

AKADÉMIAI DOKTORI ÉRTEKEZÉS

**ARGUMENT STRUCTURE AND SYNTACTIC ALTERNATION:
FROM LEXICAL REPRESENTATIONS TO MULTIPLE ARGUMENT
REALIZATION AND BEYOND**

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Abbreviations and other conventions

1/2/3	1 st /2 nd /3 rd person
Abl	Ablative
Acc	Accusative
AdvP	Adverbial Phrase
AP	Adjectival Phrase
All	Allative
Cau	Causalis
Dat	Dative
DefObj	Definite object
Del	Delative
DP	Phrase of the (definite) article
Ela	Elativ
Fem	Feminine (gender)
Gen	Genitive
GenPart	Genitive partitive
Ill	Illative
Ine	Inessive
Inf	Infinitive
Ins	Instrumental
lit.	literally
LSR	Lexical-semantic representation
Masc	Masculine (gender)
Nom	Nominative
NP	Noun Phrase ¹
Past	Past Tense
perf	perfectivizing preverb <i>meg-</i>
Pl	Plural
Poss	Possessed
PP	Pre/Postpositional Phrase

¹ *Noun phrase* is written in full when the NP–DP distinction is irrelevant.

Sg	Singular
Sub	Sublative
Sup	Superessive
Tem	Temporal
Tra	Translative
VMod	Verbal Modifier
VP	Verb Phrase ²
'	stressed word
◦	unstressed word

² *Verb phrase* is written in full when the VP–vP distinction is irrelevant.

CHAPTER 1

Introduction

1.1. Approaching the argument structure and syntactic alternation

In the subsequent chapters of the present dissertation, I thoroughly investigate two linguistic phenomena which have been discussed intensively in several rivaling approaches for decades. One of them is argument structure and the other syntactic alternation, but both phenomena are connected to the same part of speech, namely to verbs. Let me introduce them briefly in order to then formulate the aims which I pursue in the remaining parts of my dissertation.

In theories of grammar it is generally assumed that verbs play a dominant role in the syntactic structure of sentences. Other constituents of sentences (called satellites or dependents) can be divided into two types. Some of them occur in sentences because they are requested (licensed) by verbs themselves. Other constituents enter the syntactic structure because they can co-occur with verbs but are not in a necessary relation with them. To put it differently, they may be built into sentences freely.

In theories of grammar the two types of satellites around verbs are expressed by different terms. In varieties of dependency grammar rooted in Tesnière's conception, the valence slots of a verb are filled by actants, to which circonstants (circumstantials) can be added (see, e.g., Ágel et al. 2008, cf. Müller 2016).

In frameworks inspired by ideas of generative grammar (see, e.g., Komlósy 1994, 2015, cf. Müller 2016, Williams 2015),³ complements and free adverbials (adjuncts) are distinguished. According to Kenesei (2000: 12), complements of verbs belong to the following three types: arguments, predicates or adverbials, of which the main focus in the present dissertation will be on arguments. Arguments are complements to which thematic (semantic) roles are assigned by verbs (or by other predicators). In addition, they should be referential, i.e. refer to entities in the world outside the language. The examples in (1) and (2) taken from Kenesei (2000: 12) can be used as an illustration.

³ In order not to be chronologically confused, the reader should keep in mind that Komlósy (2015) was first printed in 1992 and is a publication in a new, revised digital edition by Kiefer (see Kiefer 2015). Since authors consider the digital version to be valid and ask their readers to do the same (cf. Kiefer 2015: 12), I adhere to their request and refer to this edition of the volume throughout the whole dissertation.

- (1) Péter katoná maradt.
 Péter soldier remain.Past.3Sg⁴
 ‘Péter remained a soldier.’
- (2) Péter katonát látott.
 Péter soldier.Acc see.Past.3Sg
 ‘Péter saw a soldier/soldiers.’

While in (1) the bare noun *katoná* ‘soldier’ does not refer to any person, in (2) it indicates the existence of at least one individual distinct from Péter (cf. Kenesei 2000: 12).

Albeit argument structure is a well-known and widely used characteristics of verbs, criteria for distinguishing arguments from adjuncts are not straightforward at all. First of all, it is important to emphasize that the given distinction is an “essentially unresolved central question in the generative literature” (Farkas and Alberti 2018b: 739). Needham and Toivonen (2011: 422) are also of the opinion that there exist “no universally agreed-upon definitions”. Nevertheless, they believe that the general idea behind the distinction under discussion is that arguments denote necessary (core) participants of the event expressed by an argument-taking lexical item, whereas adjuncts do not (cf. also Culicover 2009: 471, Haegeman and Guéron 1999: 25, 29, Koenig et al. 2003, Schütze and Gibson 1999: 410). Besides the core participants test and the verb specificity test, Needham and Toivonen (2011) present a great number of syntactic diagnostics: (i) the optionality test, (ii) the iterativity test, (iii) the VP anaphora test, (iv) the pseudocleft test, (v) the VP preposing test, (vi) the alternation test, (vii) the fixed preposition test, (viii) the preposition stranding test and (ix) the *wh*-word conjunction test. However, these syntactic tests are not without problems. They need to be applied with caution. Moreover, there are exceptions to general criteria and one may obtain mixed results. Thus, the diagnostics do not provide the same dividing line between arguments and adjuncts.

A notion closely related to the arguments of a verb is that of semantic roles (also known as thematic roles or theta-roles), such as Agent, Theme, Instrument, Goal etc.

⁴ Glosses throughout the whole dissertation are given according to the conventions followed in Alberti and Laczkó (2018). Two of them are explicitly highlighted here. First, the “empty” nominative case and singular number of nouns, as well as the “empty” present tense of verbs, are not glossed. However, the third person is glossed in order to handle it uniformly because it is marked by a non-empty morpheme in certain cases (cf.: both *él* and *lak-ik* are glossed as live.3Sg). Second, if the internal structure of a word is relevant, its gloss is segmented into components by hyphens according to the morphemes of the word. In an opposite case the components of a gloss are connected to each other by dots. For deciphering abbreviations used in glosses, see **Abbreviations and other conventions** on pp. 6–7.

Semantic roles refer to the roles that are played by participants in an event denoted by a verb or, in other words, semantic roles represent relations the arguments have with the verb. However, researchers differ widely with respect to how particular roles should be defined, what roles their full inventory should consist of, and what roles should be assigned to individual verbs whose roles are not easily classifiable (see Bierwisch 2006, Davies 2011, Levin 2014 and Levin and Rappaport Hovav 2005, among others). Approaches to assigning particular semantic roles to particular verbs can be divided into two groups (Levin and Rappaport Hovav 2005). The first is the semantic role list approach, according to which a verbal representation includes an independently stipulated set of semantic roles. On the other view, semantic roles are derived from the verbs' decomposed lexical-semantic representations. More concretely, they are defined in terms of the argument positions of particular primitive predicates such as ACT/DO, CAUSE, BECOME, GO, BE, STAY, LET etc. The predicate decomposition approach to defining the particular semantic roles is very similar to Bierwisch's (2006) Intrinsic View, on which the content of thematic roles and their ranking originate from the positions of variables involved in hierarchically structured decomposed lexical-semantic representations.

The moral to be drawn from the above succinct introduction of the argument structure is the following. Although referring to syntactic arguments in argument structures of argument-taking items in the lexicon by their semantic (thematic) roles was an implicit admission of their lexical-semantic motivation (cf. Levin 2013: 4) and there was a semantic idea behind the core participant and verb specificity tests to diagnose arguments, the semantic nature of roles and arguments could and should be taken more seriously. That is why we have to turn to arguments as semantic phenomena and to treat **semantic arguments and their semantic roles as those coming from decomposed lexical-semantic representations**.

As for the other linguistic phenomenon, namely that of syntactic alternation, this is generally taken to mean that a verb occurring in one type of syntactic argument structure can be used in another type, as well (cf. Kiefer 2007: 230). While according to Levin (1993: 2), alternating syntactic structures are sometimes accompanied by changes of meaning, Kiefer (2007: 230) claims that they are either synonymous or different in meaning but in a predictable way. In a broader sense of syntactic alternation, verbs occurring with different government patterns are not necessarily of the same form, but it is sufficient if they are

connected to each other word-formationally.⁵ For an illustration, see the locative alternation in (3) and (4).

- (3) a. Az anya zsírt ken a kenyérré.
 the mother fat.Acc smear.3Sg the bread.Sub
 ‘The mother is smearing fat on the bread.’
- b. Az anya zsírral keni a kenyéret.
 the mother fat.Ins smear.DefObj.3Sg the bread.Acc
 ‘The mother is smearing the bread with fat.’
- (4) a. Az anya rákeni a zsírt a kenyérré.
 the mother onto.smear.DefObj.3Sg the fat.Acc the bread.Sub
 ‘The mother is smearing fat on the bread.’
- b. Az anya megkeni a kenyéret zsírral.
 the mother perf.smear.DefObj.3Sg the bread.Acc fat.Ins
 ‘The mother smears the bread with fat.’

The change of syntactic argument structure presented in (3) can be attested in (4), where the word-formationally related words, namely the Hungarian verbs with different preverbs *ráken* ‘onto.smear’ and *megken* ‘perf.smear’, derived from *ken* ‘smear’, alternate similarly to the base verb.

In lexicography there is a tradition that treats occurrences of a word with different syntactic patterns as instances of polysemy if they figure separately in a dictionary. Thus, the locative alternation of the verb *ken* ‘smear’ can be found as a double enumeration in both Bárczi and Országh’s (1959–1962) and Pustjai’s (2003) dictionaries: see the first and second meanings of the entry under consideration. However, recent trends in theoretical linguistics attempt to exceed such an enumerative conception of the lexicon. One such trend uses lexical rules or operations to derive a lexical entry with a new meaning (cf. Levin and Rappaport Hovav 1995, Pinker 1989 and Rappaport Hovav and Levin 1998). In addition, narrowly defined semantic classes of verbs are established which involve only the verbs taking part in a particular syntactic alternation (Pinker 1989). Another approach to syntactic alternations is constructional. Pustejovsky’s (1995, 2012) Generative Lexicon Theory assumes a linguistic device that allows for several constituents to be considered functors (predicates) in a simple construction and which, therefore, is named co-composition. So a verb has only one meaning lexically and the second meaning appears when the verb is used in another corresponding

⁵ There is another terminological usage when alternations in a broader sense are called diathetic, or verb-marked, while those in a narrower sense are referred to as unmarked (see Hellan et al. 2017: 15).

construction. According to Goldberg's (1995, 2006) Construction Grammar, both variants of an alternating verb can be accounted for constructionally by assuming a single verb meaning is able to fuse with two distinct constructions. Although these recent trends in theoretical linguistics are important steps towards a well-founded treatment of syntactic alternations, one has to realize the significance of **both constructional and lexical factors** and, consequently, the necessity of an improved elaboration of lexical representations.

1.2. Aims and organization of the dissertation

In the present dissertation, whose focus is on the actual – heatedly debated – issues of verbal argument structure and its syntactic alternation, I have the following five main aims. First, since a thorough investigation of syntactic argument structure changes can only rest upon a solid notion of the argument, I attempt to set forth a conception in which **semantic arguments of verbs and their semantic roles** come from lexical-semantic representations of verbs, and these semantic arguments can then be projected from the lexicon into syntax as various complements including syntactic arguments.

Second, with the help of the notions of the semantic and syntactic argument received by achieving the first aim, I aim to elaborate **a classification of Hungarian verbs** on the basis of semantic constituents of lexical-semantic representations, as well as their syntactic (and morphological) realization.

Third, I intend to present some major **Hungarian verb classes of multiple argument realization** concentrating on syntactic alternations conceived in a narrower sense, as well as introduce **a lexical-constructional account of syntactic alternations** which seems to prevail against lexical and constructional approaches by eliminating their shortcomings but exploiting their advantages.

Fourth, I want to demonstrate the explanatory power of my lexical-constructional conception by thorough **analyses of alternating verb classes**, which include three types of multiple argument realization, i.e. alternations increasing and decreasing the number of arguments, as well as alternations which do not change the number of arguments.

Fifth, to underpin the reliability of the lexical-constructional analyses, I aim to evaluate my object-theoretical research **from a metatheoretical point of view**, paying special attention to the relationship between data and theory, as well as relying on Kertész and Rákosi's (2012, 2014) notion of plausible argumentation.

According to the five goals articulated above, the organization of the dissertation is as follows. **Chapter 2** reviews and discusses how to draw dividing lines between various types

of dependents of verbs and, in particular, between arguments as one kind of complements and adjuncts. After presenting the scene in Section 2.1, the given distinction is thoroughly analyzed in syntactic terms in 2.2. Since this method does not bring reassuring results, in Section 2.3, we turn to semantic underpinnings of what should be considered arguments and adjuncts. Not only is the notion of the semantic argument connected to lexical-semantic representations of verbs, semantic roles are also based on them – instead of simply listing semantic roles with verbal lexical items. In Section 2.4 we face the challenge raised by the view opposed to the projectionist conception, which holds that arguments are generated at the syntactic level. Arguing in favor of, and insisting, on the lexical approach, Section 2.5 touches upon its various problematic aspects: (i) anomalous ranking of semantic roles, (ii) a variety of morphosyntactic realizations of arguments, (iii) fillers of the so-called verbal modifier position and (iv) correspondence between the number of semantic arguments of verbs as lexical items and the number of syntactic arguments of verbs as constituents of sentences. In the final (2.6) section of Chapter 2 we deal with changes concerning the linking of semantic arguments to syntactic ones, including the syntactic alternation, which will be our main topic in subsequent chapters of the present dissertation.

Chapter 3 provides a system of Hungarian verb classes in whose overall network one can see where alternating verbs occur. The novel classification, based both on semantic constituents of lexical-semantic representations and their morphosyntactic realization, is presented in two steps. First, in Section 3.1 its synopsis is given and commented on. Then in Section 3.2 the classification is outlined in a detailed form: Hungarian verbs are divided into five semantic classes, as well as fourteen syntactic classes and 49 (morpho)syntactic subclasses (with further possible semantic role differences).

In **Chapter 4**, first, I introduce a fairly representative body of Hungarian verbs with a multiple syntactic argument structure, mainly syntactic alternations in a narrow sense, i.e. verbs alternating without adding any word-formation morphemes. They are arranged into three groups in Sections 4.1: (i) syntactic alternations with an increasing number of arguments, (ii) syntactic alternations with no change in the number of arguments and (iii) syntactic alternations with a decreasing number of arguments. Second, in Section 4.2 I provide a succinct characterization of lexicographic and theoretical methods which have been offered to account for syntactic alternations. Emphasis is given to a lexical-constructional conception of mine integrating the advantageous properties of lexical and constructional approaches, which will be tested by in-depth and close investigations of the three groups of syntactic alternations in Chapter 5.

In **Chapter 5** analyses of Hungarian alternating verbs are offered. Lexical and constructional accounts of each group of verbs are introduced from the relevant linguistics literature. Based on critical evaluations of previous proposals, I then elaborate my own lexical-constructional explanation of these groups of verbs. In Section **5.1** ways of becoming directional motion verbs are investigated in the case of manner-of-motion verbs, verbs of sound emission, and verbs of spatial position verbs. Even verbs of cutting can occur with directional phrases. In Sections **5.2** and **5.3**, the locative alternation (discussed not only with reference to Hungarian, but also to Russian, in order to gain some cross-linguistic evidence for my lexical-constructional conception) and instrument–subject alternation with two subtypes are explored, respectively.

In **Chapter 6** I reflect on methodological aspects of my research from a metatheoretical point of view. In Section **6.1** I point out the mutual relationship between data and theory. Using manner-of-motion verbs and verbs of the locative alternation once again, in **6.2** I re-evaluate the lexical, constructional and lexical-constructional approaches with the help of Kertész and Rákosi's (2012, 2014) notion of plausible argumentation. Testing the plausibility of the latter approach further, in **6.3** I argue for its extendibility to a **general lexical pragmatics account** of the utterance meaning construction, together with the construction of word meanings emerging in utterances.

It might seem somewhat unusual to locate methodological issues in the penultimate chapter. Despite such a feeling of disconformity, I have intentionally chosen this structure for my dissertation. On the one hand, it is my firm conviction that a genuine methodological discussion should rely on extensive object-theoretical investigations. On the other hand, since I want to subject my analyses proposed in earlier chapters to a particular linguistic metatheory, namely to that of Kertész and Rákosi (2012, 2014), I first have to present what can then be metatheoretically assessed. In addition, the issue of data sources, restricted sometimes to the misleading dichotomy of intuition and corpora, can be better dealt with in a wider context. Moreover, a special feature of data presentation, namely the iterative use of crucial examples (beyond repetition for the sake of convenience), can also be justified if one becomes acquainted with Kertész and Rákosi's (2014: 32) argumentation process, which is cyclic in nature: “one returns to the problems at issue again and again, and re-evaluates the earlier decisions”.

The dissertation ends with the concluding **Chapter 7**, which includes a chapter by chapter summary of the train of thought and results gained in Chapters **2–6** by achieving the five main aims of my dissertation.

CHAPTER 2

Arguments in syntax and in the lexicon

This chapter attempts to draw dividing lines between various types of dependents of lexical verbs (leaving aside non-lexical verbs such as light verbs, auxiliaries and copulas). In drawing these lines, particular attention will be paid to the distinction between one kind of complement, namely arguments, and adjuncts. After presenting the scene in Section 2.1, the given distinction will be thoroughly analyzed in syntactic terms in 2.2.1–2.2.5. Since in this way we will not obtain reassuring results, in 2.3 we will turn to the semantic underpinnings of what should be considered arguments and adjuncts. Not only will the notion of the semantic argument be related to lexical-semantic representations of verbs, semantic roles will also be based on them – instead of simply listing semantic roles with verbal lexical items. In Section 2.4 we will face the challenge raised by the view opposed to the projectionist conception which holds that arguments are generated at the syntactic level. Arguing in favor of, and insisting on, the lexical approach, Section 2.5 will touch upon its several problematic aspects such as anomalous ranking of semantic roles, the variety of the morphosyntactic realizations of arguments, fillers of the so-called verbal modifier position and correspondence between the number of semantic and syntactic arguments. In the final (2.6) section of Chapter 2 we will deal with changes concerning the linking of semantic arguments to syntactic ones, including the syntactic alternation, which will be our main topic in subsequent chapters of the present dissertation.

Thus, by moving through the steps indicated above, the first aim will be achieved: against the background of a critical evaluation of syntactic diagnostics of argumenthood and adjuncthood, a conception of verbal semantic arguments and roles based on lexical-semantic representations is offered, and the ways in which semantic arguments correlate with their syntactic counterparts are thoroughly taken into account.

2.1. Types of dependents

2.1.1. Complements and adjuncts

As will be presented in detail in this chapter, in theories of grammar it is generally assumed that verbs play a dominant role in the syntactic structure of sentences. Some of the other

constituents (called satellites or dependents) occur in sentences because they are requested (or licensed) by verbs themselves. (Such verbal heads are generally called predicators or regents.) Another set of constituents may be built in sentences freely. To put it differently, they enter the syntactic structure because they can co-occur with verbs but are not in a necessary relation with them.

In theories of grammar the two types of satellites around verbs are expressed by different terms. In varieties of dependency grammar rooted in Tesnière's conception (first presented to Hungarian scholars by Károly 1963) the valence slots of a verb are filled by actants, to which circonstants (circumstantials) can be freely added (see, e.g., Ágel et al. 2008, cf. Müller 2016).

In frameworks inspired by ideas of generative grammar (see, e.g., Komlósy 1994, 2015, cf. Müller 2016, Williams 2015),⁶ complements and free adverbials (adjuncts) are distinguished. Furthermore, complements of verbs, as of the most typical predicators, are of several types: in fact, they belong to the following three types: arguments, predicates or adverbials (Kenesei 2000: 12).⁷

Arguments are complements to which thematic (semantic) roles are assigned by verbs (see also the term *argumentum 1*. 'argument 1.' in the Glossary of Kiefer 2015: 813). In addition, they should be referential, i.e. refer to entities in the world outside the language. The examples in (5) and (6) taken from Kenesei (2000: 12) can be used as an illustration.

(5) Péter katona maradt.
Péter soldier remain.Past.3Sg⁸
'Péter remained a soldier.'

(6) Péter katonát látott.
Péter soldier.Acc see.Past.3Sg
'Péter saw a soldier/soldiers.'

While in (5) the bare noun (phrase)⁹ *katona* 'soldier' does not refer to any person, in (6) it indicates existence of at least one individual distinct from Péter (cf. Kenesei 2000: 12).

⁶ For a chronological remark with regard to Komlósy (2015), see fn. 3.

⁷ Besides the three types of complements mentioned by Kenesei (2000: 12), a fourth type, namely clausal (finite verbal) complements, will appear in Chapter 3 of the dissertation. It is also worth noting that the term *verb* refers to main or lexical verbs throughout the whole dissertation. Non-lexical verbs such as auxiliaries and copula are left out of consideration.

⁸ To decipher the abbreviations used in glosses, see pp. 6–7, where other conventions can also be found.

It should be emphasized that this notion of referentiality differs somewhat from another treatment with a long tradition. As Kiefer (1990–1991: 152) states with respect to the bare object noun of expressions such as *újságot olvas* ‘read a newspaper/newspapers’: “The bare object noun in the construction at hand is non-referential in the sense that it cannot be used to identify an object in the world”.

Let us take another example (Farkas and Alberti 2018a: 138).

- (7) Ili vajat kent a kenyérre.
 Ili butter.Acc spread.Past.3Sg the bread.Sub
 ‘Ili put some butter on the bread.’

The bare object noun *vajat* ‘butter.Acc’ in (7) is also claimed to have lost its referentiality but is claimed to be used as an argument. Farkas and Alberti (2018a: 99, 104, 2018b: 665) also speak about “reduced” complementhood because there is a tendency to lose referential power. Cf. also Laczkó’s (2014: 348, 359) notion of reduced arguments. Nevertheless, non-referentiality of bare nouns seems to be a kind of non-specific reference. In such cases Maleczki (2008: 143) speaks about the cumulative reference of bare nouns, which means that if two entities x_1 and x_2 are included in the denotation of a bare noun, their sum, i.e. $x_1 + x_2$, also belongs to it.

Consider an example from Viszket et al. (2018: 1004).

- (8) Csalogány dalolt az ablakomban.
 nightingale sing.Past.3Sg the window.Poss.1Sg.Ine
 ‘There was nightingale-singing in my window.’

The comments added to (8) by the authors (p. 1004) clearly show the referential character of the bare noun *csalogány* ‘nightingale’: “we can accept the sentence as felicitous whether only a single nightingale was singing in the window or a pair of nightingales were singing”. Another consequence also follows from the authors’ comments. The referential properties of the bare noun are not adequately expressed by the English translation of (8). In light of their

⁹ For the purposes we pursue in the present dissertation, it is the typical case that it is irrelevant to distinguish between *noun* and *noun phrase* terminologically. Moreover, if another distinction between NP and DP can also be left out of consideration, the term *noun phrase* is written in full (cf. conventions concerning abbreviations on pp. 6–7).

cited words, it should be interpreted as: ‘A nightingale/Nightingales was/were singing in my window.’¹⁰

Thus, on the basis of the above discussion one can admit that bare nouns refer to non-specific objects in the world, as well. With this notion of referentiality in mind, they can be regarded as arguments with both thematic roles and referential character.¹¹

The second group of complements includes predicates, cf.:

- (9) Péter katoná.
Péter soldier.
‘Péter is a soldier.’
- (10) Péter beállt katonának.
Péter become.Past.3Sg soldier.Dat
‘Péter became a soldier.’

The bare noun *katoná* ‘soldier’ in the nominative case in (9) and the bare noun *katonának* ‘soldier.Dat’ in (10) function as predicates: the former is a primary predicate and the latter is a secondary one. Being a secondary predicate means that *katonának* ‘soldier.Dat’ is not only the predicative complement of the verb *beállt* ‘become.Past.3Sg’ but also the predicate of the referential argument, namely of *Péter*, which belongs to the same verb *beállt* ‘become.Past.3Sg’ (cf. Komlósy 2015: 431, 433, 441–443). See also (1) above.

The third type of complement to be mentioned with respect to verbs is the adverbial complement, as in (11):

- (11) Péter jól bánik a karddal.
Péter well handle.3Sg sword.Ins
‘Péter is a fine swordsman.’

Although adverbs of manner typically occur in sentences as adjuncts, the adverb *jól* ‘well’ in (11) counts as a complement with respect to the verb *bánik* ‘handle.3Sg’ (cf. Komlósy 2015: 468).

¹⁰ Farkas and Alberti (2018a: 17) provide a translation with this type of wording, cf.:

- (i) Péter [°egy / Ø 'autó-t]_{VMod} °szerelt 'egész 'délután.
Péter a / Ø car-Acc repair.Past.3Sg whole afternoon
‘Péter spent the whole afternoon repairing [a car] / [one or more cars].’

¹¹ We will return to issues raised by bare nouns when we have learnt more about complements, including arguments (see Subsection 2.5.3 below).

2.1.2. Arguments and adjuncts

Since in the international literature (with a strain of generativism) the criteria for distinguishing complements and adjuncts are mainly discussed in connection with the distinction between arguments and adjuncts,¹² in what follows I will initially also concentrate on this somewhat narrower scope of the issue. To begin with, one has to pay attention to the fact that “[a]s work on argument structure continued, there was a growing acknowledgement that a lexical item’s argument structure is determined by its meaning” (Levin 2013: 4). In 1960s transformational grammar, the properties of lexical items relating to their occurrence with arguments in sentences were represented by subcategorization frames. Referring to syntactic arguments in the argument structures of argument-taking items in the lexicon by their semantic (thematic) roles was an implicit admission of their lexical-semantic motivation (cf. Levin 2013: 4). The same idea is expressed by claiming that the argument structure expresses the relation between a verb and its arguments through the thematic roles assigned to the arguments (cf., e.g., Bene 2008: 53). It appears more explicitly when the argument structure of verbs is conceived as an interface between semantics and syntax that consists of participants coming from a semantic-conceptual frame and playing semantic roles (cf. Laczko 2000a: 294–295). This was developed even further when the semantic roles in argument structures were assigned to semantic arguments figuring in lexical-semantic representations which decompose word meanings into smaller components behaving logically as predicates (see, e.g., Komlósy 2015: 319). The semantic basis of the argument structure became even more fundamental when semantic roles were not chosen from a set fixed in advance but identified according to the predicates the arguments belong to in semantic decomposition (cf. Bierwisch 2006, Jackendoff 1990, Levin and Rappaport 2005, Padučeva 2004: 55, among others). For the time being, I disregard this treatment of semantic roles, but below I will argue for it in detail.

Turning to the distinction between arguments and adjuncts, it is important to emphasize that distinguishing arguments from adjuncts is an “essentially unresolved central question in the generative literature” (Farkas and Alberti 2018b: 739). Needham and Toivonen (2011: 422) are also of the opinion that there exist “no universally agreed-upon definitions”. Nevertheless, they believe that the general idea behind the distinction under

¹² We might note in passing that besides telling arguments and complements apart terminologically, one can frequently encounter cases of the free interchange between the two terms in the literature.

discussion is that arguments denote necessary (core) participants of the event(uality)¹³ expressed by an argument-taking lexical item, whereas adjuncts do not. That is why what counts from the present perspective is how a dependent is (or is not) connected to the head. Therefore, a dependent with an inherent locative or temporal meaning may function either as an argument (see (12a) and (13a) below) or as an adjunct (see (12b) and (13b) below) depending on whether it is assumed by its head, or more specifically, by the meaning of its head. In other words, whether a dependent is classified as an argument or an adjunct is determined by the role played in the event expressed by the head. Cf.:¹⁴

- (12) a. Péter is living in a tent.
b. Péter is sleeping in a tent.
- (13) a. Péter was born at three o'clock.
b. Péter was reading at three o'clock.

The idea outlined above is mirrored in the following excerpts from two grammar textbooks.

- (14) a. “[E]ach verb sets the scene for some type of action or state: the verb requires a number of participants to engage in a certain state of affairs” (Haegeman and Guéron 1999: 25).
b. “[T]heir [i.e. adjuncts’] relation to the verb is less direct than that of the arguments which have a thematic link with the verb” (Haegeman and Guéron 1999: 29).
- (15) “[A]rgument: a phrase in the sentence that refers to anything that is necessarily involved in the relation expressed by the verb” (Culicover 2009: 471).

The contrast between arguments and adjuncts is interpreted in a relatively similar vein by Schütze and Gibson (1999: 410):¹⁵

- (16) a. “If a phrase P is an argument of a head H, P fills a role in the relation described

¹³ The form of the term *event(uality)* indicates that events can be meant in a narrow sense but they should not be restricted in such a way and can be extended to their broad sense, i.e. to eventualities, which also include processes and states. Events in a broad sense, or eventualities, are otherwise called situations. – The term *event* will mainly be used throughout the dissertation in a broad sense (but cf. fn. 48 and Chapter 5).

¹⁴ For similar examples with instrumental phrases, see Subsection 2.2.2 below.

¹⁵ Instead of *adjunct* the authors originally use the term *modifier*, for a technical reason (see Schütze and Gibson 1999: 410, fn. 1).

by H, the presence of which may be implied by H. P's contribution to the meaning of the sentence is a function of that role and hence depends on the particular identity of H."

- b. "[I]f P is a modifier, it predicates a separate property of its associated head or phrase. Its semantic contribution is independent of other elements and hence is relatively constant across a range of sentences in which it combines with different heads."

However, on a closer examination, one realizes that in the definition in (16a) two properties should be separated, according to the Semantic Obligatoriness Criterion and the Semantic Specificity Criterion in Koenig et al. (2003): implied roles (or participants) and arguments' semantic specificity determined by the (head) verb. Furthermore, only if semantic specificity were interpreted with respect to verbs, i.e. "arguments are tied to specific verbs or verb classes" (Needham and Toivonen 2011: 405), would the implied roles (or participants) of specific verbs count as the necessary participants mentioned in (14a) and (15) (a detailed discussion of this issue will be postponed to a later Subsection **2.3.2**). Now, the following is relevant: although the two characteristic features of arguments – namely being necessary and being verb-specific participants – may also be used as semantically oriented tests for argumenthood (cf. the first two tests in Needham and Toivonen 2011, namely the core participants test and the verb specificity test), one can prefer tests based on syntactic phenomena which correlate with the distinction under discussion. Schütze and Gibson (1999: 411) turn to the latter because "in particular cases it may be hard to arrive at clear intuitions" relying on the semantic criteria central to their conception of argumenthood and adjuncthood summarized in (16). Or one can simply believe that these notions can be better and more safely grasped if they are approached from their syntactic aspects. In what follows I give an overview of about **twenty syntactically flavored tests** proposed throughout the relevant literature (naturally, not all of them can be applied/adapted to Hungarian).

2.2. Syntactic diagnostics of the distinction between arguments and adjuncts

2.2.1. Arguments and adjuncts distinguished syntactically

I start by introducing items included in the catalogue of diagnostics in Needham and Toivonen (2011). Besides the two semantic tests mentioned above, namely the core participants test and the verb specificity test, they present the following nine (the ordering from more general phenomena to phenomena containing specific lexical material is mine):

- (17) a. the optionality test,
 b. the iterativity test,
 c. the VP anaphora test,
 d. the pseudocleft test,
 e. the VP preposing test,
 f. the alternation test,
 g. the fixed preposition test,
 h. the preposition stranding test and
 i. the *wh*-word conjunction test.

While according to **the optionality test in (17a)**, syntactically optional dependents are adjuncts and syntactically obligatory ones are arguments (see also Ackema 2015: 263, Hwang 2011: 14 and Schütze and Gibson 1999: 426), it is widely admitted in the literature that this correspondence between optionality/obligatoriness and adjuncthood/argumenthood is only the typical case. A number of counterexamples are indicated, of which here I choose the following in (18) and (19), just to illustrate the issue (Needham and Toivonen 2011: 406). (In several subsections below, I will return to this issue not only in general but also with respect to Hungarian data and their treatment.)

(18) Mandy ate (a pizza).

(19) Selma elbowed her way into the crowd.

In (18) the direct object is obviously not a necessary constituent in the sentence but what is denoted by it is an inevitable participant of eating (cf. the core participants test). Thus, (18) represents a case of the wide range of implicit arguments. As for (19), it demonstrates that the obligatory PP adjunct cannot be omitted from the *way*-construction.

The **iterativity test in (17b)** tells the dependents apart on the basis that adjuncts with the same, e.g. temporal or locative, function can be repeated, whereas arguments are unique.¹⁶ However, it should be taken into consideration that this test assumes “agreement of what counts as the same or different” (cf. Needham and Toivonen 2011: 406). Furthermore, as Schütze and Gibson (1999: 426) point out, care has to be taken because, on the one hand, semantically incompatible iterated phrases can make an example bad for the wrong reason (see (20)) and, on the other, good cases are adjuncts which denote slightly different properties (see (21)).

¹⁶ Ackema (2015: 263) also claims that a constituent with an adjunct behaves syntactically in the same way as it does without it, while a constituent with an argument is of a different type than one without it.

(20) *I met a student with blue eyes with green eyes.

(21) I met a student with blue eyes and with a wonderful smile.

According to another classic **test of VP anaphora in (17c)**, adjuncts can be added to *do so* clauses while arguments cannot because *do so* refers to the verb and its arguments. Consider the pair of sentences in (22) taken from Needham and Toivonen (2011: 407), bearing in mind that the authors draw attention to the fact that grammaticality judgements are not always as clear as in (22).

- (22) a. John ate the cake yesterday and Bill did so today.
 b. *John ate the cake and Bill did so the frosting.

Schütze and Gibson (1999: 426–427), who deal with the VP anaphora test and the **pseudocleft test (cf. (17d))** under one cover term, namely *pro-form replacement*, note that *do so* is not applicable if the intended antecedent is a stative verb. To diagnose a broader range of verbs Hwang (2011: 20–21) offers the ellipsis test for stative verbs and the *X-happen* test for verbs denoting non-action events.¹⁷ Nevertheless, what is more crucial with respect to the VP anaphora test is the conclusion arrived at on the basis of the re-analysis of the *do so* anaphora as a deep anaphora in Przepiorkowski's PhD thesis (1999), presented in Hwang (2011: 23–26). The VP anaphora test could be a relevant syntactic diagnostic to judge configurational difference between arguments and adjuncts if it functioned as a surface anaphora. Since it behaves in the opposite way, the distinction between arguments and adjuncts does not seem to belong to the realm of syntax but of semantics (cf. Hwang 2011: 26).

The **VP preposing test from (17e)** is mentioned here just to complete the VP anaphora test and the pseudocleft test with another diagnostic which involves *do* (for such examples, see Needham and Toivonen 2011: 408).

The **alternation test in (17f)** can be used in a case such as (23) (see Ackema 2015: 268–269, as well):

- (23) a. Mandy gave a present to Lisa.
 b. Mandy gave Lisa a present.

¹⁷ The *X-happen* test adapted to Hungarian is offered by Csirmaz (2008: 224) as a safe diagnostic to tell arguments and adjuncts apart. At the same time, she admits that not all examples with tentative arguments are unequivocally acceptable, but the example with an adjunct is completely ungrammatical.

Although some oblique phrases that alternate with objects and subjects – in the present example, *to Lisa* alternating with the object – can reasonably be analyzed as arguments, other cases, e.g. the optional PP *for Kenny* referring not to a core participant of the event at stake in (24a), are not so unequivocal (Needham and Toivonen 2011: 407).

- (24) a. Linda wrote a poem for Kenny.
b. Linda wrote Kenny a poem.

The next two **diagnostics in (17g) and (17h)** concern prepositions: they are the fixed preposition test and the preposition stranding test.¹⁸ According to the former, if a verb requires a specific preposition (or a specific form in Hungarian, see Csirmaz 2008: 223), the PP is considered an argument, and if no special requirement appears with respect to the preposition, the PP counts as an adjunct. But the verb *live* in (25) does not ask for a specific preposition. It requires a locative phrase, which realizes one of the necessary participants of the event denoted by that verb (cf. Needham and Toivonen 2011: 405).

- (25) Martha lives {beside the train station / in France / on a mountain}.

In connection with the latter, i.e. the preposition stranding test, which seems unproblematic in Needham and Toivonen (2011: 407), two remarks are in order. First, Rákosi (2014: 28) draws attention to the fact that “preposition stranding is subject to many constraints that may influence the result of the testing”. He provides a pair of sentences that illustrate a case in which a constituent order which is not basic but otherwise attested bans preposition stranding. Cf.:

- (26) a. Who did John talk to Harry about?
b. ??Who did John talk about to Harry?

Second, it is important to highlight what Schütze and Gibson (1999: 428) write about a similar but more complex phenomenon, namely *wh*-extraction, e.g. from *wh*-islands. Instead

¹⁸ There is a third diagnostic which takes prepositions into consideration, namely the prepositional content test (idiomatic vs. literal/basic meaning), which, in turn, as the term itself expresses, operates on the semantic aspect of prepositions – certainly not without doubtful cases (for details, see Needham and Toivonen 2011: 405 and Csirmaz 2008: 223, as well as the immediately subsequent discussion on the related issue of the specific form of arguments).

of simply evaluating extraction of or from arguments/adjuncts as good and bad, they use the wording “relatively good” and “much worse” (see also Ackema 2015: 268–269). Cf.:

- (27) a. ?To which friend do you wonder [whether John gave the book *t*]?
 b. *On which day last week do you wonder [whether John brought the book *t*]?

The last **diagnostic in (17i)**, i.e. the *wh*-word conjunction test, shows that arguments cannot be conjoined, whereas adjuncts can. However, conjunction of an argument and an adjunct in (28c) also gives a negative result. Cf. Needham and Toivonen (2011: 408):

- (28) a. *What and who did Sam show?
 b. Where and when did Jolanda meet a friend?
 c. *What and when did Linda read?

Besides the tests in (17) the literature offers other syntactic criteria applicable to diagnose whether a dependent should be considered an argument or an adjunct. Among them one finds the following: (i) the ordering (arguments must generally precede modifiers), (ii) the separation of PPs from the head (Schütze and Gibson 1999: 427), (iii) the behavior of the passive *by* phrase in binding and control conditions (Needham and Toivonen 2011: 409) and (iv) the *by itself* test for obliques in the ablative case (Rákosi 2014: 18).

2.2.2. The result of testing arguments and adjuncts syntactically

One of the conclusions that can be drawn from the discussion in 2.2.1 is that these tests are not without problems. They need to be applied with caution (see, e.g., the preposition stranding test). Moreover, there are exceptions to general criteria (see, e.g., the fixed preposition test). Exceptions can be resolved by another test (the optional object test vs. the core participant test). One obtains mixed results in cases such as the PP *for Kenny* in (24a), which is optional but alternates. Thus, the diagnostics do not provide the same dividing line between arguments and adjuncts.

Let us take another example, namely of instrumental *with* phrases. As Schütze and Gibson (1999: 428) show, instrumental constituents pattern with arguments on three out of the syntactic tests they use in their paper. These phrases cannot be iterated (see (29a)), cannot be separated from the head (see (29b)) and can be extracted from weak islands (see (29c)).

- (29) a. *John cut the meat with a knife with the sharp end.
 b. *With the knife, who sliced the salami?
 c. With which key do you deny that the butler could have opened the door?

Needham and Toivonen (2011: 411) characterize instrumental *with* PPs according to the optionality and verb specificity tests. The former predicts that they are adjuncts since they are not obligatory constituents of a sentence (see (30a)), but an instrumental constituent can be an obligatory part as a subject of a sentence (see (30b)).

- (30) a. I opened the door (with a key).
 b. The key opened the door.

By the latter test, instrumental PPs are only allowed with a specific class of verbs, namely agentive verbs. Needham and Toivonen (2011: 413) analyze instruments and other phrases that are neither clear arguments nor clear adjuncts as an in-between type of dependent. As a third category, they introduce derived arguments, which are “added to the argument structure of verbs by a lexical rule”. However, what should be taken into consideration is that there are instrumentals of different kinds (cf. Needham and Toivonen 2011: 411, 418), which has consequences with respect to their syntactic status. Rákosi (2014: 8–12) draws a distinction between core and non-core participant phrases. As regards instrumentals, he provides examples with *cut* (cf. (29a) above) and *break*, respectively:

- (31) a. John cut the meat with my knife.
 b. John broke the window with a hammer.

Core participant phrases, including instrumentals of the kind presented in (31a), are syntactic and semantic arguments and every argument as such is **obligatory in the semantic sense** “even if they can be left implicit under certain conditions” (Rákosi 2014: 12). Non-core participant phrases, e.g. the instrumental in (31b), are adjuncts (in both syntactic and semantic senses). But unlike free adjuncts, e.g. the PP in the sentence *To John, Kate is not nice at all*, they are called **thematic adjuncts** since they receive thematic specification from the predicate. Furthermore, unlike arguments, thematic adjuncts are not fixed in the argument structure of verbs, but can occur optionally “if certain argument structure-related licensing conditions are satisfied” (Rákosi 2014: 11).¹⁹ Nevertheless, it has to be emphasized that Rákosi’s tripartite classification of dependents does not make claims about circumstantial phrases such as manner, purpose, temporal, locative or directional phrases. The latter are

¹⁹ Note in passing that classifying (some of) in-between dependents as thematic adjuncts, Rákosi does not stand pat on the mainstream idea that adjuncts cannot depend on the argument structure of verbs and cannot bear thematic specification (cf., e.g., Csirmaz 2008: 222).

distinct from non-core participant phrases (experiencers, comitatives, instruments, causes/causers and benefactives) investigated in the work under discussion in the sense that they do not refer to “first-order entities of the world that can be regarded as participants in an *intuitive* sense of the word” (Rákosi 2014: 13). At the same time, I tend to prefer Rákosi’s system of dependents to Needham and Toivonen’s (2011) proposal involving derived arguments because Rákosi offers a more finely graded approach according to various kinds of phrases: core participants and non-core participants (in another terminology: participants and circumstantials); the former are arguments and the latter are divided into thematic adjuncts and non-thematic adjuncts.²⁰

The distinction between instrumentals as arguments and instrumentals as thematic adjuncts seems to correlate with two types of verbs, namely obligatory and non-obligatory instrument verbs. Instrument roles are sometimes semantically forced by the meaning of a verb (e.g. *cut*) while at other times they are not semantically required, but only allowed (e.g. *eat*) (Koenig et al. 2008: 177). Although an objection can be raised that one must use a body part to eat, namely the mouth, the verb *eat* does not have to be counted as an obligatory instrument verb on that basis. Relying on raters’ evaluations in their experiments, Koenig et al. (2008: 183) claim that objects should be considered instrumental entities “only if something other than body parts could play the same role”. As to *eat*, one cannot use anything else but one’s mouth in the function indicated above. Since one can use not only a finger to poke but also a stick, *poke* does belong to the obligatory instrument verbs.

In this subsection we have seen that the syntactic optionality of dependents is a rather overall and confusing phenomenon. Besides the above resolutions offering three types of core and non-core participant (or otherwise: participant and circumstantial) phrases, one can ask whether the result of testing can be improved by elaborating tests for the detection of syntactically optional arguments. The next section will be devoted to this issue.

2.2.3. Testing syntactically optional arguments

Recall that according to the optionality test in (17a), syntactically optional dependents are adjuncts and syntactically obligatory ones are arguments. However, as widely acknowledged,

²⁰ Besides derived arguments and thematic adjuncts, in-between dependents are also called argument-adjuncts and quasi-arguments. The former is Grimshaw’s term and is used to denote subjects of nominal predicates (see Needham and Toivonen 2011: 409) while the latter is a Reinhartian term for the cause PP in the anticausative construction (see Rákosi 2014: 169).

this is just the typical case. In what follows I will search for criteria that render a dependent into an argument despite the fact that it appears unnecessarily in sentences.

First of all, it should be emphasized that several cases of omissibility of otherwise obligatory arguments (syntactically identified as such, in whatever way²¹) can be explained by general rules. In other words, omitted arguments are easily recoverable or interpretable in the presence of certain conditions. They include the following (Farkas and Alberti 2018b: 741–742, Padučeva 2004: 74–75):

- (32) a. contextual information including extra-linguistic (deictic) and linguistic (anaphoric) contexts,
 b. being within the scope of operators, e.g. of universal and existential quantifiers, of negation, and of the generic operator, as well as
 c. incorporation of an argument.

Nevertheless, there are cases which cannot be grasped on the basis of the systematic universal circumstances mentioned in (32a–c).

The optionality of direct objects seems to be a general phenomenon. Consider (18), repeated here as (33):

- (33) Mandy ate (a pizza).

Although Padučeva (2004: 75) treats omission of the direct object argument in examples like (33) as incorporation, i.e., (33) seems to be interpreted on systematic grounds according to the

²¹ Cf., e.g., Komlósy's (2015: 286) definition, which was also criticized because there seems to be only a very limited set of verbs that obligatorily needs a dependent (for instance: *durván bánik vkivel* 'handle sy roughly') (Gábor and Héja 2006: 137–138):

- (i) If a unit considered a dependent at any level of the sentence structure cannot be left out from the sentence (including the case where its omission results in ellipsis or another meaning), it is a complement.

Komlósy's original idea concerns the testing of complements, i.e. of a somewhat broader group of dependents than arguments (see 2.1.1 above).

Another terminological remark is in order. Komlósy's Hungarian term *bővítmény* should also be translated into English as *complement*. To differentiate *complement* in this wider sense ('dependents including both complements and adjuncts') from *complement* in the narrower sense (as introduced above: 'one type of dependent, i.e. complements', I use the term *dependent* for the former (wider) meaning of *complement*. Note in passing that the term *complement* has an even narrower sense when it refers to the internal argument(s) of a transitive/ditransitive verbal head, i.e. to its object(s), in contrast with the external argument of this head, i.e. with its subject.

condition given in (32c) above, it is not always the case that all transitive verbs can be left without the direct object argument. According to Ackema (2015: 264), for example, the direct object argument of the verb *destroy* has to appear, as attested by (34b), and this argument cannot be optional even if it has a generic reading as in (34c).²²

- (34) a. The Vandals destroyed the town.
 b. *The Vandals destroyed.
 c. *The Vandals were destroying constantly, so they became notorious for it.

Let us turn now to the issue of whether or not an optional dependent should count as an argument. The only researcher who wishes to offer formal clues to recognize them – at least in simple cases – seems to be Komlósy (2015: 286–289). He introduces two diagnostics which are intended to detect type-changing and type-unchanging optional complements. Although our primary focus is on a special type of complement, namely on arguments, which are only objects of the second test, both of them will be reviewed in what follows because arguments themselves were located at the beginning of the present chapter in a broader set of complements.

To begin with, consider the definitions of the diagnostics at issue (cf. Komlósy 2015: 287 and 289, respectively).

- (35) If adding a dependent to the sentence makes it possible for a new type of freely omissible dependent (i.e. of adjuncts) to occur in that sentence and this addition leads to the non-omissibility of the former dependent from the sentence with the latter dependent, then the former dependent is an optional complement.
- (36) If, considering the relationship between a word *X* and a dependent, one finds another word *Y*, such that
- (a) it can be substituted regularly for an expression consisting of *X* and the dependent,
 - (b) it can be substituted regularly for *X* in sentences that do not include the dependent, but
 - (c) it cannot be substituted for *X* in sentences that include the dependent,
- then the dependent at hand counts as an optional complement of the word *X*.

As an illustration of (35), first let us take the pair of sentences in (37).

²² For other examples where the variation of optionality cannot be treated by systematic criteria, see Farkas and Alberti (2018b: 740–741).

- (37) a. Mari hízott.
 Mari gain_weight.Past.3Sg
 ‘Mari was gaining weight.’
- b. Mari öt kilót hízott.
 Mari five kilo.Acc gain_weight.Past.3Sg
 ‘Mari was gaining five kilos.’

(37a) and (37b) denote different types of states of affairs, attested by different types of free adverbials. Cf. (38) and (39) below:

- (38) a. Mari egy héten keresztül hízott.
 Mari a week.Sup across gain_weight.Past.3Sg
 ‘Mari was gaining weight for a week.’
- b. *Mari egy hét alatt hízott.
 Mari a week under gain_weight.Past.3Sg
 ‘Mari was gaining weight in a week.’
- (39) a. *Mari egy héten keresztül öt kilót hízott.
 Mari a week.Sup across five kilo.Acc
 gain_weight.Past.3Sg
 ‘Mari was gaining five kilos for a week.’
- b. Mari egy hét alatt öt kilót hízott.
 Mari a week under five kilo.Acc gain_weight.Past.3Sg
 ‘Mari was gaining five kilos in a week.’

The appearance of the free adverbial *egy hét alatt* ‘in a week’ in (39b) is possible because of the change of the aspectual type caused by adding the expression *öt kilót* ‘five kilos’. Thus, the latter phrase cannot be left out of the sentence since its omission would lead to the type of situations with which the free adverbial was not compatible (cf. (38b)). Therefore, in comparison with (37a), *öt kilót* ‘five kilos’ in (37b) is a type-changing optional complement, according to (35). However, if one assumes that (37a) and (37b) only differ in the presence of an optional complement, their qualitative difference attested by adverbial phrases in (38) and (39) cannot be easily explained. Therefore, in Komlósy’s (2015: 288) opinion, one should assume two lexical entries of *hízik* ‘gain weight’: one which takes a complement, such as *öt kilót* ‘five kilos’, obligatorily and another which does not have to take such a complement.

The test in (36) diagnoses a type-unchanging optional complement as follows. First consider (40) and (41).

- (40) a. Mindannyian *bíbelődtünk*.
 all take_great_pains.Past.1Pl
 ‘All of us were taking great pains.’
- b. Mindannyian *bíbelődtünk* a *biztosítékkal*.
 all take_great_pains.Past.1Pl the fuse.Ins
 ‘All of us were taking great pains over the fuse.’
- (41) a. Mindannyian *órákon keresztül bíbelődtünk*.
 all hour.Pl.Sup across take_great_pains.Past.1Pl
 ‘All of us were taking great pains for hours.’
- b. Mindannyian *órákon keresztül bíbelődtünk* a
 all hour.Pl.Sup across take_great_pains.Past.1Pl the
biztosítékkal.
 fuse.Ins
 ‘All of us were taking great pains over the fuse for hours.’

Since the same adjunct, i.e. *órákon keresztül* ‘for hours’, may appear both in (41a) and (41b), one can believe that the verb *bíbelődik* ‘take great pains’ denotes the same type of situations independently of whether or not the verb stands with a complement, which undoubtedly counts as an argument.

A verb such as *viháncol* ‘giggle; romp’ may be substituted not only for the single verb in (40a) but also for the expression consisting of the verb and the (optional) argument in (40b). Both substitutions yield (42a). Nevertheless, the verb *viháncol* ‘giggle; romp’ cannot occur in place of the single verb if the argument remains in the sentence, cf. (42b).²³

²³ The substitution of *viháncol* ‘giggle; romp’ for *bíbelődik* ‘take great pains’ is Kálmán’s (2006: 233) idea because his judgement concerning Komlósy’s (2015: 289) original example is different. Komlósy (2015: 288) substitutes *viháncol* ‘giggle; romp’ for *csodálkozik* ‘be surprised’ used in (i) and the result of the substitution shown in (ii) is not acceptable for him.

- (i) Mindannyian *csodálkoztunk* az *eredményen*.
 all be_surprised.Past.1Pl the result.Sup
 ‘All of us were surprised at the result.’
- (ii) *Mindannyian *viháncoltunk* az *eredményen*.
 all romp.Past.1Pl the result.Sup
 ‘All of us were romping at the result.’

However, recall that I have glossed the verb *viháncol* above as a verb having two meanings, namely ‘giggle; romp’, in accordance with Magay and Országh (2001) (see also Bárczi and Országh 1959–1962). If it appears in the second meaning, example (ii) does not become unacceptable for me and, perhaps, also for Kálmán, who treats both words as verbs of affection (Kálmán 2006: 237). To put it differently, in place of *csodálkozik* ‘be surprised’, *viháncol* meaning ‘giggle’ seems fully acceptable. Cf.:

- (42) a. Mindannyian viháncoltunk.
 all giggle/romp.Past.1Pl
 ‘All of us were giggling/romping.’
- b. *Mindannyian viháncoltunk a biztosítékkal.
 all giggle/romp.Past.1Pl the fuse.Ins
 ‘All of us were giggling/romping with the fuse.’

At the same time, in the case of the co-occurrence of *bíbelődik* ‘take great pains’ with an adjunct (see (41a)), the substitution of *viháncol* ‘giggle; romp’ for the single verb does not result in an unacceptable sentence. In other words, (43) coming from (41a) is fully grammatical.

- (43) Mindannyian órákon keresztül viháncoltunk.
 all hour.Pl.Sup across giggle/romp.Past.1Pl
 ‘All of us were giggling/romping for hours.’

2.2.4. Evaluation of the testing of syntactically optional complements/arguments

In the light of critiques, the two diagnostics offered by Komlósy (2015) do not seem to tell optional complements including arguments apart from adjuncts. As to the detection of type-changing optional complements, Gábor and Héja (2006: 140) as well as Héja and Gábor (2008: 53) argue against the assumption that a dependent which changes the type of the event denoted by a verb must necessarily be a complement. Let us take the examples from their latter paper.

- (44) János tántorgott a bortól.
 János stagger.Past.3Sg the wine.Abl
 ‘János staggered from the wine.’
- (45) *Anna fizetett a gyógyszertől.
 Anna pay.Past.3Sg the medicine.Abl
 ‘Anna paid because of the medicine.’

In comparison with (44), (45) is ungrammatical because the noun phrase *Anna* gets an agentive role from the verb *fizet* ‘pay’. However, if a constituent indicates the unintentional

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- (iii) Mindannyian viháncoltunk az eredményen.
 all giggle.Past.1Pl the result.Sup
 ‘All of us were giggling at the result.’

character of the event denoted by the predicate, *fizet* ‘pay’ can be modified by the noun phrase in the ablative case. Cf.:

- (46) Anna *lassan* *fizetett* a *gyógyszertől*.
 Anna slowly pay.Past.3Sg the medicine.Abl
 ‘Anna slowly paid because of the medicine.’

Since the presence of the adverb of manner *lassan* ‘slowly’ makes the noun phrase *a gyógyszertől* ‘from the medicine’ possible in (46), we should consider this adverb an (optional) complement of the verb *fizet* ‘pay’ according to Komlósy’s diagnostic concerning type-changing complements. Nevertheless, according to Gábor and Héja (2006: 140), as well as Héja and Gábor (2008: 53), the adverb of manner *lassan* ‘slowly’ in (46) functions as an adjunct but not as a complement. I think this becomes rather obvious if one compares *lassan* ‘slowly’ with *jól* ‘well’ in (11), which is repeated here as (47).

- (47) Péter *jól* *bánik* a *karddal*.
 Péter well handle.3Sg sword.Ins
 ‘Péter is a fine swordsman.’

While the former adverb only modifies the event denoted by the verb *fizet* ‘pay’, the latter specifies an indispensable property of the verb *bánik* ‘handle’. This characterization of *lassan* ‘slowly’ is supported by Fábrićz’s (2000: 268–269) analysis which reveals that Komlósy’s optional complement *öt kilót* ‘five kilos’ in (37b) is a quantitative adverbial phrase and it does not follow from the regent’s complement-taking character, but is related to the semantic type of the verb.

As for the test concerning type-unchanging complements including arguments, this does not seem adequate, because of the following. It is quite natural (Fábrićz 2000: 270) that if one wants to insert a word, e.g., *viháncol* ‘giggle; romp’, with a complement structure dissimilar to that of the regent, e.g., *bíbelődik vmivel* ‘take great pains with sg’, one obtains an unacceptable sentence such as the above (42b), because of **viháncol vmivel* ‘giggle; romp with sg’. What is more, one can add that if the complement (argument) to be tested is a locative phrase, the diagnostic cannot provide the expected result because a great number of verbs can co-occur with a locative adjunct. Thus, locative arguments and locative adjuncts cannot be distinguished.

For an illustration let us turn to the verb *él* ‘live’, which – on the basis of the synonymous verb *lakik* ‘live’ in Fábrićz (2000: 271), Gábor et al. (2008: 878) and Komlósy

(2015: 328) – should presumably occur with an argument expressing location (see also English *live* in 2.1.2 and 2.2.1). However, this argument is not obligatorily present in a sentence, as is attested by (49). Compare (48) and (49).

(48) Péter Budapesten él/lakik.
 Péter Budapest.Sup live.3Sg/live.3Sg
 ‘Péter lives in Budapest.’

(49) Péter egyedül él/lakik.
 Péter alone live.3Sg/live.3Sg
 ‘Péter lives alone.’

Since such omissibility cannot be explained by the general criteria in (32a–c) introduced at the beginning of 2.2.3, one can try to apply the test of type-unchanging complements (arguments) as follows. Another verb such as *tanul* ‘study’ can be substituted, not only for the single verbs *él/lakik* ‘live.3Sg/live.3Sg’ in (49) but also for the verbs with their apparent argument in (48). Thus, these substitutions yield the sentences below.

(50) Péter egyedül tanul.
 Péter alone study.3Sg
 ‘Péter is studying alone.’

(51) Péter tanul.
 Péter study.3Sg
 ‘Péter is studying.’

Nevertheless, what is crucial from the point of view of testing Komlósy’s (2015) type-unchanging diagnostic is the acceptability of the construction in (52) where the verb *tanul* ‘study’ appears with the locative phrase *Budapesten* ‘in Budapest’, which does not seem to be in the same specific relation to its head (regent) as it is in (48).

(52) Péter Budapesten tanul²⁴.
 Péter Budapest.Sup study.3Sg
 ‘Péter is studying in Budapest.’

Consequently, the diagnostic under investigation is not able to identify the apparent optional argument of *él/lakik* ‘live’. Moreover, on the basis of the diagnostic the locative adjunct of

²⁴ Here the verb *tanul* is meant in the sense of an occasional activity, e.g. to study to pass an exam. The verb meaning ‘be a student in an educational institution’ may be conceived as another lexical item with a locative argument which is suggested by the paraphrase given in single quotation marks.

tanul ‘study’ in (52) looks like the locative argument of *él/lakik* ‘live’ in (48). The situation is best saved if we qualify it as not a simple one, remembering that Komlósy (2015: 286–289) bore simple cases in mind. On the one hand, since locative phrases are very common, such an excuse is thin. On the other hand, since it is widely acknowledged that – depending on their relation to the event denoted by verbs – they can behave like both adjuncts and arguments (cf. in 2.1.2 and 2.2.1 above), the issue is genuinely complicated and inevitably needs a semantic treatment.

2.2.5. Grammaticality variability of the results of syntactic diagnostics

Before we turn to a thorough investigation of the semantic side of argumenthood, it must also be emphasized that – besides the above problematic issues of syntactic diagnostics (mainly, their mixed results and failed objective) – the results of the tests “often seem to lie in the range between complete grammaticality and strong ungrammaticality” (Schütze and Gibson 1999: 428). A similar claim is made by Kálmán (2006: 234–236): there are various degrees of acceptability and, in addition, they cannot be judged easily.

A separate mention should be made of the diagnostics used for the argument vs. adjunct distinction with respect to dependents of another type of predicators, namely of nouns (Farkas and Alberti 2018b). The obligatoriness of the arguments of nouns shows the same pattern, with unequivocal cases of obligatoriness and omissibility and several in-between cases. I provide the whole series of examples with arguments and adjuncts after the head noun – just for illustration, without any change and comment (pp. 740–741; acceptability judgments are indicated according to Alberti and Laczkó 2018: viii: * – unacceptable, ? – marked, (?) –slightly marked, no marking – fully acceptable, √ – fully acceptable (after unacceptable or marked variants)):

- (53) a. *János megérkezése* [*Pestre*] / ?[*Máriával*] ma is beszédtema.
János arrival.Poss.3Sg *Pest.Sub* / *Mária.Ins* today also topic
 ‘*János’s arrival [in Pest] / [with Mária]* is still a hot topic today.’
- a’. *János megérkezése* ?(?)[*Pestre*] [*Máriával*] ma is beszédtema.
János arrival.Poss.3Sg *Pest.Sub* *Mária.Ins* today also topic
 ‘*János’s arrival ([in Pest] [with Mária])* is still a hot topic today.’
- a’’. (?)*János megérkezése* [*Máriával*] [*Budapestre*] ma is beszédtema.
János arrival.Poss.3Sg *Mária.Ins* *Budapest.Sub* today also topic
 ‘*János’s arrival [with Mária] [in Budapest]* is still a hot topic today.’
- b. *A fiúk* *találkozása* [*Máriával*] / ?[*Pesten*] ma is beszédtema.
the boy.Pl *meeting.Poss.3Sg* *Mária.Ins* / *Pest.Sup* today also topic

‘The boys’ meeting [with Mária] / [in Pest] is still a hot topic today.’

- b'. *A fiam találkozása* *^(√)*[Máriával] [Budapesten]* ma is beszédtema.
the son.Poss.1Sg meeting.Poss.3Sg Mária.Ins Budapest.Sup today also topic
 ‘My son’s meeting ([with Mária] [in Budapest]) is still a hot topic today.’
- b''. ^(?)*A fiam találkozása [Pesten] [Máriával]* ma is beszédtema.
the son.Poss.1Sg meeting.Poss.3Sg Pest.Sup Mária.Ins today also topic
 ‘My son’s meeting [in Pest] [with Mária] is still a hot topic today.’
- c. *Mindenkit meglepett az a váratlan össze-vesz-és-e-d*
everyone.Acc surprise.Past.3Sg that the unexpected together-lose-ÁS-Poss.2Sg
**[Ili-vel a távirányító-n.*
Ili-Ins the remote_control-Sup
 ‘The fact that you had an unexpected row (with Ili) over the remote control was a surprise to everyone.’
- c'. *Mindenkit meglepett az a váratlan össze-vesz-és-e-d*
everyone.Acc surprise.Past.3Sg that the unexpected together-lose-ÁS-Poss.2Sg
Ili-vel (a távirányító-n).
Ili-Ins the remote_control-Sup
 ‘The fact that you had an unexpected row with Ili (over the remote control) was a surprise to everyone.’
- d. *Na például az a remek cikk ([a legjobb szakértőtől]_{Agent} /*
well for_instance that the great paper the best expert.Abl /
[a győztesről]_{Theme} / [a kamaszoknak]_{Beneficiary}), az nagyon tetszik.
the winner.Del / the teenager.Pl.Dat that very.much please.3Sg
 ‘Well for instance, that great paper ([by the best expert] / [about the winner] / [for young adults]), I like that very much.’

It is worth noting that according to Farkas and Alberti (2018b: 741), the extent of the obligatoriness of the arguments of the derived nouns in (53) is “the same as the extent of obligatoriness of the corresponding arguments in the corresponding input verbal constructions”. Since obligatoriness tests result in such a wide range of judgements and the results cannot be explained on the basis of the general criteria in (32a–c) introduced at the beginning of 2.2.3, they use other diagnostics to identify arguments. However, their findings are somewhat confusing. As they themselves acknowledge (pp. 761–762), the distribution of dependents under the pronominalization test seems to be the opposite of the distribution the test concerning precopular predicative constructions yielded. Furthermore, although all the dependents that show some argumenthood, but none of the prototypical adjuncts, “more or less readily undergo” a kind of extraction, the degree of argumenthood is not strictly “in proportion to the degree of argumenthood calculable on the basis of the other tests” (p. 766). As to the diagnostics concerning of the taking of internal and external scope, arguments can

be characterized by “more or less inclination for taking internal scope” (p. 747) and “convincing inclination for taking external scope” (p. 750). Nevertheless, Farkas and Alberti’s tests also show exceptions (pp. 747 and 750). The latter case is important from another point of view. The authors mention that adjuncts do not have an external scope interpretation, except for “adjuncts belonging to derived nouns, in which case the syntactic connection between the adjunct and the head is more or less recognizable on the basis of the derivational connection”. This does not only mean that those adjuncts become similar to the arguments with respect to taking external scope, but also that the syntactic character of the connection between the adjunct and the head can be questioned because what appears to be primarily recognizable on the basis of the derivational connection is the semantic togetherness of adjuncts of the given kind and their heads. The proposed treatment of the basis of the connection is supported by the example (54) below.

- (54) *Tegnap elvesztek *a lányok* [*mindkét fényképen*].
 yesterday disappear.Past.3Pl *the girl.Pl* *both* *photo.Sup*
 Intended meaning: ‘*It holds for [both photos] that the girls who can be seen in either of them have disappeared yesterday.*’

As Farkas and Alberti (2018b: 747) state with respect to (54), despite the absence of “the readily recognizable connection”, it is impossible for the hearer to get rid of the absurd interpretation “according to which what is going on in the picture is that the two girls are just being lost”.

To close the methodological discussion of the identification of arguments of verbs (or more generally: predicators) and their distinctions from adjuncts, it is worth emphasizing that the use of corpus data does not eliminate difficulties presented in this and previous subsections. Even if one finds in a corpus that a particular verb occurs with or without particular dependents and one has her own judgements of their acceptability, there still remains the question on the basis of what (syntactic) criteria one can distinguish between arguments and adjuncts. And if one needs new examples which are variants of the initial examples modified in sophisticated ways, it cannot be guaranteed that one will find any corpus occurrences. Nevertheless, no one can assume that what is not included in a corpus (however large it may be) is excluded from language use (cf. Gábor et al. 2008: 868).²⁵ Now we have come full circle.

²⁵ For some further discussion of the role of corpus studies in providing data for linguistic investigation, see Bibok (2010: 293–294, 2014c, 2016a: 408–410), as well as Section 6.1 below.

2.3. *Towards semantically motivated syntactic arguments*

After the overview of the issues concerning the reliability of syntactic diagnostics of argumenthood, we deal with its semantic aspects, which have already been mentioned several times in the above discussion. We turn to them because our expectations to receive a safer basis from syntactic approaches have not been justified in Subsections 2.2.1–2.2.5. As the present section proceeds, it will become clear that semantic aspects are not only another side of argumenthood but – unlike syntactic diagnostics – they can serve as firm grounds to distinguish between the arguments and adjuncts of a particular verb.²⁶ First, we will take Gábor et al.’s (2008) approach, which has been elaborated for NLP purposes and which applies the compositionality criterion, treated as a criterion that lies at the syntax–semantics interface.

2.3.1. Arguments and adjuncts at the syntax–semantics interface

Gábor et al. (2008: 870) consider a constituent to be an argument when it is semantically connected to a verb in a non-compositional way, i.e. a phrase consisting of a verb and an argument cannot be brought about by a rule which constitutes an unpredictable form–meaning pair.²⁷ An attentive reader will recall the fixed preposition test from (17g) in 2.2.1, which proposes a similar idea with respect to prepositions, as well as case endings or postpositions in Hungarian (for the latter, see Csirmaz 2008: 223). Thus, in accordance with the compositionality test the sentence in (55) below contains four arguments with respect to the verb *leküld* ‘send down’ while the infinitival phrase is an adjunct.

- (55) A szomszéd leküldte a fiát az
the neighbor send_down.Past.DefObj.3Sg the son.Poss.3Sg.Acc the
emeletről a kertbe meggyet szedni.
floor.Del the garden.Ill sour_cherry.Acc to_pick
‘The neighbor sent down his son from the floor to the garden (in order) to pick sour
cherry.’

²⁶ Verbs are meant as the most typical predicators and that is why our formulations in the subsequent parts of the dissertation will only consider verbs.

²⁷ Two remarks are in order. First, according to Komlósy’s tradition, dating back to Elekfi (1966) and H. Molnár (1969), Gábor et al. (2008) use the term *vonzat* ‘complement’ but a more restricted class, namely the class of arguments, on which we are primarily focusing in the present chapter, is typically shown in their examples (cf. fn. 12). Second, the above formulation of what is considered an argument would have been more precise if in spite of the conjunction *vagyis* ‘i.e.’ the authors had indicated the semantic **and** syntactic sides of their criterion.

At the same time, referring to the compositional, non-idiomatic meaning²⁸ of the directional phrase in (56), Csirmaz (2008: 223) handles such a phrase as an adjunct.

- (56) Feri a hegyre futott.
 Feri the mountain.Sub run.Past.3Sg
 ‘Feri was running uphill.’

Moreover, such a directional expression seems to be compositionally combinable with verbs of motion, e.g. with *fut* ‘run’ in (56), and, consequently with verbs containing a motion component, e.g. *leküld* ‘send down’ in (55). This treatment of the connection between directionals and verbs with a motion component can be supported by the claim that verbs such as *él* ‘live’, *lakik* ‘live’ and *tartózkodik* ‘stay; reside’ and their locative dependents are semantically compositional and – despite the compositional character of the constructions at issue – locatives count as arguments because they are required by the above-mentioned verbs (cf. Gábor et al. 2008: 878 and Subsection 2.2.4). Two statements follow from this discussion. First, compositionality is not a dividing line between arguments and adjuncts (contra Gábor et al. 2008). While adjuncts themselves are compositional and are combined compositionally, arguments cannot be characterized decisively in this respect (cf. Csirmaz 2008: 223).²⁹ Second, what seem to play a decisive role are verb meanings, which define the semantic relations by which arguments are connected to verbs. Interestingly this idea appears in Gábor et al. (2008: 870) but is not emphasized properly and is not exploited against the compositionality criterion. To conclude, we need deep research into verb meanings.

2.3.2. Towards arguments coming from lexical-semantic representations of verbs

To begin with, let me remind the reader of the following two aspects of the previous discussion. First, although a great number of syntactic diagnostics concerning the distinction between arguments and adjuncts have been offered in the special literature, they do not appear to achieve the purposes intended. The compositionality criterion at the syntax–semantics

²⁸ Cf. the prepositional content test (idiomatic vs. literal/basic meaning) mentioned in fn. 18.

²⁹ In addition, there can be a possible dichotomy at the level of semantic rules: the rule for forming a predicate from a head and an argument “must be different from the rule for predicating a modifier of an already formed predicate” (Schütze and Gibson (1999: 428). Cf. also: according to Croft (2001), while an argument is a semantic argument of a head, an adjunct is a predicate whose argument is the event described. However, one cannot exclude cases “where the resulting meaning is virtually indistinguishable” (Schütze and Gibson 1999: 428, where further details can be read).

interface hardly works better. The failure of the approaches under investigation points to the opposite direction, i.e. to the semantic side of the issue.

Second, the literature cited at the beginning of the discussion of argumenthood and adjuncthood in 2.1.2 takes for granted that the distinction between them has its own corresponding semantic basis. To put it the other way around, there is a semantic (thematic) relation of arguments to their heads.³⁰ However, Schütze and Gibson's (1999: 410) definitions given in (16) above cannot be interpreted clearly enough from the viewpoint of the Semantic Obligatoriness Criterion and the Semantic Specificity Criterion introduced by Koenig et al. (2003). Let us now take a closer look at these semantic criteria. Consider (57).

(57) Marc knits *in his office during lunch*.

According to the Semantic Obligatoriness Criterion – as Koenig et al. (2003) admit –, the italicized phrases in (57) should count as arguments because if one knits, one must knit in a certain place at a certain time. To avoid this counterintuitive conclusion which is not supported by any linguists, they introduce a second criterion of argumenthood, namely the Semantic Specificity Criterion, on the basis of which an argument should “bear additional properties aside from those which are characteristic of the role” (ibid., p. 73) abstracted away from various particular occurrences, e.g., in (58) and (59).

(58) Marc sang *a song* yesterday.

(59) Marc wrote *a song* yesterday.

The theme role recognized by the Semantic Obligatoriness Criterion as an argument participant role present in any situation expressible by the verbs *sing* and *write* differs slightly with respect to the specific verbs. The constituent *a song* in (58) refers to a vocal form, i.e. a property, which does not characterize the referent of *a song* in (59), namely a written form. From the point of view of the verbs one can state that they semantically constrain, or in other words: impose semantic selection restrictions on, their objects. However, the meaning of the time adverbial *yesterday* remains constant in both (58) and in (59).

With these semantic criteria in mind, Koenig et al. (2003) argue that the verbs *dig*, *slice* and *write* semantically “require” an instrument, while the verbs *break*, *eat* and *open* only

³⁰ Cf. also the following statement from the Hungarian literature (Keszler 2000b: 355–356): the complement is required and determined by the meaning of the regent.

“allow” an instrument (cf. obligatory instrument verbs vs. non-obligatory instrument verbs in Koenig et al. 2008), and the verbs *advertise*, *boil* and *hide* semantically require a participant location.

Nevertheless, taking into consideration examples such as (60) and (61) below, Hwang (2012: 31) claims that the semantic distinction between the two occurrences of the phrase *on the porch* is “slight at most and difficult to make”.

(60) Marc put the apple on the porch.

(61) Marc ate the apple on the porch.

Hole (2015: 1286–1287) draws similar conclusions in regard to the similar semantic diagnostics of argumenthood (and adjuncthood). The non-suppressibility of arguments, which he conjoins with the syntactic non-omissibility criterion, means that if a sentence *S*, grammatical without a constituent *C*, entails “the semantic relation that links the content of *C* to the eventuality described by *S*” (p. 1286), then *C* is an argument. Let us take the examples in (62).

- (62) a. Paul is eating (a pizza).
 b. Eddie made (Lisa) a cake.
 c. Eddie made a cake (for Lisa).

Since *Paul is eating*, i.e. the part of (62a), which is grammatical without the object, entails that there is something that the subject is eating, the phrase *a pizza* counts as an argument. In contrast, *Eddie made a cake* (resulting from (62b)) does not entail that there should be somebody for whom a cake is made. So, *Lisa* is an adjunct. As to (62c), *for Lisa* may be an adjunct because *Eddie made a cake* “does not straightforwardly entail that some other eventuality was tied to it (a person’s intended benefit or detriment, for instance)” (Hole 2015: 1287). Moreover, as Hole points out, deciding whether or not such an entailment exists is problematic in several cases. A second criterion, namely that of semantic selection restrictions, may help. The objects of *eat* must refer to tangible things, whereas the objects of *think through* may not. In contrast, *make a cake* in (62c) does not select for a PP with a specific semantic meaning. Thus, *for Lisa* is an adjunct. However, the criterion of semantic selection restrictions does not work without uncertainties: “the direction of selection may be a matter of debate for a single co-occurrence of two linguistic expressions” (Hole 2015: 1287).

What is more, Hole’s non-suppressibility of arguments does not seem to be specific enough to discover the semantic relation with which an argument is connected to a verb. Consider the following examples.

- (63) Péter vágja a kenyeret.
 Péter cut.DefObj.3Sg the bread.Acc
 ‘Péter is cutting the bread.’
- (64) Péter olvassa az újságot.
 Péter read.DefObj.3Sg the newspaper.Acc
 ‘Péter is reading the newspaper.’

(63) implies an entity, typically, e.g., a knife, with which Péter is cutting the bread. On the basis of the non-suppressibility criterion, the verb *vág* ‘cut’ has an instrument argument which is in fact syntactically optional, as attested by (63). In the case of (64) nothing forces us to assume a particular thing be used in order to bring about the process of reading a newspaper. However, it is not excluded that someone occasionally uses something, e.g. a magnifying glass, to carry out what is denoted by (64).³¹ Furthermore, both situations in (63) and (64) entail locations, because if somebody is cutting or reading something, these processes must take place somewhere. Thus, once again we have come to Koenig et al.’s (2003) argumentation mentioned above with the Semantic Obligatoriness Criterion. However, as has been noted in the above discussion, Koenig et al.’s (2003) and Hole’s (2015) second criteria of Semantic Specificity and Semantic Selection can also be challenged by dubious cases. To find our way out of this dead end, we should turn to other properties than those grasped by Semantic Specificity and Semantic Selection. Rather than seeking the semantic specificity of the content expressed by arguments, it can be proposed we re-interpret the semantic specificity or restrictedness of arguments in the following way: “arguments are tied to specific verbs or verb classes” (Needham and Toivonen 2011: 405). By doing so, we render roles (or participants) of the specific verbs implied or entailed on the basis of semantic obligatoriness and non-suppressibility criteria into necessary roles or participants (cf. the definitions in (14a) and (15) above). In addition, such necessary participants inherently own the property of being participants of the event denoted by verbs with specific content (cf. the core participants test and the verb specificity test in Needham and Toivonen 2011). Consequently, arguments express the participants necessary for an event denoted by a verb to be complete and

³¹ An attentive reader may recall the distinction between obligatory instrument verbs and non-obligatory instrument verbs in Koenig et al. (2008).

necessary for that verb to realize its specific meaning in its entirety. As to adjuncts, they do not occur in a sentence because of the specific meaning of a verb. Rather, they express a modification related to a whole event including its necessary participants.

Now it is clear that we have to turn to the issue of lexical-semantic representations (henceforth: LSRs) of verb meanings. As is widely accepted, verb meanings are represented as predicates in a logical sense. Taking their arguments (in a logical sense), predicates form a proposition. Thus, if verb meanings are treated as argument-taking predicates, verbs do not only have syntactic arguments but also semantic arguments referring to the participants in events expressed by predicates (cf. Ackema 2015: 247, Apresjan 2010: 338, Apresjan 2014: 15, among others). Such arguments appear in the LSRs of verb meanings, not in “fully-fledged” forms but as variables. From the perspective of the lexicon, “[a] meaning that is inserted into an open slot of a predicate is called its argument” (Mel’čuk 2012: 195, cf. also Komlósy 2015: 293).³² What is more, verb meanings are decomposable into minimal semantic components such as ACT, USE, CAUSE, BECOME, BE and MOVE, which themselves are predicates.³³ Thus, arguments do not belong to verb meanings as whole entities but to predicates into which verb meanings are decomposed (see, e.g., Apresjan 2014: 17–18). The idea may even be formulated somewhat more strictly: the arguments come from

³² It is worth noting that there is a simplifying usage of terminology when no distinction is made between the argument slots of a predicate in the lexicon and its “fully-fledged” arguments in a (proposition of a) sentence (or more precisely: of an utterance). See the term *argument structure* itself, which is used to represent verbs’ argument-taking properties in the lexicon, on the one hand, and, on the other, the following citations, which are only an illustrative selection from a larger set of such explanations:

- (i) “predicate decompositions encode relations between arguments” (Levin and Rappaport Hovav 2005: 75).
- (ii) “arguments with certain semantic roles may have various syntactic realizations” (Levin 2014: 1).
- (iii) “Membership in the Θ -grid [...] marks a syntactic argument as being a semantic argument as well – an argument on which the predicate imposes a semantic relation” (Williams 2015: 62).

I will join this terminological trend in subsequent parts of my dissertation.

One more terminological clarification: we have to bear in mind external semantic arguments if we distinguish between the external and internal semantic arguments (see the term *argumentum 2*. ‘argument 2.’ in Glossary of Kiefer 2015: 813).

³³ For arguments in favor of decomposition and against meaning postulates, see Bibok (2004: 296–299) and Bibok (2017b: 75–77). For the unsatisfactoriness of the treatment of thematic role relations in terms of meaning postulates, see Bierwisch (2006: 112 and 122, notes 28 and 32).

argument-taking properties of meaning components in LSRs of verb meanings (Bibok 2017b, cf. also Komlósy 2015: 319).

Two important remarks are in order, which add further clarifying details to the proposed conception of semantic arguments. First, unlike meaning-modifying constituents, semantic arguments are names of (variables for) those participants in events (situations) which have to be mentioned in corresponding LSRs to identify situations denoted by the verbs at issue (Padučeva 2004: 73, cf. also Apresjan 2014: 15, fn. 19). If they are tied to the components of verb meaning representations, their necessary character is even more emphasized. If our thinking is on the right track, this means that LSRs should be used as tests for semantic argumenthood. In other words, deep analyses of verb meanings guarantee firm grounds to obtain semantic arguments. One can be skeptical about the usefulness of such a criterion because of its particularity and the difficulty of analyzing each verb – one after the other. On the one hand, we can draw attention to a feature of components, namely that – as will be demonstrated in subsequent investigations – they systematically occur in various meaning representations. On the other hand, the case of (semantic) arguments, i.e. the dependence of the identification of arguments on particular features of a single verb meaning, seems to be fairly similar to what Kenesei (2016: 89) states about the notion of the part of speech. Parts of speech are epiphenomenal. There are features and their combinations which determine the position of words in sentences. In the extreme case of the Hungarian auxiliaries, relevant properties practically “carve out” one-member classes. In addition, it is very illuminating to take into account another apparently fundamental linguistic term, namely the notion of phoneme, which is only regarded in the contemporary phonology as an abbreviation of a set of distinctive features (Siptár 2015: 12). Hence, if the notions of the part of speech and the phoneme must be re-interpreted, it is no surprise that a re-analysis of the notion of the argument will also be necessary.

Second, two specific characteristics of LSRs favored and presented in thorough investigations below need to be emphasized here (Bibok 2014b: 222–223, 227; Bibok 2016a: 411; Bibok 2017b: 114–115, 124–125). One of them concerns types of information in LSRs. Detached from their contexts, some pieces of contextual information can become context-independent. Furthermore, this kind of encyclopedic information and information concerning the use of language can be encoded as an integral part of LSRs (Németh T. and Bibok 2010). Therefore, like Groefsema (2007), who recasts logical and encyclopedic pieces of information as ingredients of the content of a concept, I also assume two types of information in word meanings. Besides meaning representations composed by means of primitive predicates, a

conception of LSRs (Bibok 2004, 2010, 2014b, 2017b as well as Chapter 6 of the dissertation) applies encyclopedic meaning descriptions. In doing so, a significant role is given to prototype semantics and lexical stereotypes. Thus, the present proposal does not only take for granted that both semantic predicates and world knowledge are indispensable parts of LSRs but also that there should be a division of labor between them (cf. Engelberg 2011a). So, according to Levin and Rappaport Hovav's (1995: 20–30) highly influential approach to the issue, verb meanings are represented in the form of predicate composition and, in addition to the primitive predicates, there is another kind of meaning element, namely, what has been called constants.³⁴ Combinations of predicates constitute grammatically relevant aspects of verb meanings, and constants encode their idiosyncratic elements. At the same time, because of the enriched meaning representations argued for in order to account for syntactic alternations (Iwata 2002, Bibok 2010), such a characterization of the distinction between the knowledge of language and that of the world is questionable (cf. also Engelberg 2011b: 135).³⁵ Therefore, I assume another distinction between (logically and metaphysically necessary) constituents and prototypical/stereotypical encyclopedic knowledge in word meanings. This is fairly similar to what Allan (2012: 234) says, if we read it in the sense of decomposition (rather than in an atomistic, or holistic, way): “a lexicon entry can be constructed to indicate the necessary components of meaning for the entry and also the most probable additional components of meaning that obtain for most occasions of use but which may be canceled as a function of contextual constraints. These can be seen as prototype effects”.³⁶

Another specific characteristic of LSRs is connected with what words denote. Since a number of words do not encode fully-fledged concepts, lexical analyses cannot do without underspecified meaning representations.³⁷ Among the various forms of underspecification, heavily relied on in the following chapters, we encounter prototypes and the bracketing of the

³⁴ From their subsequent work (Levin and Rappaport Hovav 2005: 71) onwards, instead of the term *constant*, they use the widely accepted term *root*.

³⁵ Levin and Rappaport Hovav (2005: 73) consider the assumption that “primitive predicates alone determine the grammatical behavior of predicates” to be incorrect.

³⁶ The need to consider encyclopedic knowledge for the semantic identification of arguments is also indicated by Hwang (2012). With respect to Koenig et al.'s (2003) Semantic Specificity Criterion she remarks that “[s]ome distinctions are so slight that without world knowledge, we have no distinction to make” (Hwang 2012: 34).

³⁷ I hope that it is obvious that my conception favors internal semantics and not external semantics concerned with external denotations.

optional (prototypical) parts. They also include forms of underspecification which appear, but not because of prototypicality; these include the double interpretation of a lexical-semantic structure, or focusing on one part of a representation, the components abstracted from concrete instantiations and the use of variables for components to be differentiated or shifted.³⁸

Now we can return to (63) and (64), which were used to illustrate a shortcoming of Hole's (2015) non-suppressibility of arguments. For the sake of convenience they are repeated here as (65) and (66).

(65) Péter vágja a kenyeret.
 Péter cut.DefObj.3Sg the bread.Acc
 ‘Péter is cutting the bread.’

(66) Péter olvassa az újságot.
 Péter read.DefObj.3Sg the newspaper.Acc
 ‘Péter is reading the newspaper.’

The verb *vág* ‘cut’ in (65) entails an object to cut with; therefore, it has an instrument argument. This entailment is quite natural if one accepts the following LSR for *vág* ‘cut’ (cf. Bibok 2008: 63, Bibok 2017b: 34–35):

(67) a. ‘acting such that using Z, X causes Y to become not whole’;
 b. [[[x ACT] : [x USE z]] CAUSE [[BECOME [y not WHOLE]]].

The analytic paraphrase of the meaning of *vág* ‘cut’ in (67a) is translated into a semantic metalanguage whose predicates equal minimal semantic components (see (67b)).³⁹ Let us realize that the predicate CAUSE with its two event arguments forms a proposition. However, we need an expression whose category equals a category which the verb *vág* ‘cut’ belongs to and according to which it combines with other words in a sentence. Technically, this may be

³⁸ Underspecified LSRs including some world knowledge may on a principled basis re-treat so-called optional semantic arguments (Jackendoff 2002) and an optional semantic actant slot (Mel'čuk 2015: 40). A citation from the latter work which argues for the possibility of an optional container participant of eating and drinking seems to be very straightforward: “[T]he prototypical situation of eating/drinking by humans is to eat/drink using a container. Even domestic animals eat and drink from something” (Mel'čuk 2015: 33). – In a similar vein, non-core participants and thematic adjuncts as well as non-obligatory instruments, mentioned in 2.2.2, may be related to LSRs of verbs.

³⁹ Now I leave aside the idea that a representation such as that in (67) can be supplemented with the indication of lexical stereotypes and/or prototypes (cf. Bibok 2017b: 116–117).

reached through lambda-abstraction, i.e. before the formula in (67b) we posit lambda-operators, which bind the variables. Then we get the following:

- (68) $(\lambda z)\lambda y\lambda x$ [[[x ACT] : [x USE z]] CAUSE [[BECOME [y not WHOLE]]],
 where the brackets around z indicate that filling out the variable z is syntactically optional (see (65) above).⁴⁰

Unlike *vág* ‘cut’, whose LSR contains a variable for an instrument tied to the predicate USE, the LSR of *olvas* ‘read’ does not have to have such a component. So, the fact that (66) does not entail that there is an instrument participating in the reading event receives its explanation in a quite natural way. However, it is not excluded at all that in the proposition, but not in the LSR of the verb, the meaning ‘use’ can occur and hence an instrument can also be expressed as in (69).

- (69) Péter egy nagyítóval olvassa az újságot.
 Péter a magnifying_glass.Ins read.DefObj.3Sg the newspaper.Acc
 ‘Péter is reading the newspaper with a magnifying glass.’

As for the location entailment with respect to (65) and (66), i.e. if somebody is cutting or reading something, these processes must take place somewhere, we should also take into consideration where it comes from. Only if it is implied by the LSR of a verb, does it count as a location argument. The verb *áll* ‘stand’ in its non-intentional sense illustrates such a case, cf.:

- (70) a. ‘X is in a particular spatial position such that X’s place has a relation α to the place of reference entity marked by R’;
 b. $[[x BE_p] : [x LOC \alpha r LOC]]$,
 where p = a particular spatial position.

Let us realize that localization is not attached to the component BE as its argument but appears separately conjoined with BE by the conjunction “:” meaning ‘such that’. Motivation for this is the treatment of another component, namely MOVE, which can be connected not only to a location but also to a direction. What is more, the separation of location and direction from MOVE is the only way capture the alternation between location and direction

⁴⁰ In fact, in (68) there should be one more variable, namely “e”, representing the semantic category of the whole expression in (67b), i.e. the fact that (67b) itself should count as an event. For possible (Neo-)Davidsonian vs. Reichenbachian/Bierwischian notational variants, see Maienborn (2011).

in an underspecified representation (Bibok 2010, see also Chapter 5).⁴¹ The only point relevant here and now is that the location argument of *áll* ‘stand’ follows from the LSR in (70). A location argument in a sentence is to be substituted for the part after the conjunction “:”, i.e. for [x LOC α r LOC].⁴² Cf.:

- (71) A váza az asztalon áll.
 the vase the table.Sup stand.3Sg
 ‘The vase is on the table.’

To sum up the discussion of the present section: participants of an event necessary for the description of a verb meaning are represented by variables in the LSR of that verb. Thus, the semantic arguments of a verb correlate with certain fragments of its LSR. Consequently, verb meanings and verbs themselves are n-place predicates from a logical point of view. With such a model of the LSRs of verbs in mind, one can speak of their adicity, or arity, i.e. of their property concerning the number and type of arguments they can take.

Extending this semantically based framework to other types of complements than arguments, i.e. to predicative, adverbial and sentential complements, a classification of verbs relying on the properties at hand will be offered in Chapter 3. For the time being it is not based on detailed LSRs of verbs because thorough semantic analyses of verbs are not at the disposal of researchers (however, Chapter 5 makes a leap forward in this direction). The classification at issue can still provide a body of data for semantic and syntactic investigations. The reader can form some preliminary idea in advance by reading through the brief synopsis of the classification in Table 1. Hungarian verbs are divided into five semantic

⁴¹ With regard to MOVE, three clarifying remarks are in order. First, the idea of the separation of a locative/directional semantic argument from the predicate is inspired by Bierwisch’s (1988) analysis of local prepositions which handles them in a uniform way independently of whether they are (syntactic) arguments or adjuncts. Second, instead of two components, namely MOVE and GO, for the ‘manner of motion (somewhere)’ sense and ‘directional motion’ sense, respectively (cf. Jackendoff 1990: 88–89), I assume a single component MOVE abstracted away from those two senses. Third, MOVE is not specified in further aspects such as change of physical place and of position, nor in motion in physical and social space (see Chapter 5 and Bibok 2004, 2017b, respectively).

⁴² Technically, such a substitution means that there is a (predicate) variable for the fragment at stake. This variable is bound by a lambda-operator and, thus, it counts as a semantic argument of *áll* ‘stand’, which is necessary for the situation of standing and plays a locative role (for more details, see the notion of argument structure in 2.3.3 and 2.5).

and fourteen syntactic classes with 49 (morpho)syntactic subclasses and further possible semantic role differences.

Table 1. Synopsis of a semantico-morphosyntactic classification of Hungarian verbs

semantic class	syntactic class	morphosyntactic subclass (with further possible semantic role differences)
null-argument verbs (№ 1)	subjectless verbs (№ 1.1)	
one-argument verbs (№ 2)	intransitive verbs (№ 2.1)	unergative verbs (№ 2.1.1) unaccusative verbs (№ 2.1.2)
	verbs with predicative complements (№ 2.2)	predicative complements in the dative case (№ 2.2.1)
	verbs with sentential (finite verbal) complements (№ 2.3)	subject complement clauses (№ 2.3.1)
two-argument verbs (№ 3)	transitive verbs (№ 3.1)	
	verbs with oblique complements (№ 3.2)	oblique complements in various cases (№ 3.2.1–3.2.16)
	verbs with predicative complements (№ 3.3)	predicative complements in various cases (№ 3.3.1–3.3.3) infinitival predicative complements (№ 3.3.4–3.3.5)
	verbs with sentential (finite verbal) complements (№ 3.4)	subject complement clauses (№ 3.4.1) object complement clauses (№ 3.4.2–3.4.3) various oblique complement clauses (№ 3.4.4)
three-argument verbs (№ 4)	verbs with various complex complement structures (№ 4.1–4.5)	object + various oblique complements (№ 4.1.1–4.1.12) object + various predicative noun phrases (№ 4.2.1–4.2.2) object + various oblique complement clauses (№ 4.3.1) object complement clause + various oblique complements (№ 4.3.2) oblique complement + oblique complement (№ 4.4.1–4.4.3) oblique complement + oblique complement clause (№ 4.5.1)
verbs which are arguments of higher-order predicates (№ 5)	verbs with adverbial complements (№ 5.1)	

2.3.3. Semantic roles: two alternatives

Semantic roles (also known as thematic roles or theta-roles) such as Agent, Theme, Instrument, Goal etc. refer to the roles that are played by participants in an event denoted by a verb. In other words, semantic roles represent the relations the (semantic) arguments have with the verb. However, researchers differ vastly with respect to how particular roles should be defined, what roles their full inventory should consist of and what roles should be assigned to individual verbs whose roles are not easily classifiable (see the following summarizing and evaluating studies: Bierwisch 2006, Davies 2011, Levin 2014 and Levin and Rappaport Hovav 2005, among others).

First, difficulties in finding reliable diagnostics for “isolating precisely those arguments bearing a particular role” (Levin and Rappaport Hovav 2005: 38) and the subdivision of a single role (Ibid., 39) have led to various definitions and sets of semantic roles. The interested reader is referred to an extensive presentation of possible roles gathered from an enormous number of sources in Levin (2014: 14–25). A maximum set of roles seems to enumerate 54 roles (Apresjan 2010: 370–377). As to a list proposed in the Hungarian literature, see Komlósy (2015: 327–328). What is more, the subdivision of a role results in the creation of different kinds of role but the grain-size appropriate for one generalization is not suitable for other generalizations (Levin and Rappaport Hovav 2005: 40).

Second, a list of discrete and unanalyzable semantic roles with lexical items makes it impossible “to impose any structure over the set of semantic roles that can account for similarities in patterning or dependencies in co-occurrence” and to give any insight into “why semantic roles figure in argument expression in just the way they do” (Levin and Rappaport Hovav 2005: 42, 44).

Third, deviations from one-to-one correspondence between semantic roles and syntactic arguments formulated according to the Chomskyan theta-criterion are frequently mentioned (Bierwisch 2006: 108, Davies 2011: 408, Levin and Rappaport Hovav 2005: 42–43). While double role assignment can be assumed in the case of verbs of transfer of possession as well as verbs of position (where the Theme is related not only to the type of position but also to the location) and verbs of motion (where the subject is not only the Agent of an activity but also the Theme of motion), instances of two-NPs-with-the-same-role seem to be “symmetric” predicates such as *face*, *border* and *resemble*. If with the latter verb a role “standard of comparison” is postulated to avoid the assignment of the same role to two noun phrases, another problem appears, namely the positing of an otherwise untypical role.

Thus, the semantic role list approach⁴³ is a verbal representation including an independently stipulated set of semantic roles. According to another approach favored by Levin and Rappaport Hovav (2005: 68–74), semantic roles are derived from the verbs’ decomposed LSRs. More concretely, they are defined in terms of the argument positions of particular (grammatically relevant) primitive predicates such as ACT/DO, CAUSE, BECOME, GO, BE, STAY, LET etc. The predicate decomposition approach to defining the particular semantic roles is very similar to Bierwisch’s (2006) Intrinsic View, according to which the content of thematic roles and their ranking come from the positions of variables involved in hierarchically structured decomposed LSRs such as (68) in 2.3.2 above. In (68) thematic roles are formally expressed with the help of lambda-operators, which bind variables.

Contrary to this, but similarly to the semantic role list approach, the Extrinsic View in Bierwisch (2006: 105) assumes a list of semantic roles stipulated independently of verbs’ LSRs. Their ranking is given by another independent stipulation of thematic hierarchies whose basic idea is that thematic roles define relations between events and their participants but the appropriate statement of such hierarchies is fiercely debated and is to a large extent controversial (Levin 2014: 29).⁴⁴ In an implementation of the Extrinsic View, semantic roles are construed as “two-place predicates Agent (of), Experiencer (of), Theme (of), etc. which relate a variable x to a given situation or event s , with properties of s being specified by a one-place predicate indicating the characteristic content of the lexical item in question” (Bierwisch 2006: 106). Such a representation of the verb *show* is included in (72):

(72) $\lambda x \lambda y \lambda z \lambda s$ SHOW (s) & Agent (z, s) & Experiencer (y, s) & Theme (x, s).

Thematic hierarchies are typically used by prominence-preserving approaches to argument realization generalizations from which equivalence class-preserving approaches are distinguished according to “whether the relative semantic prominence of a pair of semantic roles is reflected in the relative prominence of their morphosyntactic realizations” or “whether all instances of a semantic role are given the same argument realization options” (Levin 2014: 26). The idea of equivalence class-preserving is captured by the Uniformity of Theta

⁴³ The term was coined by Levin and Rappaport Hovav (2005: 35).

⁴⁴ For two versions of thematic hierarchies, consisting of different sets of semantic roles, see Bierwisch (2006: 106) and Csirmaz (2008: 195).

Assignment Hypothesis (UTAH, Baker 1997).⁴⁵ Let us take just one counter-argument against UTAH (for a detailed argumentation, see Newmeyer 2001. Consider the following examples in (73).

- (73) a. John kicked the ball.
 b. John saw the problem.
 c. The hammer/wind broke the window.

As Progovac (2015: 243) claims, the semantic roles of the nouns in the subject positions of (73a–c), probably Agent, Experiencer, Instrument and Natural force, respectively, may not be clearly distinguished, especially concerning *the hammer* and *the wind*. Nevertheless, all of the nouns are generated in the same syntactic position designated for subjects.

Returning to the predicate decomposition also used by Bierwisch’s Intrinsic View, one can realize that it meets the problem of the proliferation of primitive predicates (Levin and Rappaport Hovav 2005: 74). However, a conception without decomposition such as the Extrinsic View needs a larger set of (main) predicates identifying the specific situation for each verb (as SHOW for *show* in (72)) and faces the problems resulting from treating the admissible thematic roles for all (main) verbal predicates via meaning postulates (cf. Bierwisch 2006: 110–112).

Consequently, not only the semantic arguments but also the semantic roles, or thematic/theta-roles, which semantic arguments play with regard to their predicate can be identified on the basis of the LSRs of verbs. This means that the semantic roles of a verb are not chosen from a general list of the roles. Instead, LSRs more explicitly and exactly show semantic roles than the proposed lists (in addition, in the literature there is no generally accepted list).

In what follows I will outline how some semantic roles can be identified by means of decomposed LSRs. To begin with, consider the component CAUSE, which combines with an agent argument (Pinker 1989: 73, Goldberg 1995: 165).⁴⁶ However, as the LSR of *vág* ‘cut’ in (67b), repeated as (74), shows, the first argument, namely the causing factor, of CAUSE does not simply equal the agent.

⁴⁵ Its relativized version, also presented in Baker (1997), can be viewed as one of the prominence-preserving approaches (cf. Davies 2011: 414, Levin 2014: 26).

⁴⁶ See also Levin and Rappaport Hovav (2005: 70), where the negative consequences of equating the first argument position of CAUSE with the agent thematic role are mentioned as well.

(74) [[[x ACT] : [x USE z]] CAUSE [[BECOME [y not WHOLE]]]

In fact, what causes a change of state is some event(s), in the present case: *x*'s acting and using *z*. Thus, the agent can be identified as the first argument of ACT (cf. Bierwisch 2006)⁴⁷ and the first argument of USE, which are denotationally the same and are represented by a single variable, i.e., by *x*.

Now we can account for a sentence such as (75a) containing an adverbial phrase with an instrument role. But what about (75b) which shows the so-called instrument–subject alternation, where the constituent bearing the instrument role appears in the subject position (for an in-depth investigation of the alternation, see Chapter 5)?

- (75) a. Péter egy zsebkéssel vágja a kartonpapírt.
 Péter a penknife.Ins cut.DefObj.3Sg the pasteboard.Acc
 'Péter is cutting pasteboard with a penknife.'
- b. A zsebkés vágja a kartonpapírt.
 the penknife cut.DefObj.3Sg the pasteboard.Acc
 'The penknife cuts pasteboard.'

Since in (75b) there is no executor of the action, the change of state can be attributed to the object used as the instrument to cut. Therefore, the components ACT and USE of (74) do not seem relevant for the representation of *vág* 'cut' in (75b). However, instead of postulating a separate LSR, one can account for both occurrences of the verb *vág* 'cut' by a single underspecified representation⁴⁸ if the fragment of (74) which is optional in the case of (75b) is put into round brackets. Cf. (76):

(76) [([[x ACT] : [x USE) z]] CAUSE [[BECOME [y not WHOLE]]],
 where the round brackets indicate optionality.

Furthermore, it is important to realize that the variable *z* is still connected to USE in (76). The underspecified LSR implicitly provides the predicates USE and, consequently, ACT for the second occurrence of *vág* 'cut' in (75b). And it is in full harmony with our **world knowledge** on the basis of which we are aware of the fact that it is not an object with an instrument role itself that causes the change of state but an event consisting of somebody's acting and using

⁴⁷ Besides Bierwisch (2006), ACT is used in Rappaport Hovav and Levin (1998), among others. Bierwisch (1983) uses another variant of this component, namely DO.

⁴⁸ The distinction between event-like and property-like eventualities is left aside (see Chapter 5).

an instrument (Bibok 2008: 64). Thus, two conclusions can be drawn from the above discussion. First, it is not an entity itself that CAUSE takes as its first argument but one or more events. The only case when (a variable for) an entity is taken by CAUSE seems to be an entity with the role of natural force (for Natural force as the first argument of CAUSE, cf. Goldberg 1995: 165). Second, to speak of the instrument role it is necessary for an argument to be explicitly or implicitly the second argument of the predicate component USE.

After having pointed out how the semantic roles of agent, instrument and natural force relate to components ACT, USE and CAUSE, I want to present another relevant issue concerning ACT, or more precisely: its absence from LSRs. Let us compare (71), repeated here as (77a), with (77b).

- (77) a. A váza az asztalon áll.
 the vase the table.Sup stand.3Sg
 ‘The vase is on the table.’
- b. Péter egész nap a sarokban állt.
 Péter all day the corner.Ine stand.Past.3Sg
 ‘Péter was standing in the corner all day.’

Unlike the referent of the noun phrase *a váza* ‘the vase’ in (77a), Péter exerted some effort to remain in the intended spatial position. That is why the fragment [x ACT] should be included in the LSR of *áll* ‘stand’ in (70b). If, in addition, it occurs in round brackets as an optional fragment, then such a single underspecified LSR accounts for both occurrences of *áll* ‘stand’ in (77). Cf. (78).

- (78) $[[([x \text{ ACT}]) : [[x \text{ BE}_p] : [x \text{ LOC } \alpha \text{ r LOC}]]]$,
 where p = a particular spatial position and the round brackets indicate optionality.

As to the semantic roles of subject nouns in (77), albeit ACT involves an agent, the predicate BE takes an argument referring to a non-volitional entity, which is then characterized by localization. The role played by the argument of BE is also assigned traditionally to the non-agentive moving entity and the holder of a property. It can be called a theme role according to the semantic role list approach. However, besides its occurrence with various verbs the theme role is problematic in another respect, namely it is confused terminologically with the role

patient (cf. Levin and Rappaport Hovav 2005: 48–49).⁴⁹ What is important from the point of view of the LSR approach to semantic roles is that the twofold “role” interpretation with *áll* ‘stand’ is involved by the optional ACT of the LSR in (78). The same holds for verbs with the component MOVE such as, e.g., *úszik* ‘swim; float’ (see Chapter 5). Thus, according to a semantic treatment of their difference,⁵⁰ the unergative and unaccusative occurrences, i.e., ones with an agent and a theme, respectively, can be unequivocally identified on the basis of the verbs’ LSRs.

In sum, we have proposed in 2.3.2 and 2.3.3 above that both semantic arguments and their semantic roles come from decomposed LSRs. Hence, not only the former but also the latter have a certain epiphenomenal or abbreviative character just like the fundamental notions of part of speech and phoneme (cf. Kenesei 2016, Siptár 2015).

2.4. Where do syntactic arguments come from?

As assumed so far, arguments of verbs, constituting one type of predicates in a logical sense, are encoded in the lexicon in either of two ways: by semantic role lists assigned separately to each verbal entry or by verbal LSRs with their own argument variables with corresponding inherent semantic roles. No matter which way arguments are introduced in the lexicon, they can then be projected into syntax, where the resulting complex (verb–argument) syntactic expressions can also be modified by adverbial phrases, i.e. so-called adjuncts.

At the same time, another view opposed to the projectionist conception holds that “arguments are introduced syntactically, licensed by appropriate syntactic heads that are correlated with specific semantic interpretations” (Junghanns 2010: 199). The view proposing that arguments are not selected by the verb is called exoskeletal by Borer (2003) because the verb does not determine the skeleton of the clause from the lexicon, so to say, from inside. For conceptions regarding the lexical and syntactic origins of arguments in detail, the reader is referred to Müller and Wechsler (2014a, 2014b). Here two remarks seem to be relevant from the point of view of the rest of the discussion. First, the idea regarding the syntactic introduction of arguments is partially realized by Kratzer (1996): the external argument is

⁴⁹ In subsequent parts of the dissertation I will follow a convention accepted in the project entitled Syntax of Hungarian (cf. Alberti and Laczkó 2018). In cases in which semantic roles are not mentioned on the basis of LSRs, the term *theme* is used with a broad interpretation, including the sense of patient.

⁵⁰ Whether unergativity and unaccusativity should be treated syntactically or semantically is a much debated issue (cf. Levin and Rappaport Hovav 2005: 76, n. 3). The semantic basis underlying the syntactic behavior can be related to the specific thematic role, i.e., agent or theme, respectively, of the subject (cf. Alberti 1996, Halm 2012, Rákosi 2004). See also Chapter 3.

severed from its verb and generated in the vP projection. The Neo-Constructionist approach (for a recent collection of papers, see Cuervo and Roberge 2012) uses “VP-shell-like structures in which functional heads provide the major components of the construction’s meaning” (Levin 2013: 6). Moreover, the heads of VP-shells “correspond to the primitive predicates of lexical decompositions” and thus – after the generative semanticists’ work – “the elements of predicate decompositions have made their way back into syntactic structures” (Levin and Rappaport Hovav 2005: 69). Second, although in Construction Grammar (Goldberg 1995, 2006) argument roles (such as Agent, Theme, Instrument, Goal) figure in constructions, and constructions can have roles which do not correspond to any verbal properties, verbs are characterized by some sets of participant roles (cf. Davies 2011: 400–401): “narrow”, verb-specific (predicate-dependent) vs. “broad”, general roles). To cite one of Goldberg’s (1995: 176) own examples, the lexical representation of the verb *slather* contains the following three participant roles:

(79) *slather* <slatherer, thick-mass, target>

In favor of the lexical treatment of arguments preferred so far and throughout the entire dissertation – besides Müller and Wechsler’s (2014a, 2014b) arguments,⁵¹ the following can be taken into consideration. First, to put verbs, or verbal roots, into a syntactic structure, it is logically necessary to assume an intransitive or a transitive verbal form with minimal semantic content, as is also done in Alberti’s (2013) theory of argument structure (cf. also Alberti and Farkas 2015), which attempts to integrate the lexical and syntactic conceptions in the Hungarian linguistics literature. In other words, the correct insertion of lexical entries, perhaps bare roots, presupposes a knowledge of their semantic representations, which at least includes some information about argument, or participant, roles (cf. (79)).

Second, syntactic conceptions of arguments should account for the fact that some verbs can occur with various syntactic structures or with various types of arguments. The Hungarian *úszik* ‘swim; float’ may appear both with an agent and a theme (cf. 2.3.3) as in (80):

⁵¹ Arguing against the elimination of the lexically based argument structure, Müller and Wechsler (2014a: 9–10) also assume that “grammars should contain a phrasal component for certain constructions”, e.g. for the N-P-N construction such as *student after student*.

- (80) a. A gyerek / Az üveg (a barlangban) úszik.
 the child / the bottle the cave.Ine swim.3Sg/float.3Sg
 ‘The child/bottle is swimming/floating (in the cave).’
- b. A gyerek / Az üveg a barlangba úszik.
 the child / the bottle the cave.Ill swim.3Sg/float.3Sg
 ‘The child/bottle is swimming/floating into the cave.’

Third, it also waits for a solution in the syntactic framework of arguments that the verb *pattog* ‘bounce’ can be substituted for *úszik* ‘swim; float’ in (80b) but *inog* ‘wobble’ cannot.⁵² Cf.:

- (81) a. A labda a fal mellé pattog.
 the ball the wall to bounce.3Sg
 ‘The ball is bouncing to the wall.’
- b. *A szék a fal mellé inog.
 the chair the wall to wobble.3Sg
 ‘The chair is wobbling to the wall.’

Fourth, although words derived from one and the same base constitute a uniform structure of meanings (Alberti 2013: 12), it is not explicitly elaborated how the meanings of word-formational morphemes contribute to the meaning of the whole word and how each thematic role follows from the resulting structure of the increasing semantic content. However, it is claimed that thematic roles can be characterized in derived words by the positions they occupy in their partially ordered structures. This is, of course, a great leap forward in comparison with extrinsic role lists of verbs. However, another leap forward would be if thematic roles were determined by the position filled in by semantic arguments in the decomposed LSRs of verbs, as demonstrated in Section 2.3.

2.5. Projecting semantic arguments from the lexicon into syntax

Based on the discussion in 2.4 on whether arguments originate in the lexicon or are introduced in syntax, I will insist on the former conception, which was outlined in detail from 2.1.2 to 2.3 and whose crucial elements, namely semantic arguments and semantic roles in argument structures (theta-grids), may be considered derivable from decomposed LSRs of words regarded as predicates in the logical sense. Independently of whether we give

⁵² What is more, in Chapter 5 it will be extensively demonstrated that while some verbs (with a corresponding semantic input) do not alternate in one direction, other verbs (with a corresponding semantic input) do not change their argument structure in the other direction. In addition, both groups of verbs contain non-derived verbs, i.e. bare verbal roots behave differently in syntactic alternations.

preference to the predicate decomposition view (recall also Bierwisch’s Intrinsic View), there appear problematic or untypical cases of the syntactic realization of argument structure, to which we turn in the following subsections.

2.5.1. Anomalous ranking

To begin with, let us **first** take the anomalous ranking problem emerging, for instance, in connection with psych-verbs and verbs of possession. Consider (82) and (83).

- (82) a. Mary liked the book.
 b. The book pleased Mary.
- (83) a. Mary owns the book.
 b. The book belongs to Mary.

In (82) one can see two syntactic types of psych-verbs: in (82a) experiencer-subject verbs that have an experiencer as a subject and in (82b) experiencer-object ones that have an experiencer as an object (cf. also *fear* vs. *frighten*).⁵³ The denomination of the two types of psych-verbs itself signals the contradiction: why is the same role of Experiencer mapped onto two different syntactic categories? In other words, (82) violates a generally assumed principle according to which “[c]lose structural correspondence is the default case for the relation between semantic and syntactic structure” (Bierwisch 2006: 101).

(83) shows a similar problem. The possessor of the book, “a Receptient or a Place (or whatever the appropriate choice for the role of the owner might be [...])” (Bierwisch 2006: 108), is linked to two different syntactic positions: in (83a) to the subject and in (83b) to the (prepositional) object.

Bierwisch (2006: 104–105) proposes two solutions to the anomalous ranking problem. First, one verb in above pairs (supposedly the verb with an object in b-sentences) exhibits idiosyncratic syntactic realization of semantic arguments. Second, according to a more principled account, the verbs in pairs are not completely synonymous but have distinct LSRs, and, consequently, distinct argument structures. One can realize that in (83a) “an arbitrary

⁵³ In Hungarian, psych-verbs with object experiencers govern noun phrases either in the accusative, or dative case: e.g., *aggaszt* ‘trouble, worry’ and *tetszik* ‘appeal to’, respectively. For these two classes of psych-verbs, see Rákosi (2015). Furthermore, psych-verbs with subject experiencers occur with a theme not only in the accusative but also in the causalis case, e.g.: *szeret* ‘like’ and *rajong* ‘be keen on’, respectively (Alberti and Farkas 2018: 195). The theme argument can also have other cases: e.g. the ablative case (*fél* ‘fear’) and the inessive case (*gyönyörködik* ‘be highly delighted with’).

instance of a given title” may be at issue while in (83b) “a concrete copy” is at stake. Thus, Bierwisch offers the component OWN for an abstract right of disposal in the case of *own* and another one, namely PERTAIN_TO, for a more concrete relation in the case of *belong (to)*.⁵⁴

2.5.2. Morphological properties

Second, at this point of our discussion, we must point to another aspect of argument realization showing language particular and idiosyncratic (lexical) characteristics. Besides syntactic categories, morphological properties of syntactic arguments also play a significant role in languages such as German, Russian and Hungarian (for the rich system of Hungarian nominal cases, see Balogh 2000: 203–204, and Farkas and Albert 2018a: 13–14, among others; see also the morphosyntactic realizations of Hungarian verbal complements listed in Chapter 3 below).

Consider here just a few examples from German (cf. Bierwisch 2006: 117) and Russian (cf. Gáldi and Uzonyi 2000). In German, the verbs *helfen* ‘help’ and *bedürfen* ‘deserve’ require the dative and genitive case for the direct object, respectively. In contrast, *fragen* ‘ask’ governs the accusative case instead of the dative case for the indirect object. While the object of the Russian verbs *upotrebljat’* ‘use’ and *ispol’zovat’* ‘use’ appears in the accusative case, there is a third verb with the meaning ‘use’, namely *pol’zovat’sja*, in the instrumental case. The Russian verbs *imet’* ‘own’ and *usvaivat’/osvaivat’* ‘acquire’ take their complements with the accusative inflection but the verbs *vladet’* and *ovladevat’* with similar meanings – ‘own’ and ‘get possession of sg’, respectively – take theirs with the instrumental inflection. What is more, the verb *interesovat’sja* ‘be interested in sg’ occurs with the instrumental case while the corresponding noun *interes* with the same lexical meaning requires a prepositional phrase headed by *κ* ‘to’, which governs the dative case.

Furthermore, a semantic argument of a verb can be realized in a sentence by various morphological means which are schematically captured in a so-called government pattern, i.e. a table of complementation (Apresjan 2014: 24–25). For instance, with the Russian verb *govorit’* ‘say’ the content of what is said may be expressed by a noun phrase in the accusative case or by a clause introduced by a conjunction (Apresjan and Páll 1982: 310–311).⁵⁵

⁵⁴ As regards psych-verbs, Croft (1993) assumes their different semantic subtypes. Cf. also Primus’ (2016: 408) statement concerning verb pairs such as *borrow* and *lend* that “although some situation tokens involving these pairs of verbs are truth-functionally equivalent [...], this does not hold for all situations”.

⁵⁵ For other special details of the morphological realization of semantic arguments, such as constraints on morphological forms and varying patterns of complementation, see Apresjan (2014: 27–28). – Morphological

2.5.3. Verbal modifiers

The **third** problematic issue in argument realization concerns a language particular feature of Hungarian, namely the so-called verbal modifier, i.e. the filler of the syntactic position immediately left-adjacent to the (finite) verb. Verbal modifiers have the following uniform syntactic behavior (Kiefer 2007: 233, Kiefer and Ladányi 2000: 461): (i) in neutral sentences they appear (immediately) in front of verbs, (ii) in this position they can bear a focus stress, (iii) if another element occupies the position before the verb, verbal modifiers typically follow verbs immediately and (iv) they can be used alone in an answer given to a *yes–no* question. As can be seen from (ii)–(iv), they behave syntactically as independent constituents and can be subjected to syntactic operations. While verbal modifiers are stressed, any finite verbs following them remain unstressed in neutral sentences (Komlósy 1994: 98). The stressed verbal modifier and the unstressed finite verb form a constituent at the phonological level, which is called a phonological word (because content words are stressed on their first syllable in Hungarian) (cf. Farkas and Alberti 2018a: 17).⁵⁶

peculiarities of syntactic complements will be shown in detail with the Hungarian verb classes listed in Chapter 3.

⁵⁶ It is worth adding two remarks. First, the majority of Hungarian verbs, which are called regular verbs in Komlósy (1989: 172–173), can also figure in neutral sentences without verbal modifiers. However, verbs with obligatory stress do not occur with complements in a verbal modifier position while stress-avoiding verbs and verbs with indefinite complements always need the verbal modifier position to be filled (Komlósy 2015: 462). Second, depending on the (types of) complement a verb can be classified into one of the different groups under discussion. For instance, the verb *fekszik vhol* ‘be situated, lie on sg’ with an animate subject – unlike when it occurs with an inanimate subject – does not behave as a stress-avoiding verb. Cf. (i) and (ii), both of which can be neutral with respect to word order and stressing:

- (i) Péter az ágyon fekszik.
 Péter the bed.Sup lie.3Sg
 ‘Péter lies on the bed.’
- (ii) Péter fekszik az ágyon.
 Péter lie.3Sg the bed.Sup
 ‘Péter lies on the bed.’

Nevertheless, the verb *fekszik* with a directional complement, i.e. *fekszik vhová* ‘lie down on’, seems to show stress-avoiding behavior (see (iii) and (iv)) – like *fekszik vhol* ‘be situated, lie on sg’ with an inanimate subject (cf. (v)–(vi) below).

- (iii) Péter az ágyra fekszik.
 Péter the bed.Sub lie.3Sg
 ‘Péter lies down on the bed.’

As to the semantic unity of a combination of verbs with verbal modifiers, it is only the typical case in which a semantically complex predicate (verb)⁵⁷ emerges. Consider (84).

- (84) a. Péter az asztalra teszi a könyvet.
 Péter the table.Sub put.DefObj.3Sg the book.Acc
 ‘Péter is putting the book on the table.’
- b. Péter az asztalon tartja a könyvet.
 Péter the table.Sup keep.DefObj.3Sg the book.Acc
 ‘Péter keeps the book on the table.’

Although the directional argument *az asztalra* ‘on the table’ and the locative argument *az asztalon* ‘on the table’ of the corresponding verbs in (84) behave syntactically as verbal modifiers, they cannot form complex predicates because of the presence of the definite articles (Kiefer 2003: 185–186).⁵⁸

Despite the general assumption (see, e.g., Kiefer 1990–1991 as well as Kiefer 2003 and 2007), nouns without any definite and indefinite articles, i.e. so-called bare nouns, syntactically categorized as N° ,⁵⁹ do not guarantee the derivation of complex predicates which refer to a kind of events denoted by verbs. Consider the example (2) in Subsection 2.2.1, repeated here as (85).

- (85) Péter katonát látott.
 Péter soldier.Acc see.Past.3Sg
 ‘Péter saw a soldier/soldiers.’

-
- (iv) *Péter fekszik az ágyra.
 Péter lie.3Sg the bed.Sub
 ‘Péter lies down on the bed.’

- (v) Szeged a Tisza partján fekszik.
 Szeged the Tisza bank.Sup lie.3Sg
 ‘Szeged is situated on the banks of the river Tisza.’

- (vi) *Szeged fekszik a Tisza partján.
 Szeged lie.3Sg the Tisza bank.Sup
 ‘Szeged is situated on the banks of the river Tisza.’

⁵⁷ Its syntactic categorization can be either V' (É. Kiss 2015: 106, 120), or V° (Kiefer 2007: 233).

⁵⁸ Cf. also *az ágyon* ‘on the bed’ and *az ágyra* ‘on the bed’ in (i) and (iii) in fn. 56.

⁵⁹ Farkas and Alberti (2018a) as well as Viszket et al. (2018) use the expressions *bare noun phrase* and *bare NP*, respectively. Cf. also É. Kiss (2015: 117), where it is claimed that like preverbs (see below), bare nouns are phrases (XP) which only consist of a single head. However, both syntactic categorizations N° and *NP* are contrasted with DP.

Just as in (84) no special kind of putting or keeping something is referred to, in (85) seeing a soldier or soldiers does not count as a kind of visual experience. We will shortly return to what is meant by the special kind of events denoted by complex predicates.

The repeated example in (85) also serves as an illustration for the fact that bare nouns can have referentiality in the sense discussed in detail in 2.2.1 above: the alleged non-referentiality of bare nouns seems to be a kind of non-specific, or more precisely: cumulative (see Maleczki 2008) reference. The bare noun *katonát* ‘soldier.Acc’ in (85) indicates the existence of at least one individual distinct from Péter (cf. Kenesei 2000: 12). Besides the other examples provided in the given subsection of the present dissertation, a particularly interesting example is the following (Farkas and Alberti 2018a: 99), in which three bare nouns appear in verbal modifier positions left-adjacent to three verbs:

- (86) [*Tanárnak* készült], de [*fia* született], ezért
teacher.Dat prepare.Past.3Sg but *son.Poss.3Sg* be_born.Past.3Sg so
 [*újságot* árul].
newspaper.Acc sell.3Sg
 ‘He wanted to be *a teacher*, but then he had *a son*, so now he is selling *newspapers*.’

The authors state that the italicized bare noun phrases tend to lose their referential character and to acquire a certain predicative character in the verbal modifier position. That is why it is claimed they have “reduced” argumenthood.⁶⁰ Nevertheless, if one thinks that *fia* ‘son.Poss.3Sg’ and *újságot* ‘newspaper.Acc’ have lost some of their referential power in the sense that their referents are not specific, *tanárnak* ‘teacher.Dat’ could not gain its predicative power in (86) because the verb *készül* ‘prepare’ has a semantic role of proposition whose (partial) morphosyntactic realization is a predicative NP.Dat complement but can never appear as a syntactic (DP) argument. The same is true of the verb *marad* ‘remain’ in (5) of Section 2.1.1, repeated here as (87), with a single difference that the predicative complement surfaces as NP.Nom (or AP.Nom).

- (87) Péter katona maradt.
 Péter soldier remain.Past.3Sg
 ‘Péter remained a soldier.’

⁶⁰ Farkas and Alberti (2018a: 99) speak of reduced complementhood. However, since one type of complement includes predicative complements (see Subsection 2.1.1), it is fairly obvious that arguments, which belong to the other group of complements, should have been mentioned.

Whereas the bare noun *katonát* ‘soldier.Acc’ in (85) has some – albeit reduced, not specific – referentiality, *katona* ‘soldier’ in (87) does not refer to any person but is used predicatively.

In contrast with (85), in (88) the bare noun + verb constructions can be interpreted as special – prototypical – types of cutting wood and going to the cinema.

- (88) a. Péter fát vág.
 Péter wood.Acc cut.3Sg
 ‘Péter is cutting wood.’
- b. Péter moziba megy.
 Péter cinema.Ill go.3Sg
 ‘Péter is going to the cinema.’

(88a) cannot be used if Péter is trying to cut a piece of wood with a penknife or if he is cutting boards with a saw to size. Instead, (88a) may only denote a situation when Péter is chopping firewood.⁶¹ As for (88b), it does not simply denote walking to the cinema, say, if Péter is a plumber by profession, in order to fix the faucet in the building. (88b) is only used if Péter wants to watch a film in the cinema. Nevertheless, in the presence of articles (and with the appropriate word order), other interpretations are not excluded. Consider (89) and (90).

- (89) a. Péter vágja a fát.
 Péter cut.DefObj.3Sg the wood.Acc/tree.Acc
 ‘Péter is cutting the wood/tree.’
- b. Péter vág egy (darab) fát.
 Péter cut.3Sg a piece wood.Acc
 ‘Péter is cutting a piece of wood.’
- (90) a. Péter a moziba megy.
 Péter the cinema.Ill go.3Sg
 ‘Péter is going to the cinema.’
- b. Péter megy a moziba.
 Péter go.3Sg the cinema.Ill
 ‘Péter is going to the cinema.’

(89) and (90) can denote not only the above-mentioned typical and atypical activities; several other possibilities can be imagined. For instance, various kinds of cutting, such as trimming and slicing, and going to the cinema to work as an usher may be indicated in (89) and (90),

⁶¹ We leave aside felling a tree. However, one has to realize that in this case the noun *fa* has another meaning, namely ‘tree’.

respectively. At the same time, the events that can be denoted by bare noun + verb constructions should be regarded as institutionalized (Kiefer 1990–1991: 165) or conventionalized (Komlósy 2015: 475).⁶²

We have so far studied cases in which semantic arguments in an argument structure do not occupy the customary syntactic positions for complements but appear syntactically in the verbal modifier position as noun phrases with articles, bare noun phrases and predicates. All of them are various types of complements of verbs. There is a fourth kind of linguistic unit, namely **preverbs**,⁶³ which can fill the verbal modifier position but cannot be considered complements (Kiefer 2003: 182, 2007: 234; Kiefer and Ladányi 2000: 463) or – from a semantic point of view – arguments which have to be satisfied at the syntactic level (Kiefer 2007: 243). Consider first (91) (cf. Komlósy 1994: 102–103).

- (91) a. Péter jóvá-tette a hibáját.
 Péter good.Tra-make.Past.DefObj.3Sg the mistake.Poss.3Sg.Acc
 ‘Péter remedied his mistake.’
- b. *Péter jóvá-tette a hibáját erénnyé.
 Péter good.Tra-make.Past.DefObj.3Sg the mistake.Poss.3Sg.Acc virtue.Tra

As (91b) demonstrates against the background of (91a), a second complement of the same type, i.e. *erénnyé* ‘virtue.Tra’, cannot figure in a sentence if a complement, namely a secondary predicate, is attached to the verb in the VMod position.

Now let us compare (92) with (91).

⁶² Bare nouns may also occur as parts of non-compositional idioms and as nominal components of semi-compositional (Vincze 2012) light verb constructions. For the former, see (i) and for the latter, see (ii).

- (i) A terv csütörtököt mondott.
 the plan Thursday say.Past.3Sg
 ‘The plan failed.’
- (ii) A bizottság döntést hozott.
 the committee decision.Acc bring.Past.3Sg
 ‘The committee made a decision.’

⁶³ In the literature other terms are also used to refer to this Hungarian element. Kiefer and Ladányi (2000: 459–460) reject the terms *prefix* and *verb particle* because a prefix is a bound morph while preverbs and verbs do not form a syntactically undividable unit in Hungarian, and preverbs are different from German particles (see Partikelverben), though they also have similarities with them. The term *preverb* is preferable to *converb* on the basis that the prefix *pre-* of the former explicitly indicates that as a kind of verbal modifiers preverbs appear in neutral sentences right before the verbs.

- (92) a. Péter a boltba ment.
 Péter the shop.Ill go.Past.3Sg
 ‘Péter went to the shop.’
- b. Péter el-ment a boltba.
 Péter away-go.Past.3Sg the shop.Ill
 ‘Péter went away to the shop.’
- c. Péter le-ment a boltba.
 Péter down-go.Past.3Sg the shop.Ill
 ‘Péter went down to the shop.’

Although in (92b) and (92c) the position for a directional complement is occupied by a phrase *a boltba* ‘the shop.Ill’ – unlike in (92a), this does not prevent the verb *ment* ‘go.Past.3Sg’ from combining with the preverbs *el-* ‘away’ and *le-* ‘down’. Consequently, preverbs such as *el-* ‘away’ and *le-* ‘down’ do not function as complements.⁶⁴ So what role do they play? They make the indication of direction explicit and the directional complement optional (cf. Kiefer 2003: 182). For the former function, see (92b) and (92c) above, and for the latter, see (93), which is grammatically well-formed even if it has no directional complement.

- (93) Péter elment/lement.
 Péter away.go.Past.3Sg/down.go.Past.3Sg
 ‘Péter went away/down.’

Furthermore, preverbs can play a perfectivizing or *aktionsart*-forming role (Kiefer and Ladányi 2000: 474–475), e.g. *meg-ír* ‘perf-write’ and *be-borozik* ‘get drunk’ (lit. ‘in-drink_wine’ – *aktionsart* of saturation).⁶⁵

2.5.4. Correspondence between the number of semantic and syntactic arguments

As a **fourth** issue related to the untypical syntactic realization of argument structure, one must deal with cases when there is no one-to-one correspondence between semantic and syntactic

⁶⁴ Contrary to this, in É. Kiss (2015: 105–106) preverbs are claimed to be complements categorized as AdvP inside V'. In her paper of 2004 (p. 41), she places them in the specifier position of the predicative phrase.

⁶⁵ For other functions of preverbs with respect to their various semantic types, see Kiefer and Ladányi (2000: 474–475) and Kiefer (2007: 243–244). – Preverbs can be distinguished from complement-type verbal modifiers by morphological means, as well (Kiefer 2003). They serve as input to morphological rules such as nominalization and *aktionsart*-formation: *ki-néz* ‘look out’ (lit. ‘out-look’) → *kinéz-és* ‘looking out; appearance’, where *-és* is a suffix of nominalization, and *ki-kinéz*, where the reduplication of the preverb *ki-* ‘out’ forms the frequentative *aktionsart* with a meaning of the unsystematic recurrence of the given event.

arguments. In other words, the quantity of syntactically realized arguments does not equal the number of semantic arguments figuring in the LSRs of verbs. I want here to emphasize immediately that this subsection is not devoted to the thematic criterion, which is a hypothesis concerning the relationship between thematic roles and syntactic arguments; it has already been investigated elsewhere in the dissertation (see 2.3.3). Rather, this subsection aims at presenting two groups of cases: (i) when a semantic argument cannot or does not have to be mapped onto a syntactic argument and (ii) when a verb has more syntactic arguments than semantic ones.

However, before we can begin to consider these cases one by one, it is necessary to discuss the difference in the maximum number of syntactic and semantic arguments. Whereas the number of adjuncts is not principally limited in a sentence, the maximum of syntactic arguments is supposed to be three as in the case of a VP-shell analysis of ditransitives (see, e.g., Ackema 2015: 263). At the same time, referring to empirical data, Keszler (2000b: 358–359) believes that the maximum of complements is four (cf. Komlósy 2015: 298). Also in Reinhart’s Theta System, “the number of arguments is constrained to be no more than maximally 4” (Rákosi 2014: 12). However, from a purely semantic point of view, a predicate, including verbs, may have even more arguments (or actants) – up to seven (Apresjan 2010: 310–313). For instance, leaving aside some details, the verb of locomotion *vezti* ‘transport’ takes five valences:⁶⁶ X (who transports), Y (what is transported), Z (from where Y is transported), W (where Y is transported) and Q (what Y is transported with) and the prefixed verb *pere-vezti* ‘convey over’ takes two more valences: R (purpose of transportation) and S (barrier over which Y is transported). As Apresjan (2010: 310–311, fn. 18) remarks, although constructions in which all semantic arguments are realized syntactically seem to be of artificial in character and rarely found in language use, they explicitly demonstrate arguments theoretically indispensable in the LSRs of given verbs. Thus, there is a fundamental challenge concerning the contradictory fact that the possible number of semantic arguments can be at

⁶⁶ Recall from 2.1.1 that the terms *actant* and *valence* are used in work inspired by dependency grammar and they are similar to *argument* and *argument variable (slot)* in crucial respects that are relevant for our present purposes. – It is worth noting that predicates, including verbs, tend to be represented in LSRs by means of primitive predicates that have no more than two arguments.

least twice as high as the maximum number of syntactic argument positions licensed by the VP-shell analysis.⁶⁷

One can think of several alternative ways to solve this issue. First, if non-binary branching nodes are accepted and a flat syntactic structure is assumed (e.g., É. Kiss 2015), the number of complements does not have to be limited to three. However, the non-configurationality of the Hungarian verb phrase has been recently questioned because of arguable subject–object asymmetries and the asymmetries of internal objects (cf. Rákosi 2015: 245–246).⁶⁸ The emerging view postulates a hierarchical base for syntactic arguments while the surfacing word order is fairly free. Second, according to a proposal of Bierwisch (2006: 102–103), not all semantic arguments are necessarily included in the argument structure mediating between semantics and syntax; only those appearing in the argument structure are realized as syntactic arguments. Semantic arguments not figuring in the argument structure can be learnt from context (either linguistic, or extra-linguistic). If they are made explicit, they are expressed as adjuncts.⁶⁹ For an illustration of the present type of invisibility of semantic arguments, let us take Bierwisch’s example, namely verbs of the transfer of possession such as *buy*, *sell* and *rent*. Although an instigator, an object of exchange, an exchange partner and a monetary equivalent are all indispensable for an event of buying, selling and renting (cf. also Komlósy 2015: 298), only the former two are included in the corresponding argument structure of the verbs under discussion. That is why only they appear as syntactic arguments. Being excluded from the argument structure, the latter two participants may be inferred from context or expressed as prepositional adjuncts. Cf.:

- (94) a. They bought the house from the agent.
 b. He rented a car for 60 dollars.

Nevertheless, in the remaining part of this subsection I will not confine myself to the conception radically restricting the number of syntactic arguments, which is generally favored

⁶⁷ The VP-shell, or otherwise: split VP, analysis was extended from double-object constructions to nominal + prepositional object ones such as *load the truck with hay* and *roll the ball down the hill* (see Radford 2004: 336–356).

⁶⁸ However, Rákosi (2015) argues that unlike three-place verbs of the *give*-type, two internal arguments of accusative experiencer and dative experiencer psych-verbs show symmetric behavior because either can c-command the other.

⁶⁹ Cf. with Rákosi’s (2014) conception of thematic adjuncts in 2.2.2. However, expressing non-core participants, Rákosi’s thematic adjuncts are adjuncts not only in the syntactic but also semantic sense.

in generative-style grammars. Rather, I adopt a view preferred in dependency grammar, on which verbs are allowed to have subjects and more than two complements. Thus, besides a direct correspondence between semantic and syntactic arguments, one can investigate two logically possible cases, as mentioned at the very beginning of this subsection: (i) when one finds more semantic arguments (2.5.4.1) and (ii) when one finds more syntactic arguments (2.5.4.2).

2.5.4.1. More semantic arguments than syntactic ones

As discussed at length above, each semantic argument of a verb, which is necessary for a full definition of the verbal meaning, does not have to surface in a sentence because an argument can be **optionally** expressed at the syntactic level.⁷⁰ If a verb has several (syntactically) optional arguments, a verb can occur with a varying number of arguments in sentences. In other words, two sets of arguments can be expressed in one sentence. Cf.: Rus. *govorit' s kem-l.* 'speak to sy' vs. *govorit' o čem-l.* 'speak about sg' vs. *govorit' s kem-l. o čem-l.* 'speak to sy about sg' (Apreszjan and Páll 1982: 46). For Hungarian data, see Komlósy (1994: 106–116), where mechanisms reducing the “overt complement frames” of lexical items are reviewed.

Hence, syntactically optional arguments correspond to semantic arguments not realized, or left implicit, at the syntactic level. Implicit arguments can be regarded as one of the special methods of argument realization and I explicate them as indicated in Németh T. (2019).

(95) “Implicit arguments: arguments involved in the lexical-semantic representations of verbs but which are lexically unrealised, and whose implicit presence in utterances is attested by lexical-semantic, grammatical (phonological, morphological, syntactic, and semantic), discourse, and/or pragmatic evidence.” (Németh T. 2019: 67)

Four remarks are in order in connection with (95). First, it is important to emphasize that by pragmatic evidence both general pragmatic knowledge and particular contextual information are meant (Németh T. 2019: 224, n. 2).

Second, the notion of implicit argument given in (95) is not the same as the one used in the literature on unarticulated constituents, namely the phonetically unrealized *pro* and PRO generated in the syntax (Németh T. 2019: 68).

⁷⁰ Optional syntactic arguments belong to another type of invisibility (Bierwisch 2006: 102–103, 108). – For this kind of argument, see also Subsection 2.2.3.

Third, not all unarticulated constituents – needed for constructing a full proposition but not corresponding to any part of the utterances at stake – are considered implicit arguments in the sense of (95) (Németh T. 2019: 69–72). From a list provided by Vicente and Groefsema (2013: 109), the following count as implicit arguments of verbs (or more broadly: of predicates in the logical sense):

- (i) complements for indefinite null- complement verbs such as *eat*, for adjectives such as *ready*, and for aspectual verbs such as *continue*,
- (ii) information in subsentential (elliptical) environments and
- (iii) some adjuncts (see *It is raining [somewhere]*, cf. fn. 74 below) reclassified as arguments on the basis of the lexical-semantic approach to the distinction between arguments and adjuncts, also proposed above in the present dissertation.

Fourth, consequently, in accordance with the definition in (95), implicit arguments include two kinds of unrealized arguments: those having a position in the syntactic structure (*pro* and PRO) and others not represented in the syntactic structure at all (cf. Németh T. 2019: 69).

Although semantic arguments are often left unrealized, they are in principle expressible (Mel'čuk 2015: 40, 58), at least in the form of empty pronouns. However, there can be cases of so-called blocking where semantic arguments are non-expressible as syntactic dependents. For instance, whereas the Russian noun *èmigrant* 'emigrant' is related word-formationally to the verb *èmigrirovat'* 'emigrate = person X emigrates from country Y to country Z', it does not occur with the name of the target country: *èmigrirovat' v Ispaniju* 'emigrate to Spain' vs. **èmigranty v Ispaniju* 'emigrants to Spain', **ispanskie èmigranty* 'Spanish emigrants'⁷¹ (Mel'čuk 2015: 43, 61; for other examples, see also Apresjan 2014: 25).⁷²

⁷¹ It is worth noting that the latter expression is correct with a meaning 'emigrants from Spain'.

⁷² It goes without saying that cases of non-expressibility of semantic arguments, i.e. blocking, is different from cases where a participant of the situation denoted by a verb is included in the LSR not as a variable but as a constant. Such constants are either called internal semantic arguments (Kiefer 2015: 813), or incorporated semantic arguments (cf. Padučeva 2004: 57–58). For example, as is also attested by the English equivalents, Hungarian verbs such as *borozgat* 'drink wine' and *ebédel* 'have lunch', connected word-formationally with the nouns *bor* 'wine' and *ebéd* 'lunch', respectively, have the content of these nouns in their LSRs. Internal, or incorporated, semantic arguments can only be expressed syntactically if the meaning of the constants at issue is specific in some way, e.g. it is a kind (*óborral borozgat* 'drink aged wine' and *menüt ebédel* 'have a set menu for lunch') or it is modified by attributes or quantifiers.

2.5.4.2. More syntactic arguments than semantic ones

One can find more syntactic arguments than semantic ones in the following two cases. First, asymmetric correspondence between semantic and syntactic arguments occurs in sentences with verbs of opinion (cf. Apresjan 2010). Let us take (96) containing the Russian verb *sčitat'* 'consider'.

- (96) a. Ja sčital, čto rabota zaveršena.
 I consider.Past.Sg.Masc that work.Sg.Nom finished.Sg.Fem
 'I considered that the work was finished.'
- b. Ja sčital rabotu zaveršennoj.
 I consider.Past.Sg.Masc work.Sg.Acc finished.Sg.Fem.Ins
 'I considered the work finished.'

Whereas the semantic argument denoting the content of the opinion is expressed syntactically in (96a) by one constituent, namely by a clause, it is split into two syntactic constituents in (96b): the topic of the opinion (*rabotu* 'work.Sg.Acc') and the content of the opinion proper (*zaveršennoj* 'finished.Sg.Fem.Ins'). Thus, instead of two syntactic arguments in (96a), realizing the experiencer and the content of the opinion, in (96b) there appear three syntactic arguments due to the splitting of a semantic argument at the syntactic level.⁷³

Second, more syntactic arguments can occur with a verb in cases in which a semantic argument is removed from its original predicate (in the logical sense) (cf. Apresjan 2010). Consider the following Russian phrase:

- (97) krepko sžimat' ruki bandita
 strongly to_press hand.Pl.Acc bandit.Sg.Gen
 'press the bandit's hands strongly'

Note that the semantic argument X, i.e. *ruki* 'hands', of the verb *sžimat'* 'press', has its own semantic argument Y, i.e. *bandit* 'bandit', to which they belong. These relations are expressed in (97) by the accusative and by the genitive case, respectively. However, Y (*bandit* 'bandit') can be realized in the dative case as in (98).

⁷³ In a generative grammar-style framework, cases like (96b) are analyzed as object raising (Růžička 1980) or fragments like *rabotu zaveršennoj* 'the work finished' are considered one constituent, namely a small clause, whose predicate is not a verb (Radford 2004: 441).

- (98) krepko sžímat' banditu ruki
 strongly to_press bandit.Sg.Dat hand.Pl.Acc
 'press the bandit's hands strongly'

In (98) the semantic argument Y (*bandit* 'bandit') is separated from its semantic predicate (*ruki* 'hands') and it appears syntactically as a syntactic dependent of the verb *sžímat'* 'press'. Consequently, in (98) the verb at issue becomes an (n + 1)-place, i.e. three-argument, verb at the syntactic level.⁷⁴

2.6. Correspondence between semantic and syntactic arguments changed

The correspondence between semantic and syntactic arguments is called diathesis (cf. Mel'čuk 2015: 52, Padučeva 2004: 51). The basic correspondence borne in mind in previous subsections can be changed either by using inflectional or word-formational means, or without them. The former case is an inflectional and/or word-formational category known as voice (in its narrow or broad sense). The latter is syntactic alternation, which has already been

⁷⁴ The pronoun *it* in the subject position of (i) is an **expletive** constituent with no inherent semantic content, in particular with no referential properties (Radford 2004: 73, 451).

- (i) It is unclear why he resigned.

In other words, the expletive *it* is not a syntactic realization of any semantic argument.

Unlike the expletive *it* in (i), weather *it*, called a quasi-argument, is argued not to be a pure dummy but a referential element (cf. Radford 2004: 297–298). What is more, Németh T. (2019: 77–102) proposes an LSR for the Hungarian verbs of natural phenomena that has an argument on which a selection restriction concerning its type or a unique selection restriction (cf. terms *internal/incorporated semantic argument* in fn. 72) is imposed. For instance, the LSR of *esik* '[for precipitation to] fall' can be paraphrased as follows:

- (ii) 'X which is precipitation falls in Y which is place'.

Leaving aside the place Y, the semantic argument X can be realized explicitly or implicitly at the syntactic level as in (iii) and (iv) (implicit arguments are provided in square brackets):

- (iii) Esik az eső / a hó.
 fall.3Sg the rain the snow
 'Rain/snow is falling.'
- (iv) Esik [az eső] / [a hó].
 fall.3Sg the rain the snow
 'It is raining/snowing.'

Consequently, *esik* '[for precipitation to] fall' and other Hungarian verbs of natural phenomena are not null-argument verbs but they are not subjectless either because X appears at least implicitly at the syntactic level.

mentioned and illustrated in the above discussion on issues of word meaning representations. However, this term should now be introduced in a more exact way. By syntactic alternation it is generally meant that a verb occurring with a type of syntactic argument structure can be used in another one as well (cf. Kiefer 2007: 230). While – according to Levin (1993: 2) – changes in the expression of arguments are sometimes accompanied by changes of meaning, Kiefer (2007: 230) claims that the meanings of alternating syntactic structures are either synonymous or different but in a predictable way.⁷⁵ In a broader sense of syntactic alternation, the words occurring with a multiple syntactic argument structure are not necessarily of the same form but it is sufficient if they are connected to each other word-formationally.

Without going into the details of which variant of argument structure counts as the basic, or initial, one, for an illustration, see the locative alternation in (99) and (100).

- (99) a. Az anya zsírt ken a kenyérre.
 the mother fat.Acc smear.3Sg the bread.Sub
 ‘The mother is smearing fat on the bread.’
- b. Az anya zsírral keni a kenyeret.
 the mother fat.Ins smear.DefObj.3Sg the bread.Acc
 ‘The mother is smearing the bread with fat.’
- (100) a. Az anya rákeni a zsírt a kenyérre.
 the mother onto.smear.DefObj.3Sg the fat.Acc the bread.Sub
 ‘The mother is smearing fat on the bread.’
- b. Az anya megkeni a kenyeret zsírral.
 the mother perf.smear.DefObj.3Sg the bread.Acc fat.Ins
 ‘The mother smears the bread with fat.’

The Hungarian verbs with preverbs *rá-ken* ‘onto-smear’ and *meg-ken* ‘perf-smear’, related word-formationally to *ken* ‘smear’, alternate in (100a) and (100b), respectively, like the base verb does in (99a) and (99b).

Besides syntactic alternations without a change in the number of arguments such as the locative alternation, there are several cases with operations on the argument structure which either add or subtract arguments.⁷⁶ As one of the special ways of argument

⁷⁵ The attentive reader will certainly realize that if predictable differences in the meanings of alternating constructions are allowed, it is no longer an important issue whether or not there are real cases of absolute synonymy.

⁷⁶ I just note in passing that in terms of valence one might speak of valence increasing and valence decreasing morphosyntactic operations.

realization,⁷⁷ Hungarian verbs with a multiple syntactic argument structure – mainly syntactic alternations in a narrow sense, i.e. verbs without any word-formation morphemes – will be the topic of a thorough investigation from Chapter 4 on.

* * *

To conclude Chapter 2, I want to highlight the fact that the discussion and investigations in the above sections have led to a novel conception in which instead of a syntactic distinction between arguments and adjuncts, verbal semantic arguments and roles are based on lexical-semantic representations, and these semantic arguments then seek ways to become various complements, including syntactic arguments. Thus, the first aim formulated in Introduction has been accomplished.

⁷⁷ Other special methods of argument realization include bare noun phrases in verbal modifier position and verbs with implicit arguments (see above in 2.5.3 and 2.5.4.1, respectively).

CHAPTER 3

A semantico-morphosyntactic classification of Hungarian verbs

Keeping in mind the second aim set at the beginning of the dissertation, in this chapter I provide a system of Hungarian verb classes, in whose overall network one can see where alternating verbs occur. The proposed classification based on the semantic constituents of lexical-semantic representations and their morphosyntactic realization is presented in two steps. In Section 3.1 its synopsis is given and commented on. Then in Section 3.2 the classification is outlined in a detailed form: Hungarian verbs are divided into five semantic classes as well as fourteen syntactic classes and 49 morphosyntactic subclasses (with further possible semantic role differences).

3.1. Synopsis of a semantico-morphosyntactic classification of Hungarian verbs

Before certain groups of Hungarian verbs with a multiple syntactic argument structure are investigated in-depth from Chapter 4 on, a system of verb classes has to be provided to see where alternating verbs occur in an overall network. Besides deviant verb types such as the verb *van* ‘be’ in its different uses, auxiliary, modal, raising verbs and psych-verbs, Alberti and Farkas (2018: 194–195) offer a minimal set of basic verb types required for their purpose of investigating verbal inputs to the derivation of nouns by means of various suffixes. This set includes:

- (i) verbs without arguments (e.g. *havazik* ‘be snowing’),
- (ii) unergative and unaccusative intransitive verbs (e.g. *kirándul* ‘hike’ and *eltűnik* ‘disappear’, respectively),
- (iii) transitive verbs (e.g. *épít* ‘build’) and
- (iv) verbs with oblique arguments (e.g. with one oblique argument: *beesik a lyukba* ‘fall into the hole’, with two oblique arguments: *beszélget Ili vel Juliról* ‘talk with Ili about Juli’ and with an object and an argument⁷⁸: *békává változtatja a herceget* ‘turn the prince into a frog’).

However, I attempt not only to present a more **detailed syntactic classification of verbs** in this chapter of my dissertation but also to build it on **semantic** grounds. As one can

⁷⁸ This is a clear miscategorization: *békává* ‘frog.Tra’ is another type of complement, rather than an argument, namely a predicative complement, or even more precisely: a secondary predicate, which predicates something of an argument of a verb.

recall, Subsection **2.3.2** of the previous chapter was concluded as follows: participants of an event necessary for the description of a meaning of a verb are represented by variables in the LSR of that verb. Thus, semantic arguments of a verb correlate with certain fragments of its LSR. Consequently, verb meanings and verbs themselves are n-place predicates from a logical point of view. With such a model of the LSRs of verbs in mind, one can speak of their adicity, or arity, i.e. of their property concerning the number and type of arguments they can take. Extending this semantically based framework to other types of complements than arguments, i.e. to predicative, adverbial and sentential complements, a classification of verbs relying on the properties at hand can be offered.⁷⁹ For the time being this is not based on detailed LSRs of verbs because thorough semantic analyses of verbs are not at the disposal of researchers (however, Chapter **5** makes a leap forward in this direction). Nevertheless, the classification at issue can still provide a body of data for semantic and syntactic investigations. The reader can form some preliminary idea in advance by consulting the brief synopsis in Table 1, repeated here.

⁷⁹ In the case of adverbial complements, one still needs a syntactic criterion, like Komlósy's (2015: 286) cited in fn. 21 in Chapter **2**, to distinguish between obligatory adverbial complements and one type of preverbs, which are not complements (cf. **2.5.3**) because the latter (e.g., *újra-* as in *újraolvas* 're-read' and *tovább-* as in *továbbolvas* 'continue to read') also behave as predicates that take a verb as their argument (Kiefer 2007: 235–237). In other words, despite not being a complement, the type of preverb at stake behaves semantically in the same way as adverbial complements.

Table 1. Synopsis of a semantico-morphosyntactic classification of Hungarian verbs

semantic class	syntactic class	morphosyntactic subclass (with further possible semantic role differences)
null-argument verbs (№ 1)	subjectless verbs (№ 1.1)	
one-argument verbs (№ 2)	intransitive verbs (№ 2.1)	unergative verbs (№ 2.1.1) unaccusative verbs (№ 2.1.2)
	verbs with predicative complements (№ 2.2)	predicative complements in the dative case (№ 2.2.1)
	verbs with sentential (finite verbal) complements (№ 2.3)	subject complement clauses (№ 2.3.1)
two-argument verbs (№ 3)	transitive verbs (№ 3.1)	
	verbs with oblique complements (№ 3.2)	oblique complements in various cases (№ 3.2.1–3.2.16)
	verbs with predicative complements (№ 3.3)	predicative complements in various cases (№ 3.3.1–3.3.3) infinitival predicative complements (№ 3.3.4–3.3.5)
	verbs with sentential (finite verbal) complements (№ 3.4)	subject complement clauses (№ 3.4.1) object complement clauses (№ 3.4.2–3.4.3) various oblique complement clauses (№ 3.4.4)
three-argument verbs (№ 4)	verbs with various complex complement structures (№ 4.1–4.5)	object + various oblique complements (№ 4.1.1–4.1.12) object + various predicative noun phrases (№ 4.2.1–4.2.2) object + various oblique complement clauses (№ 4.3.1) object complement clause + various oblique complements (№ 4.3.2) oblique complement + oblique complement (№ 4.4.1–4.4.3) oblique complement + oblique complement clause (№ 4.5.1)
verbs which are arguments of higher-order predicates (№ 5)	verbs with adverbial complements (№ 5.1)	

Although only verbs are targeted in the proposed classification, other words which are predicates in the logical sense can also have their semantic arguments and, consequently, their complement noun phrases in various case forms. Among Komlósy's (2015: 315) examples there are adjectives (*ártatlan* + Ine 'be innocent of sg', *felelős* + Cau 'be responsible for sg/sy', *szerelmes* + Ill 'be in love with sy', etc.) and nouns (*alkalom* + Sub 'opportunity to do sg', *felesége* + Dat 'sy's wife'; *fia* + Dat 'sy's son', *kritika* + Del 'criticism on/about', etc.).

As to the criteria of the classification concerned, verb classes are established on the basis of the number and logical types of semantic constituents in the LSRs as well as the subcategorization frames of verbs, i.e. the morphosyntactic characterization of their complements. Complement frames of verbs may contain not only syntactic arguments (including subjects) but also predicative, sentential and adverbial complements (cf. Chapter 2). In addition, in particular cases semantic role differences are taken into consideration.

Although there are (preverbal) verbs with up to seven semantic arguments (cf. 2.5.4), the proposed classification concentrates on one-, two- and three-argument verbs⁸⁰ because verbs with more arguments seem to be rare in the lexicon (Komlósy 2015: 298) and even rarer in language use (Apresjan 2010: 310–311, fn. 18). At the same time, several possibilities of enriching the basic argument structure of verbs with one more argument will be indicated in the course of the presentation of verbal classes. What is more, this fragment of the verbal lexicon can count as representative enough and as illustrating issues which need to be overcome when dividing one-, two- and three-argument verbs into (morpho)syntactic subclasses and characterizing them along semantic roles. First, in grammars of Hungarian, verbs are not provided with a full list of their arguments or complements but are mentioned in connection with a particular form of complement which is mostly a nominal and, perhaps, sentential complement, thus leaving out of consideration other types of complements such as predicative and adverbial ones.⁸¹ Hence, I myself had to undertake the task of compiling argument/complement frames for each verb. Each verb class is exemplified by typical verbs understood as they usually are (e.g., manner-of-motion verbs have a single subject argument)

⁸⁰ The variable "e" mentioned in passing in fn. 40 in Chapter 2 is outside the scope of the criteria for establishing verbal classes on the basis of semantic arguments. – With regard to word-formational structure, the verbs which figure as examples in verb classes below are mainly without preverbs and suffixes, except for verbs derived from passive (fictive) or non-verbal stems. Verbs with preverbs and suffixes connected to verbal stems appear if they have special lexical meanings and argument/complement structures.

⁸¹ Cf., e.g., Balogh (2000: 195–200), Haader (2000: 485–495) and Keszler (2000a: 426–429). See also fn. 86 below.

and taken in their basic sense (e.g., motion verbs in their manner-of-motion sense). However, the Remarks column provides additional information modifying or even casting doubt on the standard view (e.g., the existence of null-argument verbs is questioned in Remarks).

Second, the traditional classification distinguishes between intransitive and transitive verbs. There is a variation in the Hungarian grammar literature according to which the latter only include verbs with object complements or, conceived more broadly, they are also verbs with adverbial complements (cf. Tompa 1961–1962: I, 207, Lengyel 2000: 84–85). In terms of the grammars of Indo-European languages, transitive verbs can not only have direct objects but also indirect and prepositional objects. Independently of the treatment of transitivity, we will see that such a classification is insufficient both with respect to the number and type of arguments. Dealing with three-argument verbs and various kinds of complements, one has to postulate more complex structures. A suitable solution cannot be reached by making the transitive class of verbs more inclusive but by distinguishing between object vs. oblique vs. predicative vs. sentential complements, both with respect to two-argument verbs and three-argument verbs.

Third, as already mentioned above, there is no body of decomposed verb meanings on the basis of which one can derive the semantic roles of individual verbs. That is why I myself have to operate with labels found in the semantic role list approach and to pick out a corresponding role from their generally stipulated set. This was certainly a forced venture and sometimes led to cases where I could not make a decision on one of the roles of a three-argument verb. Such cases in verbal classes with a complex complement structure are indicated below by the mark “?”.

With the above clarifications in mind any reader interested in an elaborated version of the system of verbal classes given in Table 1 can work through the detailed semantico-morphosyntactic classification of Hungarian verbs in the remainder of Chapter 3.⁸² Besides the ways in which semantic arguments are realized by morphosyntactic means (not expressed in terms of a particular theory of grammar), the classification presents a great number of verbs which occur with different complement frames. Amongst them there are verbs with a multiple argument structure, i.e. so-called syntactically alternating verbs, posited in the system of

⁸² I would like to express my special gratitude to György Rákosi and Éva Kardos (both from the University of Debrecen) as well as the participants at the workshop on the project “Comprehensive Grammar Resources: Hungarian” (OTKA NK 100804, May 20, 2014) for insightful suggestions which helped me to propose the classification in a more adequate form.

verbal classes. Those syntactic alternations will be focused on in the subsequent chapters of the dissertation.

3.2. A classification of Hungarian verbs based on the semantic constituents of LSRs and their morphosyntactic realization

Verb class № 1.1

semantic class: null-argument verbs

syntactic class: subjectless verbs

semantic roles: Ø

examples: *alkonyodik* ‘<for dusk to> set in’, *esik* ‘<for precipitation to> fall’, *esteledik* ‘<for evening to> close in’, *hajnalodik* ‘<for day to> break’, *havazik* ‘snow’, *pirkad* ‘dawn’, *tavaszdodik* ‘<for spring to> come’, *villámlik* ‘<for lightning to> strike’, etc.⁸³

Remarks

As indicated in fn. 74 in Subsection 2.5.4.2, English weather *it*, called a quasi-argument, is argued not to be a pure dummy but a referential element (cf. Radford 2004: 297–298). What is more, for the Hungarian verbs of natural phenomena considered subjectless in the Hungarian grammar tradition (cf. also Alberti and Farkas 2018: 194), Németh T. (2019: 77–102) proposes an LSR that has an argument on which a selection restriction concerning its type or a unique selection restriction is imposed. For instance, the LSR of *esik* ‘<for precipitation to> fall’ can be paraphrased as follows: ‘X which is precipitation falls in Y which is place’. Leaving aside the place Y, the semantic argument X can be realized explicitly or implicitly at the syntactic level as in (101) and (102) (implicit arguments are provided in square brackets):

(101) *Esik* *az* *eső* / *a* *hó*.
 fall.3Sg the rain the snow
 ‘Rain/snow is falling.’

(102) *Esik* [*az* *eső*] / [*a* *hó*].
 fall.3Sg the rain the snow
 ‘It is raining/snowing.’

Consequently, *esik* ‘<for precipitation to> fall’ and other Hungarian verbs of natural phenomena are not null-argument verbs but they are not subjectless either, because X appears at least implicitly at the syntactic level.

* * *

⁸³ These verbs are called weather verbs. In the special literature one can also find other terms to denominate the group of verbs at issue, such as *meteorological* or *atmospheric verbs* or *verbs of natural phenomena*.

Verb class № 2.1.1

semantic class: one-argument verbs

syntactic class: intransitive verbs

syntactic subclass: unergative verbs

semantic roles: agent as subject

examples: *bólint* ‘nod’, *dolgozik* ‘work’, *pihen* ‘rest’;*borozik* ‘drink wine’, *borozgat* ‘drink wine (several times)’, *ebédel* ‘have lunch’;*brekeg* ‘croak’, *csenget* ‘ring the bell’, *dorombol* ‘purr’, *fütyül* ‘whistle’, *kiabál* ‘shout’, *ordít* ‘scream’, *sír* ‘cry’;*fut* ‘run’, *kirándul* ‘hike’, *sétál* ‘walk’, *úszik* ‘swim’*Remarks*

It is worth noting that several verbs listed above can occur with one more argument, e.g. *a disszertációján dolgozik* ‘work on one’s dissertation’, *azt kiabálja, hogy...* ‘shout that...’, *a boltba fut* ‘run to the shop’, *a barlangba úszik* ‘swim into the cave’. In addition, it is not only directional phrases which appear with the latter two verbs but also locative ones for whose argument status I will argue below in Subsection 5.1.3.1: *a parkban fut* ‘run in the park’, *a barlangban úszik* ‘swim in the cave’. Here I do not attempt to decide the issue of how the various syntactic argument structures of all these verbs are connected to each other. I will thoroughly investigate the phenomenon of the locative vs. directional alternation in Chapter 5.

Verb class № 2.1.2

semantic class: one-argument verbs

syntactic class: intransitive verbs

syntactic subclass: unaccusative verbs

semantic roles: theme as subject

examples: *bűzlik* ‘stink’, *csattog* ‘clap, clank, flap’, *cseng* ‘ring’, *esik* ‘<not for precipitation to> fall’, *hervad* ‘fade’, *korhad* ‘become rotten’, *nő* ‘grow’, *poshad* ‘become stagnant’, *rothad* ‘become rotten’, *szárad* ‘become dry’, *törik* ‘get broken’, *úszik* ‘float’, *virágzik* ‘blossom’

Remarks

Here it is not my aim to go into the details of the distinction between unergativity and unaccusativity. I only emphasize the opinion I previously outlined in Subsection 2.3.3. Whether unergativity and unaccusativity should be treated syntactically or semantically is a much debated issue (cf. Levin and Rappaport Hovav 2005: 76, n. 3). The semantic basis underlying the syntactic behavior can be related to the specific thematic role – i.e., agent or theme, respectively – of the subject (cf. Alberti 1996, Halm 2012, Rákosi 2005). Consider (77a) and (77b), repeated here as (103a) and (103b).

- (103) a. A váza az asztalon áll.
 the vase the table.Sup stand.3Sg
 ‘The vase is on the table.’

- b. Péter egész nap a sarokban állt.
 Péter all day the corner.Ine stand.Past.3Sg
 ‘Péter was standing in the corner all day.’

Unlike the referent of the noun phrase *a váza* ‘the vase’ in (103a), Péter exerted some effort to remain in the intended spatial position. The twofold “role” interpretation with *áll* ‘stand’, i.e. theme and agent, respectively, can be grasped by an optional component ACT in the LSR of the verb. The same holds for verbs with the component MOVE such as, e.g., *úszik* ‘swim; float’. Thus, according to a semantic treatment of their difference, the unergative and unaccusative occurrences can be unequivocally identified on the basis of the verbs’ LSRs. (For details see Chapter 5.)

* * *

Verb class № 2.2.1

semantic class: one-argument verbs

syntactic class: verbs with predicative complements

morphosyntactic subclass: verbs with predicative noun or adjective phrases in the dative case

semantic roles: propositional as subject + predicative complement

examples: *vaklármának/használatatlannak bizonyul* ‘prove (to be) a false alarm/useless’,
hibának/hiányosnak minősül ‘be qualified as a mistake/incomplete’, *szakembernek/hasznosnak mutatkozik* ‘reveal oneself as a specialist / look useful’, *szakértőnek/tapasztalatatlannak számít* ‘count as an expert/inexperienced’

Remarks

1. Verbs in class № 2.2.1 have an LSR with one argument position filled by a proposition that has to appear syntactically not as a single sentential (finite verbal) complement (see Verb class № 2.3.1 below) but as two complements, namely as a subject and as a predicative complement. Although the subjects are in a syntactic relation to the verbs at issue, their semantic roles come from the predicate of the proposition. (Cf. Komlósy 2015: 445.)

2. In the generative grammar tradition, verbs like the English equivalent of Hungarian *bizonyul*, i.e. *prove*, are known as subject-raising verbs. They are subcategorized for a sentential complement expressing a propositional argument. From this sentential complement the subject is raised to the subject position of the matrix clause.

3. The prototypical subject-raising verb *tűnik* ‘seem’ will be considered in Verb class № 3.3.1 because it semantically assumes not only a propositional argument but also another one, namely an experiencer argument.

* * *

Verb class № 2.3.1

semantic class: one-argument verbs

syntactic class: verbs with sentential (finite verbal) complements

morphosyntactic subclass: verbs with subject complement clauses

semantic roles: propositional as subject complement clause

examples: *az*⁸⁴ *következik, hogy...* ‘the next thing is that...’, *lehet, hogy...* ‘be possible that...’

* * *

Verb class № 3.1.

semantic class: two-argument verbs

syntactic class: transitive verbs

semantic roles: agent as subject + theme as object

experiencer as subject + theme as object

theme as subject + experiencer as object

examples: *eszik* ‘eat’, *iszik* ‘drink’, *olvas* ‘read’, *takarít* ‘tidy up’, *törölget* ‘dry up; dust’

hall ‘hear’, *lát* ‘see’; *gyűlöl* ‘hate’, *szeret* ‘love, like’

aggaszt ‘trouble, worry’

Remarks

1. For the ways in which Hungarian transitive verbs can occur with implicit objects, see Németh T. (2019).

2. In comparison with *hall* ‘hear’, *lát* ‘see’, the subject of the verbs *hallgat* ‘listen to’, *néz* ‘watch’ seems to have not only an experiencer-like character but also an agentive one.

* * *

Verb class № 3.2.1

semantic class: two-argument verbs

syntactic class: verbs with oblique complements

syntactic subclass: verbs with noun phrases in the **ablative** (*-tól/-től*) case⁸⁵

semantic roles: agent or experiencer as subject + theme as oblique complement

examples: *fél* ‘fear’, *retteg* ‘fear greatly’, *tart* ‘be afraid of’, *tartózkodik* ‘abstain/refrain from’,
válik ‘divorce’

Remarks

1. Classes № 3.2.1–3.2.13 contain so-called labeled complements, whose oblique case inflections are determined by the verbs themselves, unlike classes № 3.2.14–3.2.16 with

⁸⁴ For so-called supporting words in matrix clauses, see Haader (2000: 486) and Kenesei (2015: 583–601).

⁸⁵ In a generative grammar-style framework, Hungarian case inflections belong to adpositions in the same way as postpositions (see, e.g., Rákosi 2019). Thus, noun phrases in various case forms are categorized as PP.

thematically bound complements, whose case markers are only restricted by the verbs' semantic roles (Komlósy 2015: 333).

2. Another – semantic – distinction is used by Balogh (2000: 195) with respect to oblique complements. Oblique (adverbial) case inflections can retain or lose their meaning when they take part in the morphological formation of complements. Accordingly, semantic and asemantic complements are distinguished. For instance, the meaning of the illative case morph *-ba* can be described as 'into', which remains in phrases expressing spatial relations such as *a házba megy* 'go into the house'. However, the same morph appears without such a meaning in the phrase *szerelemes a szomszédba* 'be in love with the neighbor'. Although there is some parallelism between thematically bound and semantic complements, as well as between labeled and semantic complements, the types have to be kept separate. Let me provide just one example. The verb *örül* 'be glad of sg' occurs with a complement in the dative (*-nak/-nek*) case, which cannot be formed otherwise, cf., e.g., *örül a gondolatnak, hogy...* 'be happy with the idea that...'. Thus, it should be a labeled complement while Balogh (2000: 198) considers it a semantic complement.⁸⁶

Verb class № 3.2.2

semantic class: two-argument verbs

syntactic class: verbs with oblique complements

syntactic subclass: verbs with noun phrases in the **adessive** (*-nál/-nél*) case

semantic roles: agent as subject + experiencer as oblique complement

examples: *bevágódik* 'worm oneself into sy's confidence'

Verb class № 3.2.3

semantic class: two-argument verbs

syntactic class: verbs with oblique complements

syntactic subclass: verbs with noun phrases in the **allative** (*-hoz/-hez/-höz*) case

semantic roles: agent/theme as subject + theme as oblique complement

examples: *alkalmazkodik* 'fit in with sy, adjust (oneself) to sg', *asszimilálódik* 'be assimilated into', *hasonlít* 'be similar to sy/sg', *hasonul* 'become like sg'

Remarks

1. As regards cases in which two noun phrases occur with the same (theme) role, recall what has been written in connection with an English verb such as *resemble* in Subsection 2.3.3: If a role "standard of comparison" is postulated to avoid the assignment of the same role to two noun phrases, another problem appears, namely positing an otherwise not typical role.

⁸⁶ In the tradition of academic grammar writing, the dative complement of *örül* 'be glad of sg' is categorized as a so-called stable adverbial (Tompa 1961–1962: I, 574). Besides spatial, time, manner and state adverbials, a fifth type, namely the stable adverbial type, is established (Tompa 1961–1962: II, 170–174). They do not only depend on their heads syntagmatically but also their forms, including inflections and postpositions, are determined by heads lexically. These forms which keep their heads company are called stable adverbials. It is these that the term *complement* is restricted to (ibid., 251).

Therefore, semantic roles have been proposed to be derived from the verbs' decomposed LSRs.

2. Having the same meaning, the verb *hasonlít* 'be similar to sy/sg' may appear with another case marker, namely with the sublative (-*ra/-re*) inflection (see Verb class № 3.2.11). In addition, this verb can be used as a three-argument verb: *hasonlít* + Acc + All 'compare sy/sg to sy/sg'.

3. Verbs with the preverb *hozzá-*, literally meaning 'to/towards him/her', regularly take noun phrases in the allative case: *hozzáér* 'touch sg/sy', *hozzáfér* 'reach sg', *hozzászokik* 'get accustomed to sg', etc.

Verb class № 3.2.4

semantic class: two-argument verbs

syntactic class: verbs with oblique complements

syntactic subclass: verbs with noun phrases in the **causalis** (-*ért*) case

semantic roles: agent/experiencer as subject + theme as oblique complement

examples: *aggódik* 'be anxious for sy/sg', *eped(ezik)/epekedik* 'yearn for sy/sg', *harcol* 'fight for sg', *kezeskedik* 'guarantee sg, vouch for sg', *küzd* 'struggle for sg', *lelkesedik* 'be crazy about sg', *rajong* 'be keen on'

Remarks

1. With *aggódik* 'be anxious for sy/sg', it is worth noticing that this verb also appears with a postpositional phrase: *aggódik vki/vmi miatt*. Its meaning remains the same: 'be anxious for sy/sg'. Such a usage of the postposition of *miatt*, with a meaning 'for what purpose' instead of 'in consequence of a cause', is considered by Pusztai (2003: 930) as stylistic carelessness.

2. With *harcol* 'fight for sg' and *küzd* 'struggle for sg', the opposite meaning is expressed by the postposition *ellen* 'against': e.g., *harcol/küzd az infláció ellen* 'fight/struggle against inflation'. This meaning also appears if the complement is inflected for the instrumental case: e.g., *harcol/küzd az inflációval* 'fight/struggle with inflation'.

Verb class № 3.2.5

semantic class: two-argument verbs

syntactic class: verbs with oblique complements

syntactic subclass: verbs with noun phrases in the **dative** (-*nak/-nek*) case

semantic roles: experiencer as subject + theme as oblique complement

theme as subject + experiencer (or beneficiary) as oblique complement

examples: *hisz* 'believe sy', *örül* 'be glad of sg'

árt 'harm, hurt sy', *használ* 'be useful to sy', *kell* 'sy needs sg', *tetszik* 'sy likes sy/sg',
van vkinek vmije 'sy has sg'⁸⁷

⁸⁷ One may realize that the constituent which is expressed as a subject with the latter three Hungarian verbs is formed as an object in English and the constituent inflected for the dative case in Hungarian appears in the nominative case in English.

Remarks

Verbs with the preverb *neki-* literally meaning ‘(to/for) him/her’ regularly take noun phrases in the dative case: *nekibúsul* ‘give way to grief’, *nekiindul* ‘start off’, *nekitámaszkodik* ‘lean against sg’, *nekiütözik* ‘bump against sg’, etc.

Verb class № 3.2.6

semantic class: two-argument verbs

syntactic class: verbs with oblique complements

syntactic subclass: verbs with noun phrases in the **delative** (*-ról/-ről*) case

semantic roles: agent as subject + theme as oblique complement

examples: *ábrándozik* ‘dream of’, *álmodik* ‘dream of’, *elmélkedik* ‘meditate on’, *gondolkodik* ‘think of/about’, *gondoskodik* ‘take care of’

Remarks

The former two verbs can take noun phrases inflected for the superessive (*-on/-en/-ön/-n*) case, seemingly without any change of meaning (see Verb class № 3.2.12).

Verb class № 3.2.7

semantic class: two-argument verbs

syntactic class: verbs with oblique complements

syntactic subclass: verbs with noun phrases in the **elative** (*-ból/-ből*) case

semantic roles: agent as subject + theme as oblique complement

examples: *felel* <pl. történelemből> ‘recite the lesson in <e.g. history> class’, *vizsgál* <pl. matematikából> ‘take an examination of <e.g. maths>’

Verb class № 3.2.8

semantic class: two-argument verbs

syntactic class: verbs with oblique complements

syntactic subclass: verbs with noun phrases in the **illative** (*-ba/-be*) case

semantic roles: theme as subject + theme as oblique complement (cf. Remark 1 in Verb class

№ 3.2.3)

examples: (*a vízbe*) *gázol* ‘wade into (the water)’, *kerül* ‘cost’

Remarks

Verbs with the preverb *bele-* literally meaning ‘into, inwards’ regularly take noun phrases in the illative case: *belefür* ‘bore into’, *belegázol* (*a vízbe*) ‘wade into (the water)’ vs. *belebetegszik* ‘become ill from sg’, *belebolondul* ‘become crazy from sg’, etc.

Verb class № 3.2.9

semantic class: two-argument verbs

syntactic class: verbs with oblique complements

syntactic subclass: verbs with noun phrases in the **inessive** (-*ban/-ben*) case

semantic roles: experiencer as subject + theme as oblique complement

examples: *bízik* ‘trust sy/sy’, *csalódik* ‘be disappointed in sg’, *gyönyörködik* ‘be highly delighted with sg’, *hisz* ‘believe sy / (in) sg’, *reménykedik* ‘hope for sy/sg’

Verb class № 3.2.10

semantic class: two-argument verbs

syntactic class: verbs with oblique complements

syntactic subclass: verbs with noun phrases in the **instrumental** (-*val/-vel*) case

semantic roles: agent as subject + comitative as oblique complement

agent/beneficent as subject + theme as oblique complement

theme as subject + theme as object

examples: *kiabál* ‘quarrel with sy loudly’, *zsémbelődik* ‘be grumpy with sy’, *zsörtölődik* ‘be grumpy with sy’

büszkélkedik ‘take pride in sy/sg’, *foglalkozik* ‘deal with’, *rendelkezik* ‘be in possession of sg’, *szemetel* ‘litter with sg’, *törődik* ‘take care of sy/sy’
érintkezik ‘be in contact with’

Verb class № 3.2.11

semantic class: two-argument verbs

syntactic class: verbs with oblique complements

syntactic subclass: verbs with noun phrases in the **sublative** (-*ra/-re*) case

semantic roles: experiencer/theme/agent as subject + theme as oblique complement

examples: *emlékezik* ‘remember’, *hárul* ‘fall to sy (to do sg)’, *hasonlít* ‘be similar to sy/sg’,
irigykedik ‘be jealous of sy/sg’, *mosolyog* ‘smile upon sy’, *vágyik* ‘have a desire for sg’

Remarks

1. With the same meaning, the verb *hasonlít* ‘be similar to sy/sg’ may appear with another case marker, namely with the allative (-*hoz/-hez/-höz*) inflection (see Verb class № 3.2.3).
2. The verb *mosolyog* ‘smile upon sy’ with another oblique complement in the superessive (-*on/-en/-ön/-n*) case (see Verb class № 3.2.12) seems to change its meaning.

Verb class № 3.2.12

semantic class: two-argument verbs

syntactic class: verbs with oblique complements

syntactic subclass: verbs with noun phrases in the **superessive** (-*on/-en/-ön/-n*) case

semantic roles: experiencer/agent as subject + theme as oblique complement

examples: *bánkódik* ‘sorrow about/over sg’, *csodálkozik* ‘be astonished at’, *elmélkedik* ‘meditate on’, *gondolkodik* ‘think of/about’, *mereng* ‘muse over’, *morfondírozik* ‘brood over sg’, *mosolyog* ‘smile at sy/sg’, *nevet* ‘laugh at sy/sg’, *szomorkodik* ‘grieve over sg’, *töpreng* ‘brood over sg’

Remarks

1. For other cases of oblique complements with the verbs *elmélkedik* ‘meditate on’ and *gondolkodik* ‘think of/about’ as well as *mosolyog* ‘smile at sy/sg’, see Verb classes № 3.2.6 and № 3.2.11, respectively.

2. The verbs *bánkódik* ‘sorrow about/over sg’ and *szomorkodik* ‘grieve over sg’ can also occur with the postposition *miatt* ‘because of’ while their meaning remains the same.

Verb class № 3.2.13

semantic class: two-argument verbs

syntactic class: verbs with oblique complements

syntactic subclass: verbs with noun phrases in the **terminative** (-ig) case

semantic roles: theme as subject + terminative as oblique complement

examples: *elnyúlik a folyópartig* ‘extend to the river-side’, *éjfélig tart* ‘last till midnight’, *az erdőig terjed* ‘extend to the forest’

Remarks

It is worth noting that a redundancy rule makes these verbs (and others as well, see Verb class № 3.2.15) three-argument verbs with another oblique complement: if with a verb there is a terminative argument, then its argument structure always involves an argument playing the semantic role of source. Initial points can be formed by noun phrases in the ablative case: e.g. *a folyótól az erdőig terjed* ‘extend from the river to the forest’.

Verb class № 3.2.14

semantic class: two-argument verbs

syntactic class: verbs with oblique complements

syntactic subclass: verbs with oblique complements inflected for various cases marking the **location** semantic role

semantic roles: agent/theme as subject (cf. Remark in Verb class № 2.1.2) + location as oblique complement

examples: *él vhol* ‘live swwhere’, *függ vhol* ‘be hanging swwhere’, *heverészik vhol* ‘lie around swwhere’, *kempingezik vhol* ‘camp swwhere’, *lakik vhol* ‘live swwhere’, *létezik vhol* ‘exist swwhere’, *marad vhol* ‘stay swwhere’, *mutatkozik vhol* ‘show up swwhere’, *reked vhol* ‘get stranded swwhere’, *rostokol vhol* ‘be kept waiting swwhere’, *táborozik vhol* ‘stay in camp swwhere’, *tartózkodik vhol* ‘stay swwhere; reside swwhere’, *van vhol* ‘exist swwhere’,

vesztegel vhol ‘be stranded swhere’ (cf. also Subsections **2.1.2**, **2.2.1** and **2.2.4** in Chapter 2)

Remarks

Whereas verb classes № **3.2.1–3.2.13** contain so-called labeled complements, whose oblique case inflections are determined by verb themselves, classes № **3.2.14–3.2.16** include thematically bound complements, whose case markers are only restricted by the verbs’ semantic roles (Komlósy 2015: 333). Cf.: the syntactic subclasses are determined by the corresponding semantic roles. Thus, oblique complements are indicated by the pronoun *vhol* ‘swhere’, for which noun phrases inflected for various cases or accompanied by postpositions can be substituted in sentences. For example: *a városban / az első emeleten / a barátjánál / a folyó mellett lakik* ‘live in the town / on the second floor / at one’s friend / by the river’.

Verb class № 3.2.15

semantic class: two-argument verbs

syntactic class: verbs with oblique complements

syntactic subclass: verbs with oblique complements inflected for various cases marking the **goal** semantic role

semantic roles: agent/theme as subject (cf. Remark in Verb class № **2.1.2**) + goal⁸⁸ as oblique complement

examples: *ér vhová* ‘get to’, *érkezik vhová* ‘arrive at’, *helyezkedik vhová* ‘position oneself to some place or other’, *heveredik vhová* ‘lie down at full length to some place or other’, *jut vhová* ‘get to’, *kerül vhová* ‘get to’, *lép vhová* ‘step into/onto some place’, *szökik vhová* ‘escape to some place or other’

Remarks

1. The oblique complement *vhová* ‘to some place or other’ can be expressed by noun phrases inflected for various cases, namely for the illative, sublative or allative cases, or accompanied by postpositions. Cf.: *vhol* ‘swhere’ in Verb class № **3.2.14**.

2. Just as with Verb class № **3.2.13**, a redundancy rule makes these verbs three-argument verbs with another oblique complement: if a verb has an argument with a goal role (which is obviously connected to the terminative one semantically), then its argument structure always involves an argument playing the source⁸⁹ semantic role. Initial points can be formed by noun phrases inflected for various cases and by noun phrases accompanied by various postpositions: e.g. *a folyótól / a ház mellől az erdőbe ér* ‘get from the river / from beside the house to the forest’, *a bankból a minisztériumba kerül* ‘get from the bank to the ministry’, *az utcáról a lakásba lép* ‘step from the street into the flat’.

3. Besides verbs of inherently directed motion in this class (cf. Levin 1993: 263–264), there is a great number of verbs that alternate between directional and locative oblique complements. They will be thoroughly investigated in Chapter 5 of the dissertation. It suffices here to provide the following examples: *a szőnyegen áll* ‘stand on the carpet’ vs. *a szőnyegre áll* ‘step

⁸⁸ Cf. Komlósy’s (2015: 328) directional semantic role.

⁸⁹ Cf. Komlósy’s (2015: 328) initial point as the semantic role that enhances both moving and changing.

onto the carpet’, *a barlangban úszik* ‘swim/float in the cave’ vs. *a barlangba úszik* ‘swim/float into the cave’.

Verb class № 3.2.16

semantic class: two-argument verbs

syntactic class: verbs with oblique complements

syntactic subclass: verbs with oblique complements inflected for various cases marking the **time** semantic role

semantic roles: theme as subject + time⁹⁰ as oblique complement

examples: *kezdődik vmikor* ‘start sometime or other’, *meghal vmikor* ‘die sometime or other’,
születik vmikor ‘be born sometime or other’, *történik vmikor* ‘occur sometime or other’

Remarks

1. Just like the locative phrases with the verbs in Class № 3.2.14, temporal phrases can be arguments with the verbs at issue, though they often must be considered adjuncts.
2. Oblique complements indicated by the pronoun *vmikor* ‘sometime or other’ can be expressed by noun phrases inflected for not only the temporal case but also other cases. For example: *kettőkor/hétfőn/februárban születik* ‘be born at two o’clock / on Monday / in February’.

* * *

Verb class № 3.3.1

semantic class: two-argument verbs

syntactic class: verbs with predicative complements

morphosyntactic subclass: verbs with predicative noun or adjective phrases in the dative case

semantic roles: propositional as subject + predicative complement

experiencer as oblique complement

examples: *vaklármanak/igaznak hangzik nekem* ‘sound to me like a false alarm/sound true to me’, *hibának/hiányosnak látszik nekem* ‘appear to me to be a mistake/incomplete’,
szakembernek/tapasztalatlannak tűnik neked ‘seem to you to be a specialist/inexperienced’

Remarks

Cf. Verbal class № 2.2 above with one-argument (propositional) verbs without experiencers.

Verb class № 3.3.2

semantic class: two-argument verbs

⁹⁰ The time semantic role comes from the location split along the spatial and temporal localization (cf. Komlósy 2015: 328).

syntactic class: verbs with predicative complements

morphosyntactic subclass: verbs with predicative noun or adjective phrases in the dative case

semantic roles: experiencer as subject

propositional as object + predicative complement

examples: *szakembernek/ártatlannak gondol/hisz/képzeli/talál/tart/tekint/vél* ‘think/believe/
imagine/find/hold/consider/think you (to be) a specialist/innocent’

Remarks

1. Like verbs in class № 2.2, these verbs also have an LSR with an argument position filled in by a proposition that has to appear syntactically not as a single sentential (finite verbal) complement (see classes 3.4.1–3.4.4 below) but as two complements. However, unlike verbs in class № 2.2, the propositional argument of these verbs is syntactically realized as an object and as a predicative complement. (Cf. Komlósy 2015: 445.)

2. The verbs in class № 3.3.2 are differently treated in various grammar frameworks. In dependency grammar there is a claim that a proposition is split syntactically into phrases which express the topic of the proposition and the content proper (Apresjan 2010). In the tradition of generative grammar, the verbs at issue are handled as object-raising or ECM verbs or verbs taking small clauses (Růžička 1980, Radford 2004: 441, 450). (Cf. Subsection 2.5.4.2 in Chapter 2.)

Verb class № 3.3.3

semantic class: two-argument verbs

syntactic class: verbs with predicative complements

morphosyntactic subclass: verbs with predicative noun or adjective phrases in the translative case

semantic roles: theme as subject + propositional as predicative complement⁹¹

examples: *közösséggé/hasonlóvá alakul* ‘form into a community / become similar’,
csapatá/egységessé formálódik ‘be formed into a team / become homogeneous’,
terroristává/híressé lesz ‘become a terrorist / famous’, *békává/fontossá válik/változik*
‘become a frog/important’

Remarks

Note in passing that there may also be other types of verbs with predicative complements such as verbs only with noun phrases in the dative case, e.g. *tanárnak készül* ‘want to be a teacher’ (cf. example (86) in Chapter 2) or verbs with noun and adjective phrases in the nominative case, e.g. *katona/buta lesz/marad* ‘become/remain a soldier / foolish’ (cf. example (1) in Chapter 2).

⁹¹ Unlike verbs in class № 2.2, this propositional argument does not have to be realized as two complements, i.e. as a subject and as a predicative complement, because the verbs in this class have another semantic argument which surfaces as a subject at the syntactic level and identifies the subject of the propositional argument (cf. Komlósy 2015: 443–444).

Verb class № 3.3.4

semantic class: two-argument verbs

syntactic class: verbs with predicative complements

morphosyntactic subclass: verbs with infinitival predicative complements

semantic roles: experiencer as subject + propositional as infinitival predicative complement⁹²examples: *akar V-ni* ‘want to’, *gyűlöl V-ni* ‘hate to’, *kíván V-ni* ‘wish to’, *szeret V-ni* ‘like/love to’, *utál V-ni* ‘hate to’*Remarks*

The verb *elkezd* *V-ni* ‘begin to’ with an agentive subject as in *Péter elkezdte olvasni/írni a könyvet* ‘Péter began to read/write the book’ also belongs to so-called subject control verbs in class № 3.3.4. Besides infinitives (see (104)), the propositional argument can be expressed by deverbal nouns (see (105)). Interestingly, however, both can be omitted (see (106)). So the (semantic) predicates indicating the events concerned are left implicit (for details, see Bibok 2016b).

(104) Péter elkezdte olvasni/írni a könyvet.
 Péter begin.Past.DefObj.3Sg to_read/to_write the book.Acc
 ‘Péter began to read/write the book.’

(105) Péter elkezdte a könyv olvasását/írását.
 Péter begin.Past.DefObj.3Sg the book reading/writing.Poss.3Sg.Acc
 ‘Péter began the reading/writing of the book.’

(106) Péter elkezdte a könyvet.
 Péter begin.Past.DefObj.3Sg the book.Acc
 ‘Péter began [to read/write] the book.’

Verb class № 3.3.5

semantic class: two-argument verbs

syntactic class: verbs with predicative complements

morphosyntactic subclass: verbs with infinitival predicative complements

semantic roles: agent as subject

propositional as object + infinitival predicative complement

examples: *enged vkit V-ni* ‘allow sy to do sg’, *hagy vkit V-ni* ‘let sy do sg’

⁹² Like verbs in class № 3.3.3, this propositional argument does not have to be realized as two complements, i.e. as a subject and as a predicative complement. The subject of the propositional argument cannot appear as a complement of the infinitive. Nevertheless the verbs in this class have another semantic argument which can be mapped onto the syntactic subject and which also indicates the subject of the propositional argument. (Cf. Komlósy 2015: 435, 443.) Speaking in terms of generative grammar, in what is traditionally called the Nominative-with-the-Infinitive construction (or more precisely: in some of them) the subject controls the empty PRO subject of the non-finite infinitival clause (Radford 2004: 444–445).

Remarks

Similarly to verbs in class № 3.3.2, these verbs also have an LSR with an argument position filled in by a proposition that has to appear syntactically not as a single sentential (finite verbal) complement (see classes 3.4.1.–3.4.4 below) but as two complements. However, unlike verbs in class № 3.3.2, the propositional argument of these verbs is syntactically realized as an object and as an infinitival predicative complement.

* * *

Verb class № 3.4.1

semantic class: two-argument verbs

syntactic class: verbs with sentential (finite verbal) complements

morphosyntactic subclass: verbs with subject complement clauses

semantic roles: propositional as subject complement clause + experiencer as oblique complement

examples: *úgy*⁹³ **tűnik** *vkinek, hogy...* ‘seem to sy that...’

Remarks

Cf. *szakembernek/tapasztalatlannak tűnik neked* ‘seem to you to be a specialist/inexperienced’ in Verb class № 3.3.1. Unlike the verbs in that class, the semantic argument with a propositional role is directly mapped onto the syntactic sentential complement in the case of *úgy tűnik vkinek, hogy...* ‘seem to sy that...’.

Verb class № 3.4.2

semantic class: two-argument verbs

syntactic class: verbs with sentential (finite verbal) complements

morphosyntactic subclass: verbs with object complement clauses

semantic roles: experiencer as subject + propositional as object complement clause

examples: *azt/úgy*⁹⁴ **gondolja/hiszi/képzeli/tartja, hogy... ‘think/believe/imagine/hold that...’,
úgy találja/tekinti/véli, hogy... ‘find/consider/think that...’**

Remarks

The semantic argument with a propositional role is directly realized at the syntactic level with verbs of this class whereas this is not the case with Verb class № 3.3.2.

Verb class № 3.4.3

semantic class: two-argument verbs

⁹³ For so-called supporting words in matrix clauses, see Haader (2000: 486) and Kenesei (2015: 583–601).

⁹⁴ For so-called supporting words in matrix clauses, see Haader (2000: 486) and Kenesei (2015: 583–601). It is worth noting in passing that the verbs are inflected for the definite conjugation not only with *azt* lit. ‘that.Acc’ but also with *úgy* lit. ‘so’.

syntactic class: verbs with sentential (finite verbal) complements

morphosyntactic subclass: verbs with object complement clauses

semantic roles: agent as subject + propositional as object complement clause

examples: *engedi* (aszt), *hogy...* ‘allow sy to do sg’, *hagyja* (aszt), *hogy...* ‘let sy do sg’

Remarks

1. These verbs are put into a different class than class № 3.4.2 not only because of the agentive role of subjects (instead of the experience role) but also because verbs in embedded clauses have to appear in the imperative (or subjunctive) mood.

2. Verbs in this class are sentential complement counterparts of those in class № 3.3.5, i.e. of *enged vkit V-ni* ‘allow sy to do sg’ and *hagy vkit V-ni* ‘let sy do sg’.

Verb class № 3.4.4

semantic class: two-argument verbs

syntactic class: verbs with sentential (finite verbal) complements

morphosyntactic subclass: verbs with oblique complement clauses introduced by *hogy* ‘that’

examples: See verb classes № 3.2.1–3.2.16. Those verbs can form their oblique complements as clauses if they have the kind of content which can be expressed by a clause (Haader 2000: 491).

* * *

Verb class № 4.1.1

semantic class: three-argument verbs

syntactic class: verbs with a complex complement structure

morphosyntactic subclass: verbs with an object complement + an oblique complement (noun phrase in the **ablative** (-tól/-től) case)

semantic roles: agent as subject + theme as object + ? as oblique complement

examples: *irigyel vmit vkitől* ‘envy sy sg’, *kap vmit vkitől* ‘get/receive sg from sy’, *kér vmit vkitől* ‘ask sy for sg’, *kérdez vmit vkitől* ‘ask sy sg’, *eltilt vkit vmitől* ‘forbid sy to do sg’, *megérdeklődik vmit vkitől* ‘inquire sg of sy’, *vásárol/vesz vmit vkitől* ‘buy sg from sy’

Remarks

1. The oblique complements in verb classes № 4.1.1–4.1.12 are parallel with those in classes № 3.2.1–3.2.16 containing so-called labeled oblique complements and thematically bound oblique complements, except for noun phrases in the adessive, superessive and terminative cases, as well as noun phrases with a time semantic role, which are not attested in complex complement structures together with object complements.

2. The verb *kap vmit vkitől* ‘get/receive sg from sy’ has a somewhat strange argument structure: beneficent as subject + theme as object + agent as oblique complement.

3. In the case of the third complement of verbs such as *kér vmit vkitől* ‘ask sy for sg’, *kérdez vmit vkitől* ‘ask sy sg’, *megérdeklődik vmit vkitől* ‘inquire sg of sy’, *vásárol/vesz vmit vkitől* ‘buy sg from sy’, their semantic role may be identified with a role that Apresjan (2010: 373) terms “counter-agent”, i.e. an active participant of a situation, but who plays a different role than the agent does.

4. Besides an instigator, an object of exchange and an exchange partner, the situation denoted by the verbs *vásárol/vesz vmit vkitől* ‘buy sg from sy’ belonging to verbs of transfer of possession is also characterized by a fourth participant, namely by a monetary equivalent. Thus, the verbs concerned have to be considered four-argument verbs (cf. Komlósy 2015: 298). Cf. also *honorál vmit vkinek vmivel* ‘requite sy’s services with sg’, *kompenzál vmit vkinek vmivel* ‘compensate sy sg with sg’.

Verb class № 4.1.2

semantic class: three-argument verbs

syntactic class: verbs with a complex complement structure

morphosyntactic subclass: verbs with an object complement + an oblique complement (noun phrase in the **allative** (-hoz/-hez/-höz) case)

semantic roles: agent as subject + theme as object + ? as oblique complement

examples: *alkalmaz/használ* ‘employ sg to (do) sg’, *hasonlít* ‘compare sg/sy to sg/sy’

Remarks

1. As to the semantic role of the third complement, recall instances of two-NPs-with-the-same-role with respect to “symmetric” predicates like *face*, *border* and *resemble* mentioned in Subsection 2.3.3. Cf. also Remark 1 with respect to Verb class № 3.2.3.

2. Verbs with the preverb *hozzá-*, literally meaning ‘to/towards him/her’, regularly take noun phrases in the allative case: *hozzáfűz* ‘tie sg on sg’, *hozzáigazít* ‘adjust sg to sg’, *hozzájuttat* ‘help sy to get sg’, etc.

Verb class № 4.1.3

semantic class: three-argument verbs

syntactic class: verbs with a complex complement structure

morphosyntactic subclass: verbs with an object complement + an oblique complement (noun phrase in the **causalis** (-ért) case)

semantic roles: agent as subject + theme as object + ? as oblique complement

examples: *irigyel vkit vmiért* ‘envy sy sg’

Verb class № 4.1.4

semantic class: three-argument verbs

syntactic class: verbs with a complex complement structure

morphosyntactic subclass: verbs with an object complement + an oblique complement (noun phrase in the **dative** (-nak/-nek) case)

semantic roles: agent as subject + theme as object + beneficent as oblique complement

examples: *ad* ‘give sg to sy’, *ajándékoz* ‘present sy with sg’, *ajánl* ‘recommend sg to sy’, *ír* ‘write sg to sy’, *kínál* ‘offer sy sg’, *küld* ‘send sg to sy’, *mond* ‘tell sy sg’, *oszt* ‘distribute sg to sy’, *tanácsol* ‘advise sy to do sg’, *válaszol* ‘answer sy sg’

Remarks

1. Verbs with a direct and indirect object (and/or with noun phrases in the accusative and dative case) are also known in the literature as ditransitive verbs.
2. The verb *kínál* ‘offer sy sg’ also occurs with a different complex complement structure: beneficent as object + theme as oblique complement in the instrumental case, while the meaning remains unchanged. Another verb, namely *ajándékoz* ‘present sy with sg’, has this complex complement structure mirrored by the English gloss ‘present sy with sg’ only with the perfectivizing preverb *meg-ajándékoz*. (Again, there is no difference in the lexical meaning.) Despite the multiple structure with *kínál* ‘offer sy sg’, *meg-kínál* takes complements in the same way as *meg-ajándékoz*.
3. The verb *válaszol* ‘answer sy sg’ seems to have a fourth semantic argument as well. Thus it takes a fourth complement, namely *vmire* ‘to sg’: *Mit válaszolt neked a levélre/kérdésre?* ‘What did he reply to your letter/question?’

Verb class № 4.1.5

semantic class: three-argument verbs

syntactic class: verbs with a complex complement structure

morphosyntactic subclass: verbs with an object complement + an oblique complement (noun phrase in the **delative** (-ról/-ről) case)

semantic roles: agent as subject + theme as object + ? as oblique complement

examples: *biztosít* ‘assure sy of sg’, *faggat* ‘interrogate closely sy about sg’, *informál/tájékoztat* ‘inform sy of sg’, *kérdez* ‘ask sy about sg’, *meggyőz* ‘convince sy of sg’

Verb class № 4.1.6

semantic class: three-argument verbs

syntactic class: verbs with a complex complement structure

morphosyntactic subclass: verbs with an object complement + oblique complement (noun phrase in the **elative** (-ból/-ből) case)

semantic roles: agent as subject + theme as object + ? as oblique complement

examples: *kisemmiz* ‘cheat sy out of sg’

Verb class № 4.1.7

semantic class: three-argument verbs

syntactic class: verbs with a complex complement structure

morphosyntactic subclass: verbs with an object complement + an oblique complement (noun phrase in the **illative** (-ba/-be) case)

semantic roles: agent as subject + theme as object + goal as oblique complement

examples: *befog [lovat a kocsiba, munkadarabot a satuba]* ‘put the horse to a carriage / the piece of work in a vice’

Remarks

Like verbs in class № 3.2.8, verbs with the preverb *bele-*, literally meaning ‘into, inwards’, regularly occur with a complex complement structure containing noun phrases in the illative case: *belekényszerít* ‘force sy into sg’, *belekerget* ‘chase sy into sg’, *beleloval* ‘fire sy with enthusiasm to do sg’, etc.

Verb class № 4.1.8

semantic class: three-argument verbs

syntactic class: verbs with a complex complement structure

morphosyntactic subclass: verbs with an object complement + an oblique complement (noun phrase in the **inessive** (-*ban/-ben*) case)

semantic roles: agent as subject + theme as object + ? as oblique complement

examples: *megerősít vkit elhatározásában/gyanújában* ‘confirm sy’s resolve/suspicious’

Verb class № 4.1.9

semantic class: three-argument verbs

syntactic class: verbs with a complex complement structure

morphosyntactic subclass: verbs with an object complement + an oblique complement (noun phrase in the **instrumental** (-*val/-vel*) case)

semantic roles: agent as subject + theme as object + beneficiary as oblique complement

agent as subject + beneficiary as object + theme as oblique complement

agent as subject + experience as object + instrument as oblique complement

agent as subject + theme as object + instrument as oblique complement

agent as subject + theme as object + means as oblique complement

examples: *közöl vmit vkivel* ‘tell sy sg / inform sy of sg’, *megoszt vmit vkivel* ‘share sg with sy’

díjaz ‘award sy a prize’, *jutalmaz* ‘reward sy with sg’, *kitüntet* ‘honor sy with sg’

megijeszt vkit vmivel ‘frighten sy with sg’

szeletel ‘slice sg with sg’, *vág* ‘cut sg with sg’

fed ‘cover sg with sg’, *szennyez* ‘soil sg with sg’, *ken* ‘smear sg with sg’, *spriccel* ‘spray sg with sg’

Remarks

1. With verbs such as *díjaz* ‘award sy a prize’, *jutalmaz* ‘reward sy with sg’ and *kitüntet* ‘honor sy with sg’, a fourth argument and complement can be added: *vmiért* ‘for sg’. Note in

passing that these verbs do not alternate in the same way as *kínál* ‘offer sg with sg’ in Verb class № 4.1.4.

2. Verbs like *szeletel* ‘slice sg with sg’ and *vág* ‘cut sg with sg’ can take a fourth – goal – argument and, consequently, a fourth – directional – complement (for a thorough analysis, see 5.1.3.4 below). Cf.:

- (107) Az eladó a zsírpapírra szeletelte / vágta
 the salesman the wax_paper.Sub slice/cut.Past.DefObj.3Sg
 a kolbászt.
 the salami.Acc
 ‘The salesman sliced/cut the salami onto the wax paper.’

3. Unlike *fed* ‘cover sg with sg’ and *szennyez* ‘soil sg with sg’, the verbs *ken vmit vmivel* ‘smear sg with sg’ and *spriccel vmit vmivel* ‘spray sg with sg’ alternate as *ken vmit vhová* ‘smear sg to some place or other’ and *spriccel vmit vhová* ‘spray sg to some place or other’; this is called the locative alternation and is analyzed in detail in 5.2.1 of the dissertation.

4. There are verbs such as *megrak* ‘perf.load’ which can have either means or instruments as oblique complements: *megrakja a teherautót szénával / egy targoncával* ‘load the truck with hay / a forklift’. The instrument can be expressed syntactically not only as an oblique complement phrase but also as a subject instead of an agentive subject. Cf. *szeletel* ‘slice sg with sg’ and *vág* ‘cut sg with sg’, which also show this kind of syntactic patterning. The two types of the so-called instrument–subject alternation will be thoroughly investigated in Section 5.3 of the dissertation.

Verb class № 4.1.10

semantic class: three-argument verbs

syntactic class: verbs with a complex complement structure

morphosyntactic subclass: verbs with an object complement + an oblique complement (noun phrase in the **sublative** (-ra/-re) case)

semantic roles: agent as subject + theme as object + ? as oblique complement

examples: *alkalmaz* ‘apply sg to sg’, *kér* ‘ask sy to do sg’, *használ* ‘use sg for sg’

Remarks

Regarding the semantic role of the third complement, recall instances of two-NPs-with-the-same-role with respect to “symmetric” predicates like *face*, *border* and *resemble* mentioned in Subsection 2.3.3. Cf. also Remark 1 with respect to Verb class № 4.1.2.

Verb class № 4.1.11

semantic class: three-argument verbs

syntactic class: verbs with a complex complement structure

morphosyntactic subclass: verbs with an object complement + an oblique complement (noun phrase inflected for various cases marking the **location** semantic role)

semantic roles: agent as subject + theme as object + location as oblique complement

examples: *hagy vmit/vkit vhol* ‘leave sg/sy swhere’, *tart vmit/vkit vhol* ‘hold sg/sy swhere’

Verb class № 4.1.12

semantic class: three-argument verbs

syntactic class: verbs with a complex complement structure

morphosyntactic subclass: verbs with an object complement + an oblique complement (noun phrase inflected for various cases marking the **goal** semantic role)

semantic roles: agent as subject + theme as object + goal as oblique complement

examples: *állít* ‘stand sg to some place or other’, *csempész* ‘smuggle sg to some place or other’, *exportál* ‘export sg to some place or other’, *helyez* ‘place sg to some place or other’, *hív* ‘call sy to some place or other’, *importál* ‘import sg to some place or other’, *önt* ‘pour sg to some place or other’, *rak* ‘put sg to some place or other’, *tesz* ‘put sg to some place or other’

Remarks

Recall that the verbs *ken vmit vmivel* ‘smear sg with sg’ and *spriccel vmit vmivel* ‘spray sg with sg’ from Verb class № 4.1.9 alternate with *ken vmit vhová* ‘smear sg to some place or other’ and *spriccel vmit vhová* ‘spray sg to some place or other’. While *fed vmit vmivel* ‘cover sg with sg’ and *szennyez vmit vmivel* ‘soil sg with sg’ do not occur with goal oblique complements, the verb *önt* ‘pour sg to some place or other’ does not appear with oblique complements inflected for the instrumental case. For verbs occurring or not occurring in the locative alternation, see 5.2.1 of the dissertation.

* * *

Verb class № 4.2.1

semantic class: three-argument verbs

syntactic class: verbs with a complex complement structure

morphosyntactic subclass: verbs with objects + predicative noun phrases in the **dative** case

semantic roles: agent as subject + theme as object + propositional as oblique complement⁹⁵

examples: *portásnak alkalmaz vkit* ‘employ sy as a janitor’, *Péternek hívja/kereszteli/nevezi a fiát* ‘call/baptize/name his/her son Péter’, *rektornak jelöl vkit* ‘nominate sy for rector’, *törpének/zsiráfnak csúfol vkit* ‘mock sy as a dwarf/giraffe’

Remarks

Verbs such as *nevez* ‘name sy sg’ and *csúfol* ‘mock sy as sg’ can also take adjectives in the dative case: e.g. *haszontalannak nevez/csúfol vkit* ‘name/mock sy as worthless’.

Verb class № 4.2.2

semantic class: three-argument verbs

⁹⁵ As to realization of the propositional role as a single non-sentential complement, cf. fn. 91 with Verb class № 4.3.1.

syntactic class: verbs with a complex complement structure

morphosyntactic subclass: verbs with objects + predicative noun phrases in the **translative** case

semantic roles: agent as subject + theme as object + propositional as oblique complement⁹⁶

examples: *alakít* ‘transform sg into sg’, *formál* ‘form sg into sg’, *szentel* ‘ordain sy sg’,
változtat ‘change sg into sg’

Remarks

1. The verbs *alakít* ‘transform sg into sg’, *formál* ‘form sg into sg’ and *változtat* ‘change sg into sg’ also occur with adjective phrases in the translative case: e.g. *négyszögletessé alakítja/formálja/változtatja a díszletet* ‘transform/form/change the (theatre) scenery into rectangular / a rectangular shape.

2. Verbs with resultative complements also belong to this class. Resultative complements may figure not only in the translative but also, e.g., in the sublative case, cf.: *szénné égeti a csirkét* ‘burn the chicken to cinders’, *pirosra festi a falat* ‘paint the wall red’ etc.

* * *

Verb class № 4.3.1

semantic class: three-argument verbs

syntactic class: verbs with a complex complement structure

morphosyntactic subclass: verbs with an object + various oblique complement clauses

semantic roles: agent as subject + theme as object + propositional as oblique complement introduced by *hogy* ‘that’

examples: *eltilt vkit attól, hogy...* ‘forbid sy to do sg’, *informál vkit arról, hogy...* ‘inform sy that...’, *irigyel vkit azért, hogy...* ‘envy sy that...’, *kér vkit arra, hogy...* ‘ask sy to do sg’

Remarks

Cf. classes № 4.1.1–4.1.12, whose verbs with ablative, causalis, delative, sublative etc. oblique complements can form them as clauses if the verbs have the kind of content which can be expressed by a clause (cf. Haader 2000: 491).

Verb class № 4.3.2

semantic class: three-argument verbs

syntactic class: verbs with a complex complement structure

morphosyntactic subclass: verbs with an object complement clause + various (ablative, dative) oblique complements

⁹⁶ As to realization of the propositional role as a single non-sentential complement, cf. fn. 91 with Verb class № 4.3.1.

semantic roles: agent as subject + propositional as object + beneficent/theme as oblique complement

examples: *engedi vkinek (azt), hogy...* ‘permit sy to do sg’, *hagyja vkinek (azt), hogy...* ‘permit sy to do sg’, *azt írja vkinek, hogy...* ‘write sy that...’, *azt kéri vkitől, hogy...* ‘ask sy that...’, *azt kérdezi vkitől, hogy ...(-e) ...* ‘ask sy whether...’, *azt mondja vkinek, hogy...* ‘tell sy that’, *azt tanácsolja vkinek, hogy...* ‘advise sy that...’, *azt válaszolja vkinek, hogy...* ‘answer sy that...’

* * *

Verb class № 4.4.1

semantic class: three-argument verbs

syntactic class: verbs with a complex complement structure

morphosyntactic subclass: verbs with an oblique complement (noun phrase in the **dative** case) + another oblique complement (noun phrase in the **allative/causalis/delative/instrumental** case)

semantic roles: agent/experiencer as subject + beneficent as oblique complement + theme as oblique complement

examples: *asszisztál vkinek vmihez* ‘assist sy in sg’

hálálkodik vkinek vmiért ‘express one’s gratitude to sy for sg’, *szorít vkinek vmiért* ‘keep one’s fingers crossed for sy that...’

beszél vkinek vmiről ‘talk to sy about sg’

kedveskedik vkinek vmivel ‘favor sy with sg’, *tartozik vkinek vmivel* ‘owe sy sg’

Verb class № 4.4.2

semantic class: three-argument verbs

syntactic class: verbs with a complex complement structure

morphosyntactic subclass: verbs with an oblique complement (noun phrase in the **instrumental** case + another oblique complement (noun phrase in the **delative/superessive/inessive** case)

semantic roles: agent as subject + ? as oblique complement + theme as oblique complement

examples: *beszél vkivel vmiről* ‘talk to sy about sg’, *beszélget vkvel vmiről* ‘converse with sy about sg’

vitatkozik/vitázik vkivel vmiről/vmin ‘argue with sy about sg’

veszekszik vkivel vmin ‘quarrel with sy about sg’

fogad vkivel vmiben ‘bet sy sg’

Remarks

Regarding the semantic role of the second complement, i.e. *vkivel* ‘with sy’, one may think of what Apresjan (2010: 371) calls “agent2”, a role played by a participant similar to the agent, though ranked lower.

Verb class № 4.4.3

semantic class: three-argument verbs

syntactic class: verbs with a complex complement structure

morphosyntactic subclass: verbs with an oblique complement (noun phrase in the **ablative** case + another oblique complement (noun phrase in the **delative** case)

semantic roles: agent as subject + ? as oblique complement + theme as oblique complement

examples: *érdeklődik vkitől vmiről* ‘inquire sy about sg’

Remarks

1. As to the semantic role of the second complement, it may be identified with a role that Apresjan (2010: 373) calls “counter-agent” (cf. Remark 3 with respect to Verb class № 4.1.1).
2. Instead of the delative case there appear noun phrases with the postpositions: *vmi felől/iránt/után* ‘concerning/with regard to/after sg’. All forms seem to be synonymous with each other.

* * *

Verb class № 4.5.1

semantic class: three-argument verbs

syntactic class: verbs with a complex complement structure

morphosyntactic subclass: verbs with an oblique complement (noun phrase in the **dative/instrumental/ablative** case + an oblique complement clause)

semantic roles: see examples below

examples: see verbs in classes № 4.4.1–4.4.3 with sentential counterparts of their second oblique complements

* * *

Verb class № 5.1

semantic class: verbs which are arguments of higher-order predicates

syntactic class: verbs with adverbial complements⁹⁷

examples: *durván bánik vkivel* ‘handle sy roughly’, *rosszul esik vm vkinek* ‘feel sore about sg’,⁹⁸ *jobban jár vmivel* ‘be better off with sg’, *neveletlenül viselkedik* ‘behave in an uneducated way’, *rosszul van* ‘feel bad’

Remarks

The verbs taken as arguments by predicates which semantically capture adverbial complements can be one- or more-argument. Since in *jobban jár vmivel* ‘be better off with sg’ the complement *vmivel* ‘with sg’ is optional, it seems to directly relate to *jobban jár* and not to *jár*. To put it the other way round, *jobban* as a predicate takes *jár* and not *jár vmivel*.

* * *

After the presentation of a fairly representative system of Hungarian verb classes, one can be sure that the second aim put forward in the Introduction has been fulfilled. A novel classification of Hungarian verbs has been offered, which systematically takes into account semantic constituents of verbs’ LSRs and their morphosyntactic realization, as well as overcomes the fragmentariness of data collection and data interpretation characteristic of the previous literature.

⁹⁷ At the semantic level adverbial complements are predicates that take as arguments the (meanings of the) verbs whose complements they are at the syntactic level (cf. Komlósy 2015: 468). Thus, adverbial complements as semantic predicates can be considered higher-order predicates in the logical sense. Let me note in passing that if – as indicated in fn. 40 in Chapter 2 – a variable “e” providing the semantic category of the event for verbs is assumed in LSRs, predicates representing adverbial complements at the semantic level do not take as arguments the verbs themselves but the variable in question.

⁹⁸ It is important to realize from a contrastive point of view that the Hungarian complement in the dative (*-nak, -nek*) case appears in English as a subject.

CHAPTER 4

Syntactic alternation: data and approaches

Although one can recall that in Section 2.6 the term *syntactic alternation* was introduced in the context of other terms, namely of *diathesis* and *voice*, let me briefly repeat what has been written concerning the correspondence between semantic and syntactic arguments, which is called diathesis (cf. Mel'čuk 2015: 52 and Padučeva 2004: 51). The basic correspondence between them can be changed either by using inflectional or word-formational means or without them. The former case is an inflectional and/or word-formational category known as voice (in its broad or narrow sense). The latter is **syntactic alternation**, by which it is generally meant that a verb occurring with one type of syntactic argument structure can be used in another as well (cf. Kiefer 2007: 230). While – according to Levin (1993: 2) – changes in the expression of arguments are sometimes accompanied by changes of meaning, Kiefer (2007: 230) claims that the meanings of alternating syntactic structures are either synonymous or different but in a predictable way. In a broader sense of syntactic alternation, verbs occurring with a multiple syntactic argument structure are not necessarily of the same form⁹⁹ but it is sufficient if they are connected to each other word-formationally.

In accordance with the third aim formulated above in the Introduction, the present chapter is organized as follows. First, in Section 4.1 I show a fairly representative body of Hungarian verbs with a multiple syntactic argument structure, mainly syntactic alternations in a narrow sense, i.e. verbs alternating without adding any word-formation morphemes. They are arranged into three groups in Subsections 4.1.1–4.1.3: (i) syntactic alternations with an increasing number of arguments, (ii) syntactic alternations without any change in the number of arguments and (iii) syntactic alternations with a decreasing number of arguments.¹⁰⁰

⁹⁹ Being of the same form includes several possibilities in terms of morphemic structure:

- (i) both verbs in an alternation can be monomorphemic,
- (ii) both verbs have a suffix and/or
- (iii) a preverb (in Hungarian) or a prefix (e.g., in Russian).

¹⁰⁰ It is important to realize that an important issue would emerge of a classification of alternating verbs which is especially relevant to groups (i) and (iii). One should decide which argument structure is the primary one, in comparison with which other structure counts as the secondary, or derived, one. However, as we will see later, such a question is not relevant to the same extent to all approaches to syntactic alternations. For the time being, we can accept a lexicalist view on which the issue of the primary argument structure can be decided and, thus,

Second, in Section 4.2 I attempt to provide a succinct characterization of lexicographic and theoretical ways which have been offered in the literature to account for syntactic alternations. Emphasis is given to my own lexical-constructional conception, which integrates advantageous properties of other, namely lexical and constructional, approaches, and which will be tested by thorough and close investigations of the three groups of syntactic alternations in Chapter 5.

4.1. Hungarian verbs classified into types of multiple argument realization

4.1.1. Alternations resulting in more syntactic arguments

4.1.1.1. Manner-of-motion verbs

The verbs of manner of motion can take a directional phrase, denoting not a manner of motion but a proceeding/directed motion in a particular manner. Thus, verbs with one argument (or complement) change into verbs with two arguments (or complements) (Komlósy 2015: 320, 323, Ladányi 2007: 214–215, Ladányi 2008: 301–302).¹⁰¹ Syntactically alternating verbs with meanings ‘manner of motion’ vs. ‘directed motion’ in Hungarian include the following:

- (108) *baktat* ‘trudge’, *ballag* ‘walk slowly’, *bandukol* ‘walk slowly’, *battyog* ‘walk slowly’, *biceg* ‘hobble’, *biciklizik* ‘ride a bicycle’, *billeg* ‘walk swinging slightly from side to side’, *botladozik* ‘falter’, *bukfencezik* ‘somersault’, *cammog* ‘plod’, *csoszog* ‘shuffle one’s feet’, *csúszik* ‘slide’, *dülöngél* ‘reel’, *evez* ‘row’, *folyik* ‘flow’, *forog* ‘spin’, *fut* ‘run’, *gázol* ‘wade’, *gurul* ‘roll’, *gyalogol* ‘walk’, *himbálozik* ‘swing’, *hömpölyög* ‘surge’, *imbolyog* ‘totter’, *kerékpározik* ‘ride a bicycle’, *kocog* ‘jog’, *kúszik* ‘creep’, *landol* ‘land’, *lebeg* ‘float’, *lovagol* ‘ride (a horse)’, *masíroz* ‘march’, *mászik* ‘climb’, *menetel* ‘march’, *oson* ‘sneak’, *ömlik* ‘pour’, *pattan* ‘bounce’, *pattog* ‘bounce (several times)’, *poroszkál* ‘amble’, *pörög* ‘spin’, *repül* ‘fly’, *ring* ‘swing’, *rohan* ‘rush’, *sétál* ‘walk’, *sántikál* ‘hobble’, *siklik* ‘glide’, *somfordál* ‘creep’, *sompolyog* ‘creep’, *szalad* ‘run’, *száll* ‘fly’, *szökdecsel* ‘skip’, *szökdel* ‘skip’, *szökken* ‘skip (once)’, *támolyog* ‘stagger’, *táncol* ‘dance’, *tántorog* ‘stagger’, *tipeg* ‘waddle; toddle’, *totyog* ‘waddle;

assume the tripartite classification of alternating verbs. – For a list of syntactic alternations in Hungarian arranged according to types of regular verbal polysemy, see Ladányi (2007: 200–216 and 2008: 283–303).

¹⁰¹ However, such verbs can also take locative phrases, the case for whose argument status will be presented in Chapter 5 (cf. the remark with Verb class № 2.1.1). – For English verbs, see Levin (1993: 264–267) and Pustejovsky (1995: 125–126).

toddle’, *ugrál* ‘jump (several times)’, *ugrik* ‘jump’, *úszik* ‘swim; float’, *üget* ‘trot’, *vágtat* ‘gallop’, *vánszorog* ‘trudge’, *vitórlázik* ‘sail’, etc.¹⁰²

To illustrate the alternation at stake it suffices to repeat example (80) in Chapter 2 as (109), which contains the verb *úszik* ‘swim; float’ from (108).

- (109) a. A gyerek / Az üveg (a barlangban) úszik.
 the child / the bottle the cave.Ine swim.3Sg/float.3Sg
 ‘The child/bottle is swimming/floating (in the cave).’
- b. A gyerek / Az üveg a barlangba úszik.
 the child / the bottle the cave.Ill swim.3Sg/float.3Sg
 ‘The child/bottle is swimming/floating into the cave.’

Like the verb *úszik* ‘swim; float’ takes a directional phrase in (109b), other verbs from (108) can also occur with this kind of complement. (Native speakers of Hungarian can easily attest the possibility of sentences alternating in a similar way.) However, only some of those verbs which mean the manner of motion of inanimate entities capable of moving in the presence of external effects are suitable for designating a directed motion (Kömlösy 2000: 257). Compare, for instance, the verbs *pattog* ‘bounce’ and *inog* ‘wobble’ in (110) and (111), respectively.

- (110) a. A labda (a fal mellett) pattog.
 the ball the wall by bounce.3Sg
 ‘The ball is bouncing (by the wall).’
- b. A labda a fal mellé pattog.
 the ball the wall to bounce.3Sg
 ‘The ball is bouncing to the wall.’
- (111) a. A szék (a fal mellett) inog.
 the chair the wall by wobble.3Sg
 ‘The chair is wobbling (by the wall).’
- b. *A szék a fal mellé inog.
 the chair the wall to wobble.3Sg
 ‘The chair is wobbling to the wall.’

¹⁰² Several verbs of (108), such as *dülöngél* ‘reel’, *forog* ‘spin’, *fut* ‘run’, *himbálózik* ‘swing’, *imbolyog* ‘totter’, *lebeg* ‘float’, *pattog* ‘bounce (several times)’, *pörög* ‘spin’, *ring* ‘swing’, *szökdecsel* ‘skip’, *szökdel* ‘skip’, *táncol* ‘dance’, *ugrál* ‘jump(several times)’, *ugrik* ‘jump’, denote a manner of motion not only of displacement but also of position change. The latter kind of motion may unequivocally be referred to by using the expression (*egy*) *helyben* ‘in (a) place’.

Regarding (111b), this sentence might be conceived of as changing from a grammatical to an ungrammatical state in the context of a fairy story.¹⁰³ However, I do not think that this is the case. The verb *inog* ‘wobble’ cannot denote any directional motion but only a manner of motion of position change, i.e. small movements from side to side (see also the corresponding lexical item in Bárczi and Országh 1959–1962 as well as in Pusztai 2003). Of course, it is possible that when a chair is wobbling, one of its parts, e.g. the back, can get closer to the wall (several times). However, these movements are by no means associated with a transition or several transitions to an end point, in our example: to the wall. And this is true even if a chair were able to move intentionally from side to side in a fairy tale or an actor can intentionally wobble when following stage directions, which is another marked situation. Nevertheless, *billeg* ‘rock’ is another case. Consider (112).

- (112) A szék billeg az egyenetlen talajon.
 the chair rock.3Sg the uneven ground.Sup
 ‘The chair is rocking on uneven ground.’

The verb *billeg* ‘rock’ can be used with a directional argument if it is somewhat re-interpreted and expresses someone’s (or, perhaps, an animal’s) walking when swinging slightly from side to side as in (113) (cf. Bárczi and Országh 1959–1962 as well as Pusztai 2003).

- (113) A terhes asszony a fal mellé billeg.
 the pregnant woman the wall to walk.3Sg
 ‘The pregnant woman is walking (swinging slightly from side to side) to the wall.’

It is just this sense that may be extended by the metaphorical form of personification, e.g., of a chair. Thus, one obtains an interpretable utterance even with an inanimate subject. Consider (114) as an utterance in a fairy tale.

- (114) A szék a fal mellé billeg.
 the chair the wall to walk.3Sg
 ‘The chair is walking (swinging slightly from side to side) to the wall.’

At the same time, verbs of manner of motion of animate entities (or more precisely: of agents) can also designate no directed motion. In (115) below one finds verbs of manner of motion of

¹⁰³ This was a real suggestion made by a reviewer of one of my earlier submissions. He/she made such a claim according to his/her informants.

displacement or position change that do not take directional complements. Thus, they only occur with a single complement frame, similarly to *inog* ‘wobble’ in (111a).

- (115) *barangol* ‘roam about’, *bóklászik* ‘wander about’, *bolyong* ‘roam about’, *császkál* ‘saunter’, *csatangol* ‘loaf around’, *feszeng* ‘fidget’, *fetreng* ‘wallow’, *járőrözik* ‘do patrolling activity’, *lubickol* ‘paddle’, *sürög* ‘bustle about’, *sürög-forog* ‘bustle about’, *topog* ‘stamp about’, *toporzékol* ‘be stamping one’s feet angrily’, *vonaglik* ‘writhe’, etc.

Furthermore, verbs of inherently directed motion, which were mentioned in connection with verbs with oblique complements inflected for various cases marking the goal semantic role in Verb class № 3.2.15 in Chapter 3 and listed in (116) below, denote situations with goal arguments which can appear as directional phrases.¹⁰⁴ Hence, they also occur with a single complement frame but in the opposite way when compared to the verb *inog* ‘wobble’ in (111a) and others in (115).

- (116) *(be)hatol vhová* ‘penetrate into sg’, *emigrál* ‘emigrate’, *ér vhová* ‘get to’, *érkezik vhová* ‘arrive at’, *ereszkedik vhová* ‘descend’, *esik vhová* ‘fall’, *helyezkedik vhová* ‘position oneself to some place or other’, *heveredik vhová* ‘lie down at full length to some place or other’, *hull(ik) vhová* ‘drop down’, *huppan vhová* ‘thud’, *jut vhová* ‘get to’, *kerül vhová* ‘get to’, *költözik vhová* ‘(re)move to’, *lép vhová* ‘step into/onto some place’, *ömlik vhová* ‘pour into/onto sg’, *potyog vhová* ‘plop (repeatedly/continuously)’, *pottyán vhová* ‘plop’, *rogy vhová* ‘drop down’, *roskad vhová* ‘fall down’, *szökik vhová* ‘escape to some place or other’, *telepedik/telepszik vhová* ‘settle down’, *vetődik vhová* ‘turn up swhere (!)’, *zuhan vhová* ‘plunge’, *zuhog vhová* ‘pour into/onto sg’, etc.

4.1.1.2. Sound emission verbs

The verbs of sound emission in Hungarian include the following (cf. some unaccusative verbs in Verb class № 2.1.2):

- (117) *berreg* ‘throb’, *cuppog* ‘squelch’, *csattog* ‘clap, clank, flap’, *cseng* ‘ring’, *csikorog* ‘squeak’, *csörög* ‘jangle’, *csörömpöl* ‘clank’, *dübörög* ‘rumble’, *nyikorog* ‘squeak’, *pöfög* ‘chuff’, *süvít* ‘howl’, *zakatol* ‘rattle’, *zörög* ‘clattle’, *zúg* ‘hum’, *zümmög* ‘buzz’, etc.

Similarly to verbs of manner of motion, Hungarian verbs of sound emission also appear in a syntactic alternation resulting in a directed motion sense if the sound emission is a

¹⁰⁴ I do not go into details of the syntactic obligatoriness or optionality of such complements. – For English verbs of inherently directed motion, see Levin (1993: 263–264).

concomitant of motion (Ladányi 2007: 215–216, Ladányi 2008: 306–310, cf. Levin and Rappaport Hovav 1995: 190–191).¹⁰⁵ The relevant syntactic alternation is shown in (118):

- (118) a. A Dózsa György utca zajos, ott csattog a troli.¹⁰⁶
 the Dózsa György street noisy there clank.3Sg the trolley_bus
 ‘Dózsa György street is noisy, the trolley bus clanks down it.’
- b. A troli a Dózsa György utcába csattog.
 the trolley_bus the Dózsa György street.Ill clank.3Sg
 ‘The trolley bus is clanking into Dózsa György street (e.g. because there is a stop).’

Moreover, the verb *csattog* ‘clank, flap’ shows the alternation at stake with an agentive subject as well (cf. class of unergative verbs № 2.1.1). Consider (119a) and (119b):

- (119) a. A fiú csattog a papucsával.
 the boy flap.3Sg the slippers.Poss.3Sg.Ins
 ‘The boy is flapping his slippers (while walking).’
- b. A fiú a folyosóra csattog a papucsával.
 the boy the corridor.Sub flap.3Sg the slippers.Poss.3Sg.Ins
 ‘The boy is flapping his slippers walking out into the corridor.’

It is important to realize that (119a) can have another meaning, namely ‘The boy is clapping his slippers (with his hands)’. However, unlike *csattog* ‘flap’, *csattog* ‘clap’ does not alternate and have a directed motion sense.

Let us take examples with further verbs from (117) in (120)–(123), composed analogously to (118) and (119).

- (120) a. ... ott berreg a traktor.
 there throb.3Sg the tractor
 ‘... the tractor throbs down there.’

¹⁰⁵ Note that the verb *csoszog* ‘shuffle one’s feet’ in (108) cannot denote sound emission alone. That is why it is provided as a (manner of) motion verb and not as a sound emission verb listed in (117). However, *csoszog* ‘shuffle one’s feet’ draws our attention to the other meaning of sound emission verbs than ‘directed motion accompanied by sound emission’, namely that of ‘manner of motion accompanied by sound emission’ (cf. also (118a) immediately below). We will deal with the issue in detail in Chapter 5. – For English verbs of sound emission, see Levin (1993: 234–236).

¹⁰⁶ This example is cited from a Hungarian regional daily newspaper: *Délmagyarország* [South Hungary] Jan 7, 2006, p. 3.

- b. A traktor a szántóföldre berreg.
the tractor the field.Sub throb.3Sg
'The tractor is throbbing to the field (e.g. to plow it).'
- (121) a. A farmer berreg a traktorjával.
the farmer throb.3Sg the tractor.Poss.3Sg.Ins
'The farmer is (emitting) throbbing (sounds) with his tractor (while plowing).'
- b. A farmer a szántóföldre berreg a traktorjával.
the farmer the field.Sub throb.3Sg the tractor.Poss.3Sg.Ins
'The farmer is (emitting) throbbing (sounds) with his tractor while driving out to the field.'
- (122) a. ... ott pöfög/zakatol a mozdony.
there chuff.3Sg/rattle.3Sg the locomotive
'... the locomotive chuffs/rattles down there.'
- b. A mozdony az állomásra pöfög/zakatol.
the locomotive the station.Sub chuff.3Sg/rattle.3Sg
'The locomotive is chuffing/rattling to the station.'
- (123) a. A masiniszta pöfög/zakatol a mozdonyával.
the engineer chuff.3Sg/rattle.3Sg the locomotive.Poss.3Sg.Ins
'The engineer is (emitting) chuffing/rattling (sounds) with his locomotive (while driving it).'
- b. A masiniszta az állomásra pöfög/zakatol
the engineer the station.Sub chuff.3Sg/rattle.3Sg
a mozdonyával.
the locomotive.Poss.3Sg.Ins
'The engineer is (emitting) chuffing/rattling (sounds) with his locomotive driving it to the station.'

Nevertheless, if a verb occurs with an agent argument and the sound is produced by the agent's sound formation organs, it cannot be interpreted as a directed motion (Ladányi 2008: 310). Consider (124a) and (124b) with an unergative verb *ordít* 'scream' taken from class № **2.1.1**.

- (124) a. Péter ordít.
Péter scream.3Sg
'Péter is screaming.'
- b. Péter a folyosóra ordít.
Péter the corridor.Sub scream.3Sg
* 'Screaming, Péter is moving into the corridor.'

How the cases which do not show the syntactic alternation concerned are precisely related to the above-mentioned constraint that sound emission should be a concomitant of motion can only be clarified during a thorough analysis in Chapter 5. There is another issue whose treatment has to be postponed to that chapter, although there is a hint of it here: several expressions formed according to (118b) and (119b) may seem uncommon and strange (Ladányi 2007: 215, see also Ladányi 2008: 308).¹⁰⁷ A preverbal version of verbs is more usual. For example, the verb *csattog* ‘flap’ can take the preverb *ki-* ‘out’ as in (125).

- (125) A fiú kicsattog a papucsával a folyosóra.
 the boy out.flap.3Sg the slippers.Poss.3Sg.Ins the corridor.Sub
 ‘The boy is flapping his slippers walking out into the corridor.’

It is well worth noting that the verb *ordít* ‘scream’ even when occurring together with a directional phrase and a preverb cannot be interpreted as a directed motion. Cf.:

- (126) Péter kiordít a folyosóra.
 Péter out.scream.3Sg the corridor.Sub
 *‘Screaming, Péter is moving into the corridor.’

Thus, neither (124b) with a directional phrase, nor (126) with a preverbal verb and directional phrase yields the intended interpretation. They both only have a sound emission sense: ‘Péter is screaming (through the door) into the corridor.’

4.1.2. Syntactic alternations without any change in the number of arguments

4.1.2.1. Verbs of spatial configuration

Hungarian verbs of spatial configuration are included in (127).

- (127) *áll* ‘stand’, *fekszik* ‘lie’, *guggol* ‘crouch’, *hasal* ‘lie on one’s stomach’, *hever* ‘lie around’, *könyököl* ‘lean on one’s elbow’, *kuksol* ‘crouch’, *lapul* ‘skulk’, *lóg* ‘hang’, *támaszkodik* ‘lean on’, *térdel* ‘kneel’, *terpeszkedik* ‘sprawl’, *ül* ‘sit’, etc.

Instead of a locative phrase, these verbs can take a directional one as in (128) (cf. the third remark with Verb class № 3.2.15).

¹⁰⁷ The verbs *pattan* ‘bounce’ and *pattog* ‘bounce (several times)’ are given among those of manner of motion in (108) and not among those of sound emission in (117) because their motion sense is solidly lexicalized as attested by *A Concise Dictionary of Definitions of Hungarian* (Pusztai 2003), although they also have a cracking and crackling sound emission sense.

- (128) a. Péter a szőnyegen áll.
 Péter the carpet.Sup stand.3Sg
 ‘Péter is standing on the carpet.’
- b. Péter a szőnyegre áll.
 Péter the carpet.Sub stand.3Sg
 ‘Péter steps onto the carpet.’

In (128a) the verb specifies being in a particular spatial configuration, while in (128b), assuming a spatial position through displacement. However, displacement is not necessary, the change of spatial configuration can also be carried out when one remains in one place (cf., e.g., *guggol* ‘crouch’, *hasal* ‘lie onto one’s stomach’).

Nevertheless, besides the alternating verbs there are non-alternating verbs denoting being in particular spatial configurations. Consider the verbs in (129) as well as examples in (130) and (131).

- (129) *ácsorog* ‘stand about’, *függ* ‘hang’, *gubbaszt* ‘huddle’, *heverész(ik)* ‘lie around’, *kuporog* ‘squat’, *pipiskedik* ‘stand on tiptoe’, *üldögél* ‘sit about’, etc.

- (130) a. A fiú a bordásfalon függ.
 the boy the wall_bars.Sup hang.3Sg
 ‘The boy is hanging on the wall-bars.’
- b. *A fiú a bordásfalra függ.
 the boy the wall_bars.Sub hang.3Sg
 ‘The boy hangs onto the wall-bars.’
- (131) a. A fiú az ágyon heverészik.
 the boy the bed.Sup lie_around.3Sg
 ‘The boy is lying around on the bed.’
- b. *A fiú az ágyra heverészik.
 the boy the bed.Sub lie_around.3Sg
 ‘The boy lies around onto the bed.’

What is more, the Hungarian verb *heveredik* ‘lie down at full length’ (see (132) below) behaves in the opposite way to *heverészik* ‘lie around’, although both of them contain as a stem *hever* ‘lie around’ from (127). The verb *heveredik* ‘lie down at full length’ takes a directional phrase but does not appear with a locative one. Cf.:

- (132) a. *A fiú az ágyon heveredik.
 the boy the bed.Sup lie_down_at_full_length.3Sg
 ‘The boy is lying down at full length on the bed.’

- b. A fiú az ágyra heveredik.
 the boy the bed.Sub lies_down_at_full_length. 3Sg
 ‘The boy lies down at full length onto the bed.’

One might think that the behavior of *heverészik* ‘lie around’ and *heveredik* ‘lie down at full length’ is related to their morphologically complex character and can be explained in terms of the durative and inchoative meanings ascribed to the suffixes *-ész-* and *-ed-* (Tompa 1961–1962: I, 348, 354), respectively. However, these properties do not seem to embody their difference in non-alternation. Take into consideration the following. First, the idea of duration is not unequivocally connected to a suffix, namely to *-ész-*.¹⁰⁸ It can be expressed by a lexical stem such as *függ* in (130a), about whose final sound *gg < g* it has not yet been decided whether it is a(nother) suffix expressing duration (Benkő 1967–1976: I, 999). What is more, the notion of duration is included in the meaning of the verb *tart* ‘proceed’, which does not take locative phrases but directional ones as in *A kocsisor a városközpontba tart* ‘The row of cars is proceeding to the city center’.

Second, the suffix *-ed-* of inchoativity does not seem to necessarily denote the beginning of directed motion. If it could indicate the beginning of a state, it should not follow from the word-formation structure of *heveredik* that this verb would mean ‘lie down at full length’ but not ‘begin to lie’. It is simply a result of lexicalization process that out of the two possibilities of spatial configuration and directed motion of *hever* ‘lie around/down’ (cf. verbs in (127)), the second one is fixed when the suffix is connected to the stem. See also the verb *reked* ‘get trapped somewhere’, which can be paraphrased as ‘begin to stay somewhere’ (cf. Pusztai 2003: 1133) and about whose suffix *-ed-* it is claimed that its inchoative meaning has become obscure (Benkő 1967–1976: III, 370).

Third, besides the factors of word formation and lexicalization there seems to be a third factor playing a role with respect to the complement frame. While the complex verb *húzódik* ‘withdraw to’, also containing an inchoative suffix, namely *-ód(ik)* (cf. Tompa 1961–1962: I, 354), occurs with a directional phrase, if there is an agent (e.g., *A kutya a sarokba húzódott* ‘The dog withdrew to the corner’), it takes a locative phrase when the subject is a theme (e.g., “*egy könnyű porfelhő húzódott a horizonton*” ‘a light cloud of dust extended over the horizon’ – Iny Lorentz: *A fehér csillag* [The White Star]. Budapest: General Press, 2015: 257).

¹⁰⁸ In addition, it is also worth noting that with *heverészik* ‘lie around’ duration is only mentioned in brackets by Pusztai (2003: 517), unlike in the same entry in Bárcezi and Ország (1959–1962: III, 238).

Fourth, there are verbs which have the same suffix but behave in a very different way in the sense that some of them alternate and others only denote either manner of motion or directed motion. Consider the following verbs with the (durative) suffix *-g* (cf. Tompa 1961–1962: I, 347–348) from **4.1.1.1**.

- (133) a. *forog* ‘spin’, *imbolyog* ‘totter’, *kocog* ‘jog’, *lebeg* ‘float’, *pattog* ‘bounce (several times)’, *pörög* ‘spin’, *sompolyog* ‘creep’, *támolyog* ‘stagger’, *tántorog* ‘stagger’, *tipeg* ‘waddle; toddle’, *totyog* ‘waddle; toddle’
- b. *inog* ‘wobble’, *sürög* ‘bustle about’, *sürög-forog* ‘bustle about’, *topog* ‘stamp about’
- c. *potyog vhová* ‘plop (repeatedly/continuously)’, *zuhog vhová* ‘pour into/onto sg’

As one recalls, whereas the verbs in (133a) alternate, the ones in (133b) and (133c) do not. The former only behave as verbs of manner of motion. However, given that they denote directed motion, the latter inherently take directional phrases.

Thus, on the basis of the discussion in the previous paragraphs one should realize that even if the corresponding word-formation structure determined the non-alternation of some verbs, this would only mean that the non-alternating behavior at issue is connected to morphologically complex, and not simple, verbs’ lexical-semantic representations. Independently of how we conceive of the above-mentioned details, to the best of my knowledge, there is no analysis offered in the literature to account for the syntactic alternation of verbs in (127) as well as for the non-alternating verbs in (129).¹⁰⁹

¹⁰⁹ English verbs, equivalent to Hungarian ones in (127) and occurring with different argument structures similarly to (128), are given separately in Levin (1993: 255–256, 262; see classes 47.6 and 50, respectively). In other words, taking a directional argument is not a property of verbs which denote being in a particular spatial configuration, unlike verbs of manner of motion and sound emission. According to Jackendoff (1990: 91–95), the verb *stand* also has an inchoative reading, which is expressed by a function INCH, mapping a state of being at some place into an event whose termination is this particular state. One should realize that the appearance of the directional phrase is not motivated at all because a locative phrase with a state of being remains unchanged in the representation of the inchoative meaning.

4.1.2.2. Locative alternation

Locative alternation is an alternation of a locative phrase with an instrumental phrase. The verbs which realize the syntactic alternation at issue include the following (cf. Remark 3 made with Verb class № 4.1.9):¹¹⁰

- (134) *fest* ‘paint’, *fröcsköl* ‘splash’, *hint* ‘dust; sprinkle’, *ken* ‘smear’, *locsol* ‘water; sprinkle’, *mázol* ‘paint’, *öntöz* ‘water; sprinkle’, *permetez* ‘spray; sprinkle’, *spriccel* ‘spray’, *tölt* ‘fill’, *töm* ‘cram’, etc.

For an illustration of the locative alternation, consider (99) repeated here as (135).

- (135) a. Az anya zsírt ken a kenyérré.
 the mother fat.Acc smear.3Sg the bread.Sub
 ‘The mother is smearing fat on the bread.’
- b. Az anya zsírral keni a kenyeret.
 the mother fat.Ins smear.DefObj.3Sg the bread.Acc
 ‘The mother is smearing the bread with fat.’

Nevertheless, the presence of either of the complement frames does not necessarily make the other variant available. While verbs with a locative phrase but without an instrumental phrase are mentioned in (136) (for an example, see (137)), verbs with an opposite pattern are listed in (138) (for an example, see (139)).

- (136) *gyömöszöl* ‘stuff’, *halmoz* ‘pile’, *löttyent* ‘spill’, *önt* ‘pour’, *pumpál* ‘pump’, *rak* ‘pack, load’, *pakol* ‘pack, load’, *szivattyúz* ‘pump’, *szór* ‘scatter’, *vet* ‘sow’, etc.

- (137) a. Az anya vizet önt a virágra.
 the mother water.Acc pour.3Sg the flower.Sub
 ‘The mother is pouring water onto the flower.’
- b. *Az anya vízzel önti a virágot.
 the mother water.Ins pour.DefObj.3Sg the flower.Acc
 ‘The mother is pouring the flower with water.’

- (138) *díszít* ‘decorate’, *fed* ‘cover’, *vajaz* ‘butter’, etc.

- (139) a. *Az anya csokoládémázat fed a süteményre.
 the mother chocolate_coating.Acc cover.3Sg the cookie.Sub
 ‘The mother is covering chocolate coating onto the cookie.’

¹¹⁰ For English equivalents, see Levin (1993: 117–119). It is worth noting that in parallel with the earliest work on the locative alternation in the international literature, the corresponding alternation in Hungarian also began to be investigated, see Zsilka (1966).

- b. Az anya csokoládémázzal fedi a süteményt.
 the mother chocolate_coating.Ins cover.DefObj.3Sg the cookie.Acc
 ‘The mother is covering the cookie with chocolate coating.’

4.1.3. Decreasing the number of arguments

4.1.3.1. Instrument–subject alternation I: event subtype

The instrument–subject alternation is a cross-linguistic phenomenon in which a verb’s semantic argument with an instrument thematic role can be expressed syntactically not only as an oblique complement phrase but also as a subject instead of an agentive subject.¹¹¹ It can be illustrated by the examples below in Hungarian.

- (140) a. Rita betörte egy hajszárítóval az ablakot.
 Rita break.Past.DefObj.3Sg a hair_dryer.Ins the window.Acc
 ‘Rita broke the window with a hair dryer.’

- b. A hajszárító betörte az ablakot.
 the hair_dryer break.Past.DefObj.3Sg the window.Acc
 ‘The hair dryer broke the window.’

- (141) a. Rita megszáritotta egy hajszárítóval az ablakot.
 Rita dry.Past.DefObj.3Sg a hair_dryer.Ins the window.Acc
 ‘Rita dried the window with a hair dryer.’

- b. A hajszárító megszáritotta az ablakot.
 the hair_dryer dry.Past.DefObj.3Sg the window.Acc
 ‘The hair dryer dried the window.’

- (142) a. Rita megrakta egy targoncával a teherautót.
 Rita load.Past.DefObj.3Sg a forklift.Ins the truck.Acc
 ‘Rita loaded the truck with a forklift.’

- b. A targonca megrakta a teherautót.
 the forklift load.Past.DefObj.3Sg the truck.Acc
 ‘The forklift loaded the truck.’

While in sentences (140a), (141a) and (142a) the instruments are realized as oblique complement phrases, in sentences (140b), (141b) and (142b) they are realized as subjects. However, with other Hungarian verbs the alternation at issue cannot appear. Cf.:

¹¹¹ For the alternation in English, see Levin (1993: 80). As to Hungarian, see Remark 4 with Verb class № 4.1.9.

- (143) a. Rita felmosta egy felmosóronggyal a padlót.
 Rita wash.Past.DefObj.3Sg a floor-cloth.Ins the floor.Acc
 ‘Rita washed the floor with a floor-cloth.’
- b. *A felmosórongy felmosta a padlót.
 the floor-cloth wash.Past.DefObj.3Sg the floor.Acc
 ‘The floor-cloth washed the floor.’
- (144) a. Rita felsöpörte egy söprűvel a padlót.
 Rita sweep.Past.DefObj.3Sg a broom.Ins the floor.Acc
 ‘Rita swept the floor with a broom.’
- b. *A seprű felsöpörte a padlót.
 the broom sweep.Past.DefObj.3Sg the floor.Acc
 ‘The broom swept the floor.’

4.1.3.2. Instrument–subject alternation II: property subtype

Whereas examples with instrumental subjects in the previous subsection denote events, there seems to be another – property – subtype of the instrument–subject alternation. Consider (145).

- (145) a. Rita egy zsebkéssel vágja a kartonpapírt.
 Rita a penknife.Ins cut.DefObj.3Sg the pasteboard.Acc
 ‘Rita is cutting pasteboard with a penknife.’
- b. A zsebkés vág(ja) a kartonpapírt).
 the penknife. cut.DefObj.3Sg the pasteboard.Acc
 ‘The penknife cuts (pasteboard).’

Verbs patterning in the same way as *vág* ‘cut’ in (145) include the following (cf. Remark 4 with Verb class № 4.1.9):

- (146) *borotvál* ‘shave’, *darál* ‘grind; mince’, *nyír* ‘cut through pressing/shearing/mowing’, *nyit* ‘open’, *őröl* ‘mill’, *reszel* ‘grate’, *szeletel* ‘slice’, *zár* ‘close’, etc.

4.2. Approaches to the treatment of syntactic alternation

In lexicography there is a tradition that treats occurrences of a word with different syntactic patterns as instances of polysemy if they in any way appear and are entered separately in a dictionary (cf. the notion of sense enumerative lexicon in Pustejovsky 1995). As to the first above-mentioned alternation resulting in more syntactic arguments, the directed motion sense of the verb *úszik* ‘swim’ in (109b) is not listed in the multivolume and concise dictionaries of Hungarian (see Bárczi and Országh 1959–1962 and Pusztai 2003, respectively) but one can

infer it from their example: *partra úszik* ‘swim to the riverside/seaside’. In the case of the second alternation of that type, neither dictionary indicates the possibility of an argument structure change with the entry for *csattog* ‘flap’ figuring in (119). Interestingly, the syntactic alternations without any change in the number of arguments in 4.1.2 have their own dictionary representations. Cf. the double enumeration of *áll* ‘stand; step’ in both Bárczi and Országh (1959–1962) and Pustai (2003). In a similar way, the locative alternation of the verb *ken* ‘smear’ can be found in both dictionaries: cf. the first and second meanings of the entries at issue. The third type of syntactic alternation with a decreasing number of arguments is fixed, for instance, in Bárczi and Országh’s (1959–1962) entry of *vág* ‘cut’, where its property-like meaning with an instrument subject is enumerated as the fifth one in the first major group of meanings.

Nevertheless, recent trends in theoretical linguistics seem to argue that an enumerative conception of the lexicon which simply fixes various meanings of a word in a lexical entry is insufficient. They all attempt to elaborate their own version, which goes beyond the traditional lexicographic treatment of polysemy induced by syntactic alternation.

4.2.1. Theoretical approaches – first access

Turning to theoretical treatments of syntactic alternations, which all aim at creating a more sophisticated model to enable us to grasp the multiple argument realization of verbs, one is faced with rivaling accounts, such as lexical, or projectionist, and constructional ones (cf. Levin 2015: 66–69, Levin and Rappaport Hovav 2005: 189–193). The lexical framework uses lexical rules or operations to relate the two variants that make up syntactically alternating structures (cf. Levin and Rappaport Hovav 1995, Pinker 1989, Rappaport Hovav and Levin 1998, among others). Thus, alternating verbs are represented in the lexicon with two related meanings that underlie the different syntactic structures. In other words, verbs with multiple meanings have multiple lexical-semantic representations, and these meanings determine the various syntactic patterns that verbs can occur in. In addition, since the delineation of the adequate set of alternating verbs is still a challenging task, narrowly defined semantic classes of verbs are established which are intended to involve only verbs occurring in a particular syntactic alternation (Pinker 1989). Furthermore, independently of whether narrow semantic classes produce the expected successful outcome (in fact, they do not, as we will see in Chapter 5), one can formulate an objection from an opposite angle. In spite of the fact that much attention is paid to testing meaning shifts by syntactic criteria and to linking rules connecting semantic structure constituents with syntactic ones (cf. especially Ladányi 2007

and 2008), the meaning brought about by a meaning shift is grasped as a lexical phenomenon but not as a meaning occurring in a particular syntactic structure. Syntactic alternations are approached via constructional conceptions from this point of view.

Among constructional approaches one can first refer to Pustejovsky's (1995) Generative Lexicon Theory, which assumes a linguistic device that allows for several constituents to be considered as functors (predicates) in a simple construction and which, therefore, is termed co-composition. So a verb has only one meaning lexically and the second meaning appears when the verb is used in the corresponding construction. Second, according to Goldberg's (1995, 2006) Construction Grammar, both variants of an alternating verb can be accounted for constructionally by positing a single verb meaning which is able to fuse with two distinct constructions, i.e. form–meaning pairings. From this approach it follows that “an alternation is really epiphenomenal” (Levin 2015: 68). Third, within the Neo-Constructionist approach (for a recent collection of papers, see Cuervo and Roberge 2012), syntactic structures constitute a predicate decomposition (cf. Section 2.4 in Chapter 2) corresponding to the construction's meaning. Otherwise, the constructionist machinery works: a verb enters into a construction if its meaning is appropriate for the constructional meaning. Hence, if a verb can be associated with two constructions, it is considered an alternating verb. However, to cite Levin's (2015: 69) assessment, the definition of a verb's compatibility with one or two constructional meanings “is left for further investigation”.

Although these recent trends in theoretical linguistics are certainly important steps towards a well-founded treatment of syntactic alternations, one must realize the significance of **both constructional and lexical factors**, as well as the necessity of an **improved elaboration of lexical representations**. That is why I offer a lexical-constructional conception of syntactic alternation (cf. Bibok 2008, 2010, 2014c).

4.2.2. Introducing a lexical-constructional conception

My own **lexical-constructional** approach to syntactic alternation, which will be developed in its full entirety in the comprehensive and thorough analyses of Chapter 5, eliminates the shortcomings of the lexical and constructional approaches. At the same time, it exploits their advantages which – working together – provide a better way of investigating syntactic alternations than each theory does separately. What is more, in comparison with rival lexical and constructional conceptions, the lexical-constructional treatment has more predictive force and gives a more general explanation in the sense that it characterizes a clearer motivation for

alternating syntactic structures. In the remainder of the present section, it is introduced in two steps.

The first step is that conditions of the fusion of verbs with constructions are not restricted to the indication of a single constituent in LSRs, namely, to participant roles (cf. Goldberg 1995), but enriched meaning representations are proposed for verbs. Thus, this approach would be in accordance with general ideas concerning word meaning representations in Pustejovsky's (1995) Generative Lexicon Theory, and, in addition, with possibilities provided by Goldberg's (1995, 2006) Construction Grammar through referring to frame semantics. The enriched meaning structure requires, for instance, that – besides the meaning without the activity element – another meaning be supposed which includes this element (cf. *úszik* 'swim; float' in (109) with a theme subject, i.e. *üveg* 'bottle', and an agentive subject, i.e. *gyerek* 'child').

However, this is only the first step, and we need a second one. We cannot be satisfied with proposing another meaning since it would be equivalent to an enumerative type of the lexicon in which alternating verbs occur twice according to their meanings. At the same time, we could arrive at a contradiction with the fundamentally different efforts of both lexical and constructional theories attempting to go beyond the simple multiplication of meanings in the lexicon. Recall that lexical rules or operations, as well as a generative mechanism of co-composition or various constructions are assumed in order to account for constructionally (or even contextually) evoked senses. It is precisely because of the troubles of lexical and constructional theories, that one should propose a solution which handles alternating verbs differently than they do.

Rather, keeping permanently in mind the requirement of lexical economy (cf. also Bierwisch 1997), I offer the kind of general meaning representation of a verb which is semantically and pragmatically rich enough to serve as a basis¹¹² for both constructional meanings which develop in syntactic alternation (and, of course, for the subject double role of *úszik* 'swim; float'). Thus, the constructional meanings of a verb are condensed into one lexical meaning. To put it the other way round, in the lexicon, verbs have underspecified representations with optional components relevant to one or another constructional meaning and not representations that are as specific as constructional meanings. It is worth noting that

¹¹² It is worth emphasizing that such a basis should not be considered a derivational basis. Rather, an underspecified lexical meaning and constructional meanings could be related in a sense that they are compatible with each other, or, put differently, they can be joined.

while lexical representations are underspecified, they should also be more detailed than in the approaches criticized above, which is in full harmony with a statement made by Croft (2003: 61): “closer examination of the linguistic facts almost always reveals idiosyncrasies that show that more specific representations are required than is usually thought”.¹¹³

Thus, my lexical-constructional conception takes for granted that the representation of world knowledge is an indispensable constituent of lexical-semantic representations.¹¹⁴ Moreover, there should be a division of labor between different parts of meaning description, as is widely assumed in the lexical semantics literature (cf. Engelberg 2011a). According to Levin and Rappaport Hovav’s (1995: 20–30) highly influential approach to the issue, verb meaning is represented in the form of predicate composition and besides the primitive predicates there is another kind of meaning element, namely, what are referred to as “constants”.¹¹⁵ Combinations of predicates constitute grammatically relevant aspects of verb meanings, and constants encode their idiosyncratic elements. At the same time, because of enriched meaning representations, especially semantic decompositions with built-in grammatically relevant prototypes (see Subsections 5.1.3.3 and 5.1.3.4 below), which are argued to account for syntactic alternations (Bibok 2010, 2016a), such a characterization of the distinction between the knowledge of language and that of the world is questionable (cf. also Engelberg 2011b: 135).¹¹⁶ Therefore, I assume that another distinction between the (logically or metaphysically) necessary constituents of word meaning and prototypical/stereotypical world knowledge is valid (for various types of the storage of encyclopedic information, see Bibok 2016a). Although it is fairly similar to the relevance-theoretical separation of the logical and encyclopedic types of information stored at conceptual labels in the mind (Sperber and Wilson 1995: 86–93), it has to be taken into consideration that Sperber and Wilson regard concepts – and, consequently, meanings of

¹¹³ Cf. also: “a feasible computational implementation must be based on constructional sub-types rather than on broad-scale constructions of the Goldbergian kind” (Luzondo-Oyón and Ruiz de Mendoza-Ibáñez 2015: 70).

¹¹⁴ It is sufficient to mention just a few other conceptions which build meaning representations partly or even fully from pieces of world knowledge: connotations traditionally well-known but renewed by Mel’čuk (1989), Pustejovsky’s (1995) lexical representations, including qualia structure, Fillmore’s frames or Lakoff’s idealized cognitive models (for the latter two, see Croft and Cruse 2004: 7–32). – For the characterization of theoretical underpinnings of LSRs favored in this dissertation, see also Subsections 2.3.2 and 2.3.3.

¹¹⁵ From their subsequent work (Levin and Rappaport Hovav 2005: 71) on, instead of the term *constant*, the authors use another – widely accepted – term, *root*.

¹¹⁶ In a more recent work by Levin and Rappaport Hovav (2005: 73), it is admitted that the assumption that “primitive predicates alone determine the grammatical behavior of predicates” is not correct.

words expressing them – as entities which cannot be decomposed into more primitive components. However, it can be argued that decomposition is more suitable than the holistic view (Bibok 2004, 2014b, cf. also Bierwisch 2006: 110–112).¹¹⁷

Now, from the point of view of syntactic alternations it can be stated that verbs occur in them if they have a general underspecified meaning which is compatible with all meanings occurring in alternations. If a verb does not have a lexical representation that can result in different interpretations, that is, if a verb is lexically more specific, it cannot alternate syntactically. Notice that lexically specified verbs can appear in both the (a)-lines and (b)-lines of the above examples in Section 4.1. It is just that the possibility of non-alternation in both directions, i.e. the specification of either of two alternation variants, does not allow us to consider one variant of alternating verbs primary and the other variant secondary – independently of treating them in the lexicon or at the level of syntactic constructions. Rather, an underspecified type of representation is required for alternating verbs.¹¹⁸

* * *

In Chapter 4 I have achieved the third aim of my dissertation: major Hungarian verb classes of multiple argument realization have been presented and my lexical-constructional approach to syntactic alternations has been introduced and set against lexical and constructional conceptions.

¹¹⁷ Consider also what Allan (2012: 234) says (read it in the sense of decomposition rather than in an atomistic, or holistic, way): “a lexicon entry can be constructed to indicate the necessary components of meaning for the entry and also the most probable additional components of meaning that obtain for most occasions of use but which may be canceled as a function of contextual constraints. These can be seen as prototype effects”.

¹¹⁸ In closing the discussion of the three approaches to syntactic alternation in Section 4.2, two additional remarks seem to be in order. First, Levin (2015: 69, 73) claims that functional components, e.g. information structure and weight considerations, also seem warranted in the analysis of one of the alternations, namely of the dative alternation. Second, although I must admit that the lexical-constructional conception presented here has some common features with Iwata’s (2002, 2008), the former significantly differs from the latter in the details of the characteristics of both lexical and constructional meanings.

CHAPTER 5

Syntactic alternation: analyses

In order to achieve the fourth of the aims articulated in the Introduction, in the present chapter I offer analyses of Hungarian alternating verbs. First, lexical and constructional accounts of each group of verbs are introduced from the pertaining linguistics literature. Relying on critical evaluations of previous proposals, I then elaborate my own lexical-constructional explanation of these groups of verbs. In Section 5.1, ways in which verbs become directional motion verbs are investigated with manner-of-motion verbs, verbs of sound emission, and spatial position verbs. Even verbs of cutting can occur with directional phrases. The locative alternation (not only in Hungarian but also in Russian to gain some crosslinguistic evidence for my lexical-constructional conception) and instrument–subject alternation (with two subtypes) are explored in Sections 5.2 and 5.3, respectively.

5.1. *How verbs become directional motion verbs*

As an answer to the question in the title of the present section, I offer a uniform lexical-constructional account for the syntactic alternation of the three groups of verbs in Section 4.1. They include not only verbs with increasing number of arguments, i.e. those of manner of motion and of sound emission, but also one group of verbs without any change in the number of arguments, namely those of spatial configuration. Before providing the analyses in the framework of the lexical-constructional conception, one should examine the proposals made by lexicalists, or projectionists, and constructionalists.¹¹⁹

5.1.1. Lexical approaches

As a starting point, let us take the verb *úszik* ‘swim; float’ with an agentive subject, which belongs to the verbs of manner of motion listed in Section 4.1.1.1 and can syntactically alternate.

- (147) a. A gyerek úszik.
 the child swim.3Sg
 ‘The child is swimming.’

¹¹⁹ Section 5.1 is mainly based on Bibok (2010).

- b. A gyerek a barlangba úszik.
 the child the cave.Ill swim.3Sg
 ‘The child is swimming into the cave.’

The verb *úszik* ‘swim’ in (147) shows a type of systematic and productive polysemy: ‘manner of motion’ vs. ‘proceeding motion in some manner’ (cf. Komlósy 2015: 320, 323, Ladányi 2007: 214–215, Ladányi 2008: 301–302). This relation may be treated by a lexical rule according to which a verb can also denote a proceeding motion if it denotes a manner of motion. However, only some of the verbs which mean the manner of motion of inanimate entities capable of moving in the presence of external effects are suitable for designating a proceeding motion (Komlósy 2000: 257). Compare, for instance, the verbs *pattog* ‘bounce’ and *inog* ‘wobble’ in (110) and (111), repeated here as (148) and (149), respectively.

- (148) a. A labda (a fal mellett) pattog.
 the ball the wall by bounce.3Sg
 ‘The ball is bouncing (by the wall).’

- b. A labda a fal mellé pattog.
 the ball the wall to bounce.3Sg
 ‘The ball is bouncing to the wall.’

- (149) a. A szék (a fal mellett) inog.
 the chair the wall by wobble.3Sg
 ‘The chair is wobbling (by the wall).’

- b. *A szék a fal mellé inog.
 the chair the wall to wobble.3Sg
 ‘The chair is wobbling to the wall.’

Similarly to verbs of manner of motion, Hungarian verbs of sound emission also appear in a syntactic alternation resulting in a proceeding motion sense if sound emission is a concomitant of motion (Ladányi 2007: 215–216, Ladányi 2008: 306–310, cf. Levin and Rappaport Hovav 1995: 190–191). The relevant syntactic alternation is shown in (150) and (151), containing the examples familiar from Section 4.1.1.2:

- (150) a. A Dózsa György utca zajos, ott csattog a troli.
 the Dózsa György street noisy there clank.3Sg the trolley_bus
 ‘Dózsa György street is noisy, the trolley bus clanks down it.’

- b. A troli a Dózsa György utcába csattog.
 the trolley_bus the Dózsa György street.Ill clank.3Sg
 ‘The trolley bus is clanking into Dózsa György street (e.g. because there is a stop).’

- (151) a. A fiú csattog a papucsával.
 the boy flap.3Sg the slippers.Poss.3Sg.Ins
 ‘The boy is flapping his slippers (while walking).’
- b. A fiú a folyosóra csattog a papucsával.
 the boy the corridor.Sub flap.3Sg the slippers.Poss.3Sg.Ins
 ‘The boy is flapping his slippers walking out into the corridor.’

However, if a verb occurs with an agent argument and the sound is produced by the agent’s sound formation organs, it cannot be interpreted as a proceeding motion (Ladányi 2008: 310). Consider (152a) and (152b) with an unergative verb *ordít* ‘scream’.

- (152) a. Péter ordít.
 Péter scream.3Sg
 ‘Péter is screaming.’
- b. Péter a folyosóra ordít.
 Péter the corridor.Sub scream.3Sg
 *‘Screaming, Péter is moving into the corridor.’

The issue of how the cases which do not show the syntactic alternation concerned are precisely related to the above-mentioned constraint that sound emission should be a concomitant of motion will need further investigations which are possible in the lexical-constructional approach. Another issue raised in Ladányi (2007: 215, see also Ladányi 2008: 308) also has to be postponed to that part of the chapter. As Ladányi proposes, several expressions formed according to (150b) and (151b) might seem uncommon and strange. A preverbal version of verbs is more usual. For example, the verb *csattog* ‘flap’ can take the preverb *ki* ‘out’, as in (153).

- (153) A fiú kicsattog a papucsával a folyosóra.
 the boy out.flap.3Sg the slippers.Poss.3Sg.Ins the corridor.Sub
 ‘The boy is flapping his slippers walking out into the corridor.’

It is well worth noting that the verb *ordít* ‘scream’, even when occurring together with a directional phrase and a preverb, cannot be interpreted as a directed motion. Cf.:

- (154) Péter kiordít a folyosóra.
 Péter out.scream.3Sg the corridor.Sub
 *‘Screaming, Péter is moving into the corridor.’

Thus, neither (152b) with a directional phrase, nor (154) with a preverbal verb and directional phrase yields the intended interpretation. They both only have a sound emission sense: ‘Péter is screaming (through the door) into the corridor.’

The fact that both verbs of manner of motion and those of sound emission can belong to another semantic class of proceeding, or directed, motion and occur with multiple argument realizations can be handled as meaning shifts which are rule-governed processes. Levin and Rappaport Hovav (1995: 20–30) assume that the verb meaning is represented in the form of a predicate composition made up of primitive predicates and what have been called constants. Constants encode the idiosyncratic elements of verb meaning, and combinations of predicates represent its grammatically relevant aspects.¹²⁰ The latter constitute the lexical-semantic templates of a language, which correspond to various ontological types of events. Pairs of verbs of manner of motion and of directed motion as well as of sound emission and of directed motion involve different lexical-semantic templates that have a shared constant and arise from a lexical rule of some sort (Levin and Rappaport Hovav 1995: 182–205). What they state in connection with English verbs is valid for Hungarian as well: these shifts are “regular and productive, although their existence and scope need to be stipulated in the lexicon of a language” (Levin and Rappaport Hovav 1996: 503). Therefore, a lexical rule amounts to a necessary condition and has to be supplemented with an enumeration of the narrow semantic classes that the given lexical rule can actually be applied to (cf. narrow semantic classes established in the lexicalist analysis of the locative alternation by Pinker 1989: 126–127).

This lexical, or projectionist, approach to the type of phenomena presented above has another form which can be demonstrated by the following example (Rappaport Hovav and Levin 1998). The constant SWEEP categorized as a manner modifies an activity. Therefore, a canonical realization rule associates it with the predicate ACT in the activity event structure template, yielding the activity sense of the verb of surface contact through the motion *sweep*.

- (155) a. Phil swept the floor.
 b. [x ACT<SWEEP> y]

Several other meanings of *sweep* can arise via an operation called Template Augmentation, at least some applications of which must be lexical. One of these other meanings is the

¹²⁰ As to the term *constant* and to grammatically relevant aspects of verb meanings, see fn. 115 and 116 once again.

accomplishment sense, when *sweep* combines with a directional phrase. To account for it, the activity with the manner constant is augmented to the causative lexical-semantic template with the activity at stake as a cause and the achieved location caused by that activity.

- (156) a. Phil swept the crumbs onto the floor.
 b. [[x ACT_{<SWEEP>} y] CAUSE [BECOME [z <PLACE>]]]

However, as Rappaport Hovav and Levin (1998: 121) acknowledge in a footnote, this account of the accomplishment use of verbs of surface contact through motion may not be extended to verbs of manner of motion. Although the directed motion use of manner-of-motion verbs (see (147b) above) also involves an activity-to-accomplishment shift, a causative analysis is not appropriate for such derived accomplishments. In another work by the same authors (Levin and Rappaport Hovav 1998: 259), a distinct primitive predicate for accomplishments other than CAUSE, namely GO, is introduced. The authors take the association of a constant with this accomplishment lexical-semantic template to be effected by a rule not formulated there.¹²¹ To illustrate this, I present their example of the accomplishment *walk* in the original form of notation.

- (157) GO (x, y)
 |
 [WALK]_{MANNER}

In such a theory, however, there is nothing but the manner constant WALK, which relates the activity *walk* to the accomplishment in (157). At the same time, there is more associated with both meanings of verbs under scrutiny even if one only takes in a strict sense their common paraphrases such as ‘manner of motion’ and ‘proceeding/directed motion’. The paraphrases indicate a possibility to include into their representations a predicate shared by the two senses, namely, MOVE. This is supported by the fact that among the verbs of manner of motion there are those which have or can have inanimate subjects. Besides the verbs *pattoġ* ‘bounce’ and

¹²¹ An anonymous reviewer of an earlier submission of mine remarked that the lexical template approach is clearly constructional in spirit. However, there is no direct evidence for that. Rather, the authors in question admit the lexical character of the Template Augmentation operation (see above) and their commitment to lexical approach (e.g. Levin and Rappaport Hovav 1995: 29), while generally using lexical templates in meaning representations. Moreover, although they abstract away as much as possible from the projectionist–constructional debate in their book (Levin and Rappaport Hovav 2005: 193), they do not themselves mention when they list works of the constructional approach (p. 191, cf. also p. 207).

inog ‘wobble’ in (148) and (149) with intrinsically inanimate subjects, consider the verb *úszik* ‘float’ in (158), which is an inanimate subject variant of the same verb *úszik* ‘swim’ in (147).¹²²

- (158) a. Az üveg úszik.
the bottle float.3Sg
‘The bottle is floating.’
- b. Az üveg a barlangba úszik.
the bottle the cave.III float.3Sg
‘The bottle is floating into the cave.’

From the present point of view it is not important whether a verb of manner of motion occurs with a directional phrase or not, but none of the verbs in (148), (149) and (158) have agentive arguments and nor, therefore, do they have the activity lexical-semantic template, i.e. the predicate ACT, in their representations. It means that there would be no predicate which the corresponding constant of manner could be connected to. For such a predicate, MOVE is a promising candidate. Perhaps, further research into the nature of MOVE will result in LSRs which more clearly express the relationship between manner of motion and directed motion. Indeed, this idea will be clarified in the subsequent sections of the chapter.

A third group of Hungarian verbs, namely that of verbs of spatial configuration (see the list in (127) in 4.1.2.1), appears to be relevant to the shifted meaning of directed motion. Those verbs can also take a directional phrase, as in (159).

- (159) a. Péter (a szőnyegen) áll.
Péter the carpet.Sup stand.3Sg
‘Péter is standing (on the carpet).’
- b. Péter a szőnyegre áll.
Péter the carpet.Sub stand.3Sg
‘Péter steps onto the carpet.’

In (159a) the verb specifies being in a particular spatial configuration, while in (159b), assuming a spatial position through displacement. However, displacement is not necessary,

¹²² English verbs of manner of motion also have such a special subgroup (cf. Levin 1993: 264–267). As to mapping the non-agentive verbs of manner of motion onto the agentive verbs of manner of motion, or vice versa, there is no need to posit a lexical rule because this variable behavior is “simply the result of the existence of a lexical semantic constant that, by virtue of its nature, is basically compatible with more than one lexical semantic template” (Levin and Rappaport Hovav 1995: 211).

the change of spatial configuration can also be carried out when one remains in place (cf., e.g., *guggol* ‘crouch’ and *hasal* ‘lie on one’s stomach’).

Like the two other classes of verbs of manner of motion and of sound emission, besides the alternating verbs there are non-alternating verbs denoting being in particular spatial configurations. Consider (160) and (161).

(160) a. A fiú a bordásfalon függ.
the boy the wall-bars.Sup hang.3Sg
‘The boy is hanging on the wall-bars.’

b. *A fiú a bordásfalra függ.
the boy the wall-bars.Sub hang.3Sg
‘The boy hangs onto the wall-bars.’

(161) a. A fiú az ágyon heverészik.
the boy the bed.Sup lie_around.3Sg
‘The boy is lying around on the bed.’

b. *A fiú az ágyra heverészik.
the boy the bed.Sub lie_around.3Sg
‘The boy lies around onto the bed.’

What is more, the Hungarian verb *heveredik* ‘lie down at full length’ behaves in the opposite way to *heverészik* ‘lie around’. It takes a directional phrase but does not appear without it. Cf.:

(162) a. *A fiú az ágyon heveredik.
the boy the bed.Sup lie_down_at_full_length.3Sg
‘The boy is lying down at full length on the bed.’

b. A fiú az ágyra heveredik.
the boy the bed.Sub lie_down_at_full_length
‘The boy lies down at full length onto the bed.’

To the best of my knowledge, there is no analysis offered in the literature to account for the syntactic alternation and meaning shift of the verb in (159) as well as the non-alternating cases in (160)–(162).

Although different kinds of lexical rules and operations have been mentioned above in connection with syntactic alternations and meaning shifts, they all pertain to a lexical, or a projectionist, model, in which verbs with multiple meanings have multiple LSRs, and these meanings determine the various syntactic structures that verbs can occur in. In spite of the fact that in this model much attention is paid to testing meaning shifts by syntactic criteria and to linking rules connecting semantic structure constituents with syntactic ones, the meaning

brought about by a meaning shift is grasped as a lexical phenomenon but not as a meaning occurring in a particular syntactic structure. Meaning shifts and syntactic alternations are approached by constructional conceptions from such a point of view.

5.1.2. Constructional approaches

Pustejovsky's (1995: 125–126) could be considered a version of the constructional approach, which one may rely on in order to explain the systematic polysemy 'manner of motion' → 'directed motion' in the following way. Consider (147) and (158) again, which, for the sake of convenience, are repeated here as (163) and (164).

- (163) a. A gyerek úszik.
 the child swim.3Sg
 'The child is swimming.'
- b. A gyerek a barlangba úszik.
 the child the cave.III swim.3Sg
 'The child is swimming into the cave.'
- (164) a. Az üveg úszik.
 the bottle float.3Sg
 'The bottle is floating.'
- b. Az üveg a barlangba úszik.
 the bottle the cave.III float.3Sg
 'The bottle is floating into the cave.'

The verb *úszik* 'swim; float' has only one meaning in the lexicon, which expresses the manner of motion (see the (a) examples above). The meaning 'to move in some direction in some manner' appearing in the (b) examples above does not belong to the verb *úszik* 'swim; float' itself, but to the phrase consisting of this verb and the inflected noun. This second, more complex meaning, involving not a simple direction characteristic of any manner of displacement but associated with a transition from an initial point to an end, cannot be derived from the constituent parts, i.e. the verb and inflected noun, by means of a standard rule of composition. One has to assume that the inflected noun also behaves like a functor (predicate) in respect to *úszik* 'swim; float'. Consequently, the meaning of the phrase *a barlangba úszik* 'is swimming/floating into the cave' is constructed by the mechanism which allows for

several constituents to be considered functors in a simple construction and which, therefore, is called co-composition in Pustejovsky's (1995) Generative Lexicon Theory.¹²³

A constructional analysis becomes a full-fledged one in Goldberg's (1995, 2006) Construction Grammar. According to Construction Grammar, constructions are form–meaning pairs. Distinct constructions are defined as constructions some of whose properties are unpredictable from knowledge of other constructions. They exist independently of particular verbs and determine syntactic structures. There is no strict division between syntactic constructions and lexical entries. The latter are also considered constructions. The two types of constructions only differ in their internal complexity and in the extent to which phonological form is specified.¹²⁴

In each construction, the meaning of the verb is fused with that of the construction. In general, representations of word meanings can be conceived of in regard to Fillmorian frames (or Langackerian background, or Lakoffian idealized cognitive models). However, when verbs are integrated into constructions, one part of their representations plays a crucial role, namely, a participant role. These are frame-specific roles which have to be distinguished from more general argument roles which figure in the semantic part of constructions, such as agent, theme or goal.

The fusion of a lexical entry with a construction is constrained by several factors. A semantic generalization can apply to a particular construction and, in turn, this semantic generalization is sensitive to contextual information and world knowledge. If causation typically implies some incidental motion, this motion may be specified by a directional phrase in the caused-motion construction. For example, salami normally falls downwards from the slicer, and cheese from the grater. That is why one can use the verbs *slice* and *grate* in the caused-motion construction. Cf.:

(165) The salesman sliced the salami onto the wax paper.

¹²³ An anonymous reviewer of an earlier submission of mine objects that Pustejovsky's theory is characterized as constructional. My intention is only to indicate that his co-composition is constructional in the sense that one of the meanings of the verb *úszik* 'swim; float' appears in a **construction consisting of this verb and the inflected noun** and is not fixed in the lexicon. This statement does not at all intend to place Pustejovsky among constructionists.

¹²⁴ In the rest of this dissertation, however, the term *construction* is used instead of *syntactic construction* because not only *lexical construction* but also *lexical entry* figures in the terminology of Construction Grammar. Moreover, such usage corresponds to the lexical-constructional idea in a better way.

(166) The mother grated the cheese onto the macaroni.

Notice that slicing and grating in the described way relate to the given verbs only in a neutral context, and this depends on our world knowledge. One can imagine a salami slicer which slices salami put into a container which does not allow the salami to move after being sliced. It is obvious that such a slicing cannot be expressed by a caused-motion construction as in (165).

Among the constraints of integration of lexical entries into constructions there are two other factors, also known in lexical theories: narrow semantic classes and idiosyncratic properties of lexical entries.

Applying the machinery of Construction Grammar to syntactic alternations, I first cite Goldberg's (1995: 176–177) own example. The lexical-semantic representation of the verb *slather* contains the following participant roles:

(167) *slather* <slatherer, thick-mass, target>

The three participant roles of *slather* are compatible with the argument roles of both the caused-motion construction and the causative-plus-*with*-adjunct construction. The first construction has three argument roles: a cause, a theme and a goal (directional). The two kinds of role sets can be fused with each other because the slatherer is semantically construable as a cause, thick-mass as a theme, since it undergoes a change of location, and the target as a directional. Cf.:

(168) Sam slathered shaving cream onto his face.

Fusing the slatherer with the first argument of the other construction is the same as above. The target can be construed not only as a directional (see above) but also as a patient in that the entity which is slathered on is affected. Since the third participant role of *slather* requires that it be expressed, a *with*-phrase emerges even though in the framework of Construction Grammar it is an adjunct of the corresponding construction.¹²⁵ Cf.:

(169) Sam slathered his face with shaving cream.

¹²⁵ If anyone thinks that the argument roles assigned to the mass and the target are named somewhat confusingly, she will see in 5.2.1.3. below how they follow from the internal structure of the lexical-semantic representations built in the lexical-constructional framework instead of being labeled in an external way (cf. 2.3.3, where the two alternative ways of acquiring semantic roles were discussed).

Thus, if the participant roles of a verb are compatible with the argument structure of two constructions, this verb (epiphenomenally) occurs in syntactically alternating structures.

Applying Goldberg's (1995, 2006) Construction Grammar to syntactic alternations, I also attempt to re-analyze (163) and (164) with *úszik* 'swim; float'. While in Pustejovsky's version of the analysis only the occurrence of the verb with a directional phrase is considered a constructional meaning, according to Construction Grammar, both uses of the verb, i.e. with and without a directional phrase, are analyzable in constructional terms. In the case without a directional phrase, the verb is integrated into a kind of simple intransitive construction, and in the case with a directional phrase into the intransitive motion construction. The verb can be associated with the latter construction and given a directed motion interpretation (in accordance with the semantic generalization concerning the caused-motion construction) even if no participant role is fixed with the verb which corresponds to the directional role. The directional role belongs to an argument which the intransitive motion construction itself owns, independently of whether the verb has a participant role corresponding semantically to a directional role.

What is crucially important in connection with the constructional analysis of the syntactic alternation characteristic of *úszik* 'swim; float', is that, according to Construction Grammar, the first argument role of the intransitive motion construction, i.e. of the predicate MOVE, is nothing but a theme, similarly to the second argument role of the caused-motion construction. Thus, the intransitive motion construction (and, consequently, the simple intransitive construction) accounts for the use of *úszik* 'swim; float' only with a theme subject as in (164). Therefore, another construction has to be assumed to handle sentences with agentive subjects as in (163b), provided that the child actually acts and she is not interpreted as is the inanimate subject of (164b).

In doing so, besides the predicate MOVE, one needs another predicate which takes an agent. CAUSE is usually held to be such a predicate (cf. Goldberg 1995: 165, Pinker 1989: 73). Notice, however, that the first argument of CAUSE, i.e. the cause, is not simply an agent. In fact, an activity, i.e. ACT, serves as a real cause. So, the agent is nothing other than the first argument of ACT (cf. 2.3.3). Consequently: [[x ACT] : [x MOVE]], which can be paraphrased as follows: 'x acts so that x moves'. In accordance with this, one assumes the intransitive activity-motion construction (and, perhaps, for lack of motion, the intransitive activity construction).

Nevertheless, this duplication of constructions does not necessarily imply the lexical proliferation of the Hungarian verb *úszik* ‘swim; float’. In constructional terms, one can offer that the single participant role of the verb at stake is construable either as a theme, or as an agent in both the directed motion sense, i.e. in the intransitive motion and activity-motion constructions with the directional argument role, and in the manner of motion sense, i.e. in the simple intransitive and intransitive activity constructions without the directional argument role. Then the question of what the double construal depends on arises. The answer must be postponed till the following subsection, where a detailed analysis of meaning structures of alternating manner-of-motion verbs will be carried out.

Recall that a verb of manner of motion may be fused with the intransitive motion construction and – it can already be added – with the intransitive activity-motion construction. It may also be given a directed motion sense if it does not have the kind of participant role which semantically corresponds to the directional argument role of those constructions. Now, one can realize that what has been stated about verbs of manner of motion is effective for other classes of verbs, namely, those of sound emission and those of being in a particular spatial configuration, although this is not explicitly formulated in Goldberg’s (1995, 2006) Construction Grammar. This means that in the constructional framework all three syntactic alternations under investigation can be captured in the same way. If so, one cannot avoid the question concerning the motivation of the occurrence of a directional in the intransitive activity-motion construction. An attentive reader will certainly remember that according to a semantic generalization sensitive to contextual information and world knowledge, the caused-motion construction is possible if an event of the causation of a change of state involves some incidental but predictable motion (see (165) and (166)). Let us suppose that the directional role of the intransitive activity-motion construction can also be motivated semantically if it is about an event of motion since, as our world knowledge dictates, a direction is inherently part not only of a directed motion but also of any motion activity (see (163a) and (164a)), or if sound emission is a concomitant of motion (see (150a) and (151a)). However, in the case of (159a), i.e. *Péter (a szőnyegen) áll* ‘Péter is standing (on the carpet)’, one cannot refer to any motion which would motivate the directional role in (159b), i.e. *Péter a szőnyegre áll* ‘Péter steps onto the carpet’. A solution would consist in the indication of the agentive role since the agent’s intention to act includes the possibility of moving. Notice that according to Goldberg’s (1995, 2006) Construction Grammar, the agentive role is an argument role which is connected to a construction (in the present case, to the intransitive activity-motion construction). Thus, we once again face the difficulty of the double, theme or agent, construal

of a participant role, which has already been mentioned in connection with the (single) participant role of *úszik* ‘swim; float’ and the solution to which was then postponed to the subsequent section.

Now what about those cases in which particular verbs do not alternate? Besides their corresponding idiosyncratic properties, can one postulate some semantic generalizations? Consider once again such exceptions as (149) and (160) mentioned above and repeated here for the sake of convenience as (170) and (171).

(170) a. A szék (a fal mellett) inog.
the chair the wall by wobble.3Sg
‘The chair is wobbling (by the wall).’

b. *A szék a fal mellé inog.
the chair the wall to wobble.3Sg
‘The chair is wobbling to the wall.’

(171) a. A fiú a bordásfalon függ.
the boy the wall-bars.Sup hang.3Sg
‘The boy is hanging on the wall-bars.’

b. *A fiú a bordásfalra függ.
the boy the wall-bars.Sub hang.3Sg
‘The boy hangs onto the wall-bars.’

Let us start out from Komlósy’s (2000: 257) statement cited in Subsection **5.1.1**. According to this, of those verbs which denote the manner of motion of inanimate things that are able to move in consequence of external effects, only a small group is suitable for expressing directed (proceeding) motion. The point of this statement is that the group of verbs under discussion does not behave homogeneously. For example, the verb *inog* ‘wobble’ does not take any arguments referring to an end point (see (170b)) but the verb *pattog* ‘bounce’ does (see (148b) above, i.e. *A labda a fal mellé pattog* ‘The ball is bouncing to the wall’). However, among the verbs enumerated by Komlósy, there are verbs which only appear with a theme subject (the two verbs just mentioned: *inog* ‘wobble’ and *pattog* ‘bounce’) while others occur with both theme subjects and agentive subjects (e.g. *billeg* ‘walk swinging slightly from side to side’ and *csúszik* ‘slide’). Consider the following examples with *csúszik* ‘slide’.

(172) a. A szánkó a jégen csúszik.
the sled the ice.Sup slide.3Sg
‘The sled is sliding on ice.’

- b. A szánkó az árokba csúszik.
 the sled the ditch.III slide.3Sg
 ‘The sled is sliding into the ditch.’
- (173) a. A fiú a jégen csúszik.
 the boy the ice.Sup slide.3Sg
 ‘The boy is sliding on ice.’
- b. A fiú a lányhoz csúszik (a jégen).
 the boy the girl.All slide.3Sg the ice.Sup
 ‘The boy is sliding to the girl (on ice).’

Unlike (172), (173) can actually be interpreted as the boy’s intended activity when, e.g., he and his friends are playing on a frozen lake in the winter.

Considering the ability of the verbs at issue to take subjects with different argument roles, and recognizing that their occurrence in a construction with an agent is especially important when accounting for the directed motion sense in cases such as (159b), i.e. *Péter a szőnyegre áll* ‘Péter steps onto the carpet’ (see also (175b) below), one can re-formulate Komlósy’s statement in the following way. If a verb, e.g. *inog* ‘wobble’, cannot appear in a construction with an agentive role, it cannot be integrated into the intransitive motion construction either (cf. (170b)), exclusive of exceptions, e.g. *pattog* ‘bounce’ (cf. (148b)). If a verb occurs in a construction with an agentive role, the intransitive activity-motion construction can also occur (see (163b), i.e. *A gyerek a barlangba úszik* ‘The boy is swimming into the cave’, as well as (159b), i.e. *Péter a szőnyegre áll* ‘Péter steps onto the carpet’), again not counting possible exceptions.

Furthermore, depending on whether the meaning of a verb contains a motion element, the intransitive motion construction is also possible. In other words, a verb referring to some motion inherently occurs with theme subjects while a verb not having an inherent relation to motion does not. Cf. *úszik* ‘swim; float’ in (164), repeated here as (174), where in the ‘float’ sense it figures with a theme subject, and *áll* ‘stand’ in (175), which is a theme variant of (159).

- (174) a. Az üveg úszik.
 the bottle float.3Sg
 ‘The bottle is floating.’
- b. Az üveg a barlangba úszik.
 the bottle the cave.III float.3Sg
 ‘The bottle is floating into the cave.’

- (175) a. A váza az asztalon áll.
 the vase the table.Sup stand.3Sg
 ‘The vase is on the table.’
- b. *A váza az asztalra áll.
 the vase the table.Sub stand.3Sg
 ‘The vase steps onto the table.’

Nevertheless, this is the third occasion on which we have faced the issue of the double theme–agent construal of a participant role. At this point, in the next subsection, I will propose my solution to this issue in particular and to syntactic alternations in general.

5.1.3. A lexical-constructional treatment of alternations with a directed motion sense

5.1.3.1. Alternation in manner-of-motion verbs

Consider the familiar examples *úszik* ‘swim; float’ once again.

- (176) a. A gyerek úszik.
 the child swim.3Sg
 ‘The child is swimming.’
- b. A gyerek a barlangba úszik.
 the child the cave.III swim.3Sg
 ‘The child is swimming into the cave.’
- (177) a. Az üveg úszik.
 the bottle float.3Sg
 ‘The bottle is floating.’
- b. Az üveg a barlangba úszik.
 the bottle the cave.III float.3Sg
 ‘The bottle is floating into the cave.’

As one can remember from the previous subsection, the difference between (176a) and (177a) has been attributed to the presence or absence of the component ACT (cf. class № 2.1.1. of unergative verbs and class № 2.1.2 of unaccusative verbs in Chapter 3). The meaning of the verb *úszik* ‘swim’ in (176a) can be paraphrased as follows: ‘X acts so that X moves in a particular manner’. The meaning of *úszik* ‘float’ in (177a) does not contain the component ACT, i.e. it only includes: ‘X moves in a particular manner’. For these two meanings of *úszik* ‘swim; float’ to be condensed at the lexical level it is necessary to assume an underspecified meaning which serves as a starting point of both occurrences of *úszik* ‘swim; float’ in (176a)

and (177a). If one puts round brackets around that part of the two paraphrases which is only relevant to (176a), one can obtain the required formula:

(178) '(X acts so that) X moves in a particular manner'.

Thus, the round brackets in (178) indicate the optionality of the fragment 'X acts so that', which is not shared by both paraphrases. Let us turn to the relationship between (176a) and (176b) as well as that between (177a) and (177b). In accordance with a substantial idea of my lexical-constructional approach, some kind of underspecification would be appropriate in this case, as well. To establish this we should examine once again the argument structure of *úszik* 'swim; float' in the (a) examples. Instead of (176) and (177), consider (179) and (180).

(179) a. A gyerek a barlangban úszik.
the child the cave.Ine swim.3Sg
'The child is swimming in the cave.'

b. A gyerek a barlangba úszik.
the child the cave.Ill swim.3Sg
'The child is swimming into the cave.'

(180) a. Az üveg a barlangban úszik.
the bottle the cave.Ine float.3Sg
'The bottle is floating in the cave.'

b. Az üveg a barlangba úszik.
the bottle the cave.Ill float.3Sg
'The bottle is floating into the cave.'

Despite the common view that verbs of manner of motion take only one argument semantically,¹²⁶ there are some reasons to assume that they have another semantic argument, namely, a locative one. The verb *úszik* 'swim; float' and the other manner-of-motion verbs listed in Subsection 4.1.1.1 and repeated here as (181) mean being in motion in some manner, which necessarily implies the occupation of some space.

(181) *baktat* 'trudge', *ballag* 'walk slowly', *bandukol* 'walk slowly', *battyog* 'walk slowly', *biceg* 'hobble', *biciklizik* 'ride a bicycle', *billeg* 'walk swinging slightly from side to side', *botladozik* 'falter', *bukfencezik* 'somersault', *cammog* 'plod', *csoszog* 'shuffle one's feet', *csúszik* 'slide', *dülöngél* 'reel', *evez* 'row', *folyik* 'flow', *forog* 'spin', *fut* 'run', *gázol* 'wade', *gurul* 'roll', *gyalogol* 'walk', *himbálózik* 'swing', *hömpölyög* 'surge', *imbolyog* 'totter', *kerékpározik* 'ride a bicycle', *kocog* 'jog', *kúszik* 'creep',

¹²⁶ Ackerman (1992: 79) is an exception, where a second, locative, argument is assumed for the verb *fut* 'run'.

landol ‘land’, *lebeg* ‘float’, *lovagol* ‘ride (a horse)’, *masíroz* ‘march’, *mászik* ‘climb’, *menetel* ‘march’, *oson* ‘sneak’, *ömlik* ‘pour’, *pattan* ‘bounce’, *pattog* ‘bounce (several times)’, *poroszkál* ‘amble’, *pörög* ‘spin’, *repül* ‘fly’, *ring* ‘swing’, *rohan* ‘rush’, *sétál* ‘walk’, *sántikál* ‘hobble’, *siklik* ‘glide’, *somfordál* ‘creep’, *sompolyog* ‘creep’, *szalad* ‘run’, *száll* ‘fly’, *szökdécsel* ‘skip’, *szökdel* ‘skip’, *szökken* ‘skip (once)’, *támolyog* ‘stagger’, *táncol* ‘dance’, *tántorog* ‘stagger’, *tipeg* ‘waddle; toddle’, *totyog* ‘waddle; toddle’, *ugrál* ‘jump (several times)’, *ugrik* ‘jump’, *üget* ‘trot’, *vágtat* ‘gallop’, *vánszorog* ‘trudge’, *vitorlázik* ‘sail’, etc.

Therefore, the description of events denoted by these verbs needs the locative argument whereby the verbs at stake should be considered to have two arguments (cf. also Keszler 2000b: 357, where in the phrase *X az úton megy* ‘X moves/walks on the road’ the noun in the superessive case is considered a complement). Thus, if such a verb occurs in an utterance without a lexical realization of the locative argument, its omission only concerns the syntactic structure, but the number of arguments does not decrease on the level of meaning representation.

The appropriateness of treating verbs of manner of motion as two-argument predicates is further confirmed if they are compared with the verb *áll* ‘stand’ and the other verbs of spatial configuration listed in Section 4.1.2.1 and repeated here as (182):

(182) *fekszik* ‘lie’, *guggol* ‘crouch’, *hasal* ‘lie on one’s stomach’, *hever* ‘lie around’, *könyököl* ‘lean on one’s elbow’, *kuksol* ‘crouch’, *lapul* ‘skulk’, *lóg* ‘hang’, *támaszkodik* ‘lean on’, *térdel* ‘kneel’, *terpeszkedik* ‘sprawl’, *ül* ‘sit’, etc.

Since the verbs in (182) mean being in a particular spatial configuration, i.e. the occupation of some space in a spatial position, it is more obvious that the localization is inevitable in the given situations. In addition, in the case of a non-agentive subject, a locative constituent is syntactically necessary not only with verbs of being in a particular spatial configuration but also with verbs of manner of motion. See (175a), i.e. *A váza az asztalon áll* ‘The vase is on the table’), except when the verb is stressed and focused: *A váza áll* with a meaning ‘The vase is not overturned, it does not lie but stands’. Similarly, *A folyó a völgyben folyik* ‘The river flows in the valley’; *A folyó folyik* is acceptable if it means something like ‘The river is not frozen up’. Cf. also (148a), (149a) vs. (158a).

A third reason for postulating a locative argument in the meaning representation of *úszik* ‘swim; float’ and similar verbs comes from examples such as (183).

(183) A traktor a szántóföldön berreg.
the tractor the field.Sup throb.3Sg
‘The tractor is throbbing in the field.’

Depending on whether the phrase with the inflected noun *a szántóföldön* ‘in the field’ counts as an adjunct or argument, one can interpret (183) in two ways. If (183) has an adjunct, the verb *berreg* ‘throb’ only expresses sound emission when the tractor stands in place, while (183) with a locative argument denotes a motion someplace in some manner accompanied with sound emission.

We should realize that adding a locative argument to the meaning representation of *úszik* ‘swim; float’ and similar verbs entails that the verb class under consideration eventually has to be treated not as increasing the number of arguments but as alternating without any change in the number of arguments, similarly to verbs of spatial configuration (cf. Section 4.1).

Another issue also needs to be discussed in connection with the locative argument which has been argued to pertain semantically to a motion in some manner. A footnote in Chapter 4 added to verbs such as those in (181), mentions that several verbs, e.g. *dülöngél* ‘reel’, *forog* ‘spin’, *fut* ‘run’, *himbálozik* ‘swing’, *imbolyog* ‘totter’, *lebeg* ‘float’, *pattog* ‘bounce (several times)’, *pörög* ‘spin’, *ring* ‘swing’, *szökdecsel* ‘skip’, *szökdel* ‘skip’, *táncol* ‘dance’, *ugrál* ‘jump (several times)’, *ugrik* ‘jump’, denote a manner of motion of not only displacement but also of a change of position. At the same time, the paraphrase ‘being in motion in some manner’ was attributed to the verb *úszik* ‘swim; float’ and the other verbs in (181) in the discussion of their argument structure. Labeling the two distinct kinds of motion as simply motion is in accordance with a view that since motion is not always a displacement but also a change of spatial position, a generalized meaning component MOVE which indicates both motion types is appropriate for semantic representations.¹²⁷

Now we can attempt to explicate the relationship between locative and directional semantic arguments. First of all, I intend to make it unmistakably clear that displaying an additional locative role with a verb cannot be treated by Goldberg’s (1995, 2006) version of Construction Grammar since it is not obvious what happens to this syntactically optional role when this verb integrates into the intransitive activity-motion construction containing a directional role. Furthermore, if one were to agree that we could understand locative phrases “to be coerced into having a directional meaning” by a particular construction, and that the location encoded by locative phrases should be interpreted “to be the endpoint of a path to that location” (Goldberg 1995: 159), the issue of the trigger of such a coercion and

¹²⁷ For such a treatment of MOVE, see Wierzbicka (1996: 82–83).

interpretation would be raised. Pustejovsky (1995) claims that coercion is possible because the lexical representation of the word to be coerced provides grounds for it. Of course, if the LSR of a verb implied both the locative and the directional roles, no difficulty would emerge. Such a solution is offered by my lexical-constructional conception, as follows. The place of an individual or thing, swimming/floating, in general, moving, has an ‘in’ relation (expressed by the inflection *-ban* in (179a) and (180a)) to the place of the reference entity denoted by the inflected noun phrase *a barlangban* ‘in the cave’. By comparison to this, the end point of a swimming/floating individual or thing is nothing other than the end of the path of swimming/floating, i.e. the place which the individual or thing occupies when moving throughout the path of swimming/floating, and which has an ‘in’ relation (expressed by the inflection *-ban*) to the place of the reference entity.

However, directed motion is not limited to reaching the end of a path. There are two deviations from this most typical case. First, the path followed by an agent or a theme may have its final part (or goal) outside the path. Cf.: *a barlang felé úszik* ‘swim/float toward the cave’. Second, the reference entity is not equivalent to any end point included or not included in the path but indicates the location of the whole path. Cf.: *a folyó mentében úszik* ‘swim/float along the river’. Nevertheless, all the three cases of motion are connected to a path having some direction but whose final part is not necessarily focused. As to the meanings of the locative and directional arguments, they share a common element, namely, the relation of the place occupied by the agent or theme to another place. At the same time, the difference between them can also be grasped easily. The directional role contains something more, namely, that the place of the agent or theme, in some way or other, belongs to a path with a particular direction. Let us reword swimming/floating as moving in a particular manner and symbolize generally the relation between places of the agent/theme and reference entity as α . Then one can substitute (184a) for (178), and (184b) is a metalinguistic formalization of (184a):

- (184) a. ‘(X acts so that) X moves in a particular manner so that X’s place (which belongs to a path with a particular direction) has relation α to the place of reference entity marked by R’;
- b. $[[[x \text{ ACT}] :] [[x \text{ MOVE}_m] : [(DIR) [x \text{ LOC}] \alpha r \text{ LOC}]]]$,
where m = a particular manner of motion.

The underspecified meaning representation in (184) – through the components in round brackets – accounts for the alternation not only between agentive and theme subjects but also

between locative and directional arguments. Similarly to how the facultative predicate ACT is activated in one of the constructional meanings, i.e. in the agentive meaning, the component DIR also plays a role in one of the constructional meanings, namely, in the directed motion sense, which requires a directional argument. So, only those manner-of-motion verbs occur with directional phrases whose meanings have a kind of underspecified representation as in (184) containing the optional DIR. If one or another verb does not have such an underspecified meaning representation, it does not alternate in the way discussed. The meaning representation of the verb *inog* ‘wobble’ is more specified because – like the optional component ACT of (184) – the optional component DIR of (184) does not figure in it. Cf. (170a) and (170b), i.e. *A szék (a fal mellett) inog* ‘The chair is wobbling (by the wall)’ and **A szék a fal mellé inog* ‘The chair is wobbling to the wall’. From Subsection 4.1.1.1 you can recall that a sentence like *Péter inog* ‘Péter is wobbling’ does not denote Péter’s volitional motion, except for marked cases when, for instance, he is wobbling following stage directions. The verb *pattog* ‘bounce’, which does not also occur with an agentive subject, has a special property in that it can take a directional phrase. Cf. (148a) and (148b), i.e. *A labda (a fal mellett) pattog* ‘The ball is bouncing (by the wall)’ and *A labda a fal mellé pattog* ‘The ball is bouncing to the wall’. Therefore, the meaning representations of *pattog* ‘bounce’ are underspecified with regard to DIR, but not underspecified with regard to ACT.¹²⁸

What has been said above can be recapitulated in Table 2.

¹²⁸ The verb *pattog* ‘bounce’ should be clearly re-interpreted if it means ‘fume over sg’ as, e.g., in *Fél óráig pattogott egy ártatlan megjegyzés miatt* ‘He/She was fuming over a harmless remark for half an hour’. For such a meaning of the verb, see Bárczi and Országh (1959–1962: V, 690) as well as Pusztai (2003: 1069).

Table 2. Meaning representations of alternating and non-alternating manner-of-motion verbs

	underspecified lexical meaning	specific lexical meaning	constructional meaning	example
<i>úszik</i> 'swim; float'	[[[x ACT] :) [[x MOVE _m] : [(DIR) [x LOC] α r LOC]]]] (= (184b))		[[x ACT] : [[x MOVE _m] : [x LOC α r LOC]]]]	<i>A gyerek a barlangban úszik.</i> 'The boy is swimming in the cave.' (= (179a))
			[[x ACT] : [[x MOVE _m] : [DIR [x LOC] α r LOC]]]]	<i>A gyerek a barlangba úszik.</i> 'The boy is swimming into the cave.' (= (179b))
			[[x MOVE _m] : [x LOC α r LOC]]	<i>Az üveg a barlangban úszik.</i> 'The bottle is floating in the cave.' (= (180a))
			[[x MOVE _m] : [DIR [x LOC] α r LOC v]]	<i>Az üveg a barlangba úszik.</i> 'The bottle is floating into the cave.' (= (180b))
<i>inog</i> 'wobble'		[[x MOVE _m] : [x LOC α r LOC]]		<i>A szék a fal mellett inog.</i> 'The chair is wobbling (by the wall).' (= (170a))
<i>pattog</i> 'bounce'	[[x MOVE _m] : [(DIR) [x LOC] α r LOC]]		[[x MOVE _m] : [x LOC α r LOC]]	<i>A labda (a fal mellett) pattog.</i> 'The ball is bouncing (by the wall).' (= (148a))
			[[x MOVE _m] : [DIR [x LOC] α r LOC]]	<i>A labda a fal mellé pattog.</i> 'The ball is bouncing to the wall.' (= (148b))

5.1.3.2. Alternation in sound emission verbs

First, let us return to (124) and (126), repeated here as (185) and (186).

- (185) a. Péter ordít.
Péter scream.3Sg
'Péter is screaming.'
- b. Péter a folyosóra ordít.
Péter the corridor.Sub scream.3Sg
*'Screaming, Péter is moving into the corridor.'
- (186) Péter kiordít a folyosóra.
Péter out.scream.3Sg the corridor.Sub
*'Screaming, Péter is moving into the corridor.'

As mentioned above, (185b) and (186) only have a sound emission sense: 'Péter is screaming (through the door) into the corridor.' If a verb occurs with an agent argument and the sound is produced by the agent's sound formation organs, it cannot be interpreted as a directed motion even with a directional phrase and preverb together (Ladányi 2008: 310). Thus, neither (185b) with a directional phrase, nor (186) with a preverbal verb and directional phrase yields the directed motion interpretation.

However, a directed motion sense is not excluded even in the presence of an agentive subject. Recall our example with the verb *csattog* 'flap', repeated here as (187).

- (187) a. A fiú csattog a papucsával.
the boy flap.3Sg the slippers.Poss.3Sg.Ins
'The boy is flapping his slippers (while walking).'
- b. A fiú a folyosóra csattog a papucsával.
the boy the corridor.Sub flap.3Sg the slippers.Poss.3Sg.Ins
'The boy is flapping his slippers walking out into the corridor.'

Moreover, the verb *csattog* 'flap; clank' shows the alternation and meaning shift at issue not only with agentive subjects but also with non-agentive ones, e.g. with a vehicle which can move, according to our encyclopedic, or world, knowledge. Consider (188), which repeats (118).

- (188) a. A Dózsa György utca zajos, ott csattog a trolis.
the Dózsa György street noisy there clank.3Sg the trolley_bus
'Dózsa György street is noisy, the trolley bus clanks down it.'

- b. A trolí a Dózsa György utcába csattog.
 the trolley_bus the Dózsa György street.Ill clank.3Sg
 ‘The trolley bus is clanking into Dózsa György street (e.g. because there is a stop).’

Before an analysis of the alternation under discussion in lexical-constructional terms, we should deal with the fact mentioned at the end of Subsection 4.1.1.2 that, contrary to the preverbal version *kicsattog* ‘out.flap.3Sg’ of *csattog* ‘flap.3Sg’, the occurrence of bare sound emission verbs with directional phrases may be still uncommon (Ladányi 2007: 215). Despite the lexically strange character and potential occurrence of several expressions formed as (187b) and (188b), the meaning shift pattern is considered productive (Ladányi 2007: 215). This is fully enough for my lexical-constructional approach, which does not have to assume a full-fledged lexical meaning for the verb in (187) but only an underspecified lexical meaning that underlies specific – perhaps uncommon – constructional meanings; among others, the directed motion meaning. In other words, the lexical-constructional analysis does not suppose a lexicalized proceeding motion sense.

At the same time, one should accurately characterize the condition in the presence of which the directed motion sense constructionally emerges with a verb of sound emission – at least potentially. By contrast, if such a condition is absent, the meaning at issue does not arise, for example, verbs denoting the sound emission by agents’ sound formation organs are excluded from the present alternation. But what is that condition? To answer this question, I examine in detail the idea appearing in Levin and Rappaport Hovav (1995: 191) as well as in Ladányi (2007: 215, 2008: 310), namely, that a verb occurs with a directional phrase or role if sound emission is a concomitant of motion. First of all, what one has to realize is that sound emission is not a consequence of motion. To put it differently, sound must be brought about simultaneously with motion. That is why verbs of sound emission produced as a consequence of the motion of sound formation organs are not suitable for the alternation discussed (Gecső 2003: 74). Second, one has to take into consideration that the verb *csattog* ‘flap; clank’ and other similar verbs in 4.1.1.2, such as *berreg* ‘throb’, *cuppog* ‘squelch’, *csikorog* ‘squeak’, *csörömpöl* ‘clank’, *dübörög* ‘rumble’, *nyikorog* ‘squeak’, *pöfög* ‘chuff’, *süví* ‘howl’, *zakatol* ‘rattle’, *zörög* ‘clattle’, *zúg* ‘hum’, *zűmmög* ‘buzz’, etc., do not necessarily denote sound emission coming into being together with a proceeding motion. The boy can emit sound when the slippers do not move to an end point, for example, when the boy walks about in his slippers. Without doubt, the sense ‘motion accompanied with sound emission’ connected to (187b) can only come into existence in the case of sound emission during **directed, or**

proceeding, motion of the boy wearing the slippers. Third, although the sounds are actually emitted by the slippers (cf. Levin and Rappaport Hovav 1995: 190–191), sound emission is predicated of the boy wearing them and moving in a particular direction. The slippers can also produce sound when the boy claps them. But in this case motion precedes sound emission. Moreover, this sound emission is not connected to the boy’s directed motion. Similarly, sound produced by the vocal tract is not a consequence of motion only, it is not even caused by an agent’s proceeding motion. Fourth, as the above discussion indicates, there is another possible meaning which has not been identified in the literature so far and which relates to sound emission during motion **in some manner** (e.g., the boy walks about in his slippers, see (187a)). Cf. also the second interpretation of the verb *berreg* ‘throb’ in the example *A traktor a szántóföldön berreg* (see (183)), i.e. ‘motion someplace in some manner accompanied with sound emission’.

Being in possession of all the necessary information, we can establish the meaning representations of alternating sound emission verbs. My proposal consists of the following essential aspects, illustrated through the example of *csattog* ‘clap; flap; clank’. Its underspecified representation includes the component ACT in round brackets because the event may be carried out either by agents or non-agents.¹²⁹ Furthermore, it needs MOVE and the related LOC, but again in round brackets because agents or non-agents do not move necessarily. Since the corresponding sound may be evoked not only together with directed motion, DIR referring to the path is also involved optionally. If there is a motion event, it can be connected to the event of sound emission by the predicate CAUSE. Now, one can depict the underspecified representation of the verb *csattog* ‘clap; flap; clank’ as follows.

- (189) a. ‘the event “(X acts so that) (X moves in a particular manner so that X’s place (which belongs to a path with a particular direction) has relation α to the place of reference entity marked by R” causes) the event “X emits some particular sound”’;

¹²⁹ For non-agents other than themes (e.g. *a trolis* ‘trolley bus’ above), see Ladányi’s (2008: 309) examples in (i) and (ii).

(i) A hullámok a partra csapnak.
the wave.PL the riverside.Sub strike.PL.3Sg
‘The waves are striking the riverside.’

(ii) A szél a kunyhóba süvít/zúg.
the wind the shack.Ill howl.3Sg/hum.3Sg
‘The wind is howling/humming into the shack.’

- b. [[([x ACT] :) ([x MOVE_m] : [(DIR) [x LOC] α r LOC])] CAUSE)
[x EMIT_SOUND_s]],
where m = a particular manner of motion and s = a particular sound.

Thus, one can state that the verb *csattog* ‘clap; flap; clank’ alternates as in (187b) because having added to LOC, the optional DIR makes accessible the sense ‘sound emission during directed motion’.

As for the verbs *ordít* ‘scream’ and *kiordít* ‘scream out’ in (185b) and (186), respectively, they could not alternate because sound emission is only the consequence of motion of sound formation organs and, moreover, this sound emission is not connected to the agent’s directed motion. In terms of their meaning representations, unlike (189), they are not underspecified in respect to ACT, which is obligatory for them, as well as to MOVE and the related components, which, in turn, are missing. Thus, *ordít* ‘scream’ and *kiordít* ‘scream out’ express sound emission but not directed motion together with sound emission. Consequently, the meaning representation of *ordít* ‘scream’ and *kiordít* ‘scream out’ can be depicted as in (190).¹³⁰

- (190) a. ‘X acts so that X emits some particular sound’;
b. [[x ACT] : [x EMIT_SOUND_s]], where s = a particular sound.

What has been said in Subsection **5.1.3.2** is recapitulated in Table 3.

¹³⁰ For the sake of simplicity the additional meaning supplied by the preverb *ki-* ‘out’ is left out of consideration.

Table 3. Meaning representations of alternating and non-alternating sound emission verbs

	underspecified lexical meaning	specific lexical meaning	constructional meaning	example
<i>csattog</i> ‘clap; flap; clank’	[[[x ACT] :] ([x MOVE_m] : [(DIR) [x LOC] α r LOC]]] CAUSE) [x EMIT_SOUND_s]] (= (189b))		[[[x ACT] : [x MOVE_m] : [x LOC α r LOC]]] CAUSE [x EMIT_SOUND_s]]	<i>A fiú csattog a papucsával.</i> ‘The boy is flapping his slippers (while walking).’ (= (187a))
			[[[x ACT] : [x MOVE_m] : [DIR [x LOC] α r LOC]]] CAUSE [x EMIT_SOUND_s]]	<i>A fiú a folyosóra csattog a papucsával.</i> ‘The boy is flapping his slippers walking into the corridor.’ (= (187b))
			[[[x MOVE_m] : [x LOC α r LOC]]] CAUSE [x EMIT_SOUND_s]]	... <i>ott csattog a trolí.</i> ‘... the trolley bus clanks down it.’ (= (188a))
			[[[x MOVE_m] : [DIR [x LOC] α r LOC]]] CAUSE [x EMIT_SOUND_s]]	<i>A trolí a Dózsa György utcába csattog.</i> ‘The trolley bus is clanking into Dózsa György street.’ (= (188b))
			[x ACT] : [x EMIT_SOUND_s]]	<i>A fiú csattog a papucsával.</i> ‘The boy is clapping his slippers (with his hands).’ ¹³¹
<i>ordít</i> ‘scream’		[x ACT] : [x EMIT_SOUND_s]] (= (190b))		<i>Péter a folyosóra ordít.</i> ‘Péter is screaming (through the door) into the corridor.’ (= (185b))

¹³¹ In this case there is even a non-agent variant of sound emission situations, not mentioned above, cf. *A papucs csattog* ‘The slippers are clapping’. It is obvious that such an example easily finds its place in my analysis.

5.1.3.3. Alternation in verbs denoting a particular spatial configuration

Let us turn to the lexical-constructional account of the third case of alternations in examples such as (159), which is given now as (191).

(191) a. Péter (a szőnyegen) áll.
 Péter the carpet.Sup stand.3Sg
 ‘Péter is standing on the carpet.’

b. Péter a szőnyegre áll.
 Péter the carpet.Sub stand.3Sg
 ‘Péter steps onto the carpet.’

As a starting point one can think of the verb *áll* ‘stand’ and other similar verbs such as *fekszik* ‘lie’, *guggol* ‘crouch’, *hasal* ‘lie on one’s stomach’, *hever* ‘lie around’, *könyököl* ‘lean on one’s elbow’ (see (182)) that their meaning indicates the non-dynamic and locative component BE_p, where p = a particular position. Now one faces the question of whether it is possible to find an underspecified meaning representation, and if so, how it can be motivated, which, besides the non-dynamic and locative BE_p, also contains the component MOVE. Recall that above I offered to link the possibility of motion with the presence of an agent. Consequently, the lexical representation of the verbs at issue includes the component ACT, but optionally, because these verbs can occur with theme subjects (cf. (175a), i.e. *A váza az asztalon áll* ‘The vase is on the table’). What is more important at present is that, as our world knowledge dictates, X can typically occupy some place if X carries out some activity which – typically again – is nothing other than X’s motion to an end point. Actually, it is more specific motion than in the case of the alternation of manner-of-motion and sound emission verbs because it is not only a path that is necessary, but also its distinguished part; i.e. the end point, has to appear in the LSRs of verbs under investigation. Cf. *a szőnyeg felé áll*, which is an expression with a directional phrase not indicating the final part of a path and which is ungrammatical with the intended meaning ‘step toward the carpet’. Therefore, MOVE and FIN are optional elements of verbs’ meaning representation not simply because the verbs denoting being in a particular spatial configuration can occur with theme subjects, but also because those components become constituents, although optional, of a meaning representation on the basis of our world knowledge. Thus, the following meaning representation is offered for the verb *áll* ‘stand’:

(192) a. ‘(X acts (so that X moves in a particular manner so that X’s place which is the end point of a path

has relation α to the place of reference entity marked by R) so that
 X is in a particular spatial position so that X's place
 has relation α to the place of reference entity marked by R';

- b. [([[x ACT] (: [[x MOVE_m] : [FIN [x LOC] α r LOC]])] (:
 [[x BE_p] : [x LOC α r LOC]])],
 where m = a particular manner of motion and p = a particular spatial position.

Unlike the underspecified LSRs of *úszik* 'swim; float' and *csattog* 'clap, flap; clank' in (184) and (189), respectively, the formula (192) contains MOVE and its argument in round brackets inside round brackets. It is in accordance with the double optional character of the motion which was indicated above. Thus, (192) correctly predicts the behavior of *áll* 'stand' with regard to alternation. The involvement of typically extant directed motion into the meaning representation provides enough motivation for the verb to express not only being in a spatial configuration but also assuming such a position through motion to an end point.¹³² It is worth noticing that since the bracketed components of directed motion figure in a wider scope of other brackets, the former can play a role together with the latter. Thus, (192) allows appearance of the directed motion sense only in the presence of an agentive subject activated by that very component ACT. Therefore, in the case of a theme subject, the meaning of directed motion is excluded on the basis of (192), which is attested by (175b), i.e. **A váza az asztalra áll* 'The vase steps onto the table'. Consequently, (192) embraces all three of the senses of verbs of spatial configuration which are mentioned by Levin and Rappaport Hovav (1995: 127), namely those of maintain position, assume position and simple position. Moreover, (192) expresses their connections and the relation between locative and directional phrases, which are not explicitly indicated by Levin and Rappaport Hovav (1995).

If verbs have lexically more specific meanings, the alternation does not take place at all. The verbs *függ* 'hang' and *heverészik* 'lie around' in (160) and (161), respectively, are more specific because typical directed motion is not connected to being in a particular spatial configuration. Cf. (160b) and (161b), i.e. **A fiú a bordásfalra függ* 'The boy hangs onto the wall-bars' and **A fiú az ágyra heverészik* 'The boy lies around onto the bed'. For that reason no directional argument is possible. By contrast, the verb *heveredik* 'lie down at full length' in (162) is specific in the opposite way, namely, directed motion is obligatorily characteristic of it. Cf. (162b): *A fiú az ágyra heveredik* 'The boy lies down at full length onto the bed' but

¹³² The occurrence of the verbs *slice* and *grate* with directional phrases in (165) and (166) can be accounted for in a similar way: the change of state **typically** implies that some parts of an entity **move to an end point**. For details, see the next subsection below.

(162a): **A fiú az ágyon heveredik* ‘The boy is lying down at full length on the bed’. In other words, that sense does not alternate with being in a spatial position. Nevertheless, with respect to theme subjects the three verbs also behave differently. While the verb *függ* ‘hang’ can occur with that type of subject (cf. *A kép az óra mellett függ* ‘The picture hangs beside the clock’, the two others cannot, except for fairy tale situations (cf. **A kép az asztalon heverészik* ‘The picture is lying around on the table’ and **A kép az asztalra heveredik* ‘The picture lies down at full length onto the table’). So, the first verb has a representation with an optional, i.e. bracketed, ACT, but the others have it obligatorily.

Consider Table 4, where a summary is given of what has been said in the present subsection.

Table 4. Meaning representations of alternating and non-alternating verbs of being in or assuming a particular spatial configuration

	underspecified lexical meaning	specific lexical meaning	constructional meaning	example
<i>áll</i> ‘stand’	[[([x ACT] (: [[x MOVE _m] : [FIN [x LOC] α r LOC]])) : [[x BE _p] : [x LOC α r LOC]]] (= (192b))		[[x ACT] : [[x BE _p] : [x LOC α r LOC]]]	<i>Péter a szőnyegen áll.</i> ‘Péter is standing on the carpet.’ (= (191a))
			[[[x ACT] : [[x MOVE _m] : [FIN [x LOC] α r LOC]]] : [[x BE _p] : [x LOC α r LOC]]]	<i>Péter a szőnyegre áll.</i> ‘Péter steps onto the carpet.’ (= (191b))
			[[x BE _p] : [x LOC α r LOC]]	<i>A váza az asztalon áll.</i> ‘The vase is on the table.’ (= (175a))
<i>függ</i> ‘hang’	[[([x ACT] :) [[x BE _p] : [x LOC α r LOC]]] ¹³³		[[x ACT] : [[x BE _p] : [x LOC α r LOC]]]	<i>A fiú a bordásfalán függ.</i> ‘The boy is hanging on the wall-bars.’ (= (160a))
			[[x BE _p] : [x LOC α r LOC]]	<i>A kép az óra mellett függ.</i> ‘The picture hangs beside the clock.’
<i>heverészik</i> ‘lie around’		[[x ACT] : [[x BE _p] : [x LOC α r LOC]]]		<i>A fiú az ágyon heverészik.</i> ‘The boy is lying around on the bed.’ (= ((161a))
<i>heveredik</i> ‘lie down at full length’		[[x ACT] : [[x MOVE _m] : [FIN [x LOC] α r LOC]]]		<i>A fiú az ágyra heveredik.</i> ‘The boy is lying down at full length onto the bed.’ (= (162b))

¹³³ In accordance with the above discussion, this representation is not underspecified in respect to being in or assuming a spatial position but it is in respect to agentive or theme subjects.

5.1.3.4. The way verbs of cutting take directional phrases

Consider the English examples in (165) and (166) repeated as (194a) and (194b), as well as the Hungarian example in (193) repeated as (195).

(194) a. The salesman sliced the salami onto the wax paper.

b. The mother grated the cheese onto the macaroni.

(195) Az eladó a zsírpapírra szeletelte / vágta
 the salesman the wax_paper.Sub slice/cut.Past.DefObj.3Sg
 a kolbászt.
 the salami.Acc
 ‘The salesman sliced/cut the salami onto the wax paper.’

In connection with (194) and (195) a question arises: how can oblique directional phrases appear with these cutting verbs? According to Construction Grammar (Goldberg 1995, 2006), verbs typically denoting causation of a change of state (the verbs in (194) and (195) belong to this category) can be fused with the caused-motion construction if causation implies some incidental motion because this motion may be specified by the directional phrase of the caused-motion construction. For example, in (194a), the salami normally falls from the slicer and in (194b) the cheese from the grater. That is why one can use the verbs in (194) and also in (195), which themselves are instantiations of caused-motion construction. Notice that slicing, grating and cutting in the described way relate to the given verbs only in a neutral, or typical, context and this eventually depends on **our world knowledge**. One can easily imagine a salami-slicer which slices salami directly inside a container which does not allow the salami to move after being sliced. It is obvious that such an event of slicing cannot be expressed by a caused-motion construction.

In Construction Grammar, this property of state-of-change verbs is accounted for in terms of semantic generalizations or constraints. However, in my lexical-constructional approach, more elaborated and complex LSRs are argued for than those used in Construction Grammar. It is this type of LSR that capture the semantic generalization under investigation and provide grounds for state-of-change verbs to appear with directional phrases. To reach this type of representation, we can take the Hungarian verb *vág* ‘cut’ as an illustration and start from its (core) meaning representation provided in (67) of 2.3.2 and repeated here as (196).

(196) a. ‘acting such that using Z, X causes Y to become not whole’;

- b. [[[x ACT] : [x USE z]] CAUSE [[BECOME [y not WHOLE]]].

Now compare the following examples:

(197) Péter vágja a kenyeret.
 Péter cut.DefObj.3Sg the bread.Acc
 ‘Péter is cutting the bread.’

(198) Péter szeleteket vág a kenyérből.
 Péter slice.Pl.Acc cut.3Sg the bread.Ela
 ‘Péter is cutting slices from the bread.’

In contrast with (197), what is cut in (198) is not an existing object but something that comes into being through that activity. In other words, the event under consideration results in pieces of bread. One can cope with the use of the verb in (198) as follows. When cutting *Y* does not only cause *Y* to become not whole, but also to be divided into separate pieces, some parts *W* (of *Y*) also come into existence. Therefore, instead of (196) the meaning of *vág* ‘cut’ decomposed into semantic predicates can be given as (199):

- (199) a. ‘acting such that using *Z*, *X* causes *Y* to become not whole (such that *W* to become existing)’;
- b. [[[x ACT] : [x USE z]] CAUSE [[BECOME [y not WHOLE]] (: [BECOME [w EXIST]])]],
 where 1. *w* = parts of *y*, i.e. [*w* PARTS_OF *y*],
 2. the round brackets express optionality.

From a syntactic point of view, it is important that because they are connected to BECOME semantically in the same – indirect – way, both *y* and *w* can occur as a (direct) object (cf. (197) vs. (198)). In addition, the variables *y* and *w* can be expressed syntactically together in one sentence. Cf.:

(200) Péter szeletekre vágja a kenyeret.
 Péter slice.Pl.Sub cut.DefObj.3Sg the bread.Acc
 ‘Péter is cutting up the bread.’

Developing the LSR in (199) further, we should take into account the following: parts indicated by the variable *w* typically – as **world knowledge** dictates – move and occupy a spatial position while becoming not whole. This piece of typical, encyclopedic information should be built into (199) as its optional part in round brackets, like the fragment [BECOME

[EXIST w]], which is also optional and specified by the former piece of information. Now one obtains a modified representation for the (core) meaning of *vág* ‘cut’:

- (201) [[[x ACT] : [x USE z]] CAUSE [[[BECOME [y not WHOLE]]
(: [[BECOME [w EXIST]] (: [w MOVE_TO v]])]],
where 1. w = parts of y , i.e. [w PARTS_OF y],
2. the round brackets express optionality.

Here there are two remarks in order, concerning (201). First, since the component of motion in round brackets figures in a wider scope of other round brackets, the former can play a role together with the latter. Thus, (201) allows the appearance of the motion sense only in a case in which cutting results in not only becoming not whole but also being divided into parts, which is in full accordance with our every-day knowledge. Second, the semantic predicate MOVE_TO can be decomposed further, as (192) suggests. Therefore, the fragment “(: [w MOVE_TO v])” in (201) may be completed as follows: (: [[w MOVE_m] : [FIN [x LOC] α r LOC]]).

5.1.3.5. Interim conclusions

To conclude Subsection 5.1.3 regarding all four kinds of alternations resulting in directional phrases, I want to make the following statement. Not only does the formulation of conditions of alternations, namely, the possibility of motion along a path, or sometimes – as a more specific subcase – even to an end point, connect constructional meanings to the corresponding underspecified meanings, but also the same fragment of underspecified meanings naturally motivates the constructional meaning ‘directed motion’ in all four cases of alternations. Thus, one can account for the change in **four kinds of syntactic argument structures** with the help of **a single meaning scheme**. In view of the totality of the alternating verbs discussed, the part of underspecified representations, necessary for the identification of the relevant semantic classes of verbs and for the appearance of the directed motion sense, can be depicted as (202):¹³⁴

- (202) a. ‘X moves in a particular manner so that X’s place,
which belongs to a path with a particular direction or
which is the end point of a path,
has relation α to the place of reference entity marked by R’;
- b. [[x MOVE_m] : [DIR/FIN [x LOC] α r LOC]],
where m = a particular manner of motion.

¹³⁴ The formula is generalized so that I use x as a variable.

Thus, the lexical-constructional approach to syntactic alternations proposes underspecified but encyclopedically and pragmatically enriched meaning representations containing explicitly such information that causes a syntactic pattern change of whole verb classes. In comparison with rival lexical and constructional conceptions, the lexical-constructional treatment of syntactic alternations has more predictive force and gives a more general explanation in the sense that it provides a clearer motivation of alternating syntactic structures.

As to the application of the lexical-constructional theory to Hungarian verb classes, its results include the following:

- (i) underspecified meaning representations predict constructional meanings appearing due to syntactic alternations,
- (ii) the lack of alternations can be explained by the specific meanings which verbs have because of idiosyncratic lexicalizations,
- (iii) the analysis of some verb classes handled separately in previous research can be generalized further: they can be collectively referred to as one group through a meaning scheme (template) containing the shared properties of the verb classes (see (202)).

5.2. Locative alternation in Hungarian and Russian

5.2.1. Hungarian locative alternation: a competition of treatments

In the present subsection, the locative alternation, i.e. the change of a locative phrase with an instrumental phrase, is investigated in Hungarian (for earlier pertaining work of mine, see Bibok 2008 and 2014c). To begin with, consider the following example, where the verb *ken* ‘smear’ occurs with two complement frames. See (203), which repeats (135).

- (203) a. Az anya zsírt ken a kenyérré.
 the mother fat.Acc smear.3Sg the bread.Sub
 ‘The mother is smearing fat on the bread.’
- b. Az anya zsírral keni a kenyeret.
 the mother fat.Ins smear.DefObj.3Sg the bread.Acc
 ‘The mother is smearing the bread with fat.’

Other verbs which the same syntactic behavior is characteristic of are listed in (204) (cf. 4.1.2.2).

- (204) *fest* ‘paint’, *fröcsköl* ‘splash’, *hint* ‘dust; sprinkle’, *ken* ‘smear’, *locsol* ‘water; sprinkle’, *mázol* ‘paint’, *öntöz* ‘water; sprinkle’, *permetez* ‘spray; sprinkle’, *spriccel* ‘spray’, *tölt* ‘fill’, *töm* ‘cram’, etc.

As mentioned in 4.2, there is a lexicographic tradition that treats occurrences of a word with different syntactic patterns as instances of polysemy if they figure and are separated in a dictionary at all (cf. the notion of sense enumerative lexicon in Pustejovsky 1995). Thus, the locative alternation of the verb *ken* ‘smear’ can be found as a double enumeration in both Bárczi and Országh’s (1959–1962) and Puzstai’s (2003) dictionaries: see the first and second meanings of the entries at stake.

Csirmaz (2008: 221) and Laczkó (2000b: 101) propose distinct semantic role sets for the two variants of a verb exhibiting the locative alternation. Besides an agent there are either a theme and a location or a theme and a mass (or in Laczkó’s terminology: instrumental material).¹³⁵ While Laczkó takes the verb *rak* ‘load’ with various preverbs: *felrak* ‘up.load’ and *ráarak* ‘onto.load’ for the locative variant or *megrak* ‘perf.load’ for the instrumental variant,¹³⁶ Csirmaz uses the verb *ken* ‘smear’ without preverbs in both syntactic patterns but offers two lexical entries according to the two argument structures. Nevertheless, they agree that with both variants the theme is the same role independently of the opposite role that the same entity plays in the other syntactic structure. To put it differently, both *zsírt* ‘fat.Acc’ in (203a) and *a kenyéret* ‘the bread.Acc’ in (203b) play the same theme role despite that the former in (203b) is means and the latter in (203a) location. However, there arise questions how such semantic role specifications of either of variants are connected with the meanings of a verb and how their change is motivated by them. Furthermore, what is the relation between

¹³⁵ The location should also be termed as goal. In the sense of the instrumental material the term *means* was used in the previous chapters (cf., e.g., the description of Verbal class № 4.1.9 in Chapter 3).

¹³⁶ As one can see, Laczkó deals with the locative alternation in a broader sense when the verbal stem can be subjected to word-formation operations. Realize in passing that *rak* ‘load’ is not listed in (204) where verbs alternating in a stricter sense, i.e. without any extra word-formational morpheme, figure. Whereas the verb *rak* ‘load’ may appear without a preverb in (a)-type sentences, it obligatorily occurs with the perfective preverb *meg-* in (b)-type sentences. Cf.:

- | | | | | | |
|-----|----|---------------------------------------|-----------------|-----|--------------------|
| (i) | a. | Péter szénát | rak | a | szekérre. |
| | | Péter hay.Acc | load.3Sg | the | cart.Sub |
| | | ‘Péter is loading hay onto the cart.’ | | | |
| | b. | *Péter szénával | rakja | a | szekeret. |
| | | Péter hay.Ins | load.DefObj.3Sg | the | cart.Acc |
| | | ‘Péter is loading the cart with hay.’ | | | |
| | c. | Péter megrakja | | a | szekeret szénával. |
| | | Péter perf.load.DefObj.3Sg | | the | cart.Acc hay.Ins |
| | | ‘Péter loads the cart with hay.’ | | | |

the two sets of roles and what relates the two occurrences of verbs such as *ken* ‘smear’ in (203) to each other?¹³⁷

These questions are addressed in lexical rule and constructional approaches by attempting to elaborate their own version which exceeds the fixation of various lexical representations to capture polysemy induced by the syntactic alternation at issue.

5.2.1.1. The lexical rule approach

A lexical rule operates on the semantic representation of a lexical item and in doing so creates a new lexical item. The following lexical rule can be proposed for the locative alternation of the verb *ken* ‘smear’ in (203) and of other verbs in (204) (cf. Pinker 1989: 79).

(205) If there is a verb with the semantic structure ‘X causes Y to move into/onto Z’, then it can be converted into a verb with the semantic structure ‘X causes Z to change state by means of moving Y into/onto it’.

Three remarks are in order in connection with the formulation of the lexical rule in (205). First, the relationship between the two semantic representations, in fact, are two-directional, i.e., the former representation can also be reached from the latter (cf. Pinker 1989: 80). Second, unlike traditional lexicography, (205) does not present the relationship between two LSRs but two lexical items. Third, despite the wide-spread assumption (see Ackerman 1992 and Csirmaz 2008: 221, among others), Z in the ‘with’-variant is not necessarily affected totally as attested by (203b) while the verb *ken* ‘smear’ with the preverb *meg-* in such a construction (recall (100b): *Az anya megkeni a kenyeret zsírral* ‘The mother smears the bread with fat’) denotes an event in which the bread is totally affected (for another example, see (ic) in fn. 136).¹³⁸ Cf. also Levin’s (1993: 50) remark, according to which “a statement involving the notion “holistic” is not entirely accurate”.

Now recall the claim in 4.1.2.2 that the presence of either of the complement frames does not necessarily make the other variant available. To put it the other way round, one can encounter both verbs with a locative but without an instrumental phrase and verbs with an

¹³⁷ As to the relation between the two occurrences of verbs taking part in the locative alternation, Ackerman (1992) does not provide a solution either when he treats the variants by specifying the semantic roles with general syntactic features in different ways on the basis of proto-role properties.

¹³⁸ That is why in the Hungarian formulation of ‘X causes Z to change state’ (Bibok 2008: 29), the Hungarian counterpart of *change* is a verb without or with a preverb, i.e. *változik* or *megváltozik*. In addition, Csirmaz (2008: 221) argues for total affectedness with respect to Y in the locative variant, which also seems to be wrong, as shown by (203a).

instrumental but without a locative phrase. These two kinds of verbs are exemplified by (137) and (139), repeated here as (206) and (207).

- (206) a. Az anya vizet önt a virágra.
 the mother water.Acc pour.3Sg the flower.Sub
 ‘The mother is pouring water onto the flower.’
- b. *Az anya vízzel önti a virágot.
 the mother water.Ins pour.DefObj.3Sg the flower.Acc
 ‘The mother is pouring the flower with water.’
- (207) a. *Az anya csokoládémázat fed a süteményre.
 the mother chocolate_coating.Acc cover.3Sg the cookie.Sub
 ‘The mother is covering chocolate coating onto the cookie.’
- b. Az anya csokoládémázzal fedi a süteményt.
 the mother chocolate_coating.Ins cover.DefObj.3Sg the cookie.Acc
 ‘The mother is covering the cookie with chocolate coating.’

Thus, a lexical rule approach should be completed in order to exclude the cases in (206) and (207) from the scope of the lexical rule in (205). Although meaning shifts taking place in the locative alternation are of regular character, the limits of their occurrences have to be fixed in the lexicon of a given language.¹³⁹ Therefore, besides a lexical rule one establishes narrow semantic classes whose members – and only those members – the rule at hand can be applied to. In other words, (205) is the necessary condition of the locative alternation; its sufficient condition, however, seems to be that the verb at issue belong to one of the narrow semantic classes. Pinker (1989: 126–127) lists six classes of English locative alternation verbs. They are given in (208), which specifically indicates where the locative alternation can and cannot be attested in Hungarian.

- (208) a. *Smear-class*: ‘Simultaneous forceful contact and motion of a mass against a surface.’ Cf.: *zsírt ken a kenyérre* ‘smear fat on the bread’ – *zsírral keni a kenyeret* ‘smear the bread with fat’.
- b. *Pile-class*: ‘Vertical arrangement on a horizontal surface.’ In Hungarian there is no alternation, unlike English: *téglákat halmozott a székre* – **téglákkal halmozta a széket* vs. *heap bricks on the stool* – *heap the stool with bricks*.

¹³⁹ Cf. the following citation from Levin and Rappaport Hovav (1996: 503) mentioned in 5.1.1: “regular and productive, although their existence and scope need to be stipulated in the lexicon of a language”.

- c. *Splash*-class: ‘Force is imparted to a mass, causing ballistic motion in a specified spatial distribution along a trajectory.’ Cf.: *vizet fröcsköl a falra* ‘splash water on the wall’ – *vízzel fröcsköli a falat* ‘splash the wall with water’.
- d. *Scatter*-class: ‘Mass is caused to move in a widespread or non-directed distribution.’ In Hungarian there is no alternation, unlike English: *magot szórt a földbe* – **maggal szórta a földet* vs. *scatter seeds onto the field* – *scatter the field with seeds*.
- e. *Cram*-class: ‘A mass is forced into a container against the limits of its capacity.’ Cf.: *ruhákat töm a bőröndbe* ‘cram clothes into the suitcase’ – *ruhákkal tömi a bőröndöt* ‘cram the suitcase with clothes’.
- f. *Load*-class: ‘A mass of a size, shape, or a type defined by the intended use of a container is put into the container, enabling it to accomplish its function.’ Cf.: *vizet tölt az üvegbe* ‘fill water into the bottle’ – *vízzel tölti az üveget* ‘fill the bottle with water’. However, another verb, namely *rak* ‘load’, which also seems to belong to this class, does not alternate, as indicated in the footnote 136: *szénát rak a szekérre* ‘load hay onto the cart’ – **szénával rakja a szekeret* ‘load the cart with hay’.

Three additional remarks concerning (208) are in order. First, whereas in Hungarian there is no alternation like (208d), a morphologically derived verb *beszór* ‘scatter’, containing the preverb *be-* ‘in’, alternates syntactically in a broad sense: *beszórja a földet maggal* ‘scatter the field with seeds’. Cf. also: **szénával rakja a szekeret* ‘load the cart with hay’ in (208f) but *megrakja a szekeret szénával* ‘load the cart with hay’ in (ic) in the footnote 136. Second, Pinker himself (1989: 126) admits that the *with*-variant of *scatter* in (208d) could be marginal for some English speakers. Goldberg (1995: 239, fn. 15) belongs to the latter group because relying on some source (presumably on her intuition) she doubts the existence of the alternating *scatter*-class. However, according to The Collins Cobuild English Dictionary for Advanced Learners (³2001) the verbs *sow* and *strew* mentioned in that class by Pinker (1989: 126) occur with both syntactic patterns under consideration. Third, the full list of English locative alternation verbs also includes two one-member sets: *string* (the Hungarian equivalent does not alternate) and *wrap* (Pinker 1989: 127).

To explain that the verb *ken* ‘smear’ alternates syntactically as in (203) one needs now to supplement the lexical rule in (205) with the indication of the semantic structure characteristic of the *smear*-class in (208a), which *ken* ‘smear’ belongs to. Furthermore, an account of the non-alternating behavior of *önt* ‘pour’ and *fed* ‘cover’ simply means that their meanings do not correspond to any of the semantic classes in (208). Rather, these Hungarian verbs occur in non-alternating verb classes similar to those established by Pinker (1989: 126–

127) for English verbs, namely, in the *dribble*-class ('a mass is enabled to move via the force of gravity') and in the *inundate*-class ('a layer completely covers a surface'), respectively. At the same time, the alternating and non-alternating narrow semantic classes seem to face some problems if they are further investigated.¹⁴⁰ Consider (209).

- (209) a. Az apa (véletlenül/szándékosan) kávéét löttyent
 the father incidentally/intentionally coffee.Acc spill.3Sg
 az asztalterítőre.
 the tablecloth.Sub
 'The father (incidentally/intentionally) spills coffee on the tablecloth.'
- b. *Az apa (véletlenül/szándékosan) kávéval löttyenti
 the father incidentally/intentionally coffee.Ins spill.DefObj.3Sg
 az asztalterítőt.
 the tablecloth.Acc
 'The father (incidentally/intentionally) spills the tablecloth with coffee.'

As (209) seems to indicate, *löttyent* 'spill' does not alternate. An account of this fact can consist in a statement that the meaning of the given verb – like that of *önt* 'pour' – is fairly similar to the semantic structure of the *dribble*-class ('a mass is enabled to move via the force of gravity'). However, one can realize that *löttyent* 'spill' means more than motion caused by gravity since a different force causes the ballistic motion of a mass. Thus, *löttyent* 'spill' could enter the alternating *splash*-class in (208c), cf. 'force is imparted to a mass, causing ballistic motion in a specified spatial distribution along a trajectory'. It could be objected that motion does not come about in a sufficiently specified manner. This objection is eliminated by a well-formed example containing the verb *löttyent* 'spill' with the preverb *le-* 'down', which does not affect how the mass moves. Cf.:

- (210) Az apa (véletlenül/szándékosan) lelöttyenti
 the father incidentally/intentionally down.spill.DefObj.3Sg
 az asztalterítőt kávéval.
 the tablecloth.Acc coffee.Ins
 lit. 'The father (incidentally/intentionally) spills down the tablecloth with coffee.'

¹⁴⁰ Pinker (1989: 395–396, fn. 12) assumes that the verb *sprinkle* behaves as an alternating verb on the basis of its phonological similarity to others. As to ditransitivizable verbs, he (1989: 118–123) emphasizes the role of morphological constraints.

After all, putting a verb in a narrow semantic class does not correlate with the alternating and non-alternating syntactic behavior of this verb alone and with a preverb not affecting the character of the movement.¹⁴¹

To recapitulate where we have arrived with the help of lexical rules applied to narrow semantic classes of verbs, we should say that even lexical idiosyncrasy plays some role, in addition to lexical rules which are made more precise. Such a double character is acknowledged, at least implicitly, by the theory itself (see narrow semantic classes vs. one-word classes and the factor of phonological similarity) and is highlighted by the present investigation. Thus, the meaning brought about by a meaning shift is grasped as a **lexical** phenomenon but not as a meaning occurring in a **particular syntactic structure**. A constructional kind of conception approaches meaning shifts and syntactic alternations from the latter point of view.

5.2.1.2. The constructional approach

Since the main tenets of Goldberg's (1995, 2006) Construction Grammar relevant to the treatment of syntactic alternations have already been outlined in connection with verbs which can become directional motion verbs, I confine myself to a brief reproduction of the details from Subsection 5.1.2, indispensably necessary from the perspective of the locative alternation. As you will remember, according to Construction Grammar (Goldberg 1995, 2006), constructions are form–meaning pairs. Distinct constructions are defined as constructions some of whose properties cannot be predicted from a knowledge of other constructions. They exist independently of particular verbs and determine syntactic structures. In each construction, the meaning of the verb is fused with that of the construction. One part of its semantic representation plays a crucial role, namely, participant roles. These are verb-specific roles which have to be distinguished from more general argument roles figuring in the semantic part of constructions, such as agent, theme or goal.

Applying the machinery of Construction Grammar to syntactic alternations, let me cite once again Goldberg's (1995: 176–177) own example of the locative alternation. The LSR of the verb *slather* contains the following participant roles:

(211) *slather* <slatherer, thick-mass, target>

¹⁴¹ The astute reader may have recognized that the same problem is attested by the different patterns of *rak* 'load' and *megrak* 'perf.load' in (208f).

The three participant roles of *slather* are compatible with the argument roles of both the caused-motion construction and the causative-plus-*with*-adjunct construction. The first construction has three argument roles: a cause, a theme and a goal (directional). The two kinds of role sets can be fused with each other because the slatherer is semantically construable as a cause, the thick-mass as a theme since it undergoes a change of location, and the target as a directional. Cf.:

(212) Sam slathered shaving cream onto his face.

In the case of the second construction, fusing the slatherer with the first argument is the same as above. The target can be construed not only as a directional but also as a patient in that the entity which is slathered on is affected. Since the third participant role of *slather* requires that it be expressed, a *with*-phrase emerges even though in the framework of Construction Grammar it is an adjunct of the corresponding construction. Cf.:

(213) Sam slathered his face with shaving cream.

Thus, if the participant roles of a verb are compatible with the argument structure of two constructions, this verb occurs in syntactically alternating structures (cf. Goldberg 1995: 179). At the same time, if someone believes that argument roles assigned to the mass and the target are named somewhat confusingly, she will immediately see below how they follow from the internal structure of LSRs in the lexical-constructional framework instead of being labeled in an external way.¹⁴²

5.2.1.3. The lexical-constructional approach

In the preceding sections we have seen that both lexical and constructional factors play a role in syntactic alternations. Therefore, the advantages of the lexical and constructional theories together provide a better way of investigating syntactic alternations than each theory does separately. Moreover, in doing so, the shortcomings of the rivaling lexical and constructional conceptions can be overridden. Hence, a lexical-constructional explanation of the locative alternation could be offered, the main tenets of which were put forward first in Bibok (2008), then in Bibok (2014b) and partly inspired by Iwata (2002, 2008). It does not consider the locative alternation purely lexical or purely constructional but a complex, i.e. lexical-constructional, phenomenon.

¹⁴² As to the factors constraining the fusion of a lexical entry with a construction, see 5.1.2.

Let us suppose that in accordance with the first semantic structure of (205) above the verb *ken* ‘smear’ in a context *X Y-t Z-re* ‘X, Y on Z’ has a semantic representation ‘X causes Y to move onto Z’, to which we can add the following specifications: Y = mass, Z = surface and the causation includes smoothing movements of an object. Furthermore, if we concretize the change of state in meaning representation of the expression *ken (X Z-t Y-nal)* ‘smear (X, Z with Y)’ (see the second semantic structure of (205)) as being covered partially or totally, we can obtain the following semantic structure: ‘X causes Z to be covered partially or totally with Y (= mass)’.¹⁴³

Now, taking the two semantic representations of *ken* ‘smear’ detailed above against the background of our conceptional stance that constructional meanings of a verb condense into one lexical underspecified meaning representation involving optional elements in round brackets as in 5.1 or in other ways, one can propose (214), underlying both appearances of *ken* ‘smear’ in (203):

- (214) a. ‘acting_m, X causes a mass Y to move onto a surface Z,
and
 acting_m, X causes a surface Z to be covered_n with a mass Y’;
- b. [[x ACT_m] CAUSE [[y MOVE] : [FIN [y LOC] ON z]]]
&
 [[x ACT_m] CAUSE [z BE_COVERED_WITH_n y]],
 where 1. m = with smoothing movements of an object and
 n = partially or totally as well as
 2. y = mass and z = surface.

Starting from the lexicon containing the verb *ken* ‘smear’ with underspecified representation in (214), the constructional meanings of the given verb correspond to the two possible interpretations of (214) alternating with each other. When a mass is focused, or profiled, the constructional meaning is equal to the part of (214) which is before the conjunction *and*, or “&”, i.e. ‘acting_m, X causes a mass Y to move onto a surface Z’, or [[x ACT_m] CAUSE [[y MOVE] : [FIN [y LOC] ON z]]]. This constructional meaning is expressed in (203a), repeated here as (215).

¹⁴³ One may have noticed that the component of moving, present in the second semantic structure of (205) as ‘by means of moving’, is missing here. The reader will find a motivation to assume a representation without a motion element at the very end of the subsection.

- (215) Az anya zsírt ken a kenyérré.
 the mother fat.Acc smear.3Sg the bread.Sub
 ‘The mother is smearing fat on the bread.’

In the opposite case, when a surface comes into prominence, the constructional meaning is ‘acting_m, X causes a surface Z to be covered_n with a mass Y’, or [[x ACT_m] CAUSE [z BE_COVERED_n y]], i.e. the part of (214) which figures after the conjunction *and*, or “&”. It is (203b), repeated here as (216), that has this second interpretation.

- (216) Az anya zsírral keni a kenyeret.
 the mother fat.Ins smear.DefObj.3Sg the bread.Acc
 ‘The mother is smearing the bread with fat.’

Consequently, the verb *ken* ‘smear’ can alternate syntactically because its underspecified meaning in (214) provides access to two constructional meanings expressed by the corresponding syntactic structures. It is precisely because of the lexically unfixed character of (214) that one may speak of underspecification.

On the contrary, the verbs *önt* ‘pour’ in (206), i.e. *Az anya vizet önt a virágra* ‘The mother is pouring water onto the flower’ and **Az anya vízzel önti a virágot* ‘The mother is pouring the flower with water’, as well as *fed* ‘cover’ in (207), i.e. **Az anya csokoládémázát fed a süteményre* ‘The mother is covering chocolate coating onto the cookie’ and *Az anya csokoládémázzal fedi a süteményt* ‘The mother is covering the cookie with chocolate coating’, do not occur in syntactic structures of two alternating types because their meaning is not underspecified in a way that would allow two different interpretations. The verb *önt* ‘pour’ has a more specific meaning representation which only contains (217) and does not contain (218):

- (217) a. ‘acting_m, X causes a mass Y to move onto a surface Z / into a container Z’;
 b. [[x ACT_m] CAUSE [[y MOVE] : [FIN [y LOC] ON/IN z]],
 where 1. m = a particular manner of acting as well as
 2. y = mass and z = surface/container.
- (218) a. ‘acting_m, X causes a surface Z to be covered_n / a container Z to be filled_n with a mass Y’;
 b. [[x ACT_m] CAUSE [z BE_COVERED/FILLED_WITH_n y]],
 where 1. m = a particular manner of acting and
 n = partially or totally as well as
 2. y = mass and z = surface/container.

Since the verb *löttyent* ‘spill’ (209) shows the same pattern of alternation as *önt* ‘pour’, its meaning can be represented similarly, i.e. by (217) but not by (218).

Also, the meaning representation of *fed* ‘cover’ is more specific but in the other way. This verb simply means that

- (219) a. ‘acting_m, X causes a surface Z to be covered_n with a mass Y’;
 b. [[x ACT_m] CAUSE [z BE_COVERED_WITH_n y]]

and does not mean that

- (220) a. ‘acting_m, X causes a mass Y to move onto a surface Z’;
 b. [[x ACT_m] CAUSE [[y MOVE] : [FIN [y LOC] ON z]]].

In what follows I want to further investigate the statement that the meaning representation of non-alternating verbs such as *önt* ‘pour’, *löttyent* ‘spill’ and *fed* ‘cover’ is more specific than that of alternating verbs such as *ken* ‘smear’. The first issue to be discussed concerns preverbal verbs that provide alternating variants for non-alternating base verbs. As attested by (206), the verb *önt* ‘pour’ does not allow the ‘with’-variant, which, in turn, appears if alternation is regarded in a broader sense, i.e. if a preverb, namely *tele-* ‘full’, is added to it. At the same time, *teleönt* ‘fill up’ cannot denote change of location. Consider (221).

- (221) a. Az anya teleönti a vázát vízzel.
 the mother full.pour.DefObj.3Sg the vase.Acc water.Ins
 ‘The mother is filling up the vase with water.’
- b. *Az anya teleönti a vizet a vázába.
 the mother full.pour.DefObj.3Sg the water.Acc the vase.Ill
 ‘The mother is pouring the water into the vase.’

It follows from this that the meaning of *teleönt* ‘fill up’ is specific with respect to the locative alternation to the extent that that of *önt* ‘pour’ is, but in the opposite way. However, we cannot conclude that the meaning structure of the former is no more complex than that of the latter. Being a preverbal verb, the meaning of *teleönt* ‘fill up’ can be calculated from its two parts, i.e. from the base and preverb, in a compositional manner. What must additionally be taken into account is the role of *tele-* ‘full’ in changing the character of the arguments of *önt* ‘pour’ (in terms of Construction Grammar: the list of participant roles). By way of illustrating this further, let me offer the following examples.

- (222) a. Az anya vizet ereszt a vázába.
 the mother water.Acc let_go.3Sg the vase.Ill
 ‘The mother is running water into the vase.’
- b. *Az anya vízzel ereszti a vázát.
 the mother water.Ins let_go.DefObj.3Sg the vase.Acc
 ‘The mother is running the vase with water.’
- (223) a. Az anya teleereszti a vázát vízzel.
 the mother full.let_go.DefObj.3Sg the vase.Acc water.Ins
 ‘The mother is running the vase full with water.’
- b. *Az anya teleereszti a vizet a vázába.
 the mother full.let_go.DefObj.3Sg the water.Acc the vase.Ill
 ‘The mother is running the water full into the vase.’

Let us try to analyze the change in the arguments of the base verb in detail and in a formalized way on the basis of (221a). The meaning of the preverb *tele-* ‘full’, defined as ‘be filled in full to overflowing with something or be loaded fully with something’ (Pusztai 2003: 1321, cf. the first and second meanings in Bárczi and Országh 1959–1962: VI, 573), can be represented by the predicate BE_FILLED/COVERED_WITH_n. However, in the context of *önt* ‘pour’, only BE_FILLED_WITH_n (n = totally) is relevant, which has two arguments, namely *v* = vase and *w* = water. For the meaning of *önt* ‘pour’, recall (217), whose variables can be specified with respect to (221) as follows: *x* = mother, *y* = water and *z* = vase. When the preverbal verb *teleönt* ‘fill up’ derives, the (representations of) meanings of the constituent parts combine according to the operation of function composition. In abstract terms, function composition looks like $X/Y + Y/Z = X/Z$.¹⁴⁴ Thus, in the case of *v* = *z* and *w* = *y*, the two arguments of *tele-* ‘full’ satisfy the arguments *y* and *z* of *önt* ‘pour’ and the category coming into existence inherits the third, unsatisfied, argument *x* of *önt* ‘pour’. Hence, the complement frame of *teleönt* ‘fill up’ is the following: *x* (= *anya* ‘mother’) *teleönti* ‘fills up’ *v* (= *vázát* ‘vase.Acc’) *w* (= *vízzel* ‘water.Ins’), which differs from that of *önt* ‘pour’, being determined by the meaning of the preverb *tele-* ‘full’. As to the meaning representation of *teleönt* ‘fill up’ which really underlies its syntactic arguments, it includes the above predicate BE_FILLED_WITH_n and the two predicates of (217) which directly and indirectly take *x* as an argument, namely ACT and CAUSE. Now one obtains the representation in (224):

- (224) a. ‘acting_m, X causes Z to be filled_n with a mass Y’;

¹⁴⁴ Cf. Kiefer and Ladányi (2000: 471), who generally apply it to semantics of preverbal verbs.

- b. [[x ACT_m] CAUSE [z BE_FILLED_WITH_n y]],
where m = a particular manner of acting and n = totally.

In connection with (224) it is important to make an additional remark. Both the variable *v* of *tele-* ‘full’ and the variable *z* of *önt* ‘pour’ can be concretized by a surface. Cf.: *teleírja a papírlapot cirill betűkkel* ‘write the sheet of paper full with Cyrillic letters’ and *festéket önt a papírlapra* ‘pour paint onto the sheet of paper’. Despite such possibilities, if *v* = *z* = surface, this yields strange interpretations, cf.: *teleönti a papírlapot festékekkel* ‘fill up the sheet of paper with paint’. That is why the meaning of *teleönt* ‘fill up’ is not fully compositional. In other words, *z* in (224) is restricted only to containers.

Now let us turn to the second issue in regard to the statement that the meaning representation of non-alternating verbs such as *önt* ‘pour’, *löttyent* ‘spill’ and *fed* ‘cover’ is more specific than that of alternating verbs such as *ken* ‘smear’. One might think that the meaning representation of the verb *fed* ‘cover’ should contain more than (219), repeated here for sake of convenience as (225).

(225) a. ‘acting_m, X causes a surface Z to be covered_n with a mass Y’;

- b. [[x ACT_m] CAUSE [z BE_COVERED_WITH_n y]].

If one partially or totally covers a surface with a mass, then we necessarily assume that at the same time one causes the mass to move onto the surface (cf. also the highlighted part of the fragment ‘X causes Z to change state **by means of moving** Y into/onto it’ in lexical rule (205)). However, this seems to be the same meaning relation as that between conversives. For instance, if *X gets Y from Z*, then *Z gives Y to X*. Similarly, if *X marries Y*, then *Y gets married to X*. It is correct to state that the situations denoted by the pairs of phrases and seen from different perspectives are the same. Nevertheless, it is incorrect to say that the meaning of *get* includes that of *give* and the meaning of *marry* that of *get married*, or vice versa. The same holds for the pair of phrases such as *X fedi Z-t Y-nal* ‘X covers Z with Y’ and *X azt okozza, hogy Y Z-re mozog* ‘X causes Y to move onto Z’. But the meaning representation of the verb *fed* ‘cover’ does not have to include the following: CAUSE [[y MOVE] : [FIN [y LOC] ON z]] (or the meaning representation of *önt* ‘pour’ does not have to contain CAUSE [z BE_COVERED_WITH y] either).

When both pouring and covering are involved in a single representation as is the case for *ken* ‘smear’ (cf. (214)), underspecification is claimed. It is a verb with two distinct

complement frames, or with its two constructional meanings, which can display the conversive meaning relation.

Table 5 summarizes what has been said about verbs analyzed with respect to the locative alternation.

Now, we can offer the following statements concerning the locative alternation in general. First, the locative alternation is characteristic of only those **verbs whose meaning representations are underspecified** in a similar way as (214) is. In other words, they should include the possibility of both constructional meanings, thereby they can be interpreted twofold and expressed syntactically twofold. Second, the verbs which do not have such underspecified representations cannot occur in syntactic structures alternating the locative variant with the *with*-variant. This entails that the verbs not occurring in the locative alternation do **not have to be considered exceptions**. The meaning of a verb itself determines – like narrow semantic classes but more precisely – whether it may take part in the syntactic alternation at stake.

Table 5. Locative alternation: meaning representations of alternating and non-alternating verbs

	underspecified lexical meaning	specific lexical meaning	constructional meaning	example
<i>ken</i> 'smear'	[[x ACT _m] CAUSE [[y MOVE] : [FIN [y LOC] ON z]] & [[x ACT _m] CAUSE [z BE_COVERED_WITH _n y]] (= (214b))		[[x ACT _m] CAUSE [[y MOVE] : [FIN [y LOC] ON z]]	<i>Az anya zsirt ken a kenyérre.</i> 'The mother is smearing fat on the bread.' (= (215))
			[[x ACT _m] CAUSE [z BE_COVERED_ WITH _n y]]	<i>Az anya zsírral keni a kenyeret.</i> 'The mother is smearing the bread with fat.' (= (216))
<i>önt</i> 'pour'		[[x ACT _m] CAUSE [[y MOVE] : [FIN [y LOC] ON/IN z]] (= (217b))		<i>Az anya vizet önt a virágra.</i> 'The mother is pouring water onto the flower.' (= (206a))
<i>löttyent</i> 'spill'		[[x ACT _m] CAUSE [[y MOVE] : [FIN [y LOC] ON/IN z]] (= (217b))		<i>Az apa véletlenül/szándékosan) kávéét löttyent az asztalterítőre.</i> 'The father (incidentally/intentionally) spills coffee on the tablecloth.' (= (209a))
<i>fed</i> 'cover'		[[x ACT _m] CAUSE [z BE_COVERED_WITH _n y]] (= (219b))		<i>Az anya csokoládémázzal fedi a süteményt.</i> 'The mother is covering the cookie with chocolate coating.' (= (207b))
<i>teleönt</i> 'fill up'		[[x ACT _m] CAUSE [z BE_FILLED_WITH _n y]] (= (224b))		<i>Az anya teleönti a vázát vízzel.</i> 'The mother is filling up the vase with water.' (= (221a))

5.2.2. Towards a lexical-constructional exploration of the Russian locative alternation

The present investigation of the Russian locative alternation first published as Bibok (2014a) is carried out in the framework of a lexical-constructional treatment of syntactic alternations, which is offered instead of well-known and widely used but rivaling lexical and constructional approaches (see 5.1.1 and 5.1.2 as well as 5.2.1.1 and 5.2.1.2 above, cf. also Arad 2006). As emphasized in previous sections, the basic idea of my proposal is that the disadvantages characteristic of the rivals may be overcome if both lexical and constructional factors are simultaneously paid due attention. According to the lexical-constructional conception of syntactic alternations, lexical meanings are considered underspecified. At the same time, they are encyclopedically rich and pragmatically flexible enough to motivate two or more constructionally emerging meanings. Meaning representations built in this way guarantee the alternating syntactic structures of the same verbs.

How powerful this type of the lexical-constructional explanation of syntactic alternations is has been demonstrated via the analysis of Hungarian manner-of-motion, sound emission, spatial position and cutting verbs in Subsection 5.1.3, where I proposed a general meaning scheme (or template) which serves as a single base of all four alternating verb classes.

After the lexical-constructional treatment of the locative alternation of Hungarian verbs in 5.2.1, in the present subsection I apply it to Russian verbs, not in order to carry out a contrastive, Hungarian–Russian, study but to see how it works in regard to a similar group of verbs in another language, namely in Russian.

5.2.2.1. Russian verbs exhibiting the locative alternation

One and the same verb stem, with or without prefixes, may appear in two syntactic patterns in Russian, expressing either motion events or covering/filling events, respectively. Some of the unprefixated (imperfective) verbs are mentioned below. Consider (226)–(230).¹⁴⁵

¹⁴⁵ In several cases the glosses and/or translations are different from or added to the examples taken from the literature. However, I do not change the gloss/translation of the Russian verb *mazat'* and its word-formational cognates: they are glossed/translated as 'spread' while 'smear' is used above with Hungarian *ken*. Furthermore, the glosses are not intended to capture all morphological properties but indicate those central to the present discussion.

(A) Russian verbs without prefixes

- (226) a. Ivan **mažet** maslo na xleb.
Ivan spread.3Sg butter.Acc.Sg onto bread.Acc.Sg
'Ivan is spreading butter on the bread.'
- b. Ivan **mažet** xleb maslom.
Ivan spread.3Sg bread.Acc.Sg butter.Ins.Sg
'Ivan is buttering bread.' (Pshehotskaya 2007)
- (227) a. Ivan **gruzil** seno na telegu.
Ivan load.Past.Sg.Masc hay.Acc.Sg onto wagon.Acc.Sg
'Ivan was loading hay onto the wagon.'
- b. Ivan **gruzil** telegu senom.
Ivan load.Past.Sg.Masc wagon.Acc.Sg hay.Ins.Sg
'Ivan was loading the wagon with hay.' (Pshehotskaya 2007)
- (228) a. Ja **gruzil** seno na gruzovik.
I load.Past.Sg.Masc hay.Acc.Sg onto truck.Acc.Sg
'I loaded hay on a/the truck.'
- b. Ja **gruzil** gruzoviki senom.
I load.Past.Sg.Masc trucks.Acc.Pl hay.Ins.Sg
'I loaded trucks with hay.'¹⁴⁶ (Partee 2005)
- (229) a. **gruzit'** les na baržu
load.Inf timber.Acc.Sg onto barge.Acc.Sg
'load timber onto the barge'
- b. **gruzit'** baržu lesom
load.Inf barge.Acc.Sg timber.Ins.Sg
'load the barge with timber' (Sokolova 2009)
- (230) a. **bryzgat'** vodu na cvety
splash.Inf water.Acc.Sg onto flower.Acc.Pl
'splash water onto the flowers'
- b. **bryzgat'** cvety vodoj
splash.Inf flower.Acc.Pl water.Ins.Sg
'splash the flowers with water' (Apresjan 2009: 130)

Some verbs in group (A) can occur with prefixes. In (231)–(233) there are such alternating (imperfective or perfective) verbs.

¹⁴⁶ It is worth mentioning that the form of the imperfective past tense of *gruzit'* 'load' can be translated/interpreted not only as past simple tense but also as past continuous tense. For more details, see Subsection 5.2.2.4 below.

(B) verbs in group (A) with prefixes¹⁴⁷

- (231) a. **namazyvat'** maslo na xleb¹⁴⁸
 NA.spread.Inf butter.Acc.Sg onto bread.Acc.Sg
 'spread butter on the bread'
- b. **namazyvat'** xleb maslom
 NA.spread.Inf bread.Acc.Sg butter.Ins.Sg
 'butter bread' (Apresjan 2009: 130)
- (232) a. **nagružat'** meški na telegu
 NA.load.Inf sack.Acc.Pl onto wagon.Acc.Sg
 'load sacks into the wagon'
- b. **nagružat'** telegu meškami
 NA.load.Inf wagon.Acc.Sg sack.Ins.Pl
 'load the wagon with sacks' (Apresjan 2009: 130)
- (233) a. Ja **zagrutil** seno na gruzovik.
 I ZA.load.Past.Sg.Masc hay.Acc.Sg onto truck.Acc.Sg
 'I loaded the hay on a/the truck.'
- b. Ja **zagrutil** gruzovik senom.
 I ZA.load.Past.Sg.Masc truck.Acc.Sg hay.Ins.Sg
 'I loaded the truck with hay.' (Partee 2005)

Other verbs than those from (A) can also alternate syntactically if they appear together with prefixes. To put it differently, the (imperfective or perfective) verbs in (234)–(236) below may appear in two syntactic structures with corresponding meanings of motion and covering/filling.

(C) other verbs with prefixes

- (234) a. **zasypat'**¹⁴⁹ pšenicu v jasli
 ZA.pour_granular_material.Inf wheat.Acc.Sg into manger.Acc.Pl
 'pour wheat into the manger'

¹⁴⁷ In the glosses Russian prefixes are indicated with capital letters.

¹⁴⁸ In present-day Russian expressions like *namazyvat' maslo na xleb* 'spread butter on the bread' and *zalivat' gorjučee v bak* 'pour fuel into the tank' (see (235a) below) are falling into disuse and substituted by synonymous expressions like *mazat' maslo na xleb* (cf. (226a)) and *nalivat' gorjučee v bak* (Apresjan 2009: 131).

¹⁴⁹ Depending on whether the second or third syllable of the word is stressed, the verb aspect is imperfective or perfective, respectively.

- b. **zasypat'** jasli pšenicej
 ZA.pour_granular_material.Inf manger.Acc.Pl wheat.Ins.Sg
 'fill the manger with wheat' (Apresjan 2009: 130)
- (235) a. **zalivat'** gorjučee v bak
 ZA.pour_liquid.Inf fuel.Acc.Sg into tank.Acc.Sg
 'pour fuel into the tank'
- b. **zalivat'** bak gorjučim
 ZA.pour_liquid.Inf tank.Acc.Sg fuel.Ins.Sg
 'fill the tank with fuel' (Apresjan 2009: 130)
- (236) a. **zalit'** benzin v bak
 ZA.pour_liquid.Inf gas.Acc.Sg into tank.Acc.Sg
 'pour gas into the tank'
- b. **zalit'** bak benzinom
 ZA.pour_liquid.Inf tank.Acc.Sg gas.Ins.Sg
 'fill the tank with gas' (Padučeva 2004: 64)

5.2.2.2. Non-alternating verbs in Russian

However, there are Russian verbs (with or without prefixes) which do not alternate. In other words, they allow either the locative variant or the instrumental one. Let us start with verbs which do **not contain prefixes**. First, unlike (234)–(236), the (imperfective) verbs *sypat'* 'pour (granular material)' and *lit'* 'pour (liquid)' without prefixes cannot occur in the instrumental syntactic pattern. Consider (237) and (238), where only **the locative variants** in (a) are well-formed.

- (237) a. Vanja **sypal** saxar v banku.
 Vanja pour.Past.Sg.Masc sugar.Acc.Sg into jar.Acc.Sg
 'Vanja poured/was pouring sugar into the jar.'
- b. *Vanja **sypal** banku saxarom.
 Vanja poured.Past.Sg.Masc jar.Acc.Sg sugar.Ins.Sg
 (Dudčuk and Pšehotskaja 2005)
- (238) a. Ivan **lil** toplivo v bak.
 Ivan poured.Past.Sg.Masc fuel.Acc.Sg into tank.Acc.Sg
 'Ivan poured/was pouring fuel into the tank.'
- b. *Ivan **lil** bak toplivom.
 Ivan poured.Past.Sg.Masc tank.Acc.Sg fuel.Ins.Sg
 (Pšehotskaja 2007)

Second, other verbs figuring without prefixes cannot have the locative variant either. See (239) with (imperfective) *venčat'* 'wreath', where only **the instrumental pattern** in (b) is grammatical.

- (239) a. ***venčat'** koronu na golovu monarxa
 wreathe.Inf crown.Acc.Sg on head.Acc.Sg monarch.Gen.Sg
- b. **venčat'** golovu monarxa koronoj
 wreathe.Inf head.Acc.Sg monarch.Gen.Sg crown.Ins.Sg
 'crown the monarch' (Padučeva and Rozina 1993: 11)

As to the verbs **with prefixes**, once again there are lexemes with which **either the locative or the instrumental variant** occurs. On the one hand, in the case of (perfective) *namotat'* 'NA.wind' the former is present in (240a) and the latter is excluded in (240b).

- (240) a. **namotat'** bint na ruku
 NA.wind.Inf bandage.Acc.Sg onto hand.Acc.Sg
 'wind the bandage around one's hand' (Apresjan 1995: 280)
- b. ***namotat'** ruku bintom¹⁵⁰
 NA.wind.Inf hand.Acc.Sg bandage.Ins.Sg

On the other hand, the locative pattern is not allowed in (241a), (242a) and (243a), however, the instrumental one does appear in (241b), (242b) and (243b).¹⁵¹

- (241) a. ***zamotat'** bint na ruku
 ZA.wrap.Inf bandage.Acc.Sg onto hand.Acc.Sg
- b. **zamotat'** ruku bintom
 ZA.wrap.Inf hand.Acc.Sg bandage.Ins.Sg
 'wrap one's hand with a bandage' (Apresjan 1995: 280)
- (242) a. ***zagromozdit'** knižnye škafy v komnatu
 ZA.block_up.Inf book case.Acc.Pl into room.Acc.Sg
- b. **zagromozdit'** komnatu knižnymi škafami
 ZA-block_up.Inf room.Acc.Sg book case.Ins.Pl
 'block up the room with bookcases' (Padučeva and Rozina 1993: 11)

¹⁵⁰ The asterisk of ungrammaticality is used according to judgments of Russian native speakers because the non-existence of (240b) is not explicitly stated by Apresjan (1995).

¹⁵¹ Each of the three verbs is perfective.

- (243) a. *Ivan **zabryzgal** krasku na pol.
 Ivan ZA.splashed.Past.Sg.Masc paint.Acc.Sg onto floor.Acc.Sg
- b. Ivan **zabryzgal** pol kraskoj.
 Ivan ZA.splashed.Past.Sg.Masc floor.Acc.Sg paint.Ins.Sg
 ‘Ivan splashed the floor with paint.’ (Pshehotskaya 2007)

In connection with the lack of locative or instrumental variants, one may realize that the missing syntactic pattern can be present with another verb (which has a different word-formation structure). In this respect consider, for instance, the verb *motat* ‘wrap’ with different prefixes such as *na-* and *za-* in (240) and (241), as well as *zabryzgat* ‘ZA.splash’ in (243) and *bryzgat* ‘splash’ without any prefix in (230) given in Subsection 5.2.2.1 above, where the alternating behavior of the latter verb was described.

5.2.2.3. A hypothesis explaining the alternating and non-alternating character of verbs

On the basis of the above examples, the following questions arise:

- (i) Which verbs allow the locative alternation, and which do not?
- (ii) Which verbs not allowing both syntactic patterns cannot have the instrumental variant while they may occur in the locative one?
- (iii) Which non-alternating verbs cannot occur in the locative pattern while they may appear in the instrumental one?

As my lexical-constructional framework outlined and applied in previous sections suggests, the following cannot be considered suitable solutions for the above-mentioned issues:

first, a simple enumeration of meanings (or occurrences) that are expressed in corresponding syntactic structures;

second, relating a verb meaning to another one with the help of a lexical rule, not even if verbs are classified into narrow semantic subclasses; and

third, a possibility for verbs to fuse with two constructions.

Obviously, the first procedure, characteristic of traditional lexicographic practice, does not seem to be worth pursuing from a theoretical point of view when one aims to reach an explanation of the alternating use of the same verbs in different syntactic patterns. To go beyond it is the main goal of both the Lexical Rule Approach (Pinker 1989; Levin and Rappaport Hovav 1995, 2005) and Construction Grammar (Goldberg 1995, 2006). Nevertheless, the derivation of a meaning, or a lexical item, from another one – even in a narrow verb class – with the help of lexical rules inevitably meets lexical exceptions.

Moreover, no due attention is paid to the fact that not only one of the variants but both of them are predetermined by their occurrence in corresponding syntactic patterns. As to the fusion of a lexical entry with a construction or more than one construction in Construction Grammar, it does not have a solid enough grounding in insufficiently structured LSRs.

According to the basic claim of my lexical-constructional conception put forward several times in previous parts of the dissertation, verbs have meaning representations which are more detailed as well as encyclopedically and pragmatically richer. What is more, however paradoxical this might be, they are also underspecified in some respects. Thus, they can serve as a base for both interpretations emerging in constructions.

Consequently, the following general underspecified meaning representation can be proposed for the Russian verbs allowing the locative alternation in (226)–(236):

- (244) ‘acting_m, X causes Y to move onto a surface Z, or into a container Z,
and
 acting_m, X causes a surface Z to be covered_n, or a container Z to be filled_n with Y’,
 where m = a particular manner of acting and n = partially or totally.

The two constructional meanings in examples (a) and (b) above correspond to the two possible interpretations of (244), alternating with each other. Let me illustrate the mechanisms involved with the help of the verb *mazat* ‘spread’ in (226a) and (226b), which are repeated for the sake of convenience as (245).

- (245) a. Ivan **mažet** maslo na xleb.
 Ivan spread.3Sg butter.Acc.Sg onto bread.Acc.Sg
 ‘Ivan is spreading butter on the bread.’
- b. Ivan **mažet** xleb maslom.
 Ivan spread.3Sg bread.Acc.Sg butter.Ins.Sg
 ‘Ivan is buttering bread.’ (Pshehotskaya 2007)

Instead of the general meaning scheme in (244), the following representation in (246) – more concretized, though underspecified in the relevant respect –, which is also proposed for the Hungarian verb *ken* ‘smear’ in 5.2.1.3 (cf. (214)), is appropriate for *mazat* ‘spread’:

- (246) ‘acting_m, X causes a mass Y to move onto a surface Z,
and
 acting_m, X causes a surface Z to be covered_n with a mass Y’,
 where m = with smoothing movements of an object and n = partially or totally.

When a mass is focused, or profiled, the constructional meaning is equal to the part of (246) which is before the conjunction *and*, i.e. ‘with smoothing movements of an object, X causes a mass Y to move onto a surface Z’. In the opposite case, when a surface comes into prominence, the constructional meaning is ‘with smoothing movements of an object, X causes a surface Z to be covered partially or totally with a mass Y’, i.e. the part of (246) figuring after the conjunction *and*. Consequently, the syntactic behavior of verbs, including the verb *mazat* ‘spread’, participating in the locative alternation in (226)–(236) is explained by the fact that the formula in (246) provides access to two constructional meanings expressed by the corresponding syntactic structures. So, the formula in (246), on the one hand, is underspecified in the sense that it embraces both interpretations which emerge only in separate constructions. And, on the other hand, (246) is pragmatically flexible enough to allow various syntactic patterns in which the verbs of locative alternation can occur.

However, the non-alternating verbs in (237)–(243) are not represented in a similar way to (244) and (246). Depending on whether they have a locative or instrumental variant, their more specified meanings correspond either to (247) or to (248), respectively:

(247) ‘acting in a given manner, X causes Y to move onto a surface Z or into a container Z’;

(248) ‘acting in a given manner, X causes a surface Z to be covered or a container Z to be filled partially or totally with Y’.

Obviously, the meaning paraphrases in (247) and (248) are more specified than (244) and (246) because the former highlights their first part before the conjunction *and* while the latter their second fragment after *and*. Of course, the verbs with a grammatical locative variant and with an ungrammatical instrumental variant (see (237), (238) and (240)) are represented according to the formula in (247). At the same time, the verbs which behave syntactically in an opposite way (see (239) and (241)–(243)) have a representation indicated in (248).¹⁵²

5.2.2.4. Further issues of alternating and non-alternating Russian verbs

In this subsection I want to draw attention to two issues, each of which deserves a separate thorough investigation in the future. First, it is clear that some verbs in the above (b)-examples have a holistic interpretation, i.e. an object is totally affected (cf. Apresjan 2009: 130–131, as well as Padučeva and Rozina 1993: 10). For example, *zalit’ bak benzinom* ‘fill

¹⁵² The relevance of both parts for the locative alternation was mentioned in connection with verbs with the prefix *za-* (Padučeva 2004: 65). Nevertheless a hypothesis concerning an underspecified representation corresponding to both meanings is only put forward in the present lexical-constructional analysis.

the tank with gas' in (236b) means that all the tank is filled, unlike *zalit' benzin v bak* 'pour gas into the tank' in (236a). In the case of such verbs, Padučeva (2004: 65) states that the prefix *za-* is responsible for the holistic interpretation. Besides the perfective *zalit'* 'ZA.pour (liquid)', cf. the imperfective *zalivat'* 'ZA.pour (liquid)' in (235) given in Subsection 5.2.2.1 above. This also means that 'all the tank is being filled' (Apresjan 2009: 130).

At the same time it should be stressed that the total affectedness of objects in the instrumental pattern is not characteristic of each verb of the locative alternation. It is this equivocal property that is captured by the fragment of the meaning representation 'to be covered or to be filled **partially or totally**' in (244) (cf. also Levin 1993: 118). For instance, verbs having the prefix *po-* are not connected to such an interpretation (Padučeva 2004: 65). Consider (249) and (250).

- (249) a. **posypal** soli na xvost
 PO.strew.Past.Sg.Masc salt.GenPart.Sg onto remains.Acc.Sg
 '[he] strewed salt onto the remains'
- b. **posypal** xvost sol'ju
 PO.strew.Past.Sg.Masc remains.Acc.Sg salt.Ins.Sg
 '[he] strewed the remains with salt'
- (250) a. **povjazal** platok na šeju
 PO.tie.Past.Sg.Masc kerchief.Acc.Sg on neck.Acc.Sg
 '[he] tied a/the kerchief around his neck'
- b. **povjazal** šeju platkom
 PO.tie.Past.Sg.Masc neck.Acc.Sg kerchief.Ins.Sg
 '[he] covered his neck with a/the kerchief'

The semantic difference with respect to total affectedness can hardly be recognized in the case of verbs with the prefix *ob-* in (251) (Padučeva 2004: 65; for other factors influencing holistic or non-holistic interpretations, see Partee 2005).

- (251) a. **obmotal** šarf vokrug šeji
 OB.wind.Past.Sg.Masc scarf.Acc.Sg around neck.Gen.Sg
 '[he] wound a scarf around his neck'
- b. **obmotal** šeju šarfom
 OB.wind.Past.Sg.Masc neck.Acc.Sg scarf.Ins.Sg
 '[he] wrapped his neck with a scarf'

The second issue concerns the number of verbs allowing both locative and instrumental variants. This number would increase if syntactic alternations were treated in a wider sense,

i.e. if they can be accompanied with a change yielding verbs with a different word-formation structure. This can be illustrated with a pair of verbs in (252), whose members come from (240) and (241) above, where the (a)-examples do not alternate with the (b)-examples.

- (252) a. **namotat'** bint na ruku
 NA.wind.Inf bandage.Acc.Sg onto hand.Acc.Sg
 'wind the bandage around one's hand'
- b. **zamotat'** ruku bintom
 ZA.wrap.Inf hand.Acc.Sg bandage.Ins.Sg
 'wrap one's hand with a bandage'¹⁵³

* * *

To conclude Subsection 5.2.2, it should be strongly emphasized that by hypothesizing underspecified LSRs for a general account of certain syntactic alternations, one can work out a model not only of Hungarian but also Russian verbs. The lexical-constructional analysis of the Russian locative alternation – similarly to that of the Hungarian locative alternation but with the according language-specific lexical peculiarities – has more predictive power than lexical or constructional conceptions alone because

- (i) it clearly indicates what meaning representations can motivate alternating syntactic structures, and
- (ii) it also precisely distinguishes the verbs that alternate from non-alternating verbs.

5.3. Instrument–subject alternation from a lexical-constructional perspective

Now let us turn to the third type of syntactic alternations, namely those decreasing the number of arguments. This is the instrument–subject alternation, which is considered a cross-linguistic phenomenon, like other alternations analyzed in Sections 5.1 and 5.2¹⁵⁴. In the course of instrument–subject alternation, a verb's semantic argument with an instrument semantic role can be expressed syntactically, not only as an oblique complement phrase but also as a subject instead of an agentive subject. Two subtypes are distinguished in the following parts of the

¹⁵³ Cf. the Hungarian pair *önt* 'pour' and *teleönt* 'fill up' analyzed in 5.2.1.3. The latter verb with the preverb makes the 'with'-variant available, which is not allowed for in the former verb.

¹⁵⁴ This should by no means suggest that all alternations in English have their Hungarian counterparts. Let me just mention the so-called dative shift, not characteristic of Hungarian, in the case of verbs such as *give* (but cf. what has been said about the verbs *ajándékoz* 'present' vs. *megajándékoz* 'perf.present' and *kínál* 'offer' vs. *megkínál* 'perf.offer' in Remark 2 with Verb class № 4.1.4).

present section (for their earlier analyses in my own work, see Bibok 2017a, 2018 and 2008, respectively).

5.3.1. Instrument–subject alternation I: event subtype

5.3.1.1. Data and earlier proposals

By way of illustrating this subtype of the instrument–subject alternation, let me offer the familiar Hungarian examples from 4.1.3.1 once again.¹⁵⁵

(253) a. Rita betörte egy hajszárítóval az ablakot.
 Rita break.Past.DefObj.3Sg a hair_dryer.Ins the window.Acc
 ‘Rita broke the window with a hair dryer.’

b. A hajszárító betörte az ablakot.
 the hair_dryer break.Past.DefObj.3Sg the window.Acc
 ‘The hair dryer broke the window.’

(254) a. Rita megszáritotta egy hajszárítóval az ablakot.
 Rita dry.Past.DefObj.3Sg a hair_dryer.Ins the window.Acc
 ‘Rita dried the window with a hair dryer.’

b. A hajszárító megszáritotta az ablakot.
 the hair_dryer dry.Past.DefObj.3Sg the window.Acc
 ‘The hair dryer dried the window.’

(255) a. Rita megrakta egy targoncával a teherautót.
 Rita load.Past.DefObj.3Sg a forklift.Ins the truck.Acc
 ‘Rita loaded the truck with a forklift.’

b. A targonca megrakta a teherautót.
 the forklift load.Past.DefObj.3Sg the truck.Acc
 ‘The forklift loaded the truck.’

¹⁵⁵ Besides verbs with theme objects in (253)–(255) below, the alternation at issue emerges in the case of verbs with experiencer objects. Consider (i) referring to a situation when Péter frightened Mari intentionally with a balloon.

(i) Péter megijesztette Marit egy léggömbbel.
 Péter frighten.Past.DefObj.3Sg Mari.Acc a balloon.Ins
 ‘Péter frightened Mari with a balloon.’

(ii) A léggömb megijesztette Marit.
 the balloon frighten.Past.DefObj.3Sg Mari.Acc
 ‘The balloon frightened Mari.’

While in sentences (253a), (254a) and (255a) the instruments are realized as oblique complement phrases, in sentences (253b), (254b) and (255b) they are realized as subjects. However, with other Hungarian verbs the alternation at hand cannot appear. Cf.:

- (256) a. Rita felmosta egy felmosóronggyal a padlót.
 Rita wash.Past.DefObj.3Sg a floor-cloth.Ins the floor.Acc
 ‘Rita washed the floor with a floor-cloth.’
- b. *A felmosóronggyal felmosta a padlót.
 the floor-cloth wash.Past.DefObj.3Sg the floor.Acc
 ‘The floor-cloth washed the floor.’
- (257) a. Rita felsöpörte egy söprűvel a padlót.
 Rita sweep.Past.DefObj.3Sg a broom.Ins the floor.Acc
 ‘Rita swept the floor with a broom.’
- b. *A seprű felsöpörte a padlót.
 the broom sweep.Past.DefObj.3Sg the floor.Acc
 ‘The broom swept the floor.’

One must not forget that on the intended meaning (256b) and (257b) should be interpreted as events. It is just this sense that is excluded. Nevertheless, the examples at issue can denote the cleanness of the floor without the action having yielded the result state. This reading of (256b) and (257b), however, is left out of consideration because we are dealing with the event sense of the given constructions. Now, how can one account for the different behavior of instruments with various verbs? To address this question, I attempt to work out an account of the instrument–subject alternation that has the following advantageous features. First, by means of a pragmatically oriented weaker notion of causation (Koenig et al. 2008) a solid basis is assumed to determine which verbs take part in this alternation and which verbs do not. Second, as in Sections 5.1 and 5.2, the syntactic alternation is not treated as a lexical or constructional phenomenon (as it is in lexical or constructional approaches, respectively). However, it fits a **lexical-constructional approach**, once again like the analyses in preceding sections.

Following a **constructional analysis**, it could be proposed that an argument fulfils either an instrument or an agentive role with the verbs in (253)–(255). Consequently, a constructionist would state that the hair dryer in ((253a) and (254a) as well as the forklift in (255a)) count as instruments, while the hair dryer in (253b) and (254b) as well as the forklift

in (255b) function as agents.¹⁵⁶ However, according to another analysis (Levin 1993: 80–81) the instrument role remains unchanged in both syntactic positions even though the verbs are found with one fewer noun phrase in one variant than in the other. Then the possibility of the instrument–subject alternation depends on **the type of instruments**. In (253a), (254a) and (255a), the instruments are intermediary, hence the alternation at issue emerges as attested by the corresponding (b) sentences. If instruments are facilitating, or enabling, then, on the contrary, they cannot appear as subjects. Consider (256) and (257) above. The floor-cloth in (256a) and the broom in (257a) function as facilitating instruments. Thus, the adverbials – or oblique complements – expressing them cannot syntactically alternate. Following Levin (1993: 80), one can conclude that instruments turn up as subjects in the case of intermediary instruments but not in the case of facilitating ones.

Dudchuk (2007) formalizes Levin’s (1993) idea about facilitating and intermediary instruments in terms of **verbal classes** which go back to Rappaport Hovav and Levin’s (1998) distinction of manner and result verbs. In Dudchuk’s view, the former (e.g., Russian *vymyt* ‘wash’ and Hungarian *felmos* ‘wash’ alike) are compatible with facilitating instruments while instruments of result verbs (e.g., Russian *razbit* ‘break’ and Hungarian *betör* ‘break’ alike) are intermediary. Only result verbs allow the instrument–subject alternation, i.e., syntactic constituents with an instrument semantic role appearing as subjects instead of agentive subjects.

However, independently of classifying verbs into manner or result groups, one and the same verb can have both kinds of instruments but only intermediary instruments occur in the instrument–subject alternation. The case in which a result verb takes not only an intermediary but also a facilitating instrument can be illustrated by the examples with *megrak* ‘load’. This verb appears with an intermediary instrument, for instance, in (255a) above, which alternates with (255b). At the same time, (258a) contains a facilitating instrument, which does not allow the instrument–subject alternation, as (258b) indicates.¹⁵⁷

(258) a. Rita megrakta egy villával a teherautót.
 Rita load.Past.DefObj.3Sg a pitchfork.Ins the truck.Acc
 ‘Rita loaded the truck with a pitchfork.’

¹⁵⁶ For an argumentation in favor of instruments that become agents, see Schlesinger (1989).

¹⁵⁷ In connection with such an example as (258b), Levin (1993: 80) noted that the alternation depends not only on the verb but also on the choice of the instrument.

- b. *A villa megrakta a teherautót.
 the pitchfork load.Past.DefObj.3Sg the truck.Acc
 ‘The pitchfork loaded the truck.’

In (256) a facilitating instrument appearing with the manner verb *felmos* ‘wash’ does not license the alternation at issue. However, a manner verb can also take an intermediary instrument and the alternation does emerge. Consider (259).

- (259) a. Rita felmosta egy takarítógéppel a padlót.
 Rita wash.Past.DefObj.3Sg a cleaning_machine.Ins the floor.Acc
 ‘Rita washed the floor with a cleaning machine.’
- b. A takarítógép felmosta a padlót.
 the cleaning_machine wash.Past.DefObj.3Sg the floor.Acc
 ‘The cleaning machine washed the floor.’

A complex verb, i.e., a verb with both manner and result components (cf. Rappaport Hovav and Levin 1998: 101, fn. 4), shows the same pattern as the above manner and result verbs separately. The verb *kiás* ‘dig’ may occur with both facilitating and intermediary instruments (see (260a) and (261a), respectively) but only the latter can be used as a subject instead of an agent (cf. (260b) vs. (261b)).

- (260) a. Rita kiásott egy lapáttal egy árkot.
 Rita dig.Past.3Sg a shovel.Ins a trench.Acc
 ‘Rita dug a trench with a shovel.’
- b. *A lapát kiásott egy árkot.
 the shovel dig.Past.3Sg a trench.Acc
 ‘The shovel dug a trench.’
- (261) a. Rita kiásott egy exkavátorral egy árkot.
 Rita dig.Past.3Sg a excavator.Ins a trench.Acc
 ‘Rita dug a trench with an excavator.’
- b. Az exkavátor kiásott egy árkot.
 the excavator dig.Past.3Sg a trench.Acc
 ‘The excavator dug a trench.’

Since Dudchuk’s (2007) proposal based on manner and result verbs does not seem to be suitable to account for the instrument–subject alternation, once again we face the issue of distinction concerning facilitating and intermediary instruments. But what characterizes these instruments? Furthermore, as Levin (1993: 80) says, the alternation depends on two factors, namely, on the verb itself and the choice of the instrument. Can they be reduced to a single

factor? If we take into consideration that one and the same verb takes both kinds of instruments, a candidate for such a single factor should necessarily be the verb itself, more precisely, the meanings of the verb. In this case the two kinds of instruments only follow from the meanings of the verb, or to formulate it in an even more appropriate way with respect to the evidence of syntactic alternations discussed in Sections 5.1 and 5.2: from **an underspecified meaning representation** of the verb.¹⁵⁸

5.3.1.2. Building up the lexical-semantic representation required

An LSR of verbs is partly¹⁵⁹ composed by means of primitive predicates. The common meaning of the verbs under discussion can be depicted schematically as in (262):

- (262) a. ‘the event “X acts such that X uses Z”
causes
the event “Y begins to be in a state”’;
- b. [[[x ACT] : [x USE z]] CAUSE [BECOME [y BE_IN_STATE_s]]],
where s = a particular state.¹⁶⁰

Although manner verbs are not characterized by a (specific) result state (Rappaport Hovav and Levin 1998), they do have a certain underspecified state indicating that Y underwent some change (cf. also Koenig et al. 2008: 190, 208).

Furthermore, it is necessary to assume two kinds of causation. One is a component which has generally been used in LSRs and also figures in (262b). Consider (263):

- (263) [e_1 CAUSE e_2], where the variables e_1 and e_2 stand for event(uality)s.

The other is a new variant of causation introduced by Koenig and his colleagues (Koenig et al. 2008). This is a weaker notion, i.e., helping and, what is more, it is **pragmatically** oriented.

¹⁵⁸ It is worth noting that if, in accordance with Schlesinger’s (1989) proposal, an argument fulfils either an instrument or agentive role, the issue is the same as with the two types of instruments. The reason why the latter distinction has to be preferred will be clear when we realize in the course of the lexical-semantic analysis below how closely semantic roles are connected to the meaning structure of verbs.

¹⁵⁹ In addition to primitive predicates, there is another kind of meaning element, namely, encyclopedic descriptions in the form of prototypes and lexical stereotypes (cf. 4.2.2), which can be left out of consideration from the present point of view.

¹⁶⁰ Despite the fact that in (262a) the verb *begin* figures for the sake of naturalness of wording the meaning description, the formal metalinguistic predicate suitable to designate the coming into existence of a change of state is BECOME. The latter has a single propositional argument, unlike the agentive *begin*. For more details, see Bibok (2016b).

- (264) causation as helping (Koenig et al. 2008: 214)
 “An eventuality e_1 helps the occurrence of token e_2 of the event category C iff
 (i) there is an ordering of tokens of C along a **pragmatically** defined scale (ease of performance, how good the resulting state is, fewer unwelcome “side effects”); and
 (ii) e_1 caused the token e_2 of C to be higher on that ordering than it would otherwise have been.”

From the point of view of meaning representations of verbs in instrument–subject alternation, the following three equivalences seem to be relevant, as well.

- (265) $CAUSE_\alpha = \{(263), (264)\}$, i.e., the variable α ranges over the two kinds of causation.
 (266) $z_\beta = \{\text{intermediary instrument, facilitating instrument}\}$, i.e., the variable β ranges over the two kinds of instruments.
 (267) $\gamma = \{+, -\}$, i.e. the two possible values of the variable γ are “+” and “–”. Then the formula $(\gamma[x \text{ ACT}] : [x \text{ USE}])$ expresses that the optional fragment in round brackets is present in a representation if $\gamma = +$, absent from it if $\gamma = -$ (cf. Bibok 2016b).

With the variables introduced in (265)–(267) in mind, now – instead of (262b) – another version of the common LSR of verbs with an instrument argument can be put forward. Consider (268).

- (268) $[(\gamma[[x \text{ ACT}] : [x \text{ USE}]) z_\beta (\gamma))] CAUSE_\alpha [BECOME [y \text{ BE_IN_STATE}_s]]]$,
 where $s = \text{a particular state}$.

Realize that the formula in (268) is an underspecified representation because of its optional fragment in round brackets and different variables α , β and γ . Such **underspecificity** is of crucial importance in order to account for the instrument–subject alternation. The following conditions attached to (268) explain the occurrence or non-occurrence of the alternation at issue.

- (269) a. If $CAUSE_\alpha = (263)$, i.e. $[e_1 \text{ CAUSE } e_2]$, then $z_\beta = \text{intermediary instrument}$.
 b. If $CAUSE_\alpha = (264)$, i.e. causation as helping, then $z_\beta = \text{facilitating instrument}$.
 c. If $z_\beta = \text{intermediary instrument}$, then $\gamma \in \{+, -\}$.
 d. If $z_\beta = \text{facilitating instrument}$, then $\gamma = +$.

Conditions (269a) and (269b) connect the two types of instruments to the two types of causation: intermediary instruments to $[e_1 \text{ CAUSE } e_2]$ in (263) and facilitating (enabling)

instruments to causation as helping in (264). In other words, the two types of instruments depend on the two types of causation but in the latter respect a verb, e.g. *megrak* ‘load’, unlike *betör* ‘break’, does not have to be specified, cf. (268). However, it is important to recall that both types of causation rest upon the same causing event including someone’s action and use of something. In terms of (268), the causing event consists of the predicates ACT and USE, whose first arguments are considered to play the agentive role while the second argument of USE bears the instrument role.¹⁶¹

Condition (269c) states that in the case of an intermediary instrument the optional fragment in round brackets in (268) can be present or absent, hence, an agentive subject can be present or absent. In the latter option an argument with an instrument role may appear as a subject instead of an agentive subject. However, an agentive subject does not disappear entirely, but is always present in the semantic background, formally speaking: she still figures as an existentially bound variable.¹⁶²

¹⁶¹ It is obvious that only this kind of a semantic situation is relevant to the instrument–subject alternation. Therefore, it is not necessary to deal with causing events including natural forces. For other semantic situations that can be expressed as causation, see Talmy (2000: 471–549). Nevertheless, no types of causation are distinguished on the basis of the types of instrument, nor on that of the dichotomy of agents and natural forces.

Now it can be made clear that the Hungarian verb *betör* ‘break’, which is really a morphological complex verb composed from the preverb *be-* ‘into’ and *tör* ‘break’, is semantically different both from the English *break*, which was considered an non-obligatory instrument verb by Koenig et al. (2008) (cf. 2.3.2 of the present dissertation) and from the Hungarian verb without the preverb, i.e. *tör* ‘break’. A phrase such as *töri a jeget* ‘break the ice’ can refer to a situation when nothing is used to cause an ice cube to get broken into small pieces but an ice cube is thrown against something hard. At the same time, another phrase *betöri a jeget* ‘break the ice’ necessarily indicates that something, e.g. an ice pick in the case of ice fishing, was used to make a hole in the ice or to totally break up the ice in a container.

¹⁶² What is more, the predicates ACT and USE are implicitly present because **on the basis of our world knowledge** we are aware of the fact that it is not an object with an instrument role itself that causes the change of state but an event consisting of somebody’s use of an instrument (Bibok 2008: 64). With this proviso in mind, one should judge the acceptability of examples with an instrumental subject. In addition, judgments may vary across speakers from not completely acceptable to probably or fully acceptable, depending on how complex the result state is. Compare (255b), repeated here as (i), which some speakers including one of the reviewers of Bibok (2018) seem to disfavor, with its other version in (ii) modified such that the directional preverb *fel-* ‘up’ is substituted for the perfectivizing preverb *meg-* (cf. also Remarks 3 and 4 with Verb class № 4.1.9 and Remark with Verb class № 4.1.12 in Chapter 3):

- (i) A targonca **me**grakta a teherautót.
 the forklift load.Past.DefObj.3Sg the truck.Acc
 ‘The forklift loaded the truck.’

Finally, condition (269d) guarantees that in the case of a facilitating instrument the optional fragment that encodes the presence of an agentive subject cannot be omitted.

Consequently, the third condition in (269c) formulates the possibility of the instrument–subject alternation. The verb **whose meaning** fits the given requirement can alternate: **its argument with an instrument role** may be expressed syntactically not only as an adverbial (oblique) complement) but also as a subject. As to the constraint that prohibits the instrument–subject alternation, it can be found in (269d). Since the optional fragment has to be present, the alternation under discussion cannot emerge.

By way of a summary of Subsection **5.3.1** let me mention the following advantageous features of my account of the instrument–subject alternation, which thus goes beyond previous account in several respects. First, with a **pragmatically** oriented weaker notion of causation in mind (Koenig et al. 2008: 214), a more solid basis of two types of causation is assumed to determine which verbs alternate and which verbs do not. It also determines what instruments count as intermediary instruments, including “machines”. Recall that “machines” saved the examples above from being ungrammatical. They could not occur otherwise in the instrument–subject alternation. However, automata or robots do not seem to be “machines”. They function as agents in events rather than as instruments. What plays an instrument role is the entity whose name occupies the position of the second argument of USE. On the level of our encyclopedic knowledge, this is true even though the name of an instrument is filled in a subject position (cf. fn. 162). Thus, if an adverbial (or oblique) complement) with an instrumental case inflection alternates with a subject, it does not become an agent but remains an instrument (contra Schlesinger 1989).

Second, syntactic alternations, including the instrument–subject alternation, are not accounted for as lexical or constructional phenomena. Rather, they fit a lexical-constructional approach and both constructional meanings are grasped through a single LSR underspecified in multiple respects. Moreover, in such a case the issue of the relationship between them does not emerge either (contra Dudchuk 2007).

Finally, in future investigations it is also important to take into account that although in the literature the argument structure change, or the valence change, is mentioned, in some examples (see Levin 1993: 80, Dudchuk 2007: 505, Koenig et al. 2008: 198, among others)

(ii) A targonca **felrakta** a ládát a teherautóra.
 the forklift load.Past.DefObj.3Sg the case.Acc the truck.Sub
 ‘The forklift loaded the case onto the truck.’

the constituent considered a facilitating instrument **does not count as an argument** but an adjunct because it does not realize a semantic argument of USE syntactically.

Let us consider (270).

- (270) a. Rita egy szívószállal issza a tejet.
 Rita a straw.Ins drink.DefObj.3Sg the milk.Acc
 ‘Rita is drinking milk with a straw.’
- b. *A szívószál issza a tejet.
 the straw drink.DefObj.3Sg the milk.Acc
 ‘The straw is drinking milk.’

Since there is no need for any instrument to let something liquid go into someone’s mouth and thereby we can describe such a situation as an event of drinking, the verb *iszik* ‘drink’ has the following LSR (Bibok 2008: 61, cf. Jackendoff 1990, Koenig et al. 2008: 197–199):

- (271) a. ‘acting, X causes a liquid Y to move into X’s mouth’;
- b. $[[x \text{ ACT}] \text{ CAUSE } [[y \text{ MOVE}] : [\text{FIN } [y \text{ LOC}] \subset z]]]$,
 where $y = \text{liquid}$ and $z = x$ ’s mouth.

As a result of the absence of the predicate USE from (271b), the LSR of the verb *iszik* ‘drink’ does not contain an argument with an instrument role. Hence, the noun phrase with the instrumental case marker in (270a), i.e. *egy szívószállal* ‘with a straw’, becomes a constituent of a sentence not as an argument but as an adjunct.

What has been said about arguments with an instrument semantic role in this subsection above casts doubt on Koenig et al.’s (2003, 2008) twofold classification of verbs, mentioned in 2.2.2 and 2.3.2 of the present dissertation, namely that certain verbs semantically “require” an instrument, while other verbs only “allow” an instrument (cf. also obligatory instrument verbs vs. non-obligatory instrument verbs). On the one hand, obligatory instrument verbs may have different instruments according to the two types of causation, i.e. CAUSE in (263) and causation as helping in (264). Recall *megrak* ‘load’, which is underspecified with respect to CAUSE and causation as helping and, hence, with respect to the intermediary and facilitating instruments (cf. also *felmos* ‘wash’ and *kiás* ‘dig’), whereas *betör* ‘break’ is specific in regard to the intermediary kind of instruments). On the other hand, non-obligatory instrument verbs can differ from each other too. Some of events denotable by *tör* ‘break’ really include situations when something is necessarily used to break something (cf. fn. 161). In the case of *iszik* ‘drink’, however, one cannot use anything else but his/her

mouth in the function indicated above in (271). And objects should be considered (obligatory) instrumental entities “only if something other than body parts could play the same role” (Koenig et al. 2008: 183).

5.3.2. Instrument–subject alternation II: property subtype

To begin with, consider (272), which is repeated from Subsection 4.1.3.2.

- (272) a. Rita egy zsebkéssel vágja a kartonpapírt.
 Rita a penknife.Ins cut.DefObj.3Sg the pasteboard.Acc
 ‘Rita is cutting pasteboard with a penknife.’
- b. A zsebkés vág(ja) a kartonpapírt).
 the penknife. cut.DefObj.3Sg the pasteboard.Acc
 ‘The penknife cuts (pasteboard).’

For the verb *vág* ‘cut’ one can assume a representation already offered in Subsection 5.1.3.4.

- (273) a. ‘acting such that using Z, X causes Y to become not whole’;
 b. [[[x ACT] : [x USE z]] CAUSE [[BECOME [y not WHOLE]]].

Whereas (272a) expresses the agent, which appears as a phrase substituted for the variable *x* in (273b), she is not named in (272b). Thus, causing the change of state can be attributed to the object used as an instrument of cutting. To grasp this latter occurrence of *vág* ‘cut’ with the help of (273), the following should be taken into account. First, besides an event one of whose participants plays an agentive role, the first argument of the predicate CAUSE can be an entity, more precisely: its name, which is able to have a function of instrument. In technical terms this means: $[e_1/z \text{ CAUSE } e_2]$. Second, the optional parts of (273) that are not relevant to (272b) can be put into round brackets. Then, one obtains a representation such as in (274):

- (274) a. ‘(acting such that using) Z(, X) causes Y to become not whole’;
 b. [([[x ACT] : [x USE) z (]]) CAUSE [[BECOME [y not WHOLE]]],
 where CAUSE = (263).

However, the statement that the optional fragments of (274), i.e. the predicates ACT and USE as well as their first argument, are not relevant in the case of (272b) needs an additional clarification. Although they do not occur explicitly in the meaning construction of (272b), they are present in the background because on the basis of our **world knowledge** we know that an object by itself as an instrument cannot induce a change of state (cf. fn. 162). In

addition, to assign an instrument thematic role to that object one needs the predicate USE, which – in accordance with what was said above – has another argument, namely an agent. Thus, like an agent, an object alone cannot be considered a cause. Rather, the effect of causation may be attributed to an event regarded together with its participants, i.e. to somebody's acting such that he/she is using something. Thus, the round brackets in (274) do not indicate the disappearance of the agentive participant and the predicates ACT and USE but push them into the background. To put it the other way round, the participant introduced into a representation like (274) and the predicate(s) to which she belongs are not deleted when (272a) alternates with (272b). However, this is not the case with the optional FIN in round brackets (see representations in Section 5.1). The component FIN is not directly connected to any semantic argument and hence it does not have to be present in the representation of corresponding constructional meanings. No participant is lost with respect to the event of MOVE to which an optional ACT is connected in representations such as (184b), (189b) and (192b) above because the acting entity is no other than the moving one.¹⁶³ This seems to be similar to the phenomenon treated through existential quantification in the approach based on the lexical rule. The two-argument verb *eszik* 'eat' appears as a one-argument verb at the syntactic level if the second argument is bound by an existential quantifier (Kömlösy 2015: 321). However, my proposal does not lead to two lexical entries. According to the lexical-constructional conception, an underspecified meaning representation makes verbs be realized syntactically twice and it clearly shows the relation between the two constructional meanings.

Consequently, verbs with an underspecified representation as in (274) may alternate, as in (272). As listed in 4.1.3.2, the following verbs belong to this group:

(275) *borotvál* 'shave', *darál* 'grind; mince', *nyír* 'cut through pressing/shearing/mowing', *nyit* 'open', *őröl* 'mill', *reszel* 'grate', *szeletel* 'slice', *zár* 'close', etc.

An astute reader may have noticed that in comparison with (272) there should be something more in (274) than the fading of USE and ACT into the background. Whereas examples with instrumental subjects in the previous subsection denote events, the verb *vág* 'cut' in (272b) has a generic modal meaning which belongs to the semantic type of properties. The meaning concerned can be given in a schematic formulation as in (276):

¹⁶³ If MOVE is also optional as in (192b), this does not cause a problem because the entity at issue still figures with the component BE in the representation.

(276) ‘there is a property such that it is possible for an instrument (used by anyone) to V (something)’.

The formula in (276) is closely similar to the paraphrase of a type of middles that is differentiated from event-like middles by Ackema and Schoorlemmer (2006). To my best knowledge, however, the distinction between **instrumental subject sentences denoting events and properties** has not been put forward before in the literature.

Comparing the verbs occurring in the present and previous subsections, one may think that they have a different word-formation structure in instrumental subject sentences denoting events and properties. While in the former sentences preverbal verbs figure, in the latter verbs without preverbs are found. However, the opposite may be the case as well. On the one hand, verbs without preverbs can denote events, and on the other, preverbal verbs can express property. As to the first case, not only the verb *megszárít* ‘perf.dry’ but also the verb without the preverb *meg-*, i.e. *szárít* ‘dry’, can denote an event in instrumental subject sentences like (277b):¹⁶⁴

- (277) a. A hajszárító megszárította az ablakot.
 the hair_dryer perf.dry.Past.DefObj.3Sg the window.Acc
 ‘The hair dryer dried the window.’
- b. A hajszárító sokáig szárította
 the hair_dryer for_a_long_time dry.Past.DefObj.3Sg
 a ruhát, de az nedves maradt.
 the clothes.Acc but that wet remain.Past.3Sg
 ‘The hair dryer was drying the clothes for a long time but they remained wet.’

Moreover, a verb without a preverb from (275), e.g. *nyit* ‘open’, is used to describe not only property-like situations but also event-like ones. Cf.:¹⁶⁵

¹⁶⁴ (277a) is adapted from (254b).

¹⁶⁵ For an analysis of *nyit* ‘open’ as a property subtype of the instrument–subject alternation, see Bibok (2011). Two additional remarks are in order here. First, at least in cases when a lock which can operate not only in a closing object but also separately is opened, we must inevitably think of using an instrument. This indicates that one cannot fully agree with Koenig et al.’s (2008) classification of *open* as a non-obligatory instrument verb. Cf. the discussion about classes of verbs with an instrument semantic role in the last paragraph of the previous subsection (5.3.2). Second, in the light of (278b), the future investigation should pay special attention to the question of whether the verb *vág* ‘cut’ and similar verbs in (275) have an underspecified LSR with respect to two types of causation.

- (278) a. Ez a kulcs könnyen nyitja az ajtót,
 this the key easily open.DefObj.3Sg the door
 a másik nem.
 the other not.
 ‘This key easily opens the door, the other does not.’
- b. A kulcs éppen nyitotta a lakatot,
 the key just open.Past.DefObj.3Sg the lock.Acc
 amikor a bolt tulajdonosa megjelent.
 when the shop owner.Poss.3Sg appear.Past.3Sg
 ‘The key was just opening the lock, when the owner of the shop appeared.’

As for a preverbal verb with an event and a property reading, consider (259b), adapted here as (279a), and (279b) in the context of an advertisement.

- (279) a. A takarítógép **felmosta** a padlót.
 the cleaning_machine upwash.Past.DefObj.3Sg the floor.Acc
 ‘The cleaning machine washed the floor.’
- b. Ez a takarítógép jobban **felmossa**
 this the cleaning_machine better up.wash.DefObj.3Sg
 a padlót, mint a másik.
 the floor.Acc than the other.
 ‘This cleaning machine washes the floor better than the other does.’

Moreover, while the verb *felmos* ‘up.wash’ denoting an event does not alternate (see (256b)), repeated here as (280a)), it occurs as a property-denoting verb even with a facilitating instrument, i.e. even in the case of causation as helping, in the above context of an advertisement. Cf.:

- (280) a. *A felmosóröngy felmosta a padlót.
 the floor-cloth up.wash.Past.DefObj.3Sg the floor.Acc
 ‘The floor-cloth washed the floor.’
- b. Ez a felmosóröngy jobban felmossa
 this the floor-cloth better up.wash.DefObj.3Sg
 a padlót, mint a másik.
 the floor.Acc than the other.
 ‘This floor-cloth washes the floor better than the other does.’

Finally consider a headline from a local newspaper (*Szegedi Tükör* [Szegedian Mirror] June 8, 2019). It contains property-denoting verbs both with and without preverbs.

- (281) Hadrendbe álltak az új utcatakarító gépek
 battle_deployment.III stand.Past.3Pl the new street-cleaning machines.Pl

Söpörnek, **fel**mosnak, lombot szippantanak.
sweep.3Pl up.wash.3Pl leaf.Acc pull_at.3Pl
'New street-cleaning machines deployed: they sweep, wash and pull at leaves.'

* * *

It is my firm belief that the analyses of several alternating verb classes carried out in sections of Chapter 5 clearly demonstrate the explanatory power of my lexical-constructional approach to syntactic alternations. This was the fourth of the goals set in the introductory chapter of the dissertation.

CHAPTER 6

The lexical-constructural approach to syntactic alternation in a broader context

The present chapter is devoted to achieving the fifth aim of my dissertation. After having carried out my research in previous chapters, in particular in a lexical-constructural framework, I am in a position to consciously reflect on its methodological aspects from a metatheoretical point of view. In particular, I will concentrate on types of data and their interrelationship with theory (see **6.1**), as well as on the criteria of the plausibility of a theory. In so doing, I will attempt to re-evaluate the plausibility of the lexical, constructural and lexical-constructural approaches with the help of Kertész and Rákosi's (2012: Section 10.3, 2014: Subsection 2.6.1) notion of plausible argumentation (see **6.2**). Special attention is devoted to a further criterion of the plausibility of my approach, namely the extendibility of the lexical-constructural conception of syntactic alternations to lexical pragmatics (see **6.3**).

By assessing in this way the object-theoretical research carried out in the previous chapters, I wish to gain further confirmation of the lexical-constructural approach to syntactic alternation.

6.1. From data to theory and vice versa

To begin with, I take the issue of data sources, which often amounts to the apparent dichotomy of intuition and corpora. Although I share the view that corpora can certainly provide occurrences of expressions that have so far been overlooked, the use of corpora presents challenges one should bear in mind when thinking of methodological issues. A challenge relevant to linguistic analyses in general consists in the fact that some occurrences attested in a corpus are not simple errors but are (fairly) impossible. At the same time, the impossibility of such examples never follows from the corpus itself (Iwata 2008: 7). A judgment on impossibility (or, perhaps, on figurative or innovative expressions) made by someone always involves recourse to their own intuitions or those of others. Another unavoidable feature of the use of corpora is that (most) real utterances were not originally addressed to the linguist who wants to rely on them as examples from natural language use. Thus, the linguist is in the position of an overhearer rather than an actual addressee (Kolaiti and Wilson 2014). This is the case when they have to rely on their own intuitions during the pragmatic interpretation of selected examples and, moreover, these intuitions are not the genuine ones which hearers have in the case of utterances addressed to them. Such intuitions

are not themselves pragmatic facts, but intuitions about hypothetical pragmatic facts, and may be mistaken. The next – and perhaps the most serious – difficulty is caused by the very plausible assumption that a great number of the various systematically changing interpretation possibilities of utterances cannot be obtained even in a corpus containing more than several hundred million tokens (running words). What helps in such cases is thought experiments when one considers all factors affecting the interpretation of an utterance and modifies one of them in each phase of the given thought experiment. In doing so, one can evaluate all the theoretically possible and relevant variants of interpretation. Hence, possibilities not present in corpora also fall within the scope of investigation (Németh T. 2010: 342).¹⁶⁶ Recall from this perspective the above examples in (183) and (187a), repeated here as (282) and (283).

(282) A traktor a szántóföldön berreg.
 the tractor the field.Sup throb.3Sg
 ‘The tractor is throbbing in the field.’

(283) A fiú csattog a papucsával.
 the boy flap.3Sg the slippers.Poss.3Sg.Ins
 ‘The boy is flapping his slippers (while walking).’

As to (282), it was said in **5.1.3.1** that depending on whether the phrase with the inflected noun phrase *a szántóföldön* ‘in the field’ counts as an adjunct or argument, one can interpret (282) in two ways. If (282) has an adjunct, the verb *berreg* ‘throb’ only expresses sound emission when the tractor stands in one place, while (282) with a locative argument denotes a motion someplace in some manner accompanied with sound emission. In connection with (283), it was noted in **4.1.1.2** that (283) can have a different meaning than one indicated by the English translation, namely ‘The boy is clapping his slippers (with his hands)’ while, unlike *csattog* ‘flap’, *csattog* ‘clap’ does not alternate and does not have a directed motion sense. Thus, if examples such as (282) and (283), or similar examples from a corpus, can be interpreted (pragmatically or contextually) in different ways, the various possible interpretations are always shown by making use of speakers’ language knowledge, including that of linguists.

Moreover, I have provided a couple of extremely simple examples which seem to be fairly convincing without any recourse to corpora but still crucial for improving a theory of syntactic alternations. For instance, examples including agentive and theme subjects (cf.

¹⁶⁶ Although intuitions play a crucial role in thought experiments, the latter may be components of real experiments and real experiments can be motivated by thought experiments (cf. Kertész 2014).

Section 5.1) have turned out to be important to test the capacity of a theory. And other examples containing verbs of being in and assuming a spatial position (cf. Subsection 5.1.3.3) have shown an alternation no account of which can be found in the previous literature.

Thus, one may claim that – because of the above-mentioned problems of corpora – recourse to our **intuitions** still seems to be **indispensable** in research, especially in research into pragmatics. Nevertheless, in previous (see in particular Bibok 2016a and 2017b) and current research, I have not confined myself to constructed examples and their investigation in thought experiments with the help of minimal pairs, but have also used data sources such as the previous literature, including dictionary entries, as well as newspaper articles and Google search results.

A further important methodological issue is connected to the odd character of examples or possible interpretations that might be striking for a reader of the preceding chapters. Besides conventional and typically occurring cases, pragmatic theory has to concern itself with novel cases and with what may occur in strange circumstances (cf. Kolaiti and Wilson 2014). Moreover, there can be situations where conventional means are not available and what counts as conventional is culture-specific. Some scenes of a 2014 American film entitled *The Good Lie* (screenplay by Margaret Nagle and directed by Philippe Falardeau – https://en.wikipedia.org/wiki/The_Good_Lie) come to mind. When five Sudanese siblings are escaping after their fellow villagers had been massacred, a piece of glass is used to shorten their hair and to cut a shawl in order to tear it into two more easily. In a later scene of the film, in the first evening at their home in the US one of the Sudanese refugees, Paul, brushes his teeth with an “African toothbrush”, made of a piece of wood, without tooth paste although everything that is used to brush teeth in western culture had been put onto the shelf in the bathroom.

In addition, there can always be uncertain judgments concerning the acceptability of particular linguistic expressions, including syntactic alternations. At this point of my dissertation, I want to remind the reader of the three fragments of the above chapters. Recall (i) the discussion on the variability of the grammaticality of syntactic diagnostics concerning the distinction between arguments and adjuncts (see Subsection 2.2.5), (ii) verbs of sound emission with directional phrases which can sometimes be considered uncommon and strange (cf. Subsection 5.1.3.2), as well as

(iii) judgments varying across speakers from not completely acceptable to probably or fully acceptable, depending on how complex the result state is in *megrak* ‘perf.load’ and *felrak* ‘up.load’ (cf. fn. 162).¹⁶⁷

Nevertheless, there cannot be any doubt about the general possibility of the syntactic pattern change (or about the impossibility of such a change with some verbs of the same semantic class). Consequently, it seems to be a safe statement that one cannot avoid the problem of explaining the possibility of using words with various syntactic structures.

Therefore, I offer a solution for this problem that is divided into two parts and uses the well-known type–token distinction for metatheoretical (metalinguistic) purposes. On the level of theory construction, one should critically assess how one’s own and others’ theories cope with data considered a type in their totality. On the level of data analysis, one deals with data as separate tokens even though one carries out one’s research in the framework of a theory. Consequently, ignorance or false judgments and analyses of data as separate tokens do not destroy a theory.

Furthermore, theory and data are mutually connected to each other. Not only does a theory depend on a type (or several types) of data but what constitutes data is theory-dependent as well (cf. Lehmann 2004). Furthermore, their relationship has to be conceived of as cyclic and the actual argumentation process determines what is considered data (cf. Németh T. 2010: 341, Kertész and Rákosi 2014). Such a view allows more adequate decisions on data selection and linguistic theorizing. On the one hand, for example, being bound to corresponding situations, examples from the real use of language are immediately related to contextual, including constructional, meanings and not to underspecified word meanings (cf. Bibok 2010). One should bear in one’s mind that things are often like this if one turns to the meaning descriptions found in dictionaries. Thus, on the basis of the preceding chapters, I can state that the lexical-constructional approach to syntactic alternations determines what kind of examples one should take into consideration as data for what kind of word meanings, and how meanings in (explanatory) dictionaries can be used as data (cf. also Weigand 2005). On the other hand, if one does not suppose a linear process from data to theory, one may return to the problem at stake again and re-evaluate the reliability of sources and the statements made earlier about acceptance and rejection (Kertész and Rákosi 2014: 32). At this point of the train

¹⁶⁷ In addition, if one relies on corpora, one may find that “verbs from the same lexical class demonstrate strong statistical preferences for either one or another alternating construction” (Lyashevskaya and Kashkin 2015: 429).

of thought, the special feature of the data presentation in preceding chapters, namely the iterative consideration of crucial examples, seems to me to be fully justified.

What is more, adopting the outlined stance on the interrelationship of data and theory, one can think of distinctions and classifications as relevant if they are made in a particular theory, and one can approach the issue of transferring the empirical heuristics used in one framework to another only with extreme caution.

Thus, data gathered and treated in various ways described above has made it possible to critically evaluate theories concerning syntactic alternations and to propose a more reliable one, namely lexical-constructional theory. In addition, looking ahead into Subsection 6.2.1, where Kertész and Rákosi's (2014: Section 3.1, 2012: Section 13.2) notion of linguistic datum is introduced as expressions and structures considered not alone but as statements about them, we can recognize even more clearly that data as such are not independent of some assessment.

6.2. The plausibility of approaches to the syntactic alternation of Hungarian verbs

6.2.1. Verb classes of *ken* 'smear' and *úszik* 'swim; float' once again

Despite the fact that there is a common agreement about the occurrence of syntactically alternating verb classes, several approaches to the theoretical treatment of their syntactic alternation have been proposed. In this subsection, I aim to assess the plausibility of the three conceptions explaining syntactic alternations in Chapters 4 and 5, namely lexical, constructional and lexical-constructional theories, on the basis of Kertész and Rákosi's (2012: Section 10.3, 2014: Subsection 2.6.1) notion of plausible argumentation. Following their proposal I thoroughly examine the plausibility of the central hypotheses of the various approaches to syntactic alternation. In connection with them, I ask which is implausible or exceeds the other as regards plausibility (for an earlier version of the re-evaluation of the lexical, constructional and lexical-constructional approaches from the point of view of plausibility, see Bibok 2014c).

To begin with, consider the examples in (284) and (285) once again.

- (284) a. Az anya zsírt ken a kenyérre.
 the mother fat.Acc smear.3Sg the bread.Sub
 'The mother is smearing fat on the bread.'
- b. Az anya zsírral keni a kenyeret.
 the mother fat.Ins smear.DefObj.3Sg the bread.Acc
 'The mother is smearing the bread with fat.'

- (285) a. A gyerek úszik.
 the child swim.3Sg
 ‘The child is swimming.’
- b. A gyerek a barlangba úszik.
 the child the cave.III swim.3Sg
 ‘The child is swimming into the cave.’

The verbs which behave syntactically in the same way as *ken* ‘smear’ and *úszik* ‘swim’ include the following in (286) and (287), respectively.

- (286) *fest* ‘paint’, *fröcsköl* ‘splash’, *hint* ‘dust; sprinkle’, *locsol* ‘water; sprinkle’ *mázol* ‘paint’, *öntöz* ‘water; sprinkle’, *permetez* ‘spray; sprinkle’, *spriccel* ‘spray’, *tölt* ‘fill’, *töm* ‘cram’, etc.
- (287) *baktat* ‘trudge’, *ballag* ‘walk slowly’, *bandukol* ‘walk slowly’, *battyog* ‘walk slowly’, *biceg* ‘hobble’, *biciklizik* ‘ride a bicycle’, *billeg* ‘walk swinging slightly from side to side’, *botladozik* ‘falter’, *bukfencezik* ‘somersault’, *cammog* ‘plod’, *csoszog* ‘shuffle one’s feet’, *csúszik* ‘slide’, *dülöngél* ‘reel’, *evez* ‘row’, *folyik* ‘flow’, *forog* ‘spin’, *fut* ‘run’, *gázol* ‘wade’, *gurul* ‘roll’, *gyalogol* ‘walk’, *himbálózik* ‘swing’, *hőmpölyög* ‘surge’, *imbolyog* ‘totter’, *kerékpározik* ‘ride a bicycle’, *kocog* ‘jog’, *kúszik* ‘creep’, *landol* ‘land’, *lebeg* ‘float’, *lovagol* ‘ride (a horse)’, *masíroz* ‘march’, *mászik* ‘climb’, *menetel* ‘march’, *oson* ‘sneak’, *ömlik* ‘pour’, *pattan* ‘bounce’, *pattog* ‘bounce (several times)’, *poroszkál* ‘amble’, *pörög* ‘spin’, *repül* ‘fly’, *ring* ‘swing’, *rohan* ‘rush’, *sétál* ‘walk’, *sántikál* ‘hobble’, *siklik* ‘glide’, *somfordál* ‘creep’, *sompolyog* ‘creep’, *szalad* ‘run’, *száll* ‘fly’, *szökdécsel* ‘skip’, *szökdel* ‘skip’, *szökken* ‘skip (once)’, *támolyog* ‘stagger’, *táncol* ‘dance’, *tántorog* ‘stagger’, *tipeg* ‘waddle; toddle’, *totyog* ‘waddle; toddle’, *ugrál* ‘jump (several times)’, *ugrik* ‘jump’, *üget* ‘trot’, *vágtat* ‘gallop’, *vánszorog* ‘trudge’, *vitórlázik* ‘sail’, etc.

We can make **plausible** statements about the well-formedness of the examples in (284) and (285) as well as about the existence of alternating verb classes in (286) and (287). They are plausible in the sense that their reliability is “not guaranteed but only partially supported by the *source* from which they originate; thus, they can be regarded as acceptable only to a certain extent” (Kertész and Rákosi 2012: 63; emphasis as in the original).¹⁶⁸ In other words, if a source speaks for a statement, then it makes it plausible, or, in an extreme case, true with certainty.¹⁶⁹ Sources are referred to as direct by Kertész and Rákosi (2014: Section 2.2, cf.

¹⁶⁸ *Mutatis mutandis*, it also concerns the character of examples marked below with an asterisk as not well-formed. Consequently, the acceptability of linguistic expressions is not conceived of as an issue treatable by a dual “yes–no” system in any case.

¹⁶⁹ Throughout the present and following subsection, (im)plausibility should be understood with the following supplement: in an extreme case, true/false with certainty.

2012: 67) if “the plausibility of the statement at issue is evaluated with respect to the reliability of the source” and indirect if “the plausibility value of the given statement is determined with reference to the plausibility of other statements – that is with the help of an inference”.

In our case direct sources which support plausible statements about the acceptability of the examples and verb classes introduced above could be – besides my intuition – dictionaries or corpora. It is important to call the reader’s attention to the point that in Kertész and Rákosi’s (2014: Section 3.1, 2012: Section 13.2) view, linguistic data are not linguistic expressions and structures alone, or mere acoustic or visual signs in various types of corpora, but plausible statements which concern their occurrence and/or characteristics and whose plausibility value stems from direct sources. After all, it is not only a plausible statement about the well-formedness of linguistic examples but also every hypothesis about their syntactic and semantic structures and about their classification as one linguistic category which is considered data if the plausibility value is assigned to it immediately on the basis of the reliability of its source as, e.g., in the case of the existence of alternating verb classes.

It is also worth noticing that if some plausible statements concerning (284)–(287) became implausible and even if a statement concerning an entire class of verbs became implausible on the basis of one type of sources,¹⁷⁰ it would not be an implausible conclusion at all that the two above-mentioned syntactically alternating verb classes exist and, consequently, the linguistic phenomenon of syntactic alternation exists. Although, in a case of the recognition of implausibility the datum concerning the given class would become less plausible, or one should regard that source as less reliable (or unreliable in some respects).

6.2.2. Approaches to syntactic alternation

In lexicography there is a tradition that treats occurrences of a word with different syntactic patterns as instances of polysemy if they figure separately in a dictionary. Although the locative alternation of the verb *ken* ‘smear’ can be found as separate meanings in both the multivolume and the concise explanatory dictionaries of Hungarian (Bárczi and Országh 1959–1962, as well as Puzsai 2003), the directed motion sense of the verb *úszik* ‘swim’ is not listed in them but one can infer it from an example: *partra úszik* ‘swim to the seaside/riverside’. Nevertheless, recent trends in theoretical linguistics seem to believe that an enumerative conception of the lexicon which simply fixes various meanings of a word in a

¹⁷⁰ For instance, certain meanings are absent from dictionaries (see above and below).

lexical entry is insufficient. They all attempt to elaborate their own version which exceeds the traditional lexicographic treatment of polysemy induced by syntactic alternation.

6.2.2.1. The lexical rule approach

A lexical rule operates on the semantic representation of a lexical item and in doing so it creates a new lexical item. The reader can recall that the following lexical rule has been proposed for the locative alternation of the verb *ken* ‘smear’ and of similar verbs in Section 5.2.1.1 (cf. Pinker 1989: 79).

(288) If there is a verb with the semantic structure ‘X causes Y to move into/onto Z’, then it can be converted into a verb with the semantic structure ‘X causes Z to change state by means of moving Y into/onto it’.

One can obtain (288) as an inductive generalization on the basis of the syntactic behavior and the semantic structure of the verbs in (286). Since it is an induction, it cannot be considered a one-hundred-percent truth. At the same time, (288) seems to be a statement plausible enough. It is also a plausible assumption that

(289) *ken* (*X Y-t Z-re*) ‘smear (X, Y on Z)’ contains the semantic representation ‘X causes Y to move onto Z’.

(288) and (289) together as premises lead to the following conclusion:

(290) There is an expression *ken* (*X Z-t Y-nal*) ‘smear (X, Z with Y)’ with the corresponding semantic representation ‘X causes Z to change state by means of moving Y onto it’.

This conclusion is made by an inference scheme similar to the modus ponens well-known in logic:

(291) If A, then B.
 A

 B

However, one has to remember that our premises are only plausible statements and, therefore, the conclusion (290) can only be a plausible statement as well. Thus, the entire inference scheme is necessarily regarded as a plausible modus ponens given in (292).¹⁷¹

¹⁷¹ Instead of the verbal indicator for the plausibility of statements *it is plausible that...*, Kertész and Rákosi (2012: 69–70, 2014: Section 2.2) use the following notation presented in the case of the first premise of (292):

(292) It is plausible that if a verb contains in its semantic structure ‘X causes Y to move into/onto Z’ (= A), then the rule converts it into a verb with semantic structure ‘X causes Z to change state by means of moving Y into/onto it’ (= B).

It is plausible that the verb *ken* (*X Y-t Z-re*) ‘smear (X, Y on Z)’ is a verb with a semantic representation ‘X causes Y to move onto Z’ (= A).

 It is plausible that there is a verb *ken* (*X Z-t Y-nal*) ‘smear (X, Z with Y)’ with a corresponding semantic representation ‘X causes Z to change state by means of moving Y onto it’ (= B).

The inference in (292) explains the syntactic alternation of another verb, i.e. *ken* ‘smear’, not mentioned among the verbs in (286), on the basis of which the lexical rule in (288) was hypothesized.

Plausible inferences such as (292) are put forward and evaluated against a background which Kertész and Rákosi term the p-context, which includes, among others, “a set of sources in terms of which the plausibility value of statements can be judged” (Kertész and Rákosi 2014: Section 2.4, see also Kertész and Rákosi 2012: 122). Let us suppose that our initial p-context is extended by a new, reliable source containing the following example:

(293) Az anya vizet önt a virágra.
 the mother water.Acc pour.3Sg the flower.Sub
 ‘The mother is pouring water onto the flower.’

Thus, extending the p-context, we gain a new datum, i.e. a plausible statement about the occurrence of *önt* ‘pour’ in a source. Furthermore, it is also a plausible hypothesis on the basis of this source that *önt* (*X Y-t Z-re*) ‘pour (X, Y onto Z)’ has the semantic representation ‘X causes Y to move onto Z’. Let us apply our plausible modus ponens scheme once again:

(294) It is plausible that if a verb contains in its semantic structure ‘X causes Y to move into/onto Z’ (= A), then the rule converts it into a verb with the semantic structure ‘X causes Z to change state by means of moving Y into/onto it’ (= B).

It is plausible that the verb *önt* (*X Y-t Z-re*) ‘pour (X, Y onto Z)’ is a verb with the semantic representation ‘X causes Y to move onto Z’ (= A).

 It is plausible that there is a verb *önt* (*X Z-t Y-nal*) ‘pour (X, Z with Y)’ with the corresponding semantic representation ‘X causes Z to change state by means of moving Y onto it’ (= B).

-
- (i) $0 < \llbracket \text{If a verb contains in its semantic representation ‘X causes Y to move into/onto Z’ (= A), then the rule converts it into a verb with the semantic representation ‘X causes Z to change state by means of moving Y into/onto it’ (=B)} \rrbracket_S < 1$

At the same time, according to a more extended p-context containing (295), it is also plausible that there is not such a verb. Cf.:

- (295) *Az anya vízzel önti a virágot.
 the mother water.Ins pour.DefObj.3Sg the flower.Acc
 ‘The mother is pouring the flower with water.’

Furthermore, if the rule also derives a verb in the other direction (cf. Pinker 1989: 80), then the verb *fed* ‘cover’ should alternate. However, the contrary seems to be the case. Consider (296).

- (296) a. *Az anya csokoládémázát fed a süteményre.
 the mother chocolate_coating.Acc cover.3Sg the cookie.Sub
 ‘The mother is covering chocolate coating onto the cookie.’
- b. Az anya csokoládémázzal fedi a süteményt.
 the mother chocolate_coating.Ins cover.DefObj.3Sg the cookie.Acc
 ‘The mother is covering the cookie with chocolate coating.’

Thus, we have an (extended) p-context which qualifies as p-inconsistent because there is a statement that is made plausible by some source, and its negation by another (Kertész and Rákosi 2014: Section 2.5, 2012: 130).¹⁷² This inconsistency calls for the modification of the p-context which “means that one has to elaborate the p-context that can be regarded as the re-evaluated version of the starting p-context” (Kertész and Rákosi 2014: Subsection 2.6.1, cf. Kertész and Rákosi 2012: 138). Since it is not only a set of sources which belongs to a p-context but also statements together with their relevant characteristics, we can gain a modified p-context if the plausibility value of the lexical rule in (288) is revised. The new lexical rule should be formulated with respect to a narrow semantic class to whose members – and only those members – the given rule can be applied. In other words, (288) is the necessary condition of the locative alternation; its sufficient condition, however, seems to be that the verb at stake belongs to a narrow semantic class. Pinker (1989: 126–127) lists six classes of English locative alternation verbs. As already mentioned in 5.2.1.1, they are as listed in (297), which specifically indicates where the locative alternation cannot be attested in Hungarian.

- (297) a. *Smear-class*: ‘Simultaneous forceful contact and motion of a mass against a surface.’

¹⁷² In addition to *önt* ‘pour’ and *fed* ‘cover’, there are other verbs that may be characterized with the semantic representation at issue but do not alternate. See, for instance, (297b) and (297d) below.

- b. *Pile-class*: ‘Vertical arrangement on a horizontal surface.’ In Hungarian there is no alternation, unlike English: *téglákat halmozott a székre – *téglákkal halmozta a széket* vs. *He heaped bricks on the stool – He heaped the stool with bricks.*
- c. *Splash-class*: ‘Force is imparted to a mass, causing ballistic motion in a specified spatial distribution along a trajectory.’
- d. *Scatter-class*: ‘Mass is caused to move in a widespread or non-directed distribution.’ In Hungarian there is no alternation, unlike English: *magot szórt a földbe – *maggal szórta a földet* vs. *He scattered seeds onto the field – He scattered the field with seeds.*
- e. *Cram-class*: ‘A mass is forced into a container against the limits of its capacity.’
- f. *Load-class*: ‘A mass of a size, shape, or a type defined by the intended use of a container is put into the container, enabling it to accomplish its function.’

To explain that the verb *ken* ‘smear’ alternates syntactically as in (284) one needs now to supplement the first premise of the plausible inference in (292) with the indication of the semantic structure characteristic of the *smear-class* *ken* ‘smear’ belongs to. Furthermore, an account of the non-alternating behavior of *önt* ‘pour’ and *fed* ‘cover’ simply means that their meanings do not correspond to any of the semantic classes in (297). Rather, these Hungarian verbs occur in non-alternating verb classes similar to those established by Pinker (1989: 126–127) for English verbs, namely, in the *dribble-class* (‘a mass is enabled to move via the force of gravity’) and in the *inundate-class* (‘a layer completely covers a surface’), respectively. At the same time, the p-context modified by statements about alternating and non-alternating narrow semantic classes seems to be inconsistent with its further extension. Consider (298).

- (298) a. Az apa (véletlenül/szándékosan) kávéét lötytyent
 the father incidentally/intentionally coffee.Acc spill.3Sg
 az asztalterítőre.
 the tablecloth.Sub
 ‘The father (incidentally/intentionally) spills coffee on the tablecloth.’
- b. *Az apa (véletlenül/szándékosan) kávéval lötytyenti
 the father incidentally/intentionally coffee.Ins spill.DefObj.3Sg
 az asztalterítőt.
 the tablecloth.Acc
 ‘The father (incidentally/intentionally) spills the tablecloth with coffee.’

As (298) seems to indicate, *lötytyent* ‘spill’ does not alternate. A plausible account can consist of a statement that the meaning of this verb – like that of *önt* ‘pour’ – is fairly similar to the semantic structure of the *dribble-class* (‘a mass is enabled to move via the force of gravity’). However, one can realize that *lötytyent* ‘spill’ means more than the motion caused by gravity

since a different force causes the ballistic motion of a mass. Thus, *löttyent* ‘spill’ could enter the alternating *splash*-class in (297c), cf.: ‘force is imparted to a mass, causing ballistic motion in a specified spatial distribution along a trajectory’. It could be an objection that the motion does not come about in a sufficiently specified manner. This objection is eliminated by a (plausibly) well-formed example containing the verb *löttyent* ‘spill’ with the preverb *le-* ‘down’, which does not affect how the mass moves.

- (299) Az apa (véletlenül/szándékosan) lelöttyenti
 the father incidentally/intentionally down.spill.DefObj.3Sg
 az asztalterítőt kávéval.
 the tablecloth.Acc coffee.Ins
 lit. ‘The father (incidentally/intentionally) spills down the tablecloth with coffee.’

After all, putting a verb in a narrow semantic class does not correlate with the alternating and non-alternating syntactic behavior of this verb alone and with a preverb not affecting the character of the movement.

To recapitulate where we have arrived with the help of lexical rules applied to narrow semantic classes of verbs, we should say that even lexical idiosyncrasy plays some role, in addition to lexical rules made more precise. It is also clear that in spite of the extending p-context by new sources and statements, the methodological stance of the treatment of syntactic alternations has not been changed. Overall, the meaning brought about by a meaning shift is grasped as a **lexical** phenomenon but not as a meaning occurring in a **particular syntactic structure**. Using a different methodology in the starting, or initial, p-context, a constructional conception approaches meaning shifts and syntactic alternations from the latter point of view.

6.2.2.2. The constructional approach

Recalling the main tenets of Goldberg’s (1995, 2006) Construction Grammar from Subsection 5.1.2 (cf. also 5.2.1.2), one can posit the following hypothesis about syntactic alternations:

- (300) If the participant roles of a verb are compatible with the argument structure of two constructions, this verb occurs in syntactically alternating structures (cf. Goldberg 1995: 179).

In order to test the plausibility of (300), let us apply the machinery of Construction Grammar to the syntactic alternation exemplified by (285), which is repeated here for convenience as (301).

- (301) a. A gyerek úszik.
 the child swim.3Sg
 ‘The child is swimming.’
- b. A gyerek a barlangba úszik.
 the child the cave.III swim.3Sg
 ‘The child is swimming into the cave.’

According to what was already outlined in **5.1.2**, the verb *úszik* ‘swim’ is integrated into a kind of simple intransitive construction in the case without a directional phrase, and it is integrated into the intransitive motion construction in the case with a directional phrase. The verb *úszik* ‘swim’ can be associated with the latter construction and given a directed motion interpretation even if no participant role is fixed with the verb which corresponds to the directional role. The directional role belongs to an argument which the intransitive motion construction itself owns, independently of whether the verb has a participant role corresponding semantically to a directional (goal) role.¹⁷³

What is crucially important in connection with the constructional analysis of the syntactic alternation characteristic of *úszik* ‘swim’ is that, according to Construction Grammar, the first argument role of the intransitive motion construction is nothing but a theme, similarly to the second argument role of the caused-motion construction. Thus, the intransitive motion construction and, consequently, the simple intransitive construction only account for another use of *úszik* ‘swim’ than the one featured in (301), where an agent subject figures. It is an occurrence of that verb with a theme subject as in (302), which one can gain from a new source by extension of the p-context.

¹⁷³ It is worth noting that in a wider p-context one cannot avoid the question concerning the motivation of the occurrence of a directional in the intransitive motion construction. Consider the following example analyzed in detail in **5.1.3.3**.

- (i) a. Péter (a szőnyegen) áll.
 Péter the carpet.Sup stand.3Sg
 ‘Péter is standing (on the carpet).’
- b. Péter a szőnyegre áll.
 Péter the carpet.Sub stand.3Sg
 ‘Péter steps onto the carpet.’

While in (301a) with *úszik* ‘swim’ there is a motion component which can motivate the directional role in (301b), in (ia) one cannot refer to any motion which would make the directional role plausible in (ib).

- (302) a. Az üveg úszik.
 the bottle float.3Sg
 ‘The bottle is floating.’
- b. Az üveg a barlangba úszik.
 the bottle the cave.III float.3Sg
 ‘The bottle is floating into the cave.’

Therefore, constructions somewhat different from the simple intransitive and intransitive motion ones have to be assumed in order to handle sentences with agentive subjects as in (301), provided that the child really does act and they are not interpreted as the inanimate subject of (302). Since the agent is an entity who carries out an activity, the intransitive activity and activity-motion constructions can be assumed for (301).

Nevertheless, this duplication of constructions does not necessarily imply the lexical proliferation of the Hungarian verb *úszik* ‘swim; float’. In constructional terms, one can propose that the single participant role of the verb at stake is construable either as a theme, or as an agent in both the directed motion sense, i.e. in the intransitive motion and activity-motion constructions with the directional argument role, and in the manner of motion sense, i.e. in the simple intransitive and intransitive activity constructions without the directional argument role. However, in such a case the question of what the double construal depends on should inevitably be accounted for in Construction Grammar.

After all, now that the p-context has been extended with new sources both the lexical approach and Construction Grammar face lexical exceptions to general lexical rules and the mechanisms of integration of lexical entries into constructions, respectively. Although *úszik* ‘swim; float’ and other similar verbs in (287) show systematic polysemy and syntactic alternation, only some of those verbs which mean the manner of motion of inanimate entities capable of moving in the presence of external effects are suitable for designating a directed motion (Komlósy 2000: 257). Compare, for instance, the familiar examples with the verbs *pattog* ‘bounce’ and *inog* ‘wobble’ in (303) and (304), respectively.

- (303) a. A labda (a fal mellett) pattog.
 the ball the wall by bounce.3Sg
 ‘The ball is bouncing (by the wall).’
- b. A labda a fal mellé pattog.
 the ball the wall to bounce.3Sg
 ‘The ball is bouncing to the wall.’

- (304) a. A szék (a fal mellett) inog.
 the chair the wall by wobble.3Sg
 ‘The chair is wobbling (by the wall).’
- b. *A szék a fal mellé inog.
 the chair the wall to wobble.3Sg
 ‘The chair is wobbling to the wall.’

6.2.2.3. The lexical-constructional approach

In the preceding subsections we have seen that both lexical and constructional factors play a role in syntactic alternations.¹⁷⁴ Therefore, it seems to be a plausible resolution of the rivaling lexical and constructional theories to build both of them into our p-context as methodologies reconciled and supplemented with each other. As a result, my lexical-constructional approach presented in Chapters 4 and 5 has a considerably innovative feature in that verbs are lexically represented in an underspecified way with optional elements relevant to one or another constructional meaning and not represented as specifically as constructional meanings.

At the same time, the lexical-constructional approach means not only the unification of two different methodologies in a wider p-context but also provides a resolution of inconsistencies and open questions concerning general, or grammatical, tools and lexical characteristics. From the point of view of syntactic alternations it is a **plausible hypothesis** that verbs participate in them if they have a general meaning which is compatible with all meanings occurring in alternations. If a verb does not have an LSR that can result in different interpretations, that is, if a verb is lexically more specific, it is **implausible** that it alternates syntactically. This will be shown by the re-analysis of locative alternation in a lexical-constructional framework.

Recall that in accordance with (289) the verb *ken* ‘smear’ in a context *X Y-t Z-re* ‘X, Y on Z’ has a semantic representation ‘X causes Y to move onto Z’, to which we can add the following specifications: Y = mass, Z = surface and the causation includes smoothing movements of an object. Furthermore, if we concretize the change of state in meaning representation of the expression *ken (X Z-t Y-nal)* ‘smear (X, Z with Y)’ as being covered partially or totally (see (290) above), we can obtain the following semantic structure: ‘X causes Z to be covered partially or totally with Y (= mass)’.¹⁷⁵

¹⁷⁴ For other details of the lexical and constructional approaches to syntactic alternations, see the pertinent parts of Chapter 5.

¹⁷⁵ For a motivation to assume a representation without a motion element unlike (290), see 5.2.1.3.

Now, taking the two semantic representations of *ken* ‘smear’ detailed above against the background of our methodological stance that constructional meanings of a verb condense into one lexical but underspecified meaning, we can come to a plausible enough conclusion that the verb at stake has the following LSR:

- (305) ‘with smoothing movements of an object,
X causes a mass Y to move onto a surface Z,
and
with smoothing movements of an object,
X causes a surface Z to be covered partially or totally with a mass Y’.

Starting from the lexicon, containing the verb *ken* ‘smear’ with the underspecified representation in (305), the constructional meanings of the given verb correspond to the two possible interpretations of (305) alternating with each other. When a mass is focused, or profiled, the constructional meaning is equal to the part of (305) which comes before the conjunction *and*. This constructional meaning is expressed in (284a), repeated here as (306).

- (306) Az anya zsírt ken a kenyérre.
the mother fat.Acc smear.3Sg the bread.Sub
‘The mother is smearing fat on the bread.’

In the opposite case, when a surface comes into prominence, the constructional meaning is the part of (305) figuring after the conjunction *and*. It is (284b), repeated here as (307), that has this second interpretation.

- (307) Az anya zsírral keni a kenyeret.
the mother fat.Ins smear.DefObj.3Sg the bread.Acc
‘The mother is smearing the bread with fat.’

Consequently, the verb *ken* ‘smear’ can alternate syntactically because its underspecified meaning in (305) provides access to two constructional meanings expressed by the corresponding syntactic structures.

On the contrary, the verbs *önt* ‘pour’ in (295), i.e. *Az anya vizet önt a virágra* ‘The mother is pouring water onto the flower’ and **Az anya vízzel önti a virágot* ‘The mother is pouring the flower with water’, as well as *fed* ‘cover’ in (296), i.e. **Az anya csokoládémázat fed a süteményre* ‘The mother is covering chocolate coating onto the cookie’ and *Az anya csokoládémázzal fedi a süteményt* ‘The mother is covering the cookie with chocolate coating’, do not occur in syntactic structures of two alternating types because their meaning is not

underspecified in a way that would allow two different interpretations. The verb *önt* ‘pour’ has a more specific meaning representation which only contains (308) and does not contain (309):

(308) ‘acting in a given manner, X causes a mass Y to move onto a surface Z / into a container Z’;

(309) ‘acting in a given manner, X causes a surface Z to be covered / a container to be filled (in) partially or totally with a mass Y’.

Also, the meaning representation of *fed* ‘cover’ is more specific but in the other way. This verb simply means that

(310) ‘acting in a given manner, X causes a surface Z to be covered partially or totally with a mass Y’

and does not mean that

(311) ‘acting in a given manner, X causes a mass Y to move onto a surface Z’.

Now, one can make the following plausible hypotheses concerning the locative alternation in general. First, in accordance with principles of the lexical-constructional approach, the locative alternation is relevant only for those **verbs whose meaning representations are underspecified** in a similar way to (305). In other words, both constructional meanings are generally available if all locatively alternating verbs are characterized with a meaning scheme (template) underspecified with regard to their parts before and after the conjunction *and*. Thereby each of them can be interpreted in two ways and expressed syntactically in two ways. Second, the verbs which do not possess such underspecified representations cannot occur in syntactic structures alternating the locative variant with the *with*-variant. This entails that the verbs not occurring in locative alternation do **not have to be considered exceptions**. The meaning of a verb itself determines – like narrow semantic classes but more precisely – whether it may participate in the syntactic alternation at stake.

At this point of the present subsection, I can explicitly show which data are regarded as evidence for the lexical-constructional account and against its rivals, i.e. lexical and constructional theories. Kertész and Rákosi (2012: Section 13.3, 2014: Section 3.2) generally view evidence as a datum whose function is to contribute to the judgment and comparison of

the plausibility of rival hypotheses. They distinguish between three types of evidence (each with two subtypes “for or against a hypothesis”):

(i) weak evidence: a datum on which one can build inferences that make a hypothesis (its truth or falsity) plausible,

(ii) relative evidence: a datum which provides stronger support to a hypothesis than to its rivals, and

(iii) strong evidence: a datum which makes only one hypothesis plausible and provides no support to its rivals.

Now recall the examples in (298), given again here as (312).

- (312) a. Az apa (véletlenül/szándékosan) kávéét lötytyent
 the father incidentally/intentionally coffee.Acc spill.3Sg
 az asztalterítőre.
 the tablecloth.Sub
 ‘The father (incidentally/intentionally) spills coffee on the tablecloth.’
- b. *Az apa (véletlenül/szándékosan) kávéval lötytyenti
 the father incidentally/intentionally coffee.Ins spill.DefObj.3Sg
 az asztalterítőt.
 the tablecloth.Acc
 ‘The father (incidentally/intentionally) spills the tablecloth with coffee.’

The plausible statement about the non-existence of the verb *lötytyent* ‘spill’ with a ‘with’-variant and the corresponding semantic structure, which was made in the above discussion (cf. also (299)), should be considered **weak evidence against** the hypothesis about the existence of a narrow semantic class, namely, the *splash*-class in (297c) and, naturally, a **weak evidence for** one of the rivals of that hypothesis, i.e. for non-existence of that semantic class in the sense of Kertész and Rákosi (2012: 178, 2014: Section 3.2), provided – as pointed out above – that the semantic class includes verbs and – only those verbs – which undergo the locative alternation. In the terms of Kertész and Rákosi (2012: 181, 2014: Section 3.2) such a plausible statement is **strong evidence against** a hypothesis; in the present case, against the hypothesis regarding the existence of (297c). Moreover, it is easy to see that the plausible statement at stake is **relative evidence against** the hypothesis about the classification of relevant verbs into narrow semantic classes (Kertész and Rákosi 2012: 180, 2014: Section 3.2). This is the case because the plausible inferences connecting the premises and the negation of such a hypothesis provide a higher plausibility value than the plausibility value of the original hypothesis. Namely, the lexical-constructional account without narrow semantic classes makes a more precise prediction concerning the set of Hungarian verbs occurring in

the locative alternation while it does not have to allow lexical idiosyncrasies which result in exceptions either (see the general hypotheses concerning the locative alternation after (311)). At the same time, the plausible statement about the non-existence of the verb *löttyent* ‘spill’ with a ‘with’-variant and the corresponding semantic structure does not exclude that the rivals of the lexical-constructional theory give an explanation with the help of exceptions, i.e. the classification into narrow semantic classes can proceed with some residue (maybe, in various languages with different lexical residues). However, such a hypothesis loses against the lexical-constructional approach from the point of view of plausibility.

Since the lexical-constructional approach rests on an idea which is not widely accepted in regard to the form of the LSR – namely that of underspecification –, it is important to gain some evidence to support it. With this aim in mind, take into consideration the above plausible statements about (293) and (295) as well as (296), given here as (313a) and (313b), as well as (314).

- (313) a. Az anya vizet önt a virágra.
 the mother water.Acc pour.3Sg the flower.Sub
 ‘The mother is pouring water onto the flower.’
- b. *Az anya vízzel önti a virágot.
 the mother water.Ins pour.DefObj.3Sg the flower.Acc
 ‘The mother is pouring the flower with water.’
- (314) a. *Az anya csokoládémázát fed a süteményre.
 the mother chocolate_coating.Acc cover.3Sg the cookie.Sub
 ‘The mother is covering chocolate coating onto the cookie.’
- b. Az anya csokoládémázzal fedi a süteményt.
 the mother chocolate_coating.Ins cover.DefObj.3Sg the cookie.Acc
 ‘The mother is covering the cookie with chocolate coating.’

What is crucial from the point of view of evidence for underspecificity is the double character of the non-occurrence of the locative alternation (cf. (313b) vs. (314a)). The possible lack of either one of both variants in alternation indicates that both scenes underlying the two constructional meanings seem to be necessary for a verb to alternate syntactically. These **scenes together** can be captured at an underspecified level of meaning representation (see (305) above). Nevertheless, once again we can only speak about **relative evidence** because there are other ways to account for the locative alternation even if they have to allow exceptions and thereby they have less plausibility.

I hope that with the help of Kertész and Rákosi's (2012: Section 10.3, 2014: Subsection 2.6.1) notion of plausible argumentation I have been able to show that both my conception in general and the analysis carried out are more plausible than their rivals and the analyses they propose. In respect to the evaluation of the plausibility of lexical-constructional theory, investigations presented in other sections of Chapter 5 are also relevant. Here the following three points have to be highlighted. First, applying the machinery of lexical-constructional theory to the other group of alternating verbs, namely, that of manner-of-motion verbs in (285) and (287) above, also gives more plausible inferences in connection with the double agent–theme construal of the first participant role of *úszik* ‘swim; float’ and similar verbs than a proposal of two separate constructions: one with an activity component and another without it. Second, the lexical-constructional treatment of further types of syntactic alternations and non-alternations makes it possible to **assume a single meaning scheme** (see the formula in 5.1.3.5) with the help of which one can plausibly generalize the appearance of the directed motion sense not only in the case of manner-of-motion verbs but also with verbs of spatial configuration and with sound emission verbs. Finally, the lexical-constructional conception of syntactic alternations **remains plausible in a much wider p-context**, namely, in that of lexical pragmatics. As will be shown in the subsequent section, it naturally extends to lexical pragmatics while no inconsistency emerges.

6.3. Extending the lexical-constructional approach to lexical pragmatics

In the previous section, I have argued that the lexical-constructional account of syntactic alternations can be held plausible. In other words, it has no thoroughgoing certainty but provides some degree of it and, importantly, more degree than its lexical and constructional rivals. At the same time, the plausibility of a theory can be tested further by its theoretical extendibility to a much wider context. For this reason and in order to make more explicit the pragmatic character of my analyses presented in Chapters 4 and 5, I will now outline how the lexical-constructional approach to syntactic alternations naturally extends to lexical pragmatics in the sense that its hypotheses about meaning representations and interpretations in constructions can also be applied to such cases where the problem concerning the change of syntactic argument structure does not appear (cf. Bibok 2010). Consider (315).

- (315) a. Péter kilépett az egyházból.
 Péter leave.Past.3Sg the church_as_institution.Ela
 ‘Péter left [= quit religious affiliation] the church [= the institution].’

- b. Péter kilépett a templomból.
 Péter leave.Past.3Sg the church_as_building.Ela
 ‘Péter left [= changed place] the church [= the building].’

The underspecified representation of the verb *kilép* ‘leave’ is not captured in the ways used in Chapters 5 and 6 above. Rather, the component MOVE figures in a very abstract sense, which only refers to a concrete one, depending on the source arguments *az egyházból* and *a templomból* with lexically fixed meanings ‘the church as an institution’ and ‘the church as a building’, respectively. This specified constructional sense refers either to the “social motion”, i.e. the change in affiliation, or to the physical motion. So, in both cases the verb meaning is affected by the lexically fixed meaning of arguments of the same type, i.e. of source arguments.

Consider (316), in which the noun *iskola* ‘school’ is substituted for *egyház* ‘church as institution’ and *templom* ‘church as building’.

- (316) Péter elment az iskolából.
 Péter leave.Past.3Sg the school.Ela
 ‘Péter left [= quit affiliation] the school [= the institution].’
 ‘Péter left [= changed place] the school [= the building].’

Since the noun *iskola* ‘school’ can be interpreted as both ‘institution’ and ‘building’, the specification of the verb *elmegy* ‘leave’ with an abstract motion meaning indicating neither physical, nor social change of location depends on the disambiguation of this noun. In the case of the institution sense the verb means a quitting of affiliation, while in the case of the building sense a change of place. Moreover, if one also assumes an underspecified meaning representation for the noun *iskola* ‘school’, i.e. it is not specified in the lexicon whether an institution or a building has the goal of providing for teaching/learning processes, the ambiguity of (316) can only be resolved by means of information evoked by immediate or extended contexts (cf. Németh T. and Bibok 2010). For the former type of contexts, consider (317), in which time adverbials are added to (316).

- (317) a. 2009-ben Péter elment az iskolából.
 2009.Ine Péter leave.Past.3Sg the school.Ela
 ‘In 2009 Péter left [= quit affiliation] the school [= the institution].’
- b. Délelőtt tíz órakor Péter elment az iskolából.
 morning ten o’clock.Tem Péter leave.Past.3Sg the school.Ela
 ‘At 10 a.m. Péter left [= changed place] the school [= the building].’

In the context of the time adverbial *2009-ben* ‘in 2009’ in (317a), the noun *iskola* ‘school’ most likely refers to an institution and, accordingly, the verb *elmegy* ‘leave’ is interpreted as quitting of affiliation. In the context of the time adverbial *délelőtt tíz órakor* ‘at 10 a.m.’ in (317b), *iskola* ‘school’ typically refers to a building and *elmegy* ‘leave’ is interpreted as a change of place. Thus, depending on the time adverbial phrases, the meanings of *iskola* ‘school’ and of *elmegy* ‘leave’ are coordinated.¹⁷⁶

The disambiguation of (316) can be achieved not only by completing it with time adverbials but also by Sperber and Wilson’s (1995) context extension, e.g. through such pieces of information from previous utterances of the discourse or the physical environment of the discourse which can be deduced from the time adverbial phrases of (317).

The interpretations with (317) seem to be only typical ones because they can be overridden in extended contexts (cf. Németh T. and Bibok 2010). It is sufficient if the broad or narrow range of time indications typically expressed by time adverbials can be interpreted the opposite way on the basis of extended contexts. For instance, if we obtain knowledge from the previous discourse or from the physical environment of the discourse that Péter’s change of place was very slow and difficult, and, in addition, he had to travel over a relatively long distance, then the time adverbial *2009-ben* ‘in 2009’ in (317a) does not induce Péter’s quitting of affiliation. If one is informed in the morning of a particular day that Péter had a serious clash with the principal or he managed to find a new job at 11 a.m., then these pieces of knowledge serve as adequate motivations for an interpretation of the time adverbial *délelőtt tíz órakor* ‘at 10 a.m.’ in (317b), which is opposite to its typical one. Thus, *délelőtt tíz órakor* ‘at 10 a.m.’ can provide information about the time of Péter’s quitting of affiliation.

Since research into word meanings should pay special attention to the necessary interaction of the lexicon and context-free and context-dependent pieces of world knowledge, as the above discussion clearly indicates, a conception of **lexical pragmatics** can be proposed (see Bibok 2004, 2010, 2014b, 2017b), which has the following main theses. The first two of

¹⁷⁶ Cf. the operation of co-composition (Pustejovsky 1995, 2012), which takes place if a simple combination of a predicate with an argument does not suffice to bring about the utterance meaning but an argument also behaves as a functor in a construction. In a modified version of co-composition (Bibok 2017b), the lexicon includes abstract meaning representations and the meaning of a complex expression consisting of a verb and a noun phrase is construed in such a way that the underspecified representation of the verb is also influenced by the noun phrase argument. The modified version of co-composition is essentially an interpretation mechanism of the same kind as the conceptual selection in Bierwisch’s two-level conceptual semantics (for the latter, see Lang and Maienborn 2011).

them concern lexically encoded meanings and the next two theses deal with contextual information. The fifth tenet outlines interpretation mechanisms and the final, i.e. sixth, one locates lexical pragmatics into a broader context of linguistic theorization.

First, lexical pragmatics accepts – as a starting point of the construction of word meanings in utterances – lexical-semantic representations which are **radically underspecified** because a number of words do not encode full-fledged concepts (especially see Bibok 2014b: 222–223). As has become clear by now, underspecification may take several forms, as proposed in the previous and present chapters: starting from the bracketing of the optional parts through the double interpretation to components abstracted from concrete instantiations and the use of variables, or to other procedures which were unnecessary for the representations of words analyzed in the present dissertation (for further details, see Bibok 2017b).

Second, underspecified representations may include **two types of information** (cf. also Subsections 2.3.2 and 4.2.2), namely

- (i) logically or metaphysically necessary components encoded by semantic primitives and
- (ii) encyclopedic information containing general, i.e. context-independent, pragmatic knowledge.

Detached from its contexts, some contextual information becomes not only context-independent, i.e. general pragmatic information, but also such encyclopedic information or information concerning the use of language can be fixed in semantic representations of lexical entries as integral parts (Németh T. and Bibok 2010: 505). Besides lexical stereotypes, at least three types of encoded encyclopedic information can be differentiated:

- (i) prototypes added to and
- (ii) prototypes built into the relational part of LSRs, i.e. the predicate decomposition; as well as
- (iii) prototypical characteristics constituting the main part of LSRs (Bibok 2016a).

The second type in (ii) is of considerable grammatical relevance because it plays a role in the account of the alternation of verbs denoting being in a particular spatial configuration and of the way in which verbs of cutting take directional phrases (see Subsections 5.1.3.3 and 5.1.3.4 above).

Third, lexical pragmatics is of the opinion that as words have underspecified, although semantically and pragmatically enriched, meaning representations, they reach their full meanings in corresponding contexts through **considerable pragmatic inference**. **Constructional meanings** of verbs emerging in alternating syntactic structures only

constitute **a sub-case of such contextual interpretations**. Likewise, the contexts may help to find lexically required arguments and predicates which are unrealized in utterances (for details, see Németh T. and Bibok 2010). However, unlike in Grice (1975) and in neo-Gricean pragmatics (e.g. Levinson 2000), inferential processes are considered necessary, not only to yield (conversational) implicatures via the Co-operative Principle and its maxims; constructing propositions expressed by utterances also requires the execution of some inferences, because – as post-Gricean Relevance Theory (Sperber and Wilson 1995) propagates – the linguistically encoded information is not sufficient for this. Thus, the distinction between semantics and pragmatics is not correlated with the distinction between propositional meaning and implicatures. Rather, the research into semantic and pragmatic meanings can be separated alongside decoding and inference (cf., e.g., Carston 2002).

Fourth, also inspired by Relevance Theory (Sperber and Wilson 1995), lexical pragmatics distinguishes between **immediate and extended contexts**. It regards as an extended context an utterance immediately preceding the utterance under investigation, unlike Relevance Theory, which only takes an utterance occurring earlier in the exchange as a case of extending contexts. This divergence from Relevance Theory does not create a conceptual problem because Relevance Theory itself allows for the multiple extending of contexts. Further, contexts can be extended with the help of information from the immediately observable environment (as in Relevance Theory) and through encyclopedic information not captured in lexical stereotypes and prototype structures. Thus, in addition to the three types of lexically encoded encyclopedic knowledge (see the second thesis above), non-encoded pieces of such information from general or particular world knowledge may be established in connection with encyclopedically extended contexts (Bibok 2017b: 125). To sum up, in lexical pragmatics immediate and extended contexts are meant as contexts inside and outside utterances, respectively, in which words under interpretation can occur.

Fifth, lexical pragmatics claims that utterance meaning can be construed in three different ways: by means of LSRs, and by immediate and extended contexts. The construction of utterance meaning in one of the three ways is regulated by the Cognitive Principle of Relevance (Sperber and Wilson 1995: 260), according to which “[h]uman cognition tends to be geared towards the maximization of relevance”, or in other words: the human mind not only aims at seeking and justifying relevance but also at achieving as many contextual effects as possible for as little processing effort as possible. Furthermore, the **hierarchy of three interpretation mechanisms** is influenced by the same principle, too. To avoid unnecessary effort resulting in no suitable contextual effects, the adequate interpretation can be formed –

for lack of any specific context – with the help of an LSR of the lexemes in question. If this does not lead to a relevant interpretation, then, for want of any specific context outside the utterance involved in the procedure, the immediate context should be taken into consideration. If this does not yield the pragmatically acceptable interpretation either, one should extend the context, undertaking more processing effort. In other words, the interpretation proceeds from less to more processing effort, i.e., from taking into consideration LSRs to extending contexts. The interaction between lexical-semantic information and context of sufficient quantity demonstrates the functioning of the Cognitive Principle of Relevance.

In view of the hierarchy of interpretation procedures, it must be stressed once more that the indication of a lack of special contexts plays a crucial role in gradual interpretation. If the context is more specific from the beginning, it determines the utterance meaning to a higher degree. To put it the other way round, in the presence of specific contexts typical (default) interpretations are not available.

Sixth, so far we have seen how a lexical-constructural treatment of various syntactic alternations extends to a **general lexical pragmatics account** of the utterance meaning construction together with the construction of word meanings emerging in utterances. Realize that the interaction of lexical and contextual information has some important **consequences for the notion of polysemy**. First, there is no need to consider one of the constructional meanings of a verb basic or primary with respect to others. Instead, the underspecified lexical meaning counts as primary and all the constructional meanings as non-primary. In addition, the latter are not to be derived from the former but compatible with the underspecified lexical meaning (according to the non-derivational character of Construction Grammar). Second, the occurrence of a lexical item in different constructions can be regarded as the sufficient condition of its polysemy, but the necessary condition is the occurrence in different contexts. Hence, a real lexical pragmatic account of the extensively debated concept of polysemy states that the lexically underspecified meaning is primary and all the pragmatically constructed meanings are secondary. As presented in the above (see also Bibok 2019), such a lexical pragmatic treatment of polysemy makes it possible to reduce the ubiquitous meaning proliferation in contexts/constructions, although there also seem to be some limitations to this approach. Two groups of cases can be distinguished:

- (i) metonymies and metaphors other than those resulting from the concretization of underspecified meaning representations¹⁷⁷ and
- (ii) words with two or more core meanings which cannot be reduced to an underspecified representation.

Now we can take one more step and extend lexical pragmatics to a **more general theory of the interaction between grammar and pragmatics** in which grammar and pragmatics are defined as two separate but highly interacting components of the theory of language which models grammatical and pragmatic competence (Németh T. and Bibok 2010). It should appear fairly obvious that lexical pragmatics and the theory of the interaction between grammar and pragmatics take the **contextualist** stance in the debate on the semantics–pragmatics boundary (cf. Jaszczolt 2012). Among the schools of contextualism which compete with semantic minimalism (cf. Bianchi 2015, Hall 2017, Jaszczolt 2012, Recanati 2012), the following characteristics set my conception apart:

- (i) a radical position of lexical underspecification,
- (ii) a wide range of encyclopedic and/or contextual types of information and
- (iii) a broad set of interpretation mechanisms.

Finally, the plausibility of the lexical-constructional approach converted into a lexical pragmatics theory and a full-fledged theory of the interaction between grammar and pragmatics can also be increased by considering the claim that human and machine disambiguation or semantic annotation of words in corpora cannot be solved on the basis of the traditional dictionary model of meaning representation. What is offered for this task is very much in accordance with the tenets of my lexical pragmatics conception. Cf.: “Annotators and automatic systems need the option to select either a cluster of specific senses or a single, broader sense, where specific meaning nuances are contained but hidden” (Fellbaum et al. 2005: 37). What is more, not only in **computational linguistics** but also in recent **psycholinguistics**, overspecification and underspecification approaches are favored against literalism (Vicente 2018: 952). Although psycholinguists cannot provide a single resolution on the basis of their experimental results, there is a common idea behind different views that “what is initially accessed is not a full-fledged, specific interpretation of a word” (Frisson 2009: 122, cited by Vicente 2018: 953). Independently of whether it qualifies as

¹⁷⁷ Since – according to the basic idea of underspecification – my lexical pragmatic conception only aims at capturing such metonymies and metaphors which can be received through the specification of underspecified LSRs, utterances are not investigated in so-called non-neutral contexts, which call for re-structuring established meanings.

overspecified or underspecified, the initially accessed representation, after all, seems to be underdetermined in the sense that a word regularly encodes not the same amount of meaning as it expresses in utterances. Thus, we have come full circle.

* * *

To conclude the present chapter, I can make the following statement. By evaluating the object-theoretical research of the previous chapters from a metatheoretical point of view, I have not only fulfilled the last one of the aims I formulated at the very beginning of the dissertation but have also shown that the results yielded by that research have gained further plausible confirmation in several respects.

CHAPTER 7

Summary and conclusions

Let me briefly summarize the whole dissertation chapter by chapter, and in so doing clearly demonstrate that the five aims formulated in Introduction have been fulfilled and by this means new findings have been achieved.

In the introductory chapter, the goals of the dissertation were set as follows:

(i) resting upon a solid notion of the argument, in Chapter 2, I wished to put forward a conception in which the **semantic arguments of verbs and their semantic roles** come from lexical-semantic representations of verbs, and then they are projected from the lexicon into syntax;

(ii) with the help of the notions of the semantic and syntactic argument, in Chapter 3, I attempted to elaborate **a classification of Hungarian verbs** on the basis of the semantic constituents of lexical-semantic representations and their morphosyntactic realization;

(iii) in Chapter 4, I intended to present some major **Hungarian verb classes of multiple argument realization** concentrating on syntactic alternations conceived in a narrower sense, as well as introduce **a lexical-constructive account of syntactic alternations** which seems to prevail against lexical and constructive approaches by eliminating their shortcomings but exploiting their advantages;

(iv) in Chapter 5, I aimed to demonstrate the explanatory power of my lexical-constructive conception by thorough **analyses of alternating verb classes**, which include three types of multiple argument realization, i.e. alternations increasing and decreasing the number of arguments as well as alternations which do not change the number of arguments; finally,

(v) in Chapter 6, I wanted to evaluate my object-theoretical research **from a metatheoretical point of view**, paying special attention to the relationship between data and theory as well as relying on Kertész and Rákosi's (2012, 2014) notion of plausible argumentation.

Now let us turn to the results gained in Chapters 2–6. Making critical use of relevant parts of the vast literature available, **Chapter 2** dealt with various types of the dependents of verbs. The first distinction separates complements and free adverbials (in another

terminology: valences/actants and circonstants). The second concerns the kinds of complements: arguments, predicates, and adverbial and sentential complements. Twenty or so syntactic criteria for distinguishing complements and adjuncts were discussed with respect to one of the kinds of complements, namely arguments, and adjuncts, against the overall situation that there are “no universally agreed-upon definitions” (Needham and Toivonen 2011: 422).

Then we dealt with the semantic aspects of argumenthood because our expectations concerning a safe basis gained from syntactic approaches were not justified. The arguments come from the argument-taking properties of the meaning components in LSRs of verb meanings (cf. Apresjan 2014, Komlósy 2015).

Next we investigated several crucial and problematic issues raised in connection with semantic roles. Instead of the semantic role list approach, according to which a verbal representation includes an independently stipulated set of semantic roles, as well as the idea of thematic hierarchy and the Uniformity of Theta Assignment Hypothesis, it can be assumed that semantic roles are derived from the verbs’ decomposed LSRs. More concretely, they are defined in terms of the argument positions of particular primitive predicates such as ACT/DO, USE, CAUSE, MOVE, BE, etc. (cf. Bierwisch 2006, Levin and Rappaport Hovav 2005).

Consequently, not only the semantic arguments but also the semantic roles played by semantic arguments with regard to their predicate, and their ranking can be identified on the basis of the LSRs of verbs. Semantic roles and their ranking are more explicitly and exactly shown by LSRs than by a general list from which the roles could be chosen (if a generally accepted single list existed at all). A relevant example I gave was the following:

(318) $(\lambda z)\lambda y\lambda x$ [[[x ACT] : [x USE z]] CAUSE [[BECOME [y not WHOLE]]].

After a discussion on whether arguments originate in the lexicon or are introduced in syntax, I still insisted on the former conception and then, I overviewed problematic and untypical cases of the morphosyntactic realization of argument structure:

- (i) the difficulty of the anomalous ranking problem which appears, e.g., in the case of psych-verbs such as *like* and *please* as well as verbs of possession such as *own* and *belong (to)*,
- (ii) language-particular morphological properties of syntactic arguments,
- (iii) filling the syntactic position of Hungarian sentences immediately left-adjacent to the (finite) verb by verbal modifiers,

(iv) the difference in the maximum number of syntactic and semantic arguments in conjunction with a distinction between the quantity of syntactically realized arguments and the number of semantic arguments figuring in the LSRs of verbs and

(v) changing the basic correspondence between semantic and syntactic arguments.

Special attention was devoted to the cases in (iii), (iv) and (v). As to (iii), I had to clarify the following series of three questions. First, does the phonological complex of a verb and verbal modifier always constitute a semantically complex predicate? Second, can any referential character be assigned to bare nouns in the position of verbal modifiers? And third, are all fillers of the given syntactic position to be considered complements of verbs?

Discussing (iv), I was able to point out that the number of semantic arguments of a verb could differ from that of syntactic arguments, for at least two reasons. First, the lexical-semantic level and syntactic level of representation have corresponding autonomy with respect to verbs' lexical-semantic and syntactic dependents. Second, the syntactic realization of semantic arguments may cause a change in their number, affecting their occurrence in sentences.

The issue mentioned in (v) plays an important role because it is partly connected with a phenomenon – namely syntactic alternation, or in another terminology, multiple argument realization –, which is the real subject of the following chapters.

Thus, I can sum up what I achieved in Chapter 2 with respect to the **first aim of the dissertation**, i.e. to work through a considerable proportion of the relevant literature and a vast number of related issues, as follows:

- (i) I critically evaluated the syntactic diagnostics of argumenthood and adjuncthood,
- (ii) deepening the idea of the semantic foundation of the notion of semantic argument, I argued for the derivation of semantic arguments and semantic roles from verbs' LSRs,
- (iii) such derivations were demonstrated with the help of representations taken from my own previous research and, finally,
- (iv) I attempted to outline the basics of a morphosyntactic realization of verbal semantic arguments.

To fulfil the second intended aim of the dissertation, Chapter 3 presented a novel classification of Hungarian verbs which not only constitutes a more **detailed syntactic classification** than the previous ones but also is built on **semantic** grounds. As regards the criteria for establishing verb classes, the number and logical types of semantic constituents in LSRs served as a starting point. As the next criterion, the subcategorization frames of verbs,

i.e. the morphosyntactic characterization of their complements, were considered. These complement frames of verbs might contain syntactic arguments (including subjects) as well as predicative, sentential and adverbial complements. In particular cases semantic role differences were also taken into account. Thus, the proposed and innovative classification of Hungarian verbs accurately and systematically paid due attention to distinct semantic and morphosyntactic factors of argument realization and consequently, it went far beyond the fragmentary data collections and their interpretations available in the previous literature.

The classification concentrated on one-, two- and three-argument verbs. At the same time, several possibilities for enriching the basic argument structure of verbs with one more argument were indicated. In any case, I had to undertake the task of compiling complement frames for each verb, because in grammars of Hungarian, verbs are not provided with a full list of their complements but they are mentioned in connection with a particular form of complement which is mostly a nominal and, perhaps, a sentential complement, thus leaving out of consideration other types of complements such as predicative and adverbial ones. Furthermore, since there is no body of decomposed verb meanings on the basis of which one can derive the semantic roles of individual verbs, I myself had to operate with the labels found in the semantic role list approach. This was certainly a forced venture and sometimes led to cases where I could not make a decision on one of the roles of three-argument verbs.

An elaborated version of the system of verbal classes whose synopsis was given in Table 1 includes five semantic classes of null-, one-, two- and three-argument verbs, as well as of verbs which are arguments of higher-order predicates. They divide into fourteen syntactic classes as follows:

- (i) null-argument verbs appears syntactically as subjectless verbs,
- (ii) one-argument verbs as intransitive verbs, verbs with predicative complements or verbs with sentential complements,
- (iii) two-argument verbs as transitive verbs, verbs with oblique complements, verbs with predicative complements or verbs with sentential complements,
- (iv) three-argument verbs as verbs with one of the five various complex complement structures and
- (v) verbs which are arguments of higher-order predicates as verbs with adverbial complements.

Syntactic classes of one-, two- and three-argument verbs are classified into 47 subclasses (with further possible semantic role differences).

Each (morpho)syntactic verb class (in total: 49) is exemplified by typical verbs understood as usual (e.g., manner-of-motion verbs have a single, either agentive or theme, subject argument) and taken in their basic sense (e.g., motion verbs in their manner-of-motion sense). However, the Remarks column provides additional information modifying or even casting doubt on the standard view (e.g., the existence of null-argument verbs is questioned in Remarks).

Besides the ways in which semantic arguments are realized by morphosyntactic means (expressed not in terms of a particular theory of grammar), the classification presents a great number of verbs which occur with different complement frames. Amongst them there are **verbs with a multiple argument structure**, i.e. so-called **syntactically alternating verbs**, posited in the system of verbal classes and then analyzed in the corresponding chapter of the dissertation.

In Chapter 4, according to the third aim of the dissertation, I focused on some verbal classes from the classification in the previous chapter that can syntactically alternate, and presented them in three groups. The first group contains manner-of-motion verbs and verbs of sound emission, whose alternations were usually treated as resulting in more syntactic arguments. Verbs of spatial configuration and of locative alternation belong to the second group, in which the number of arguments does not change. Alternations decreasing the number of arguments include instrumental–subject alternation with two – event and property – subtypes.

In the next section of Chapter 4, rivaling approaches to syntactic alternations were introduced. Besides the traditional lexicographic treatment, there are theories that exceeded the enumeration of meanings/constructions. The lexical framework uses lexical rules or operations – in combination with narrow semantic classes – to relate the two variants that make up syntactically alternating structures (cf. Pinker 1989, Levin and Rappaport Hovav 1995, Rappaport Hovav and Levin 1998). The common constructionist machinery, applied variously in Pustejovsky's (1995) Generative Lexicon Theory, Goldberg's (1995, 2006) Construction Grammar and the Neo-Constructionist approach (Cuervo and Roberge 2012), amounts to a process in which a verb enters into a construction if its meaning is suitable for the constructional meaning. Although these recent trends in theoretical linguistics are certainly important steps towards a well-founded treatment of syntactic alternations, I had to emphasize the significance of **both constructional and lexical factors**. Thus, I offered a lexical-constructional conception to capture both lexical and constructional sides of the

multiple argument realization. The conditions of the fusion of verbs with constructions were not restricted to single participant roles in LSRs and to the verbs' belonging to narrow semantic classes. Instead, I assumed a general meaning representation of a verb which was semantically and pragmatically rich enough to serve as a basis for the constructional meanings which come about in syntactic alternation. To put it the other way round, in the lexicon, verbs have **underspecified representations with optional components** relevant to one or another constructional meaning and not representations that are as specific as constructional meanings. In addition, my lexical-constructional conception takes for granted that the representation of world knowledge is an indispensable constituent of LSRs. Moreover, there is a division of labor between the different parts of meaning description. Unlike Levin and Rappaport Hovav (1995: 20–30), I use a distinction between (logically or metaphysically) necessary constituents of word meaning and prototypical/stereotypical world knowledge (the latter type can also be relevant grammatically, see Subsections **5.1.3.3** and **5.1.3.4**). Against the relevance-theoretic separation of logical and encyclopedic types of information (Sperber and Wilson 1995: 86–93), I claim that LSRs should be viewed not in a holistic but a decomposable way.

Starting with the unsolved problems yielded by lexical and constructional approaches, Chapter 5 attempted to fulfil the fourth goal of the dissertation. That is why in the lexical-constructional framework, I thoroughly analyzed all the alternations mentioned in the preceding chapter. In Section 5.1, I answered the question of how **directional motion verbs** come into existence from verbs belonging to different classes such as from manner-of-motion, sound emission and spatial position verbs and even verbs of cutting. The application of the lexical-constructional theory to the four Hungarian verb classes resulted in the analyses summarized in Tables 2–4 as well as providing the achievements detailed in (i)–(iii) below.

(i) Underspecified meaning representations predicted constructional meanings appearing due to syntactic alternations,

(ii) The lack of alternations could be explained by the specific meanings which verbs have because of idiosyncratic lexicalizations, and

(iii) The analysis of several verb classes handled separately in previous research could be generalized further: the **four kinds of the syntactic argument structure change** could collectively be referred to as **one group through a meaning scheme** (template) containing the shared properties of the verb classes. Cf.: (319):

- (319) a. ‘X moves in a particular manner so that X’s place,
which belongs to a path with a particular direction or
which is the end point of a path,
has relation α to the place of reference entity marked by R’;
- b. $[[x \text{ MOVE}_m] : [\text{DIR}/\text{FIN} [x \text{ LOC}] \alpha r \text{ LOC}]]$,
where m = a particular manner of motion.

A lexical-constructional account of the Hungarian and Russian **locative alternation** in Section 5.2 leads to the following statements which seem to be valid across languages. First, the locative alternation is only characteristic of **verbs whose meaning representations are underspecified** in a similar way to those of Hungarian *ken* ‘smear’ and Russian *mazat* ‘spread’. See (320) below:

- (320) a. ‘acting_m, X causes a mass Y to move onto a surface Z,
and
acting_m, X causes a surface Z to be covered_n with a mass Y’;
- b. $[[x \text{ ACT}_m] \text{ CAUSE } [[y \text{ MOVE}] : [\text{FIN} [y \text{ LOC}] \text{ ON } z]]]$
&
 $[[x \text{ ACT}_m] \text{ CAUSE } [z \text{ BE_COVERED_WITH}_n y]]$,
- where 1. m = with smoothing movements of an object and
n = partially or totally as well as
2. y = mass and z = surface.

The constructional meanings of the given verbs correspond to the two possible interpretations of (320) alternating with each other. When a mass is focused, or profiled, the constructional meaning is equal to the part of (320) which comes before the conjunction *and*, or “&”. In the opposite case, when a surface comes into prominence, the constructional meaning is the part of (320) figuring after the conjunction *and*, or “&”.

Second, the verbs, e.g. Hungarian *önt* ‘pour’, *löttyent* ‘spill’ and *fed* ‘cover’, as well as Russian *sypat* ‘pour’, *lit* ‘pour’ and *venčat* ‘wreath’, which do not have underspecified representations of the type in (320), cannot occur in syntactic structures alternating the locative variant with the *with*-variant. This entails that the verbs not occurring in the locative alternation do **not have to be considered exceptions**. The meaning of a verb itself determines – like the narrow semantic classes established both in lexical and constructional accounts but more precisely – whether it may occur in the syntactic alternation.

The claim that the meaning representation of non-alternating verbs is more specific than that of alternating verbs was further explored by two additional case studies. The first tackled preverbal verbs that provide alternating variants for non-alternating base verbs. While the verb *önt* ‘pour’ does not allow the ‘with’-variant, it appears if a preverb, namely *tele-* ‘full’, is added to *önt* ‘pour’. At the same time, *teleönt* ‘fill up’ cannot denote change of location. The second case study was concerned with the issue of whether the verb *fed* ‘cover’ should not contain the indication that the change of state is carried over **by means of moving** some mass onto a surface as was supposed in the lexical rule approach. (For all Hungarian verbs analyzed in connection with the locative alternation, see Table 5.)

In Section 5.3, I turned to syntactic alternations decreasing the number of arguments, specifically to two subtypes, not previously distinguished in the literature, of the **instrument–subject alternation**. With the **event subtype**, in 5.3.1 I proposed the common LSR of verbs with an instrument argument as follows.

(321) $[(\gamma)[[x \text{ ACT}] : [x \text{ USE}] z_\beta (\gamma)]] \text{ CAUSE}_\alpha [\text{BECOME} [y \text{ BE_IN_STATE}_s]]]$,
where $s = \text{a particular state}$.

The **underspecificity** of the formula in (321), having an optional fragment in round brackets and different variables α , β and γ , played a crucial role in accounting for the instrument–subject alternation. The occurrence or non-occurrence of the alternation at issue was explained by the conditions attached to (321).

- (322) a. If $\text{CAUSE}_\alpha = [e_1 \text{ CAUSE } e_2]$, then $z_\beta = \text{intermediary instrument}$.
- b. If $\text{CAUSE}_\alpha = \text{causation as helping}$ (Koenig et al. 2008: 214), then $z_\beta = \text{facilitating instrument}$.
- c. If $z_\beta = \text{intermediary instrument}$, then $\gamma \in \{+, -\}$.
- d. If $z_\beta = \text{facilitating instrument}$, then $\gamma = +$.

Conditions (322a) and (322b) connect intermediary instruments to $[e_1 \text{ CAUSE } e_2]$ and facilitating (enabling) instruments to causation as helping. However, it is important that both types of causation rest upon the same causing event, which includes someone’s action and use of something. In terms of (321), the causing event consists of the predicates ACT and USE, whose first argument is considered to play the agentive role while the second argument of USE bears the instrument role. The third condition in (322c) formulates the possibility of the instrument–subject alternation. The verb **whose meaning** fits the given requirement can

alternate: **its argument with an instrument role** may be expressed syntactically not only as an adverbial (oblique complement) but also as a subject. The constraint that prohibits the instrument–subject alternation can be found in (322d). Since the optional fragment has to be present, the alternation under discussion cannot emerge.

Consequently, I could claim the advantageous features of my account of the instrument–subject alternation, which thus exceeded the previous accounts in several respects. First, with a **pragmatically** oriented weaker notion of causation in mind (Koenig et al. 2008: 214), a more solid basis might be assumed to determine which verbs could alternate and which verbs could not. Second, the instrument–subject alternation – similarly to other syntactic alternations – was not accounted for as pure lexical or pure constructional phenomena. Rather, it fitted a lexical-constructional approach and both constructional meanings were grasped through a single LSR underspecified in multiple respects. Moreover, in such a case the issue of the relationship between them did not emerge either (contra Dudchuk 2007).

Finally, I concluded Subsection **5.3.1** with a discussion of Koenig et al.’s (2003, 2008) twofold classification of verbs, namely that certain verbs semantically “require” an instrument, while other verbs only “allow” an instrument. Instead, I proposed an at least four-member distinction. On the one hand, obligatory instrument verbs may have different instruments according to the two types of causation, i.e. CAUSE and causation as helping. On the other hand, non-obligatory instrument verbs can differ from each other too. Some events denotable by *tör* ‘break’ really include situations in which something is necessarily used to break something while in the case of *iszik* ‘drink’, one cannot use anything else but one’s mouth in the pertinent function.

The account of the **property subtype** of the instrument–subject alternation can be demonstrated via the underspecified representation of *vág* ‘cut’ taken from **5.3.2**.

- (323) a. ‘(acting such that using) Z(, X) causes Y to become not whole’
 b. [([[x ACT] : [x USE) z (|)] CAUSE [[BECOME [y not WHOLE]]]]

According to the lexical-constructional conception, (323) made the verb to be realized syntactically in a double way and, in addition, it clearly showed the relation between the two constructional meanings. However, whereas verbs with instrumental subjects in Subsection **5.3.1** denoted events, the verb *vág* ‘cut’ had a generic modal meaning belonging to the semantic type of properties. Thus, (323) had to be completed by (324):

(324) ‘there is a property such that it is possible for an instrument (used by anyone) to V (something)’.

At the end of Subsection 5.3.2, I presented another comparison of the verbs occurring in the two subsections of 5.3. I pointed out that although in instrumental subject sentences denoting events and properties verbs differed in their word-formation structure, this was not necessary at all. Both types of sentences could contain verbs with and without preverbs.

To conclude the whole fifth chapter which is intended to fulfill the fourth goal of the dissertation, I would like to emphasize once more that the lexical-constructional approach to all syntactic alternations under investigation could propose underspecified but encyclopedically and pragmatically enriched meaning representations which explicitly contain the kind of pieces of information that cause syntactic pattern changes of entire verb classes. Thus, in competition with rival lexical and constructional conceptions, the lexical-constructional treatment of syntactic alternations had more predictive force and gave a more general explanation in the sense that it provided a clearer motivation of alternating and non-alternating syntactic structures.

In Chapter 6, with the final aim of the dissertation in mind, I reflected on methodological aspects of the research I carried out in Chapters 4 and 5 from a metatheoretical point of view. In Section 6.1, focusing on the **relationship between data and theory**, I first formulated some metatheoretical considerations about data sources, conceived of along the apparent dichotomy of intuition and corpora. Amongst the challenges of the use of corpora the following were mentioned.

(i) Some occurrences attested in a corpus are not simply erroneous but are impossible. However, the impossibility of such examples never follows from the corpus itself (Iwata 2008: 7). A judgment on impossibility made by someone always involves recourse to their own intuitions or those of others.

(ii) Most real utterances are not originally addressed to the linguist who wants to rely on them as examples from natural language use. Thus, they are in the position of an overhearer rather than the actual addressee (Kolaiti and Wilson 2014).

(iii) A great number of various systematically changing interpretation possibilities of utterances cannot be obtained even in a corpus containing more than several hundred million tokens.

Thus, one may claim that because of (i)–(iii), recourse to our **intuitions** still seems to be **indispensable** in research, especially in research into pragmatics, even if one deals with corpus occurrences.

A further important methodological issue that I touched upon is the odd character of examples or possible interpretations. Pragmatic theory must also concern itself with novel cases and with what may occur in strange circumstances (cf. Kolaiti and Wilson 2014). In addition, there can always be uncertain judgments concerning the acceptability of particular linguistic expressions, including syntactic alternations. Nevertheless, there cannot be any doubt about the general possibility of the syntactic pattern change or its impossibility. I offered a solution to this problem of ambivalence that used the well-known type–token distinction for metatheoretical (metalinguistic) purposes. On the level of theory construction, one should critically assess how one’s own and others’ theories cope with data considered a type in their totality. On the level of data analysis, one deals with data as separate tokens even though one carries out one’s research in the framework of a theory. Consequently, ignorance or false judgments and analyses of data as separate tokens do not destroy a theory.

The final statement in **6.1** concerned the mutual connectedness of theory and data leading to more adequate decisions on data selection and linguistic theorizing. Not only does a theory depend on a type of data but the question of what constitutes data is theory-dependent as well (cf. Lehmann 2004). Furthermore, their relationship has to be conceived of as cyclic and the actual argumentation process determines what is considered data (cf. Kertész and Rákosi 2014).

In Section **6.2**, I assessed the plausibility of the lexical, constructional and lexical-constructional approaches to the explanation of syntactic alternations on the basis of Kertész and Rákosi’s (2012: Section 10.3, 2014: Subsection 2.6.1) notion of plausible argumentation. It seemed to be a plausible resolution of the rivaling lexical and constructional theories to build both of them into our p-context as methodologies reconciled and supplemented with each other. As a result, my lexical-constructional approach gained a considerably innovative feature according to which verbs were lexically represented in an underspecified way with optional elements relevant to one or another constructional meaning and not represented as specifically as constructional meanings. At the same time, the lexical-constructional approach meant not only the unification of two different methodologies in a wider p-context but also provided a resolution of the inconsistencies and open questions concerning general, or grammatical, tools and lexical characteristics. From the point of view of syntactic alternations it proved a **plausible hypothesis** that verbs would participate in them if they had a general

meaning which was compatible with all meanings occurring in alternations. When a verb did not have an LSR that could result in different interpretations, that is, when a verb was lexically more specific, it proved **implausible** that it would alternate syntactically. This was demonstrated by the re-analysis of locative alternation in a lexical-constructional framework.

I was then able to show explicitly which data were regarded as evidence for the lexical-constructional account and against its rivals, i.e. lexical and constructional theories. The plausible statement about the non-existence of the verb *löttyent* ‘spill’ with a ‘with’-variant could be considered **weak evidence against** the hypothesis about the existence of a narrow semantic class, namely, the *splash*-class, and, naturally, **weak evidence for** one of the rivals of that hypothesis, i.e. for the non-existence of that semantic class. Such a plausible statement was **strong evidence against** the hypothesis regarding the existence of the *splash*-class. Moreover, the plausible statement at issue was **relative evidence against** the hypothesis about the classification of relevant verbs into narrow semantic classes. This was the case because the plausible inferences connecting the premises and the negation of such a hypothesis provided a higher plausibility value than the plausibility value of the original hypothesis. Namely, the lexical-constructional account without narrow semantic classes made a more precise prediction concerning the set of Hungarian verbs taking part in the locative alternation while it did not have to allow lexical idiosyncrasies which resulted in exceptions either. At the same time, the plausible statement about the non-existence of the verb *löttyent* ‘spill’ with a ‘with’-variant did not exclude that the rivals of the lexical-constructional theory could give an explanation with the help of exceptions, i.e. the classification into narrow semantic classes could proceed with some residue. However, such a hypothesis obviously loses against the lexical-constructional approach from the point of view of plausibility.

As to evidence for the underspecificity of LSRs, what counted as crucial was the double character of the non-occurrence of the locative alternation. The possible lack of either of both variants in alternation indicated that both scenes underlying the two constructional meanings were necessary for a verb to alternate syntactically. These **scenes together** could be captured at an underspecified level of meaning representation (see (320) above). Nevertheless, once again we could only speak about **relative evidence** because there were other ways to account for the locative alternation even if they had to allow exceptions and thereby they had less plausibility.

In Section 6.3, demonstrating that the lexical-constructional conception of syntactic alternations remained plausible in a much wider p-context, I outlined how it naturally extended to **lexical pragmatics** while no inconsistency emerged. This extension meant that

my hypotheses about the nature of meaning representations and interpretations in constructions could also be applied to such cases where the problem concerning the change of syntactic argument structure did not appear.

My conception of lexical pragmatics claims the following (cf. Bibok 2004, 2010, 2014b, 2017b):

(i) As a starting point of the construction of word meanings in utterances, LSRs are radically underspecified in various ways because a number of words do not encode fully-fledged concepts.

(ii) Underspecified representations may include two types of information, namely logically or metaphysically necessary components encoded by semantic primitives and encyclopedic information containing general, i.e. context-independent, pragmatic knowledge.

(iii) Having underspecified, although semantically and pragmatically enriched, meaning representations, words reach their full meanings in corresponding contexts through considerable pragmatic inference. Constructional meanings of verbs emerging in alternating syntactic structures only constitute a sub-case of such contextual interpretations.

(iv) Immediate and extended contexts are distinguished, which are meant as the contexts inside and outside utterances, respectively, that words under interpretation can occur in.

(v) Utterance meaning can be construed in three different ways: by means of LSRs, and by immediate and extended contexts. The construction of utterance meaning in one of the three ways is regulated by the Cognitive Principle of Relevance (Sperber and Wilson 1995: 260).

(vi) Lexical pragmatics makes possible a theory of polysemy that reduces the ubiquitous meaning proliferation in contexts/constructions (with some limitations to the underspecification approach, see Bibok 2019). Furthermore, lexical pragmatics can be extended to a broader theory of the interaction between grammar and pragmatics (Németh T. and Bibok 2010), which takes a contextualist stance in the competition between semantic minimalism and contextualism (cf. Bianchi 2015, Hall 2017, Jaszczolt 2012, Recanati 2012).

* * *

On the basis of deriving semantic arguments and semantic roles from verbs' LSRs and realizing them in various morphosyntactic ways, as well as of extending this semantically grounded framework to other types of complements than arguments, I offered a detailed and

comprehensive semantico-morphosyntactic classification of Hungarian verbs in which verbs with a multiple argument structure, i.e. so-called syntactically alternating verbs, also found their place. According to the results of the subsequent chapters, it can finally be concluded that the lexical-constructional analyses of all syntactic alternations under investigation argue for a unique model of underspecified but encyclopedically and pragmatically enriched meaning representations explicitly containing pieces of information that cause constructional meanings to appear due to syntactic alternations. Thus, in competition with rival lexical and constructional conceptions, the lexical-constructional treatment of syntactic alternations has more predictive power and gives a more general explanation in the sense that it provides a clearer motivation of alternating and non-alternating syntactic structures not only in Hungarian, but also in Russian. This conclusion can be confirmed by methodological considerations regarding the relationship between data and theory, an assessment of the lexical-constructional approach from the metalinguistic perspective of plausible argumentation and its extension up to a more overall and embracing conception of lexical pragmatics.

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