the path.

Greater prominence of the verb in particle verbs than in prefixed verbs affects the polysemy patterns of the two composite expressions in question. Consider the range of senses of the English particle verb *fall on* and its Polish equivalent *napadać*, as attested by the OED and SJP PWN, respectively:

(87)

a. *fall on*

I. ‘to make a hostile descent or attack upon’

II. ‘to come across, to light upon’

III. ‘to make use of’

b. *napaść (na kogoś)* [on-fall on sb.]

I. ‘to attack’

II. ‘to attack sb. with harsh words’

III. ‘to get angry suddenly’ (*Napadła go złość*. ‘He suddenly got angry’.)

IV. ‘to be troubled by’ (*Napadały go ataki kaszlu*. ‘He was troubled by coughing fits’.)

As can be clearly seen, in the composite verbs in (87a) the frame of sudden, or accidental, downwards movement conceptualised by the verb *fall* is highly activated, which means that the manner of motion is focally prominent. Thus, in all the senses of the particle verb *fall on* the semantic content construed by the component verb makes a strong contribution to the composite structure. In other words, the polysemy of the composite structure is “guided” by the semantic content of the component verb. In contrast, in the composite verbs in (87b) it is the path of motion that is highly activated. As a result, the Intended Target Sense of the prefix *na-* (see 3.4.4.4) is focally prominent and in this case the polysemy of the composite structure is “guided” by the semantic content of the component prefix. Because in the type of linear ordering (i.e. in 87b) the manner of action is backgrounded, all the composite prefixed verbs profile a processual relationship in which its focal participant, i.e. the TR, takes hold of the LM. In contrast, the composite verbs in (87a) profile a processual relationship in which the TR accidentally, or quickly, comes into contact with the LM. In other words, it is the manner of motion inherent in the event of falling that is focally prominent.

When it comes to the comparison of the semantic networks of Polish prefixes, the most frequent prefix in the sample, namely the prefix *na-*, has been attested in the largest number of verbs and has developed the greatest number of senses (8). In contrast, the least frequent prefix, namely the prefix *nad-*, has produced as few as 3 non-spatial senses. The prefix *pod-*, more frequent than the prefix *nad-* but less frequent than the prefix *na-*, has developed 5 non-spatial senses.

Analogically to the English sample, in the Polish sample, different prefixes have produced apparently “the same” metaphorical senses: the Partial Effect Sense can be conceptualised by the prefixes *nad-*, *pod-* and *na-*, the Excess Sense by *nad-* and *na-* and the More Sense by *nad-* and *wz-*. However, in each of these cases different aspects of a particular conceptualisation are foregrounded, which is a consequence of diverse TR–LM configurations, underlying respective proto-scenes. Thus, as regards the Partial Effect Sense construed by *nad-*, it is the original spatial configuration in which the TR is located higher than the LM that is foregrounded:

(88)

- a. *Uśmiecha się Hans i zbliża ostrze noża do błyszczącej kaszanki. Nadetnie ją i podniesie wzrok nie tyle na proboszcza, co w stronę Gerty.* (SJP PWN corpus)
 ‘Hans is smiling and moving the knife blade close to the glistening blood sausage. He is going to score it and raise his eyes not so much towards the parish priest but in the direction of Gerta’.

- b. *Niebezpieczeństwo czyha też w nadgniłych warzywach i owocach.* (SJP PWN corpus)
 ‘Rotting vegetables and fruit also pose a danger’.

In (88a) the prefix *nad-* profiles not only achieving a partial effect of an action but also the direction in which the activity of cutting proceeds, i.e. from above. Consequently, the verb *nadciąć* [over-cut] ‘to score’ cannot be replaced by the composite verb *podciąć* [under-cut] ‘to cut/clip’ because the prefix *pod-* construes the opposite direction of the activity of cutting, which proceeds from beneath. Consequently, the e-site of the verb *nadciąć* can be elaborated with nouns that can be subject to the activity of cutting from above, such as a piece of fabric, as exemplified by the phrase *nadciąć materiał* ‘to notch a piece of fabric’ (SJP PWN CD version). In contrast, the e-site of the verb *podciąć* can be elaborated with nouns that can be subject to the activity of cutting proceeding from beneath, such as hair, or flower stems, as exemplified by the phrases, such as *podciąć włosy* ‘to trim hair’, *podciąć łodygi kwiatów* ‘to trim flower stems’ (SJP PWN CD version). The SJP PWN CD version considers the verb *naciąć* [on-cut] ‘to make an incision/a nick in’ to be synonymous with *nadciąć*; however, while they are close in meaning, the two different prefixes profile different aspects of the activity of cutting. While the prefix *nad-* profiles the direction from which the activity of cutting proceeds, i.e. from a point located above the entity that is subject to the activity of cutting (which constitutes a SOURCE in the SOURCE-PATH-GOAL schema), the prefix *na-* profiles making contact with the surface of the object in question.

As regards (88b), the component prefix *nad-* in the composite participle form *nadgniłe* [over-rotten.PTCP.PT.PL.F] profiles not only the partial effect that the process of rotting has produced (fruit and vegetables that are just starting to go rotten) but also the position of the vantage point from which the (partial) effects of rotting can be registered (the location of the rotten spots). Thus, the vantage point, which should be understood as the eye level of the observer, is located higher than the set of the observed entities and (one usually looks at fruit and vegetables, typically stored in bowls or boxes from above not from below) rotten spots are construed as being located on the upper surface of fruit and vegetables.

The composite expression in which the prefix *nad-* is replaced by the prefix *pod-*, i.e. *podgniłe* [under-rotten] *owoce i warzywa* ‘partially rotten fruit and vegetables’, is not impossible in Polish, as a Google search carried out on October 13th 2019 yielded 7 results in comparison with 118 results for *nadgniłe owoce i warzywa*. The Google results for *pod-* can be regarded as an instance of

an alternative interpretation of the initial phase of the rotting process, which is seen as one affecting the bottom part of the produce. This collocation is not attested in SJP PWN (CD version) and an NKJP search yielded no results for *podgnite owoce* and *podgnite warzywa*, which testifies to the fact that the spatial relationship of the TR being located higher than the LM is selected far more often to form the composite expression in question. This, in turn, stems from the fact that changes that affect the upper part of an object are much more salient than those affecting its bottom part for the simple reason that they can be detected far more easily.

Let me now turn to the instantiations of the prefix *pod-* used in the Partial Effect Sense:

(89)

- a. *Jagienka [...] wyjmuje z kamiennych wazonów podgnite kwiaty [...].* (NKJP)
'Jagienka is taking partially rotten flowers out of the vases'.
- b. *Marchewkę i brokoły krótko podgotować.* (NKJP)
'Parboil the carrot and broccoli for a short time'.
- c. *Dlatego postanowił podciąć tamtemu chłopakowi gardło.* (NKJP)
'That is why he decided to slit the throat of that boy'.

In (89a) the prefix *pod-* construes the partial effect of the rotting process, which has either taken its toll on the bottom part of the affected object or started therein: when flowers are kept in a vase it is their stems that go rotten first. In (89b) the composite verb *podgotować* [under-cook] 'to parboil' profiles not only the partial effect that has been achieved (through cooking the vegetables for a short time) but also the location of the source of energy (a burner which is below the pot) and the direction from which it operates (from below). In Polish it is possible to distinguish a whole range of verbs in the semantic field of COOKING in which the spatial relationship of the TR (the source of energy) being located lower than the LM (the food being processed), even if not focally prominent, remains in the profile of the prefix: *podsmażyc* [under-fry] 'to stir-fry', *podpiec* [under-roast] 'to roast for a short while', *podduśc* [under-stew] 'to stew', etc.¹⁰⁰ Needless to say, it is impossible to exchange the prefix *pod-* for the prefix *nad-* in the composite verbs at issue. As regards the construal encoded by the prefix *pod-* in (89c), the original spatial configuration

¹⁰⁰ Due to changes in extra-linguistic reality, such as technological progress, the relationship of verticality ceases to constitute part of the prefix profile. For example, when food is cooked in a microwave oven or roasted in an electric oven (in which the source of energy is not located lower than the food undergoing the process) the relationship of verticality is relegated to the base.

is backgrounded but, notwithstanding that, the verb *podciąć* [under-cut] cannot be replaced by the verb *nadciąć* [over-cut] in which the prefix *nad-* also encodes the Partial Effect Sense. This can be explained in terms of the frame activation in the composition process in which the component prefix *pod-* ‘under’ and the component verb *ciąć* ‘to cut’ have been combined. As a result, the frame of DESTRUCTION has been highly activated even though at the lower level of structural organisation the frame of DESTRUCTION¹⁰¹ is only peripheral to the prefix *pod-* and the verb *ciąć*. Therefore, the verb *podciąć* is commonly used in collocations, such as *podciąć sobie żyły* ‘to slash one’s wrists’ and *podciąć komuś skrzydła* ‘to clip sb’s wings’, in which it encodes the destruction of a person’s life or of hope/enthusiasm, respectively.

Finally, as regards the Partial Effect Sense encoded by the prefix *na-*, the e-site of the prefix is elaborated with verbs (such as *ciąć* ‘to cut’, *kłuć* ‘to pierce’ and *gryźć* ‘to bite’) which profile an action aimed at disrupting the structural integrity of a physical object, so that the object in question can break into two or more parts. As a result of the composition process the composite verbs *naciąć* [on-cut], *nakłuć* [on-pierce] and *nagryźć* [on-bite] (see (61a), (61c) and (61b)) are formed, which profile affecting merely an exterior part of an object (by making contact with its surface) without proceeding through the interior part of a three-dimensional LM to its opposite side (see 3.4.4.3 for details). Consequently, the prefix *na-* profiles achieving a partial effect of an action by making contact with the surface of the LM, which is only disturbed as a result of the undertaken action, while the structural integrity of the object in question is not affected.

Another sense encoded by more than one prefix is the Excess Sense, which can be construed both by the prefix *nad-* (e.g. *nadpłacić* ‘to overpay’, see (14)), and the combination of the prefix *na-* and postfix *się* (e.g. *najeść się* ‘to eat too much’, see (52b)). In the former case the Excess Sense is conceptualised in terms of the primary metaphor MORE IS UP, whereby the TR is represented by the activity, encoded by the verb, which fictively moves upwards so that it reaches a point located higher than the implicit LM, which should be understood as the established norm. In contrast, the prefix *na-* construes excess in terms of unrestrained accumulation of the multiplex TR on the surface of the LM (see 3.4.4.2 for details). Unlike the Partial Effect Sense discussed above, the underlying spatial scene for the Excess Sense construed by the prefix *nad-* (see Fig. 3-6) and that for the prefix *na-* (see Fig. 3-17) is not profiled and remains within the maximal scope.

¹⁰¹ This construal is grounded in the HARMER IS UP, HARMED IS DOWN metaphor. See section 3.3.5.3 for an elaboration on this issue.

Finally, when it comes to the More Sense conceptualised by the prefixes *nad-* and *wz-*, the underlying spatial scenes for the two prefixes are similar, since they both construe the TR moving upwards (see Fig. 3-6 and Fig. 3-22, respectively). However, as pointed out in section 3.5, in contrast to the proto-scene for the preposition *nad*, the proto-scene for the prefix *wz-* does not specify a final position of the TR that is higher than the LM. Consequently, the e-site of the prefix *wz-* (encoding the primary sense, i.e. the Movement Upwards Sense) is elaborated with verbs of rapid motion, frequently proceeding along the vertical axis, first upwards and immediately afterwards downwards, such as e.g. *skoczyć* ‘to jump’. According to our encyclopaedic knowledge, once an animate entity reaches the highest point in space while jumping, it proceeds to move in the opposite direction, i.e. downwards. Thus, in such a construal of the scene the final location of the TR with respect to the LM is irrelevant.

When the prefix *wz-* is used in the More Sense, its e-site is elaborated with verbs derived from adjectives, which specify a feature of the entity referred to, e.g. *mocny* ‘strong’ or *bogaty* ‘rich’. Consequently, when the prefix *wz-* is combined with bound verbal bases, it construes an increase in the intensity of the feature encoded linguistically by the verb: the meaning of *wzmocnić* and *wzbogacić* can be paraphrased as ‘making stronger’ and ‘making richer’, respectively. This pattern can be accounted for in terms of the CHANGES ARE MOVEMENTS metaphor, whereby an increase in intensity is construed as rapid upwards movement. Thus, as a result of cross-domain mapping, the swiftness and force-dynamic value of verbs encoding upwards movement is mapped onto an increase in intensity construed by composite prefixed verbs created from adjectives.

In contrast to the prefix *wz-*, the prefix *nad-* in the More Sense combines with simplex verbs, such as *ważyc* ‘to weigh’ and *placić* ‘to pay’, which yields the composite verbs *nadwazyć* ‘to weigh more than requested’ and *nadplacić* ‘to overpay’, respectively. Another difference is that while in the construal of the scene encoded by the prefix *wz-* the LM is an initial state prior to the change effected by the TR, in the construal encoded by the prefix *nad-* the LM is conceptualised as the norm and the change effected by the TR as exceeding that norm. The extent of exceeding the norm corresponds to the TR’s final position, which for this reason needs to be explicitly coded.

At a more general level of comparison, the analysis carried out in the present chapter has shown that Polish prefixes differ from one another with respect to the significance of configurational and functional properties in trigger-

ing meaning extensions. The semantic network of the prefix *nad-*, the analysis of which opens the present chapter, is based exclusively on the configurational properties. They are a result of the reanalysis of the proto-scene through sequential and summary scanning in the course of which the schematisations referred to as the Approach Sense II (see Fig. 3-5) and the Vertical Elevation Sense (see Fig. 3-6) have developed. Even though the proto-scene for the preposition *nad* has triggered the functional element of mutual influence and domination, the frame of EXERTING INFLUENCE and DOMINATION are not activated in the process of composition in which the corresponding prefix *nad-* is combined with the component verb. Conversely, the semantic networks of the prefixes *pod-* and *na-* are motivated both by the configurational and functional properties. As regards the prefix *pod-*, the Partial Effect Sense and the Cause Sense are triggered by the two different reanalyses of the proto-scene of the preposition *pod*, yielding the schematisations represented in Fig. 3-12b. and 3-10, respectively. All other senses: the Surreptitiousness Sense, the Subordination/Control Sense and the Support Sense, are motivated by functional elements, i.e. the functional elements of invisibility, control and support. The semantic network of the prefix *na-* is motivated primarily by functional elements: the functional element of contact (the Goal Attainment Sense, the Saturation Sense, the Partial Effect Sense, the Filling Sense) and the functional element of accumulation (the High Intensity Sense, the Excess Sense, the Sufficiency Sense). The only sense triggered by configurational properties is the Intended Target Sense, motivated by the reanalysis of the proto-scene for the preposition *na*, yielding the schematisation represented in Fig. 3-16.

Thus, the findings of the analysis carried out in the present chapter confirm the results obtained for the English sample with respect to the role of the functional element(s) in triggering meaning extensions, which for some senses is either limited or relatively insignificant, because meaning extensions are “guided” by the reanalyses of the proto-scene.

Conclusion

Szwedek (2017: 2) argues that in metaphorical language “the ultimate, primeval experiential basis (source domain) is the world of physical objects”. Since spatial relationships are relationships between objects (Szwedek 2007), they function as source domains for numerous abstract concepts, as has been demonstrated in chapter 2 and chapter 3, devoted to the description of semantic networks of relational expressions. It has been shown that the spatial relationship of verticality encoded linguistically by English verbal particles (*up*, *down*, *over*, *under*, *on*) and Polish verbal prefixes (*nad-*, *pod-*, *na-*, *w-*, *wz-*, *z*) as well as the cognate prepositions, and construed as the relationship between the TR and the LM along the vertical axis, underlies numerous metaphorical conceptualisations organised into semantic networks.

Apart from the study of the polysemy of English verbal particles and Polish prefixes from the contrastive perspective, the aim of the present monograph has been to offer certain refinements to the principled polysemy model. The analysis of the sample of 690 English verbs (794 tokens of particles) and 510 Polish prefixed verbs (571 tokens of prefixes) has enabled the introduction of several modifications of the model as regards the nature of experiential correlation and the role of the functional element, as well as that of the construal operations in triggering meaning extensions. The sample has been collected by using the lexical method, which offers a solid basis for the study of conceptualisation patterns at the supraindividual level (Kövecses 2017b).

To begin with, the analysis of authentic corpus data (rather than self-generated data, which has been used by Tyler and Evans 2003) carried out in the present monograph has conclusively demonstrated the need to develop a more comprehensive approach to the issue of the functional element. First of all, as argued in section 1.3, one functional element is frequently insufficient to explain the polysemy of a given spatial expression. This means that a change in either a specific TR–LM configuration or the construal of the scene entails a different functional element than that which underlies a proto-scene (as e.g. evidenced by the semantic networks of *up*, *down*, *on* and *na-*). Consequently, if

the semantics of spatial expressions is to be accounted for successfully, it is necessary to assign several functional elements both to the reanalyses of the proto-scene and the proto-scene itself. Another important theoretical implication that arises from the corpus-based analysis undertaken here is that for some spatial expressions (such as e.g. *over*, *nad-*, or *pod-*), the functional element turns out to be of little import, or it plays a minor role in generating polysemy. It may be assumed that the (in)significance of the functional element depends on the number and kind of reanalyses of the proto-scene, representing a particular spatial scene. The higher the number of reanalyses (as e.g. in the case of *over*) and the further the reanalyses depart from the proto-scene (as e.g. in the case of *nad/nad-* and *pod/pod-*, whereby the spatial relationship of verticality is relegated to the base) the less important the functional element turns out to be. At the same time, it is the TR-LM configuration, resulting from the reanalyses of the proto-scene that becomes decisive in triggering meaning extensions (e.g. the Partial Effect Sense of the prefix *nad-* and *pod-* is motivated by the reanalyses of the proto-scene in the course of which the Approach Senses I and II develop).

Notwithstanding that, as the contrastive analysis carried out in the present monograph has revealed, some spatial expressions in the two investigated languages have developed different semantic networks despite the fact that their primary senses, represented by the same proto-scene, are characterised by the same functional elements and are reanalysed in the same way, as has turned out to be the case with *on* and *na/na-*. As pointed out in section 3.4.4.5, this phenomenon can be accounted for from the diachronic perspective. In the process of the diachronic development of semantic networks of the two relational expressions at issue, there must have been considerable variation at the individual level. Thus, users of the two languages have profiled different aspects of the same spatial scene, which has resulted in language-specific conceptualisations. This has led to the emergence of different primary metaphors and consequently different metaphorical extensions in the two languages under study. As Langacker (1983: I/13) quoted in Taylor (1988: 324) has put it: “all manner of entities will be assimilated to a category if a person can find any plausible rationale for construing them as extensions from prototypical members”. Consequently, while the development of the semantic network¹ is clearly

¹ Taylor (1988) uses the notion of the *meaning chain*, which can be regarded as roughly equivalent to that of the semantic network. The meaning chain analysis has been developed by Brugman (1988[1981]) and Lakoff (1982), who recognise a central, i.e. prototypical, sense for each preposition, represented by a specific spatial configuration. The preposi-

motivated, it frequently appears to be unpredictable. For this reason different languages may “categorise human experience in sometimes highly idiosyncratic ways” (Taylor 1988: 324).

As regards the nature of experiential correlation and its role in giving rise to polysemy, in section 1.3.1 I have proposed that experiential correlation constitutes merely an initial phase of the meaning shift from the spatial to the non-spatial domain, because the complete process consists of several stages. I have offered an idealised mental model of the mechanism through which abstract senses of spatial expressions are construed by the conceptualiser under the influence of linguistic, physical, social and cultural context. Thus, when confronted with a potentially polysemous spatial expression, the conceptualiser realises that it construes two types of experience (an objective spatial experience and a subjective response to it) which are experientially correlated. Next, he or she makes a context-dependent implicature of the TR–LM non-spatial relationship associated with a particular spatial scene and construed by a given spatial expression. When the implicature is pragmatically strengthened through its continuous usage, the language user becomes conscious of the fact that the relational expression has both a literal spatial meaning and a non-spatial one, which is contextually induced (Cole 1975). Because when conceptualising a specific scene, the conceptualiser is simultaneously subject both to spatial and non-spatial experience in the conceived time, the two types of experience are assigned to the same frame. The next stage in the process is that the conceptualiser makes a shift in an expression’s profile from a spatial to a non-spatial relationship and construes a non-spatial experience in terms of a spatial one, i.e. through metonymy. For the metaphorical conceptualisation to take place, non-spatial experience needs to be schematised and dissociated from the spatial domain. Only then may the language user conceptualise a non-spatial experience in terms of a spatial one through cross-domain mapping. The metaphorical meaning is established as a distinct meaning component in the semantic network of a spatial expression if it undergoes a second phase of pragmatic strengthening as a result of which awareness of its original spatial meaning is lost.

Another theoretical implication of the analysis carried out in the present monograph is that neither a functional element nor an experiential correlation (nor even both of them) appear to be sufficient in explaining the polysemy of spatial expressions. It has turned out that alternative construals of the spatial

tion becomes polysemous when it is used in a sense that is different from the prototypical use but at the same time closely related to it.

scene frequently play a decisive role in triggering the polysemy of spatial expressions. Because spatial expressions are relational in nature, the way in which they are construed does not depend on their objective nature but on the conceptualiser, who is free to construe one and the same spatial scene very differently (Langacker 1999, 2008). Therefore, if the development of new senses is to be explained satisfactorily, and in detail, the role of construal operations must be taken into account.

Thus, as the analysis of spatial expressions encoding relationship of verticality carried out in chapter 2 and 3 has demonstrated, apart from metaphor and metonymy (on which experiential correlation is based), other construal operations need to be included in the description of polysemy because they play an important role in the development of semantic networks. The construal operations of profiling, foregrounding and backgrounding have turned out to be of paramount importance across the corpora of the two languages under study on account of the fact that they lead to a meaning shift initiated by experiential correlation. Besides, the operation of sequential scanning followed by that of summary scanning has proved to be essential in the emergence of dynamic senses of spatial expressions usually derived from a static proto-scene (apart from *up*, *down* and *wz-*). Other construal operations have turned out to be restricted to conceptualising a spatial scene by (a) particular spatial expression(s). For example, the analysis of the particles *up*, *down* and *over* has indicated that construing a spatial scene from a particular perspective (which includes both a specific viewing arrangement and a vantage point) has a decisive effect on the evolution of meaning extensions. Another dimension of perspective, i.e. subjectivity and objectivity, plays an important role in the construal of the scene by means of the particle *on* and both the preposition *pod* and the prefix *pod-*, which brings about the emergence of distinct senses depending on whether or not the conceptualiser figures prominently in the scene.

As has been advocated by the proponents of the model (Tyler and Evans 2003), the present analysis has not been based on self-generated data but on authentic corpora, with the aim of making the semantic networks of the studied spatial expressions more complete by including all the senses that emerge from their actual use in context. In fact, it has turned out that the reliance on self-generated data may produce an incomplete semantic network, as has been the case with, for example, the particle *over*, for which Tyler and Evans (2003) have failed to distinguish the following senses: the Suspension Sense, the Being Successful Sense, the Switching Sides/Allegiance Sense and the Ignoring/Omitting Sense, which have been attested in the corpus under study in the present monograph.

The use of corpus data has offered another important advantage: it has allowed us to conduct the analysis of the particular particle/prefix senses at the level of mental spaces that occur in online processing (Kövecses 2017b) and can be seen as elaborations of frames influenced by a wide variety of contextual information. Consequently, it has been possible to gain insight into the so-called bridging contexts in which contextual priming (see section 1.2) takes place. Moreover, this approach has enabled us to analyse the way in which all types of context (referred to as differential experience by Kövecses 2015) prime the reader to interpret a metaphorical meaning as they demonstrate how the appropriate conceptual pathway is built between the target domain and the particular experiential content that is primed. Besides, turning to the level of mental spaces has made it possible to analyse the correspondence relationship between the verb and prefix/particle as well as to focus on the process of composition in which specific domains and frames are activated.

The discussion of the polysemy of verbal particles and prefixes is inherently connected with the relationship between polysemy and aspectual construal. Even though a great deal of research is needed in this direction, this issue has not been investigated here on account of the fact that, as has been elucidated in section 1.7, each predicate merely has a certain “aspectual potential” (Dahl 1985: 26-7), which can be realised as several aspectual types, depending on the construal of the scene, encoded linguistically in many different ways. Therefore, analysing how the aspectual potential of a given predicate develops would require the researcher to undertake a highly contextualised study, i.e. one that takes into account numerous syntactic patterns in which a given predicate occurs, which would have been unfeasible here given the size of the sample.

On the whole, it is hoped that the refinements proposed to the principled polysemy model will contribute to a better understanding of the polysemy of spatial expressions, not only in English and Polish but also in other languages. It remains to be tested whether the analysis of other spatial expressions and in other languages will yield similar theoretical implications to the ones made in the present book.

References

- Aitchison, J. 2011. *The articulate mammal: an introduction to psycholinguistics*. London: Routledge.
- Allwood, J. 2003. Meaning potentials and context: some consequences for the analysis of variation in meaning, in: H. Cuyckens, R. Dirven and J.R. Taylor (eds.), *Cognitive approaches to lexical semantics*. Berlin: Mouton de Gruyter. 29–66.
- Atkins, B.T.S. 1987. Semantic ID tags: corpus evidence for dictionary senses, in: *Proceedings of the third annual conference of the UW centre for the new Oxford English Dictionary*. Waterloo: University of Waterloo. 17–36.
- Aurnague, M. and G. Col. 2017. Claude Vandeloise on proximity or the missing piece of a final triptych. *Corela. Cognition, représentation, language* (available at <http://journals.openedition.org/corela/5024>): 1–13.
- Baldauf, Ch. 1997. *Metapher und Kognition. Grundlagen einer neuen Theorie der Alltagsmetapher*. Frankfurt am Main: Peter Lang.
- Baldauf, Ch. 2003. Mixing metaphors, in: C. Zelinsky-Wibbelt (ed.), *Text, context, concepts*. Berlin/New York: Mouton de Gruyter. 47–64.
- Bębeniec, D. 2010. *Directional prepositions in Polish and English: towards a cognitive account* (available at <http://dlibra.umcs.lublin.pl/dlibra/plain-content?id=5345>).
- Beitel, D.A., Gibbs, R.W. and P. Sanders. 2001. The embodied approach to the polysemy of the spatial preposition *on*, in: H. Cuyckens and B. Zawada (eds.), *Polysemy in cognitive linguistics: selected papers from the International Cognitive Linguistics Conference, Amsterdam* [Current issues in linguistic theory 177]. Amsterdam/Philadelphia: John Benjamins. 241–260.
- Biber, D., Conrad, S. and G. Leech. 2002. *Longman student grammar of spoken and written English*. Harlow: Pearson Education.
- Boers, F. 1996. *Spatial prepositions and metaphor: a cognitive semantic journey along the UP-DOWN and the FRONT-BACK dimensions*. Tübingen: G. Narr.
- Bolinger, D. 1971. *The phrasal verb in English*. Cambridge, Mass: Harvard University Press.
- Bolinger, D. 1977. *Meaning and form*. London: Longman.
- Boroditsky, L. and M. Ramscar 2002. The roles of body and mind in abstract thought. *Psychological Science* 13.2: 185–189.
- Brenda, M. 2014. *The cognitive perspective on the polysemy of the English spatial preposition over*. Newcastle upon Tyne: Cambridge Scholars Publishing.
- Brinton, L. 2009. *The development of English aspectual systems*. Cambridge: Cambridge University Press.

- Brugman, C. 1988[1981]. *The story of over: polysemy, semantics, and the structure of the lexicon*. New York: Garland.
- Brugman, C. and G. Lakoff. 1988. Cognitive topology and lexical networks, in: S. Small, G. Cottrell and M. Tanenhaus (eds.), *Lexical ambiguity resolution*. Palo Alto, CA: Morgan Kaufman. 477–507.
- Burnley, D. 1992. Lexis and semantics, in: N.F. Blake (ed.), *The Cambridge history of the English language*, vol. 2. Cambridge: Cambridge University Press. 1066–1476.
- Cappelle, B. 2005. *Particle patterns in English: a comprehensive coverage*. K.U. Leuven: PhD dissertation (available at <http://www.kuleuven-kortrijk.be/nl/Onderzoek/Letteren/OnderzoekTaalkunde/FEST/DescriptiveEnglishGrammar/bert-cappelle/bert-cappelle-proefschrift.pdf>).
- Carlson, L. and E. van der Zee (eds.). 2005. *Functional features in language and space: insights from perception, categorization, and development*. Oxford/New York: Oxford University Press.
- Casasanto, D. 2009. Embodiment of abstract concepts: good and bad in right and left handers. *Journal of Experimental Psychology* 138(3): 351–367.
- Celce-Murcia, M. and D. Larsen-Freeman. 1998. *The grammar book: an ESL/EFL teacher's course*. Boston: Heinle ELT.
- Cienki, A. 1989. *Spatial cognition and the semantics of prepositions in English, Polish and Russian*. München: Peter Lang.
- Cienki, A. 1997. Some properties and groupings of image schemas, in: M.H. Verspoor, K.D. Lee and E. Sweetser (eds.), *Lexical and syntactic constructions and the construction of meaning*. Amsterdam /Philadelphia: John Benjamins. 3–15.
- Cienki, A. 2007. Frames, idealized cognitive models, domains, in: D. Geeraerts and H. Cuyckens (eds.), *The Oxford handbook of cognitive linguistics*. Oxford: Oxford University Press. 170–187.
- Claridge, C. 2000. *Multi-word verbs in early Modern English. A corpus-based study*. Amsterdam/Atlanta: Rodopi.
- Clark, H. 1973. Space, time, semantics and the child, in: T.E. Moore (ed.), *Cognitive development and the acquisition of language*. New York: Academic Press. 27–64.
- Clark, H. 1996. *Using language*. Cambridge: Cambridge University Press.
- Cole, P. 1975. The synchronic and diachronic status of conversational implicature, in: P. Cole and J.L. Morgan (eds.), *Syntax and semantics*, vol. 3: *Speech acts*. New York: Academic Press. 257–288.
- Comrie, B. 1976. *Aspect*. Cambridge: Cambridge University Press.
- Correa-Beningfield, M., Kristiansen, G., Navarro-Ferrando, I. and C. Vandeloise. 2005. Image schemas vs. complex primitives in cross-cultural spatial cognition, in: B. Hampe and J. Grady (eds.), *From perception to meaning. Image schemas in cognitive linguistics*. Berlin/New York: Mouton de Gruyter. 343–369.
- Coulson, S. 2008. Metaphor comprehension and the brain, in: R. Gibbs (ed.), *The Cambridge handbook of metaphor and thought*. New York: Cambridge University Press. 177–194.
- Croft, W. 1993. The role of domains in the interpretation of metaphors and metonymies. *Cognitive Linguistics* 4: 335–70.

- Croft, W. 2001. *Radical construction grammar: syntactic theory in typological perspective*. Oxford: Oxford University Press.
- Croft, W. 2012. *Verbs: aspect and causal structure*. Oxford: Oxford University Press.
- Croft, W. and D.A. Cruse. 2004. *Cognitive linguistics*. Cambridge: Cambridge University Press.
- Cruse, D.A. 1986. *Lexical semantics*. Cambridge: Cambridge University Press.
- Cruse, D.A. 2000. *Meaning in language*. Oxford: Oxford University Press.
- Dąbrowska, E. 1996. The linguistic structuring of events: a study of Polish perfectivising prefixes, in: R. Dirven and M. Putz (eds.), *The construal of space in language and thought*. Berlin/New York: Mouton de Gruyter. 467–490.
- Dąbrowska, E. 1997. *Cognitive semantics and the Polish dative*. Berlin/New York: Mouton de Gruyter.
- Dahl, Ö. 1985. *Tense and aspect systems*. Oxford: Basil Blackwell.
- Dancygier, B. and E. Sweetser. 2014. *Figurative language*. New York: Cambridge University Press.
- Daneshvar K. M., Amoozadeh, M. and H. Razaei. 2016. The semantic aspects of Persian spatial term *zir* based on the principled polysemy model. *Language Related Research* 7(5): 415–442.
- Deane, P.D. 1993. *At, by, to, and past: an essay in multimodal image theory*. *Proceedings of the annual meeting of the Berkeley linguistics society* 19: 112–124.
- Deane, P.D. 2005. Multimodal spatial representation: on the semantic unity of *over*, in: B. Hampe (ed.), *From perception to meaning: image schemas in cognitive linguistics* [Cognitive linguistics research 29]. Berlin/New York: Mouton de Gruyter. 235–282.
- Dehghan, M. and Z. Parvini. 2019. The polysemic study of the conjunctions *ʔema* and *vali* in Persian language based on principled-polysemy approach. *Language Related Research* 10(3): 191–212.
- Dewell, R.B. 2011. *The meaning of particle/prefix constructions in German*. Amsterdam/Philadelphia: John Benjamins.
- Dewell, R.B. 2015. *The semantics of German verb prefixes*. Amsterdam/Philadelphia: John Benjamins.
- Dirven, R. 1989. Spatial relations in English, in: R. Dirven and R.A. Geiger (eds.), *A user's grammar of English: word, sentence, text, interaction: part B: the structure of sentences*. Frankfurt am Main /New York: Peter Lang. 101–131.
- Dirven, R. and G. Radden. 2001. Kognitywne podstawy języka: język i myśl, in: E. Tabakowska (ed.), *Kognitywne podstawy języka i językoznawstwa*. Kraków: Universitas. 15–42.
- Dirven, R. and M.H. Verspoor. 2004. *Cognitive exploration of language and linguistics*. Amsterdam/Philadelphia: John Benjamins.
- Divjak, D. and A. Kochańska (eds.). 2008. *Cognitive paths into the Slavic domain*. Berlin/New York: Mouton de Gruyter.
- Dowty, D. 1991. Thematic proto-roles and argument selection. *Language* 67: 547–619.
- Evans, V. 2000. *The structure of time: language, meaning and temporal cognition*. PhD thesis, Dept. of Linguistics, Georgetown University.

- Evans, V. 2006. Lexical concepts, cognitive models and meaning-construction. *Cognitive Linguistics* 17/4: 491–534.
- Evans, V. 2009. *How words mean: lexical concepts, cognitive models and meaning construction*. Oxford: Oxford University Press.
- Evans, V. 2010a. From the spatial to the non-spatial: the ‘state’ lexical concepts of *in*, *on* and *at*, in: V. Evans and P. Chilton (eds.), *Language, cognition and space: the state of the art and new directions*. London: Equinox. 21–48.
- Evans, V. 2010b. Figurative language understanding in LCCM theory. *Cognitive Linguistics* 21 (4): 601–662.
- Evans, V. 2013. *Language and time: a cognitive linguistics approach*. Cambridge: Cambridge University Press.
- Evans, V. 2015. A unified account of polysemy within LCCM theory. *Lingua* 157: 100–123.
- Evans, V. and M. Green. 2006. *Cognitive linguistics: an introduction*. Edinburgh: Edinburgh University Press.
- Fauconnier, G. 2007. Mental spaces, in: G. Geeraerts and H. Cuyckens (eds.), *The Oxford handbook of cognitive linguistics*. Oxford: Oxford University Press. 351–376.
- Fauconnier, G. and M. Turner. 2002. *The way we think*. New York: Basic Books.
- Feldman, J. 2006. *From molecule to metaphor*. Cambridge, MA: Bradford MIT Press.
- Fenk-Oczlon, G. and A. Fenk. 2010. Frequency effects on the emergence of polysemy and homophony. *Information Technologies and Knowledge* 4 (2): 103–109.
- Filip, H. 2000. The quantization puzzle, in: J. Pustejovsky and C. Tenny (eds.), *Events as grammatical objects: the converging perspectives of lexical semantics, and syntax* [CSLI lecture notes]. Stanford: Center for the Study of Language and Information Press. 3–60.
- Filip, H. 2005. On accumulating and having it all: perfectivity, prefixes and bare arguments, in: H.J. Verkuyl, H. de Swart and A. van Hout (eds.), *Perspectives on aspect*. Dordrecht: Kluwer. 125–148.
- Fillmore, Ch. 1982. Frame semantics, in: The Linguistic Society of Korea (ed.), *Linguistics in the morning calm*. Seoul: Hanshin. 111–135.
- Fischer, O., Kemenade, A., van Koopman, W. and W. van der Wim. 2001. *The syntax of early English*. Cambridge: Cambridge University Press.
- Foley, W.A., and R.D. Van Valin, Jr. 1984. *Functional syntax and universal grammar*. Cambridge: Cambridge University Press.
- Fraser, B. 1976. *The verb–particle combination in English*. New York: Academic Press.
- Friedrich, P. 1974. On aspect theory and homeric aspect. *International Journal of American Linguistics* 40(4): 1–44.
- Gallese, V. and G. Lakoff. 2005. The brain’s concepts: the role of the sensory-motor system in conceptual knowledge. *Cognitive Neuropsychology* 22(3, 4): 455–479.
- Geis, M.L. and A.M. Zwicky. 1971. On invited inferences. *Linguistic Inquiry* 2(4): 561–566.
- Geniusiene, E. 1987. *The typology of reflexives*. [Empirical approaches to language typology]. Berlin/ New York/Amsterdam: Mouton de Gruyter.
- Gibbs, R.W. 2005. The psychological status of image schemas, in: B. Hampe and J.E. Grady (eds.), *From perception to meaning: image schemas in cognitive linguistics*. Berlin: Mouton de Gruyter. 137–164.

- Gibbs, R.W. and H.L. Colston. 2012. *Interpreting figurative meaning*. Cambridge: Cambridge University Press.
- Gilquin, G. 2006. The place of prototypicality in cognitive linguistics: causation in the hot seat, in: S.Th. Gries and A. Stefanowitsch (eds.), *Corpora in cognitive linguistics: corpus-based approaches to syntax and lexis*. Berlin/New York: Mouton de Gruyter. 159–193.
- Goyvaerts, D.L. 1973. Some observations about the verb + particle construction in English. *Tijdschrift voor levende talen/revue des langues vivantes* 39-6: 549–62.
- Grady, J.E. 1997. *Foundations of meaning: primary metaphors and primary scenes*. PhD dissertation, Dept. of Linguistics, UC Berkeley.
- Grady, J.E. 1999. A typology of motivation for conceptual metaphor: correlation versus resemblance, in: R. Gibbs and G. Steen (eds.), *Metaphor in cognitive linguistics*. Amsterdam/Philadelphia: John Benjamins. 79–100.
- Grady, J.E. and Ch. Johnson. 2002. Converging evidence for the notions of subscene and primary scene, in: R. Dirven and R. Pörings (eds.), *Metaphor and metonymy in comparison and contrast*. Berlin/New York: Mouton de Gruyter. 533–554.
- Gries, S.Th. 2006. Corpus-based methods and cognitive semantics: the many meanings of *to run*, in: S.Th. Gries and A. Stefanowitsch (eds.), *Corpora in cognitive linguistics: corpus-based approaches to syntax and lexis*. Berlin/New York: Mouton de Gruyter. 57–99.
- Grochowski, M. 1986. *Polskie partykuły. składnia, semantyka, leksykografia*. Wrocław: Zakład Narodowy im. Ossolińskich.
- Hampe, B. 1997. Towards a solution of the phrasal-verb puzzle: considerations on some scattered pieces. *Lexicology* 3 (2): 203–243.
- Hampe, B. 2002. *Superlative verbs. A corpus-based study of semantic redundancy in English verb-particle constructions*. Tübingen: Gunter Narr.
- Hampe, B. 2005. Image schemas in cognitive linguistics: introduction, in: B. Hampe (ed.) *From perception to meaning. Image schemas in cognitive linguistics*. Berlin: Mouton de Gruyter. 1–12.
- Heine, B. 1997. *Cognitive foundations of grammar*. Oxford: Oxford University Press.
- Heine, B. 2002. On the role of context in grammaticalization, in: I. Wischer and G. Diebold (eds.), *New reflections on grammaticalization* [Typological studies in language 49]. Amsterdam/ Philadelphia: John Benjamins. 83–101.
- Herskovits, A. 1987. *Language and spatial cognition: an interdisciplinary study of the prepositions in English*. Cambridge/New York: Cambridge University Press.
- Herskovits, A. 1988. Spatial expressions and the plasticity of meaning, in: Rudzka-Ostyn, B. (ed.), *Topics in cognitive linguistics*. Amsterdam/Philadelphia: John Benjamins. 271–297.
- Hiltunen, R. 1983. *The decline of the prefixes and the beginnings of the English phrasal verb: the evidence from some Old and early Middle English texts*. Turku : Akateeminen kirjakauppa.
- Jackendoff, R. 1997. *The architecture of the language faculty*. Cambridge, MA: MIT Press.
- Jackendoff, R. 2002. English particle constructions, the lexicon and the autonomy of syntax, in: N. Dehé, R. Jackendoff, A. McIntyre, and S. Urban (eds.), *Verb-particle explorations*. Berlin/New York: Mouton de Gruyter. 67–94.

- Jakowicka, E. 1968. Konstrukcje typu *dochodzić czego, dochodzić do czego* w języku polskim. *Poradnik Językowy* 4/1968: 186–196.
- Janda, L. 1986. *A semantic analysis of the Russian verbal prefixes za-, pere-, do-, and ot-*. Munich: Verlag Otto Sagner.
- Janda, L. 1997. Implementation of the figure–ground distinction in Polish, in: M.K. Lee, E. Sweetser, and M.H. Verspoor (eds.), *Lexical and syntactic constructions and the construction of meaning* [Current issues in linguistic theory 150]. Amsterdam/Philadelphia: John Benjamins. 149–163.
- Janda, L. 2015a. Verbal prefixation in Russian. *Mundo Eslavo* 14: 7–25.
- Janda, L. 2015b. Russian aspectual types: Croft's typology revised, in: M. Shrager, G. Fowler, S. Franks and E. Andrews (eds.), *Studies in Slavic linguistics and accentology in honour of Ronald F. Feldstein*. Bloomington: Slavica Publishers. 147–167.
- Janda, L., Endersen, A., Kuznetsova, J., Lyashevskaya, O. and A. Makarova. 2013. *Why Russian aspectual prefixes aren't empty: prefixes as verb classifiers*. Bloomington: Slavica.
- Jespersen, O. 2013[1931]. *A modern English grammar on historical principles*, vol. 5: *Syntax*. London: Routledge.
- Johnson, Ch. 1999. Metaphor vs. conflation in the acquisition of polysemy: the case of *see*, in: M. Hiraga, C. Sinha and S. Wilcox (eds.), *Cultural, typological and psychological perspectives in cognitive linguistics*. Amsterdam/Philadelphia: John Benjamins. 155–69.
- Johnson, M. 1987. *The body in the mind*. Chicago: The University of Chicago Press.
- Jolly, J.A. 1993. Preposition assignment in English, in: R.D. Van Valin, Jr. (ed.), *Advances in role and reference grammar*. Amsterdam/Philadelphia: John Benjamins. 275–310.
- Kardela, H. 1997. Telicity as a perfectivising category: notes on aspectual distinctions in English and Polish, in: R. Hickey and S. Puppel (eds.), *Language history and linguistic modelling. A festschrift for Jacek Fisiak on his 60th birthday*, vol 2. Berlin: Mouton de Gruyter. 1473–1493.
- Kardela, H. 2015. Lexical nest revisited: a cognitive grammar account. *SKASE Journal of Theoretical Linguistics* 12 (3): 292–312.
- Kastovsky, D. 1992. Semantics and vocabulary, in: R.M. Hogg (ed.), *The Cambridge history of the English language*, vol. 1: *The beginning to 1066*. Cambridge/New York: Cambridge University Press. 290–408.
- Kennedy, A.G. 2018[1920]. *The modern English: verb-adverb combination*. London: Forgotten books.
- Klégr, A. and J. Čermák. 2010. Neologisms of the 'on-the-pattern-of' type: analogy as a word formation process?, in: M. Procházka, M. Malá and P. Šaldová (eds.), *The Prague school and theories of structure*. Göttingen: V and R Unipress. 229–241.
- Kochańska, A. 1996. Temporal meanings of spatial prepositions in Polish: the case of *przez* and *w*, in: M. Puetz and R. Dirven (eds.), *The construal of space in language and thought*. Berlin/New York: Mouton de Gruyter. 491–508.
- Koffka, K. 1935. *Principles of gestalt psychology*. New York: Harcourt, Brace and World.
- Kokorniak, I. 2018. *Aspectual modelling of mental predicates in English and Polish: a cognitive linguistic perspective*. Poznań: Wydawnictwo Naukowe Uniwersytetu im. Adama Mickiewicza.

- Konieczna, E. 2016. Non-spatial relations grounded in embodied experience: polysemy of English particle *over* and Polish verbal prefix *nad-*, in: P. Stekauer, L. Körtvelyessy and S. Valera (eds.), *Word formation across languages*. Newcastle upon Tyne: Cambridge Scholars Publishing. 197–219.
- Konieczna, E. 2017. Extension of spatial relations to non-physical domains: particle *on* and Polish prefix *na-* in composite verbs, in: R. Kiełtyka and E. Konieczna (eds.), *English versus Slavic: lexicon in a semantic and morphological perspective*. Frankfurt: Peter Lang. 139–159.
- Konieczna, E. 2018. Abstract extensions of the relation UNDER represented by English particle *under* and Polish verbal prefix *pod-*, in: P. Biały and B. Cetnarowska (eds.), *Studies in contrastive semantics, pragmatics and morphology*. Katowice: Wydawnictwo Uniwersytetu Śląskiego. 83–103.
- Konieczna, E. (forthcoming). Between spatial domain and grammatical meaning: the semantic content of English telic particles. *Poznań Studies in Contemporary Linguistics*. Poznań: de Gruyter.
- Kosecki, K. 2005. *On the part-whole configuration and multiple construals of salience within a simple lexeme*. Łódź: Łódź University Press.
- Kövecses, Z. 1986. *Metaphors of anger, pride and love: a lexical approach to the structure of concepts*. Amsterdam/Philadelphia: John Benjamins.
- Kövecses, Z. 1990. *Emotion concepts*. Berlin/ New York: Springer-Verlag.
- Kövecses, Z. 2004. *Metaphor and emotion*. Cambridge: Cambridge University Press.
- Kövecses, Z. 2006. *Language, mind, and culture: a practical introduction*. Oxford/New York: Oxford University Press.
- Kövecses, Z. 2008. Metaphor and emotion, in: R.W. Gibbs (ed.), *The Cambridge handbook of metaphor and thought*. New York, NY: Cambridge University Press. 380–396.
- Kövecses, Z. 2010[2002]. *Metaphor: a practical introduction*. Oxford/New York: Oxford University Press.
- Kövecses, Z. 2011. Methodological issues in conceptual metaphor theory, in: H.J. Schmid and S. Handl (eds.), *Windows to the mind: metaphor, metonymy, and conceptual blending*. Berlin: Mouton de Gruyter. 23–40.
- Kövecses, Z. 2013. The metaphor-metonymy relationship: correlation metaphors are based on metonymy. *Metaphor and Symbol* 28 (2): 75–88.
- Kövecses, Z. 2015. *Where metaphors come from. Reconsidering context in metaphor*. Oxford/ New York: Oxford University Press.
- Kövecses, Z. 2017a. Surprise as a conceptual category, in: A. Celle and L. Lansari (eds.), *Expressing and describing surprise*. Amsterdam /Philadelphia: John Benjamins. 7–27.
- Kövecses, Z. 2017b. Levels of metaphor. *Cognitive Linguistics* 28(2): 321–347.
- Kövecses, Z. 2017c. Conceptual metaphor theory: some new proposals. *Lamicus* 1 (1): 16–32.
- Krifka, M. 1989. Nominal reference, temporal constitution and quantification in event semantics, in: R. Bartsch, J. van Benthem, and P. van Emde Boas (eds.), *Semantics and contextual expression*. Foris: Dordrecht. 75–115.
- Krzyszowski, T. 1993. The axiological parameter in pre-conceptual image schemata, in: R.A. Geiger and B. Rudzka-Ostyn (eds.), *Conceptualizations and mental processing in language*. Berlin /New York: Mouton de Gruyter. 307–329.

- Krzeszowski, T. 1997. *Angels and devils in hell: elements of axiology in semantics*. Warszawa: Energeia.
- Kuryłowicz, J. 1945-9. La nature des procès dits «Analogiques». *Acta Linguistica* 5(1): 15-37.
- Lakoff, G. 1982. *Categories and cognitive models*. Trier: LAUT.
- Lakoff, G. 1987. *Women, fire, and dangerous things. What categories reveal about the mind*. Chicago: The University of Chicago Press.
- Lakoff, G. 1990. The invariance hypothesis: is abstract reason based on images schemas? *Cognitive Linguistics* 1(1): 39-74.
- Lakoff, G. 1993. The contemporary theory of metaphor, in: A. Ortony (ed.), *Metaphor and thought*. Cambridge: Cambridge University Press. 202-251.
- Lakoff, G. 1996. *Moral politics*. Chicago: The University of Chicago Press.
- Lakoff, G. 2008. The neural theory of metaphor, in R.W. Gibbs (ed.), *The Cambridge handbook of metaphor*. Cambridge/New York: Cambridge University Press. 17-38.
- Lakoff, G. and M. Johnson. 1980. *Metaphors we live by*. Chicago: The University of Chicago Press.
- Lakoff, G. and M. Johnson. 1999. *Philosophy in the flesh: the embodied mind and its challenge to western thought*. New York: Basic Books.
- Lakoff, G. and Z. Kövecses. 1987. The cognitive model of anger inherent in American English, in: D. Holland and N. Quinn (eds.), *Cultural models in language and thought*. Cambridge/ New York: Cambridge University Press. 195-221.
- Lakoff, G. and M. Turner. 1989. *More than cool reason: a field guide to poetic metaphor*. Chicago: The University of Chicago Press.
- Langacker, R.W. 1983. *Foundations of cognitive grammar*. Indiana University Linguistics Club.
- Langacker, R.W. 1987. *Foundations of cognitive grammar, vol. 1: Theoretical prerequisites*. Stanford: Stanford University Press.
- Langacker, R.W. 1988. A view of linguistic semantics, in: B. Rudzka-Ostyn (ed.) *Topics in cognitive linguistics*. Amsterdam/Philadelphia: John Benjamins. 45-90.
- Langacker, R.W. 1990. *Concept, image, and symbol: the cognitive basis of grammar* [Cognitive linguistics research 1]. Berlin/ New York: Mouton de Gruyter..
- Langacker, R.W. 1991. *Foundations of cognitive grammar, vol. 2: Descriptive application*. Stanford: Stanford University Press.
- Langacker, R.W. 1999. *Grammar and conceptualization* [Cognitive linguistics research 14]. Berlin: Mouton de Gruyter.
- Langacker, R.W. 2008. *Cognitive grammar: a basic introduction*. Oxford: Oxford University Press.
- Langacker, R.W. 2010. Reflections on the functional characterization of spatial prepositions. *Corela* (HS-7) (available at <http://journals.openedition.org/corela/999>)
- Lindkvist, K.G. 1950. *Studies on the local sense of the prepositions in, at, on and to in modern English*. Lund: Berlingska Boktryckeriet.
- Lindner, S. 1983[1981]. *Lexico-semantic analysis of English verb particle constructions with out and up*. Bloomington, Ind.: Indiana University Linguistics Club.
- Lindstromberg, S. 2010. *English prepositions explained*. Amsterdam/Philadelphia: John Benjamins Publishing Company.

- Lu, W.-L. 2016. Polysemy and the semantic-pragmatic interface: the case of *up* in a context-based mode. *Intercultural Pragmatics* 13(4): 563–589.
- Lyons, J. 1977. *Semantics*, vol. 2. Cambridge /New York: Cambridge University Press.
- MacWhinney, B. 1995. *The CHILDES project: tools for analyzing talk*. Hillsdale NJ: Erlbaum.
- Mahpeykar, N. and A. Tyler. 2011. The semantics of Farsi *be*: applying the principled polysemy model, in: M. Egenhofer, N. Giudice, R. Moratz and M. Worboys (eds.), *Spatial information theory [Lecture notes in computer science]*. Berlin/Heidelberg: Springer. 413–433.
- Mahpeykar, N. and A. Tyler. 2015. A principled cognitive linguistics account of English phrasal verbs with *up* and *out*. *Language and Cognition* 7(1): 1–35.
- Mandler, J. 1992. How to build a baby: II. Conceptual primitives. *Psychological Review* 99: 587–604.
- Mattiello, E. 2017. *Analogy in word-formation: a study of English neologisms and occasionalisms*. Berlin/New York: Mouton de Gruyter.
- Mikołajczuk, A. 1998. The metonymic and metaphorical conceptualisation of anger in Polish, in: A. Athanasiadou and E. Tabakowska (eds.), *Speaking of emotions: conceptualisation and expression*. Berlin/New York: Mouton de Gruyter. 153–190.
- Miodunka, W.J. (ed.). 1992. *Język polski jako obcy. Programy nauczania na tle badań współczesnej polszczyzny. Zbiór materiałów opracowanych przez Komisję Ekspertów MEN*. Kraków: Wydawnictwo Uniwersytetu Jagiellońskiego.
- Morgan, P.S. 1997. Figuring out *figure out*: metaphor and the semantics of the English verb-particle construction. *Cognitive Linguistics* 8 (4): 327–357.
- Mourelatos, A.P.D. 1978. Events, processes, and states. *Linguistics and Philosophy* 2(3): 415–434.
- Musolff, A. 2006. Metaphor scenarios in public discourse. *Metaphor and Symbol* 21(1): 23–38.
- Musolff, A. 2016. *Political metaphor analysis: discourse and scenarios*. London: Bloomsbury Academic.
- Navarro, I. 1998. A multimodal system for the description of spatial semantics. *Estudios de Lingüística Cognitiva* II: 767–787.
- Navarro, I. 1999. The metaphorical use of *on*. *Journal of English Studies* 1: 45–164.
- Navarro, I. 2006. On the meaning of three English prepositions, in: I. Navarro and N. Alberola (eds.), *In-roads of language. Essays in English studies*. Castelló: Publicaciones de la Universitat Jaume I. 167–179.
- Nordquist, D. 2004. Comparing elicited data and corpora, in: M. Achard and S. Kemmer (eds.), *Language culture and mind*. Stanford: CSLI Publications. 211–223.
- O'Dowd, E.M. 1998. *Prepositions and particles in English: a discourse-functional account*. New York: Oxford University Press.
- O'Keefe, J. 1996. The spatial prepositions in English, vector grammar, and the cognitive map theory, in: P. Bloom, M.A. Peterson, L. Nadel and M.G. Garrett (eds.), *Language and space*. Cambridge, MA/ London: MIT Press. 277–316.
- Pasich-Piasecka, A. 1993. Polysemy of the Polish verbal prefix *prze-*, in: E. Górska (ed.), *Images from the cognitive scene*. Kraków: Universitas. 11–26.

- Peirce, Ch.S. 1965. *Principles of philosophy and elements of logic*. Cambridge MA: Harvard University Press.
- Pelli, M.G. 1976. *Verb-particle constructions in American English: a study based on American plays from the end of the 18th century to the present*. Marburg: Francke Verlag.
- Popowska H. and Z. Topolińska. 1955. Pisownia łączna i rozdzielna w rękopisach staropolskich (w. XIV–XV). *Studia z filologii Polskiej i Słowiańskiej* I: 223–286.
- Przybylska, R. 2002. *Polisemia przyimków polskich w świetle semantyki kognitywnej*. Kraków: Universitas.
- Przybylska, R. 2006. *Schematy wyobraźniowe a semantyka polskich prefiksów czasownikowych do-, od-, prze-, roz-, u-*. Kraków: Universitas.
- Quirk, R., Greenbaum, S., Leech, G. and J. Svartvik. 1985. *A Comprehensive grammar of the English language*. 2nd revised edition. London: Longman.
- Radden, G. 2004. The metaphor TIME AS SPACE across languages. *Zeitschrift für Interkulturellen Fremdsprachenunterricht* [online] 8(2/3): 226–239.
- Radden, G. and D. René. 2007. *Cognitive English grammar* [*Cognitive linguistics in practice*]. Amsterdam/Philadelphia: John Benjamins.
- Rice, S. 1999. Aspects of prepositions and prepositional aspect, in: L. de Stadler and Chr. Eyirch (eds.), *Issues in cognitive linguistics*. Berlin: Mouton de Gruyter. 225–247.
- Roland, D. and D. Jurafsky. 2002. Verb sense and verb subcategorization probabilities, in: P. Merlo and S. Stevenson (eds.), *The lexical basis of sentence processing: formal, computational, and experimental issues*. Amsterdam/Philadelphia: John Benjamins. 325–346.
- Rolska, M. *Język księgi miejskiej Częstochowy z lat 1759–1765*. Unpublished PhD dissertation. Częstochowa: Wyższa Szkoła Pedagogiczna.
- Romanova, E. 2004. Superlexical versus lexical prefixes. *Nordlyd* 32.2: *Special Issue on Slavic Prefixes*: 255–278.
- Rosch, E. 1978. Principles of categorization, in: E. Rosch and B. Lloyd (eds.), *Cognition and categorization*. Hillsdale, NJ: Lawrence Erlbaum. 27–48.
- Rudzka-Ostyn, B. 1984. Cognitive grammar and word formation. The case of Dutch *uit* and Polish *wy-*, in: I. Kałuża, M. Przemecka, M. Gibińska and E. Tabakowska (eds.), *Litterae et lingua*. Wrocław: Ossolineum. 227–240.
- Rudzka-Ostyn, B. 2003. *Word power: phrasal verbs and compounds. A cognitive approach*. Berlin/New York: Mouton de Gruyter.
- Ruiz de Mendoza, F.J. and R. Mairal. 2007. High-level metaphor and metonymy in meaning construction, in: G. Radden, K.-M. Köpcke, T. Berg and P. Siemund (eds.), *Aspects of meaning construction*. Amsterdam/Philadelphia: John Benjamins. 33–51.
- Saeed, Š. 2018. The polysemy of *khilal*: a cognitive approach. *International Journal of English Linguistics* 8(3): 141–157.
- Sandra, D. and S. Rice. 1995. Network analyses of prepositional meaning: mirroring whose mind – the linguist's or the language user's? *Cognitive Linguistics* 6(1): 89–130.
- Sandra, D. 1998. What linguists can and can't tell you about the human mind: a reply to Croft. *Cognitive Linguistics* 9(4): 361–478.
- Šarić, L. 2012. Introduction: a cognitive linguistic view of South Slavic prepositions and prefixes. *Jezikoslovlje* 13.1: 5–17.

- Šarić, L. 2013. The verbal prefix *na-* in Croatian: a cognitive linguistic analysis. *Suvremena Lingvistika* 39(75): 45–74.
- Šarić, L. and I. Tchizmarova. 2013. Space and metaphor in verbs prefixed with *od-/ot* ‘from’ in Bosnian/Croatian/Serbian and Bulgarian. *Oslo Studies in Language* 5(1): 7–33.
- Scheible, S. 2005. *Upgrading, downsizing* and co.: revitalising a moribund word formation: pattern in present-day English? *Arbeiten aus Anglistik und Amerikanistik* 30(1/2): 177–200.
- Schröder, A. 2011. *On the productivity of verbal prefixation in English*. Tübingen: Narr.
- Šeškauskienė, I. and E. Žilinskaitė-Šinkūnienė. 2015. On the polysemy of the Lithuanian *už*. A cognitive perspective. *Baltic International Yearbook of Cognition, Logic and Communication* 10(1): 1–38.
- Shakhova, D. and A. Tyler, A. 2010. Taking the principled polysemy model of spatial particles beyond English: the case of Russian *za*, in: V. Evans and P. Chilton (eds.), *Language, cognition and space: the state of the art and new directions*. London: Equinox. 267–291.
- Śmiech W. 1971. *Funkcje aspektów czasownikowych we współczesnym języku ogólnopolskim*. Łódź: Ossolineum.
- Śmiech, W. 1986. *Derywacja prefiksalna czasowników polskich*. Wrocław: Zakład Narodowy im. Ossolińskich.
- Smith, C.S. 1997. *The parameter of aspect*. Dordrecht: Kluwer.
- Stefanowitsch, A. and S.Th. Gries. 2008. Channel and constructional meaning: a collocation case study, in: G. Kristiansen and R. Dirven (eds.), *Cognitive sociolinguistics: language variation, cultural models, social systems*. Berlin/New York: Mouton de Gruyter. 129–152.
- Stubbs, M. 2004. On very frequent phrases in English: distributions, functions and structures. Plenary lecture given at ICAME 25, the 25th anniversary meeting of the International Computer Archive for Modern and Medieval English, Verona, Italy, 19–23 May 2004.
- Suchostawska, L. 2005. *Space and metaphor. Polish verbal prefixes expressing the relations into-out of and to-away from*. Wrocław: Oficyna Wydawnicza Politechniki Wrocławskiej.
- Sullivan, K. 2013. *Frames and constructions in metaphoric language*. Amsterdam/Philadelphia: John Benjamins.
- Svenonius, P. 2004. Slavic prefixes and morphology: an introduction to the Nordlyd volume. *Nordlyd* 32.2: 177–204.
- Svorou, S. 1994. *The grammar of space*. Amsterdam/Philadelphia: John Benjamins.
- Szwedek, A. 2007. An alternative theory of metaphorisation, in: M. Fabiszak (ed.), *Language and meaning: cognitive and functional perspectives*. Frankfurt am Mein: Peter Lang. 312–327.
- Szwedek, A. 2017. Pierwotna podstawa doświadczeniowa metaforyzacji. *Półrocznik Językoznawczy Tertium* 2(1): 1–17.
- Szymanek, B. 1998. *Introduction to morphological analysis*. Warszawa: Wydawnictwo Naukowe PWN.

- Szymanek, B. 2010. *A panorama of Polish word-formation*. Lublin: Wydawnictwo KUL.
- Tabakowska, E. 1999. Poblądzić po malowniczych zaułkach Starego Miasta: semantyka polskiego przymyka *po* i przedrostka *po-*, in: M. Brzezina and H. Kurek (eds.), *Collectanea linguistica in honorem Casimiri Polański*. Kraków: Księgarnia Akademicka. 269–278.
- Tabakowska, E. 2001a. O motywacji związku rządu derywatów prefiksalnych polskich czasowników z dopełnieniem, in: W. Kubiński and D. Stanulewicz (eds.), *Językoznawstwo kognitywne II: Zjawiska pragmatyczne*. Gdańsk: Wydawnictwo Uniwersytetu Gdańskiego. 212–224.
- Tabakowska, E. 2001b. Kognitywizm; obrazki z polskiej sceny. *Glossos* (1): 1–14.
- Tabakowska, E. 2003. Space and time in Polish: the preposition *za* and the verbal prefix *za-*, in: H. Cuyckens, T. Berg, R. Dirven and K.-U. Panther (eds.), *Motivation in language. Studies in honour of Günter Radden*. Amsterdam/Philadelphia: John Benjamins. 153–177.
- Tabakowska, E. 2007. Iconicity and linear ordering of constituents within Polish NPs, in: D. Divjak and A. Kočańska (eds.), *Cognitive paths into the Slavic domain*. Berlin/New York: Mouton de Gruyter. 411–431.
- Talmy L. 1983. How language structures space, in: H.L. Pick and L.P. Acredolo (eds.), *Spatial orientation: theory, research and application*. New York: Plenum Publishing Corporation. 225–282.
- Talmy, L. 1985. Force dynamics in language and thought, in: W. Eilfort, P. Kroeber and K. Peterson (eds.), *Papers from the parasession on causatives and agentivity*. Chicago: Chicago Linguistics Society. 93–337.
- Talmy, L. 1988. The relation of grammar to cognition, in: B. Rudzka-Ostyn (ed.), *Topics in cognitive linguistics*. Amsterdam/Philadelphia: John Benjamins. 165–205.
- Talmy, L. 1991. Path to realisation: a typology of event conflation. *Annual meeting of the Berkeley Linguistics Society* 17(1): 480–519.
- Talmy, L. 2000a. *Toward a cognitive semantics*, vol.1: *Concept structuring systems*. Cambridge, MA: MIT Press.
- Talmy, L. 2000b. *Toward a cognitive semantics*, vol. 2: *Typology and process in concept structuring*. Cambridge, MA: MIT Press.
- Taylor, H.A. and B. Tversky. 1996. Perspective in spatial descriptions. *Journal of Memory and Language* 35: 371–391.
- Taylor, J.R. 1988. Contrasting prepositional categories: English and Italian, in: B. Rudzka-Ostyn (ed.), *Topics in cognitive linguistics*. Amsterdam/Philadelphia: John Benjamins. 299–326.
- Taylor, R.C. 1977. The aspectual structure of English sentence. *Doshisha University English and English Literature Research*: 164–98.
- Tchizmarova, I. 2006. A cognitive linguistic analysis of the Bulgarian verbal prefix *pre-* ‘across, through, over’. *Glossos* (7): 1–49.
- Tchizmarova, I. 2012. A cognitive analysis of the Bulgarian prepositions and verbal prefixes *nad* and *pod*. *Jezikoslovsje* 13(1): 219–260.

- Thim, S. 2012. *Phrasal verbs: the English verb-particle construction and its history* [Topics in English linguistics 78]. Berlin/New York: Mouton de Gruyter.
- Tomasello, M. 1992. *First verbs: a case study of early grammatical development*. Cambridge: Cambridge University Press.
- Traugott, E. 1978. On the expression of spatio-temporal relations, in: J. Greenberg (ed.), *Universals of human language*, vol. 3. Stanford, CA: Stanford University Press. 370–400.
- Traugott, E. 1982. From propositional to textual and expressive meanings: some semantic-pragmatic aspects of grammaticalisation, in: W.P. Lehman and Y. Malkiel (eds.), *Perspectives on historical linguistics*. Amsterdam/Philadelphia: John Benjamins. 245–271.
- Traugott, E. 1989. On the rise of epistemic meanings in English: an example of subjectification in semantic change. *Language* 65 (1): 31–55.
- Tuggy, D. 1992. The affix-stem distinction: a cognitive grammar analysis of data from Orizaba Nahuatl. *Cognitive Linguistics* 3: 237–300.
- Turner, M. 1993. An image-schematic constraint on metaphor, in: Richard A. and B. Rudzka-Ostyn (eds.), *Conceptualizations and mental processing in language*. Berlin/New York: de Gruyter Mouton. 291–306.
- Tyler, A. 2012. *Cognitive linguistics and second language learning: theoretical basics and experimental evidence*. London: Routledge.
- Tyler, A and V. Evans. 2001. Reconsidering prepositional polysemy networks: the case of *over*. *Language* 77 (4): 724–65.
- Tyler, A. and V. Evans. 2003. *The semantics of English prepositions: spatial scenes, embodied meaning, and cognition*. Cambridge/New York: Cambridge University Press.
- Ullmer-Ehrich, V. 1982. The structure of living space descriptions, in: J. Jarvella and W. Klein (eds.), *Speech, place and action*. New York: John Wiley and Sons. 219–249.
- Van Valin, R. D. Jr. 1993. A synopsis of role and reference grammar, in: R.D. Van Valin, Jr. (ed.) *Advances in role and reference grammar*. Amsterdam/Philadelphia: John Benjamins. 1–164.
- Vandeloise, C. 1984. *Description of space in French*. PhD dissertation. San Diego: University of California.
- Vandeloise, C. 1986. *L'Espace en Français*. Paris: Éditions du Seuil.
- Vandeloise, C. 1991. *Spatial prepositions: a case study in French*. Chicago: The University of Chicago Press.
- Vandeloise, C. 1994. Methodology and analyses of the preposition. *Cognitive Linguistics* 5 (2): 157–84.
- Vandeloise, C. 2004. Force and function in the acquisition of the preposition, in: L. Carlson and E. van der Zee (eds.), *Functional features in language and space: insights from perception, categorization, and development*. Oxford: Oxford University Press. 219–232.
- Vandeloise, C. 2006. Are there spatial prepositions?, in: M. Hickmann and S. Robert (eds.), *Space in languages: linguistic systems and cognitive categories*. Amsterdam/Philadelphia: John Benjamins [Typological studies in language 66]. 139–154.
- Vandeloise, C. 2010. Genesis of spatial terms, in: V. Evans and P. Chilton (eds.), *Language, cognition and space: the state of the art and new directions*. London: Equinox. 21–50.
- Vendler, Z. 1967. Verbs and times, in: Z. Vendler (ed.), *Linguistics in philosophy*. Ithaca: Cornell University Press. 97–121.

- Verkuyl, H. J. 1972. *On the compositional nature of the aspects*. Dordrecht: Springer.
- Verspoor, M.H., D. Lee and E. Sweetser (eds.). 1999. *Lexical and syntactical constructions and the construction of meaning*. Amsterdam/Philadelphia: John Benjamins.
- Viimaranta, J. 2012. The metaphors and metonymies of domination: explaining the different meanings of the Russian prefix *pod-*. *Russian Linguistics* 36 (2): 157–174.
- Walkova, M. 2013. *The aspectual function of particles in phrasal verbs*. Kosice: MKV Press.
- Weisenberg, A. 1973. *Przymyki przestrzenne w języku polskim, niemieckim, rumuńskim*. Wrocław: Ossolineum.
- Wertheimer, M. 1923 [1950]. Laws of organization in perceptual forms, in: W.D. Ellis (ed.), *A source book of Gestalt psychology*. London: Routledge and Kegan Paul. 301–350.
- Wilson D. and R. Carston 2008. Metaphor, relevance and the ‘emergent property’ issue. *Mind and Language* 21: 404–433.
- Wróbel, H. 1999. Czasownik, in: R. Grzegorzczkowska, R. Laskowski and H. Wróbel (eds.), *Gramatyka współczesnego języka polskiego*. Warszawa: PWN. 536–583.
- Zbierska-Sawala, A. and W. Viereck. 1992. *Early Middle English word formation: semantic aspects of derivational affixation in the AB language*. Frankfurt am Main/New York: Peter Lang.
- Zgółkowska, H. 1980. *Funkcje syntaktyczne przyimków i wyrażen przyimkowych we współczesnej polszczyźnie mówionej*. Poznań: Wydawnictwo Naukowe Uniwersytetu im. Adama Mickiewicza.
- Ziemke, T., Zlatev, J. and R. M. Frank (eds.). 2007. *Body, language and mind*, vol. 1: *Embodiment* [Cognitive linguistics research 35.1]. Berlin/New York: Mouton de Gruyter.

Sources of linguistic data:

- British National Corpus* (BNC) available at <http://bncweb.lancs.ac.uk/>.
- Collins COBUILD Phrasal Verbs Dictionary* (CCPVD). 2012. Glasgow: Collins Cobuild.
- Etymologiczny słownik języka polskiego*, vols: 1–2. 2000. A. Bańkowski (ed.) Warszawa: Wydawnictwo Naukowe PWN.
- Korpus języka polskiego PWN* (SJP PWN corpus) available at <https://sjp.pwn.pl/korpus/>.
- Longman Dictionary of Phrasal Verbs* (LDPV). 1983. Courtney, R. Singapore: Longman.
- Merriam Webster Dictionary* available at <https://www.merriam-webster.com/>.
- Narodowy Korpus Języka Polskiego* (NKJP) available at <http://www.nkjp.pl/>.
- Oxford English Dictionary* (OED) available at <https://www.oed.com/>.
- Oxford Advanced Learner's Dictionary* (OALD) available at <https://www.oxfordlearners-dictionaries.com/>.
- PWN Oxford English Polish Dictionary*. 2003. J. Linde- Usiekiewicz (ed.). Warszawa: Wydawnictwo Naukowe PWN.
- PWN Oxford Polish English Dictionary*. 2004. J. Linde- Usiekiewicz (ed.). Warszawa: Wydawnictwo Naukowe PWN.
- Russisches Etymologisches Wörterbuch*, vols: 1-3. 1976–1980. M. Vasmer (ed.). Heidelberg: Carl Winter Universitätsverlag.
- Słownik etymologiczny języka polskiego*. 1974. A. Brückner, (ed.) Warszawa: Wiedza Powszechna.

Słownik języka polskiego PWN (SJP PWN) available at <https://sjp.pwn.pl/>.

Uniwersalny słownik języka polskiego. 2003. S. Dubisz (ed.). Warszawa: Wydawnictwo Naukowe PWN.

Wielki słownik Doroszewskiego PWN (SJPD) available at <https://sjp.pwn.pl/doroszewski/>.

Wybór tekstów staropolskich. Czasy najdawniejsze do roku 1543. 1969. S. Vrtel-Wierczyński (ed.). Warszawa: PWN.

Zapiski i roty polskie XV–XVI wieku z ksiąg sądowych ziemi warszawskiej. 1950. W. Kuraszkiewicz i A. Wolff (eds.) Kraków.

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