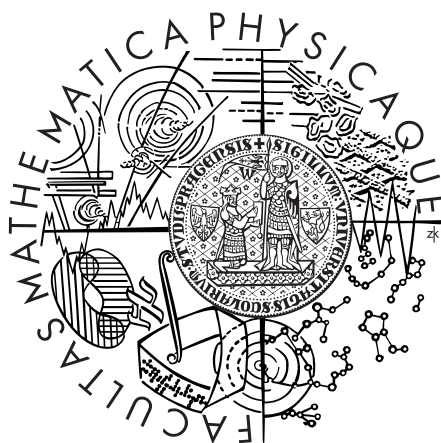


Charles University in Prague
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Doctoral Thesis



**LEXICOGRAPHIC TREATMENT
OF THE VALENCY ASPECTS
OF VERBAL DIATHESSES**

Anna Vernerová

Prague, 2019



Doctoral Thesis

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Lexicographic treatment of the valency aspects of verbal diatheses

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In

Název práce: Slovníkové zpracování valenčních aspektů slovesných diatezí
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Abstrakt: Diateze, a to jak ty tvořené pomocí pasivního participia (pasivum, prostý a posesivní resultativ, recipientní diateze), tak i tzv. zvrtné pasivum (deagentizace) byly v minulosti předmětem řady studií jak v bohemistické, tak i v mezinárodní lingvistice, pro češtinu ale dosud chybělo jejich důkladné slovníkové zpracování. V této disertační práci se zabývám zachycením diatezí tvořených pomocí pasivního participia a s nimi příbuzných verbonominálních konstrukcí v gramatické komponentě valenčního slovníku *VALLEX*. Vlastnímu tématu práce předchází krátký historický úvod a podrobné shrnutí pojetí valence ve Funkčním generativním popisu.

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Abstract: Diatheses have been the topic of a number of linguistic studies in Czech as well as international linguistics. Previous investigations have led to the delimitation of diatheses formed with the passive participle (the passive, objective (with auxiliary *být* 'to be') and possessive (with auxiliary *mít* 'to have') resultative, and recipient diatheses) and the so-called reflexive passive (deagentive diathesis), but systematic dictionary treatment has not been carried out yet. This dissertation is concerned with the diatheses that are formed with the passive participle and their treatment in the Functional Generative Description (FGD). After a thorough description of the valency theory of FGD, I discuss the design of the Grammatical Component of the valency lexicon *VALLEX*, concentrating on the rules for the formation of the diatheses that are built with the passive participle. Related verbonominal constructions and a new candidate for treatment as a diathesis (the subjective resultative) are also discussed.

*To my parents,
who taught me the love of words,
and to my husband,
who a thousand times helped me survive the despair
of a semicolon missing at an unidentifiable place in a perl script.*

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Preface

Building upon several decades of development of the Functional Generative Description, this dissertation is concerned with the syntactic structure of verbal and deverbal constructions featuring the passive participle—diatheses (regular changes in the alignment of valency complementations to surface-syntactic positions accompanied by a change of the verbal morphological category of voice) and certain deverbal adjectives.

My own contribution towards the development of the Functional Generative Description is twofold: Firstly, I have annotated the formation of verbal diatheses formed on the basis of the passive participle; this annotation is part of the valency lexicon *VALLEX* (Lopatková et al., 2016a). Secondly, I have formulated the rules for diatheses and selected verbonominal constructions in the grammatical component of the valency lexicon *VALLEX*; these can be found in Part II (Chapters 4–7) of this dissertation. The rules for diatheses are inspired by the work of Urešová (2011a), but the exact formulation of the rules differs from hers in several aspects. In the first place, I have proposed some changes in the formalism in order to provide a more adequate description (e.g., I have introduced functor variables that prevent splitting what conceptually is a single rule into multiple rules that only differ by a different choice of functor, cf. Chapter 4). Moreover, Urešová’s (2011a) work is based on a syntactic annotation of flowing text while my work is based on annotation of lexical entries. Urešová is aware that such information should be present in the lexicon, but the annotation has never been carried out for *PDT-Vallex*, the lexicon on which her work is based; after all, her work was intended primarily for consistency checking of the Prague Dependency Treebank (Pajas, 2005; Urešová and Pajas, 2009), so she could rely on the correctness of the underlying treebank data. The rules in Part II are thus based on investigating a larger set of lexical units and greater amount of corpus evidence. These rules were first published (in Czech) as a separate chapter in (Lopatková et al., 2016a), of which chapter I am the principal author; I am

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much indebted to my coauthors (Václava Kettnerová and my advisor Markéta Lopatková) for their input towards the final structure of the chapter as well as for their numerous comments on the individual details of the text. Part II is a revised and extended translation of that chapter.¹ In case of rules that can be applied only to a limited set of verbs, the full listing of such verbs can be found in the present dissertation; the discussion has also been extended to cover some boundary cases. I have striven to use examples that would be easy to understand for an English speaking reader who has no or only limited command of Czech. Finally, the Czech text contains very little reflection of the existing approaches to the description of diatheses in Czech; in this dissertation, I at least partly fill that hole, even though it was impossible to reflect upon the vast body of existing literature in much detail. Finally, the research presented in Sections 5.2–5.4 has not been published before.

¹ The deagentive diathesis has been left out from this dissertation because I am not the author of the underlying annotation; however, I am the principal author of the rules for the deagentive diathesis as published in (Lopatková et al., 2016a).

Introduction

1.1 The topic of this dissertation

This dissertation is concerned with the study of verbal diatheses (especially those formed with the passive participle) in Czech from the perspective of the valency theory of the Functional Generative Description; related constructions with de-verbal adjectives are also discussed.

Valency here refers to the number and type of sentence elements that may or must complement a word (verb, adjective, noun, or adverb) in order to create a semantically and syntactically complete unit; such sentence elements are called *complementations*.

For both Lopatková et al. (2016a) and Panevová et al. (2014), *diathesis* denotes the relation between two surface-syntactic structures that both feature the same verbal lexical unit but differ in the grammatical category of voice or a similar morpho-syntactic feature.² (The kinds of diathesis that we distinguish in Czech are listed and exemplified in Figure 1.1.) More specifically, the term denotes the **relation between the unmarked surface structure** (a sentence in the active voice) **and the marked surface structure** (e.g. a sentence in the passive voice), so that it is possible to talk of the *marked member of the diathesis* without any ambiguity; by extension, I sometimes use the term *diathesis* for the **marked member of the diathesis** only. Therefore, the following expressions may be used to describe the same situation: “sentence Y is an instance of the passive diathesis”, “lexical unit X forms marked constructions of the passive diathesis”, “X enters the passive diathesis”.

In Chomsky’s *Syntactic structures* (1957, p. 42–43 and elsewhere), the marked member of the passive diathesis is viewed as derived from the unmarked member

² The phrase “a similar morpho-syntactic feature” is used here to avoid the need for discussing whether the verbal structures that are specific to each diathesis – e.g. the so-called *reflexive*

1 INTRODUCTION

- **passive diathesis (with verb *být* ‘to be’; *periphrastic passive*)**
Jiní nahradili ty, co odcházeli. ‘Others **have replaced** those who left.’
↔ *Ti, co odcházeli, byli nahrazováni jinými.* ‘Those who left **were replaced** by others.’
- **resultative diathesis (with verb *být* ‘to be’)**
Už žádné klíče, ty jsme nahradili jediným přívěškem. ‘No more keys, **we have replaced them** with a single pendant.’
↔ *Už žádné klíče, ty jsou nahrazeny jediným přívěškem.* ‘No more keys, **they have been replaced** with a single pendant.’
- **possessive resultative (with verb *mít* ‘to have’)**
(non-conversive/conversive) *Dříve zde přímo hlídali vojáci, dnes jsme to nahradili / nám to nahradili elektronikou.* ‘This place used to be directly guarded by soldiers, today **we have replaced them / they have replaced them for us** with electronics.’
↔ *Dříve zde přímo hlídali vojáci, dnes to máme nahrazeno elektronikou.* ‘This place used to be directly guarded by soldiers, today **we have them replaced** with electronics.’
- **recipient passive diathesis (with verb *dostat* ‘to get’)**
Rybáři však dosud nevědí, kolik z jejich ztrát jim ministerstvo nahradí. ‘But the fishermen still do not know how much of their losses **will the ministry reimburse them.**’
↔ *Rybáři však dosud nevědí, kolik ze svých ztrát dostanou nahrazeno.* ‘But fishermen still do not know how much of their losses **they get reimbursed.**’
- **deagentive diathesis (with the reflexive *se*; *reflexive passive*)**
Roztrhané části oděvu jsme nahrazovali nejjednodušším způsobem. ‘**We replaced** torn parts of clothing in the crudest manner.’
↔ *Roztrhané části oděvu se nahrazovaly nejjednodušším způsobem.* ‘Torn parts of clothing **were replaced** in the crudest manner.’
- **dispositional diathesis (with the reflexive *se*); *mediopassive***
V zimě odešel z Olomouce i Hubník [...] Olomouc to těžko nahradí, nemyslíte? ‘Hubník also left the Olomouc team in winter [...] Olomouc will hardly **replace** that, don’t you think?’
↔ *V zimě odešel z Olomouce i Hubník [...] To se jí bude těžko nahrazovat, nemyslíte?* ‘Hubník also left the Olomouc team in winter [...] That **will be hard** for her **to replace**, don’t you think?’

Figure 1.1: Types and subtypes of diatheses as they are distinguished in FGD and discussed in this dissertation, exemplified on the lexical unit

nahrazovat^{impf} – *nahradit*^{pf} ‘to replace, reimburse’

ACT_{nom} **PAT**_{acc} **EFF**_{instr, za+acc} **BEN**_{typ dat} .

by a transformation. Under such view, a diathesis could be identified with the corresponding transformation, or in terms not restricted to the generative theory, with the corresponding **change in the valency structure** of a verb. In this sense, it is possible to talk of “applying a diathesis” to a given lexical unit. However, it should be noted that current FGD is not concerned with creating a fully generative description of syntax, so it is not concerned with the question which member of the diathesis is the “primary” one in the sense of a structure that is generated first and used as a basis for generating the “secondary/derived” member.³ Closer to home is the structuralist distinction of unmarked vs. marked structures: the active, non-reflexive and non-reciprocal usage is considered unmarked, and usage that entails reflexivity, reciprocity, or other diatheses than the active diathesis is considered marked. For economy of description, lexicons based on FGD describe only the unmarked usage of each lexical unit, and marked structures are treated as derived. The rules for the derivation of the marked structures are stored in what we call the *Grammatical Component* of the lexicon.

1.2 Method

Although diatheses, as (more or less) productive grammatical processes, can be described by explicit syntactic rules, and observations can be made about the syntactic and semantic characteristics of verbs that undergo specific diatheses, their applicability is still lexically conditioned and as such has to be captured in the lexical entries of a lexicon. The same is true for other kinds of marked structures derived by rules stored in the Grammatical Component of the lexicon. Therefore, each lexical unit in the Data Component bears a number of attributes indicating which of the rules stored in the Grammatical Component are applicable (cf. Section 3.7).

The work on this dissertation started with the annotation of the recipient, possessive resultative, and passive / objective resultative diatheses in the Data Component of *VALLEX*. The annotation was based on searches in the Czech National Corpus (subcorpus SYN3) and included all lexemes that simultaneously satisfied two criteria: 1) at least one lexical unit in the given lexeme satisfied some predefined criteria (e.g. I was only expecting to find instances of the recipient diathesis in lexical units that realize one of their complementations through a dative); 2) a dedicated corpus search found an instance of a passive participle of

passive in the case of the deagentive diathesis – should be classified as different values of one general morphological feature (verbal voice) or whether they are aspects of multiple morphological or syntactic categories.

³ The terms *primary diathesis* and *secondary diathesis* are used by Urešová (2011a).

one of the verbs belonging to the given lexeme near the corresponding auxiliary verb (*být/bývat* ‘to be’ for the passive/resultative diathesis, *mít/mívat* ‘to have’ for the possessive resultative, *dostat/dostávat* ‘to get’ for the recipient diathesis). If both conditions were satisfied, I went through up to 100 concordance lines per lemma found in the corpus search and chose concordances that illustrate the formation of the given diathesis in the individual lexical units of the lexeme. In other words, word sense disambiguation was carried out manually, except for verbs belonging to single-lexical-unit lexemes that appear in the passive diathesis in the data of the Prague Dependency Treebank, in which case an example was added automatically. Additionally, I occasionally used more specific corpus and Web search in the case of lexical units where I expected to find evidence of the formation of the given diathesis but it did not appear in the first 100 concordances from the general search. If I could not find evidence of the given diathesis in the available sources but still felt that its formation cannot be excluded, I used a made-up example. The source of the examples (SYN, WWW, or made-up) is marked in the lexicon.

When the annotation was finished, I proceeded to the formulation of the rules that would describe the formation of these diatheses in the Grammatical Component of the lexicon. As a starting point, I have used the work of Urešová (2011a); however, for a more economical description, I have introduced functor variables and the distinction between basic and auxiliary rules (cf. Chapter 4). The rules were refined and reformulated in accordance with the evidence that was gathered in the annotation phase; where it turned out appropriate, additional annotation was carried out for some lexical units so that their exact syntactic behaviour could be determined. Part II of this dissertation contains a detailed commentary on the rules that came out of this process; each part of each rule is discussed separately and thoroughly exemplified.

1.3 Structure of this dissertation

This dissertation is structured as follows.

In Chapter 2, I first discuss several historical figures that prepared the way for the modern valency theories. The chapter is not meant as a complete history of valency thinking: valency is so tightly linked to dependency that this would require capturing the history of dependency theories in so much detail that the chapter could easily span several volumes. Instead, I hope to share the sense of humility that comes from the realization that what today may seem self-evident has not always been so. The insights behind modern valency theories emerged only very slowly from philosophers’ engagement with language (Aristotle, Section

2.1.1), translation studies (Blahoslav, Section 2.2) and syntactic studies inspired by pedagogical needs (represented here by medieval grammarians who came up with the terms *dependency* and *government*, and the teachers of the 19th and 20th centuries who contributed to the development of sentence diagrams; Section 2.3). In the second half of Chapter 2, the discussion moves onto the direct predecessors of the Functional Generative Description (Section 2.4), reviews of current literature about valency (Section 2.5), and a brief overview of several valency lexicons (Section 2.6).

Chapter 3 about the Functional Generative Description (FGD) introduces the theoretical background of all subsequent chapters. I have striven to capture all topics that are relevant for the lexicographic treatment of valency in FGD, with special emphasis on topics that may be confusing to researchers coming from a different theoretical background (the distinction between meaning and content in Section 3.1.1; the principle of actant shifting in Section 3.3.3). The text of Sections 3.2–3.7 sums up and extends the introductory part of the valency lexicon *VALLEX* (Lopatková et al., 2016a).

The main content of this dissertation—my own contribution towards the development of the Functional Generative Description—can be found in Part II. Chapter 4 provides a short technical introduction to the structure of the rules. In the rest of the chapter, I list individual rules for forming diatheses and other constructions derived on the basis of the passive participle: constructions with the auxiliary verb *být* ‘to be’ are discussed in Chapter 5, those with auxiliary *mít* ‘to have’ in Chapter 6, and those with auxiliary *dostat* ‘to get’ in Chapter 7.

For reader’s convenience, figures summarizing the basic characteristics and an overview of different types of valency complementations can be found in Appendix A; similarly, a tabular overview of the types of alternations can be found in Appendix B; finally, Appendix C contains an overview of all grammar rules discussed in the text. Some of the tables listed in the Appendices appear also at the relevant places in the main text.

Part I

Valency in linguistics and especially in the Functional Generative Description

Valency in historical and international perspectives

It is customary to start a dissertation with an in-depth review of current literature on its topic. I depart from that custom and instead start with three Sections dedicated to figures who lived hundreds and even thousands of years ago. My aim here is not to provide a comprehensive history of valency thinking; valency is so tightly linked to dependency that this would require capturing the history of dependency theories in so much detail that the chapter could easily span several volumes. Instead, I concentrate on conveying a sense of the amount of effort of the greatest minds that was needed to arrive at ideas that today may seem self-evident and even trivial. The insights behind modern valency theories emerged only very slowly from philosophers' engagement with language (Aristotle, Section 2.1.1), translation studies (Blahoslav, Section 2.2) and syntactic studies inspired by pedagogical needs (represented here by the teachers of the 19th and 20th centuries who contributed to the development of sentence diagrams; Section 2.3). Needless to say, many other historical personae could have been selected to awaken the sense of humility that I hope to convey.

In the second part of this Chapter, I move towards the present day. In Section 2.4, I discuss three linguists who particularly strongly influenced the valency theory formulated by Panevová (1974, 1975) and used in the Functional Generative Description until the present day. In Section 2.5, I refer the reader to existing reviews of the vast body of literature on valency that has been published in the last sixty or seventy years. Finally, I briefly mention some existing valency lexicons in Section 2.6.

2.1 First steps towards the concept of valency

2.1.1 Aristotle

In linguistics, the term *valency* refers to the ability of words (verbs, nouns, adjectives and adverbs) to bind/require modifications of a particular type. In linguistics, the term was first introduced by Lucien Tesnière (Tesnière, 1959), but the concept has been gradually developing over the millennia of European linguistic enquiries ever since Aristotle⁴ embarked upon the investigation of *solecisms* (syntax errors) in *Rhetoric* III, §5, 1407b, *Prior Analytics* I, §36, 48b–49a, and *Soph. Refut.* §14, 173b–174a and §32, 182a–b).

With the help of the word *klēsis* ‘nominative singular (masculine)’ and the corresponding forms of the demonstrative pronoun *houtos* ‘this’ as labels of the other cases, Aristotle hinted at conditions such as the following:

- the subject of a finite verb is in the nominative;
- the subject of an infinitive (unless identical with the subject of its governing verb) is in the accusative;
- words like *isos* ‘equal to’ govern the dative;
- words like *diplasiois* ‘double’ govern a genitive;
- transitive verbs (like *tuptō* ‘hit’ and *horō* ‘see’) govern the accusative.

To put these formulations into perspective, we need to realize that much of the linguistic terminology that we take for granted did not yet exist at the time of Aristotle’s writing. The concepts of a noun, a verb, and a sentence were already known to pre-Aristotelian thinkers, and today we may perceive Plato’s terms *onoma* and *rhēma* as roughly equivalent to subject and predicate; but neither Plato nor Aristotle nor, for that matter, Dionysius Thrax some two hundred years later, had any unequivocal term for the concept of subject. The points above are extracted from textual locations such as these two:

The fallacy comes about because ‘this’ is a common form of several inflections; for ‘this’ signifies sometimes ‘he’ and sometimes ‘him’. It should signify them alternately: when combined with ‘is’ it should be ‘he’, while with ‘being’ it should be ‘him’: e.g. ‘He is’, ‘being him’.

(*Sophistical Refutations*, §14, 173b)

The same holds good where the relation is negative. For ‘that does not belong to this’ does not always mean that this is not that, but sometimes that this is not of that or for that, e.g. there is not a

⁴ The discussion of Aristotle is drawing upon Householder (2014); the quoted passages are taken from the complete English edition of Aristotle’s works edited by Barnes (2014); *Prior*

2.1 FIRST STEPS TOWARDS THE CONCEPT OF VALENCY

motion of a motion or a becoming of a becoming, but there is a becoming of pleasure; so pleasure is not a becoming. Or again it may be said that there is a sign of laughter, but there is not a sign of a sign, consequently laughter is not a sign. This holds in the other cases too, in which a problem is refuted because the genus is asserted in a particular way in relation to it. Again take the inference: opportunity is not the right time; for opportunity belongs to God, but the right time does not, since nothing is useful to God. We must take as terms opportunity, right time, God; but the proposition must be understood according to the case of the noun. For we state this universally without qualification, that the terms ought always to be stated in the nominative, e.g. man, good, contraries, not in oblique cases, e.g. of man, of good, of contraries, but the propositions ought to be understood with reference to the cases of each term—either the dative, e.g. ‘equal to this’, or the genitive, e.g. ‘double of this’, or the accusative, e.g. ‘that which strikes or sees this’, or the nominative, e.g. ‘man is an animal’, or in whatever other way the word falls in the proposition. *(Prior Analytics Book I, §36, 48a–49a)*

Aristotle was never concerned with the study of language for its own sake; in both the *Prior Analytics* and *Sophistical Refutations*, linguistic facts are mentioned in order to be able to spot and avoid false arguments, while in *Rhetoric*, he is giving advice on how to express oneself comprehensibly and forcefully. The longest section of his writings usually associated with linguistic matters is chapters 19–22 in *Poetics*⁵ (1456a–1459a). Of these, chapter 19 only briefly assures the poet that he does not need to worry about distinguishing the “turns given to the language when spoken”, i.e., he need not worry about distinguishing statements from threats, questions from answers, or commands from prayers; making that distinction clear is an actor’s job, not the poet’s. Chapter 21 is devoted to the kinds of metaphor and Chapter 22 is concerned with matters of style and choice of vocabulary that should be contemporary and comprehensible but not dull. So in fact, only Chapter 20 is concerned with strictly linguistic matters; it starts with this sentence:

The diction viewed as a whole is made up of the following parts: the letter [~phoneme], the syllable, the conjunction, the article, the noun, the verb, the case [~inflection], and the speech [~sentence, utterance].

(Poetics, Chapter 20, 1456b20nn; brackets contain my notes)

and then goes on to define each of the units mentioned and its subtypes. The concept here translated as *case* is actually that of inflection, as can be seen in its definition:

Analytics was translated by A. J. Jenkinson, *Sophistical Refutations* by W. A. Pickard-Cambridge, *Poetics* by I. Bywater, and *Rhetoric* by W. Rhys Roberts.

⁵ Here I base my summary of these four chapters on the English translation by I. Bywater found in (Barnes, 2014).

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A case of a noun or verb is when the word means ‘of’ or ‘to’ a thing, and so forth, or for one or many (e.g. ‘man’ and ‘men’); or it may consist merely in the mode of utterance, e.g. in question, command, etc. ‘Did he walk?’ and ‘Walk!’ are cases of the verb ‘to walk’ of this last kind. (ibid., Chapter 20, 1457a19–23)

It is interesting to notice that Aristotle asserts the existence of verb-less sentences (possibly ignoring the copula?), but assumes that there always has to be a noun in a sentence:

A noun or name is a composite significant sound not involving the idea of time, with parts which have no significance by themselves in it. [...] A verb is a composite significant sound involving the idea of time, with parts which (just as in the noun) have no significance by themselves in it. Whereas the word ‘man’ or ‘white’ does not signify a time, ‘he walks’ and ‘he has walked’ involve in addition to the idea of walking that of time present or time past. [...] A sentence is a composite significant sound, some of the parts of which have a certain significance by themselves. It may be observed that a sentence is not always made up of noun and verb; it may be without a verb, like the definition of man; but it will always have some part with a certain significance by itself. In the sentence ‘Cleon walks’, ‘Cleon’ is an instance of such a part. A sentence is said to be one in two ways, either as signifying one thing, or as a union of several speeches made into one by conjunction. Thus the *Iliad* is one speech by conjunction of several; and the definition of man is one through its signifying one thing. (ibid., Chapter 20, 1457a10–30)

We see that Aristotle predates the time when the study of language took a form similar to modern-day linguistics. By the end of Antiquity, however, a number of grammatical treatises had been written; on the one hand, their authors did not come anywhere close to formulating a general concept of dependency or valency, but on the other hand, they frequently discussed topics that are obvious predecessors of such a concept: examples in which rection requirements are violated as well as sentences that are incomplete as a result of a missing valency complementation (Seidel, 2003).

2.1.2 The Medieval era

A giant step towards the modern concept of valency was achieved when medieval grammarians introduced the terms *regimen* ‘rection, case government’, *dependentia* ‘dependency’ and *determinatio* ‘determination’ and thus laid the foundations of modern-day dependency syntax. Also the relation between the predicate and its subject (*compositio* ‘composition’) and between the predicate and its object/postponed nominal (*significatio* ‘signification’) were distinguished as different at this time (Bursill-Hall, 2014, p. 132).

See (Seppänen, 2003) for a more detailed account of the most important medieval ideas related to valency, (Owens, 2003) for the ideas developed in the Arabic world, and (Cherubim, 2003) for an overview of the concepts originating in the Renaissance period.

2.2 Václav Philomates and Jan Blahoslav: Grammatica česká

We have seen that errors in rection⁶ were one of the few linguistic issues that attracted Aristotle’s attention. This is certainly not coincidental; such errors are also mentioned in the earliest linguistic treatises concerning the Czech language.

The first edition of *Grammatica česká* by Beneš Optát, Petr Gzell and Václav Philomates from 1533 has been lost; however, we know its text from a detailed commented copy (finished in 1571 but not published until 1857 when a manuscript copy from about 1670 was discovered) by Jan Blahoslav (Čejka et al., 1991), who worked with a 1543 edition published in Nürnberg.⁷ A surprising breadth of topics is covered by the treatise; furthermore, Blahoslav’s manuscript contains seven books of his own explanations in addition to the commented version of “Grammatica česká”. Here I present Philomates’ and Blahoslav’s treatment of the topics directly discussed in the main part of this dissertation: rection, verbal aspect, reflexive verbs, and diatheses.

Rection

Philomates points out numerous instances in which there is a case change when translating from Latin to Czech, e.g. in sentences with *non est* ‘there is no’ (*non est homo_{nominative} iustus in terra* → *není člověka_{non-nominative} spravedlivého na zemi* ‘there is no just man upon earth’), attributive expressions *když se něco praví býti něčím* ‘when something is said to be something (else)’ (*et tu puer, propheta_{nominative} altissimi vocaberis* → *a ty dítě prorokem_{non-nominative} nejvyššího slúti budeš* ‘and you, child, will be named the prophet of the highest’), sentences with two nominatives (*verbum caro factum est* → *slovo_{nominative} tělem_{non-nominative} učiněno jest* ‘the word became flesh’). Blahoslav’s commentary points out that Philomates analysed the non-nominative cases in these examples as instances of accusative, which is wrong (he notes that in the case of *člověka spravedlivého*, the wrong analysis is based on

⁶ By *rection* we mean case government, i.e. the fact that a word may require its modifiers to appear in certain forms. While the term *valency* is usually used for a complex phenomenon concerning both syntax and semantics, *rection* is limited to the syntactic/morphological expression of arguments.

⁷ According to Koupil (2007, p. 83 and xxix), a specimen of the 1543 edition can also be found in the Bibliothek der LMU in München.

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a false interpretation of an ambiguous form), and he even adds further examples of verbs that take non-accusative objects:⁸

To slovice *není* a též i některá a mnohá slova jiná, jako *podej*, *pochval*, *nehaněj*, *nechej* etc. nežádají za sebou míti accusativum, sed ablativum in nostra lingua adsciscunt.ⁱ Jako:

<i>není pána</i>	<i>pochval Boha</i>
<i>podej nože</i>	<i>pobrus sekery</i>
<i>vyjdi z domu</i>	<i>aby nesvrhl skleničky</i>
<i>koblouku neztracuj</i>	<i>ženy nepojímej</i>
<i>sukně šetř</i>	<i>neuzříš tváři mé</i>
<i>nedej podkopati domu svého</i> etc.	

Zle by tu přidal accusativum casum řka: *není tu sekeru*, *není tu koblouk*, *není tu sukni*; a nebo, jako někteří germanizantes říkají: *podej ten nůž*, *koblouk*, *sukni*, *konev*, *víno* etc. Item: *nekoupím dům*, *kuň*, *sedlo*, *uzda* etc.

Však zase, nevšudy se trečí regule ta; nebo i rukavice ne na nohy obouvány jako střevíce, ale na ruce brány bývají; takž i ne všeho jednou regulí zpravití můžeš. Zle by, první reguli zachovati chtěje, řekl: *schovej koblouku*, *čepice* etc.; ale musíš říci *schovej koblouk*, *čepici*, *sedlo*, *kup nůž*, *tesák*, *zjednej skleničku*, *půjmi ženu*, *vypí víno dobré* etc. Item *zachovals víno dobré* etc. Item *zachovals mnoho vína dobrého*.

ⁱ nežádají za sebou míti 4. pád, nýbrž přibírají v našem jazyce ablativ

(This and further footnotes within quotes from (Čejka et al., 1991) are taken directly from the critical edition; they contain the editors' Czech translations of the frequent Latin fragments interspersed in Blahoslav's otherwise Czech text.)

(Čejka et al., 1991, 65a)

Actually the distinction between the accusative and genitive rection is the first thing that Blahoslav discusses in his own chapter on syntax:

⁸ A careful reader acquainted with Czech will notice that Blahoslav calls this non-accusative case ablative, although all of his examples actually contain a genitive, except for *z domu* 'out of the house', which is a prepositional case. According to the authors of the critical edition, "ablative" here denotes any case expressing separation, including instances of the genitive and prepositional cases with locative.

O druhém dílu vlastnosti, jenž jest *proprietas phraseon*

To jest, o způsobu vlastním a obvyklém skládání slov jedněch s druhými, a tak formování řeči

Vlastnost pak způsobův skládání slov v tom záleží, aby jakž české řeči obvyklost ukazuje slova s slovy byla vázána neb spojována, ut *inter se partes orationis debito ordine copularentur, ex quibus intelligibilis et aperta efficeretur oratio.*ⁱⁱ Což příkladové tito vysvětlí.

*Bona et probata phrasis,*ⁱⁱⁱ dobré, vlastní, a srozumitelné i obvyklé složení slov jest (jako u příkladu) toto říci: *podej mi nože, čepice, rukavic, konve* etc. Ale zlé jest a pokažené složení slov týchž, takto vznějící: *podej mi nůž, čepici, rukavice, konev.* Tak mluvíti, jest ušlechtilou české řeči vlastnost, jiných jazyků způsoby nakažovati.

Takový způsob mluvení, jest částkou z němčiny, est *germanismus;*^{iv} a částkou z latiny, ac *potest vocari latinismus.*^v Němci nemajíce rozdílnosti *casuum*^{vi} jako my (nebo u nich *nominativus, genitivus, dativus* etc., samými *artykuli*^{vii} napřed přidanými se dělí, co u Židů, a ne *terminací,*^{viii} jako u latiníků i u Čechů). Protož tak mluvíti: *podej mi ten nůž, podrž mi ten kuň* etc., jest němčinou zatrhati. Vykladač modlitby císařské 1566 položil: *Tvou Božskou milost k hněvu sme popudili;* měl říci *Tvé Božské milosti* etc.

Iter, latiníci *activo verbo accusativum casum adjiciunt*^{ix} takto říkajíce: *porrige hunc cultrum, da huc cultrum, abjice hunc gladium;*^x jako by český řekl: *podej sem ten nůž.* Ale u Čechů, *licet quaedam verba accusativum adsciscunt,*^{xi} jako *zadrž ten meč, ztrískej ten hrnec* etc.; *tamen alia et quam plurima, ablativum casum regunt, loco accusativi.*^{xii} Jako *podej nože, konve, meče; přived koně, podrž vozu* etc.

ⁱⁱ aby se větné členy navzájem pojily v náležitém pořádku a aby tak činily řeč srozumitelnou a jasnou ⁱⁱⁱ Dobrá a správná vazba ^{iv} je germanismus ^v a je možno nazvat jej latinismem ^{vi} pádů ^{vii} členy ^{viii} koncovkou ^{ix} k aktivnímu slovesu připojují 4. pád ^x *podej ten nůž, dej sem nůž, odlož ten než* ^{xi} ačkoli některá slovesa přibírají 4. pád ^{xii} přece jen jiná, a to velmi mnohá mají rekcii ablativní místo akuzativní

(*ibid.*, 190a)

Blahoslav does not fully formulate the rule that in some cases, the non-accusative rection is characteristic of the given headword (*podej* ‘hand over’), while in other

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cases, it appears only with a negated form of the verb (*není* ‘is not’, *neztracúj* ‘do not lose!’). Further examples also show that Blahoslav was aware that in some cases, a verb permits several different forms for the same complementation:

Nebo at ten příklad vezmu kterýž on položil: Et tu puer propheta altissimi vocaberis, díš-li český: *A ty dítě prorokem nejvyššího slouti budeš*, dobře jest; pakli díš: *A ty dítě budeš slouti prorok nejvyššího*, ovšem výborně i ozdobně český poviš. Že by český jazyk tu nominativum strpěti nemohl, dí Philomathes, ale chybuje; iudicium aurium et exempla veterum affirmant quod ille negavit.^{xiii} Takž i o druhém příkladu *Zdaliž nejsem apoštolem*, dobře se dí; ale též se dobře dí: *Zdaliž nejsem apoštol*.

^{xiii} jazykový cit a příklady starých (autorů) potvrzují to, co on popřel

(ibid., 66b)

Verbal tense and aspect

After a detailed analysis of the cases in which the rection of Latin and Czech verbs requires different direct cases, Philomates also points out an issue that has been a hot topic of Czech linguistics throughout the 20th century and perhaps has not been definitively solved even until now: the problem of the interplay between verbal tense and aspect. Philomates points out that for translating the full range of grammatical tenses of the same Latin verb, both perfective and imperfective Czech verbs have to be employed:

Poněvadž jiná sou slova temporis praeteriti imperfecti, a jiná temporis perfecti, a jiná plusquam perfecti; takže se dělí od sebe, netoliko terminatione^{xiv} ale i significatione.^{xv} Neb jiné jest říci *přicházeli*, a jiné *přišli*, a jiné *byli přišli*. Exemplum primi. Veniebat de cuncto populo ad audiendam sapientiam Salomonis, *přicházeli ze všeho lidu aby slyšeli múdrost Šalomúnovu*. Exemplum secundi. Venerunt in sanctam civitatem, *přišli do svatého města*. Exemplum tertii. Qui circa undecimam horam venerant, acceperunt singuli denarium, *kteříž při hodině jedenácté byli přišli, vzali jeden každý po groši*.

^{xiv} zakončením, koncovkou ^{xv} významem

(ibid., 110b, original text by Václav Philomates)

Interestingly, Blahoslav this time finds a mistake where the current reader sees none;⁹ but immediately he goes into an insightful discussion of one of the intricacies of the Czech aspect: the group of iterative (or, as he says, frequentative) verbs.

Plus quam perfectum takto položil: *přišli byli*; to dobře tak. Perfectum vero *přišli*; též nezle. Ale imperfectum *přicházeli* jest frequentativum (ac deducitur a verbo *přicházím*, jehož primitivum jest *jdu*)^{xvi} podobně jako *jídali*, *píjeli*, *čítali*, *činívali* etc. Ač také se říká *přicházívají*; ale to jest již frequentativi plus quam perfectum; jako i od těch připomenutých slov od toho *píjeli*, *píjívali*, *čítávali*, *přicházívávali*. Sed haec, quia quandam rusticitatem redolent ac quiddam impolitum sonant, usus ea iam repudiavit.^{xvii} Kdyby bylo před léty, vyložili bychom appropinquabant ad eum *přibližováchu se k němu* etc.

Protož exceptiones kteréž klade tu Philomátes, non sunt exceptiones, sed est prorsus forma frequentativa, quae ad tempus imperfectum non pertinet; nisi quod aliquando mutuari hinc nos oportet vocem qua uteremur loco praeteriti imperfecti,^{xviii} jakož tu učinil Philomátes, když řekl *přicházeli*, místo toho starého *přicházíchu*, ač i to není tu vlastní.

[...]Ač by i to mohlo řečeno býti, že tu již in hac mutuatione,^{xix} slovo to *přicházeli* non frequentiam actus significat seu iterationem, sed continuationem.^{xx} Jako Actorum 28C *Přístupovali a byli uzdravováni*.

[...]Ale že to slovo *facere* tu vyložil *učiniti*, vidí se mi při té příčině dotknouti i tohoto, že to slovo dvojnásobně se vykládati může. Někdy *facere* jest *učiniti*, a někdy *činiti*, protož i toho šetřiti dobré jest, aby vlastnost jazyka českého i v tom nebyla zanedbána.

^{xvi} a odvozuje se od slovesa *přicházím*, jehož základní forma jest *jdu* ^{xvii} Ale tyto

⁹ Blahoslav claims that *přicházeli* is an iterative (in his terminology: frequentative) verb, while we perceive it as an ordinary imperfective verb. In part, this may be due to a diachronic shift in the meaning of the verb: in oldest Czech, the imperfective counterpart to *přijíti* was *přichoditi* (which does not exist in current Czech but is still documented in 16th century texts) and *přicházěti* was indeed iterative, as well as secondary imperfective (personal communication Kateřina Voleková). On the other hand, Blahoslav links *přicházím* directly to *jdu*, ignoring that there are two steps in the derivation (*jdu* ‘I go’ is imperfective, *přijdu* ‘I will come; I will reach (a place)’ is a prefixed perfective with a slight change of meaning, and *přicházím* ‘I am coming’ is secondary imperfective).

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tvary již vyšly z užívání, poněvadž v nich zní jakási neohrabanost a nevytříbenost.^{xviii} výjimky kteréž klade tu Philomatés nejsou výjimkami, nýbrž většinou jde o frekventativní formu, která nenáleží k nedokonavému času minulému; ledaže si zde někdy potřebujeme vypůjčit slovo, jehož bychom užíli místo nedokonavého času minulého^{xix} při tomto vypůjčování^{xx} neznamená opětování nebo opakování děje, nýbrž jeho pokračování

(ibid., 111b–112a; 130b)

Reflexive and non-reflexive verbs

Already Philomates is aware of the difference between reflexive and non-reflexive verbs:

Regula de *se*

Jakož k některým slovom ten termin^{xxi} *se* přidáváme, aby ta slova jasný rozum měla. Exemplum: Nolite timere; omnes miramini. *Nebojte se; všickni se divíte*, kdež *nebojte* a *divíte* byla by slova ničemná kdyby k ním nepřisadil *se*. Tak zase sou slova některá, ješto k nim toho terminu *se* nevždy přisaditi sluší. Exemplum: Interrogabant eum discipuli eius, *otazovali ho učedlníci jeho*. Netřeba tu *se*, neb bez něho rozum celý jest.

^{xxi} zakončení

(ibid., 113a–b, original text by Václav Philomatex)

Blahoslav takes the last example provided by Philomates as a starting point for an insightful discussion of verbs with an optional reflexive:

Než jsouť pak některá slove et phrases, kdež můžeš nebo přidati slovece to nebo nechatí. Jako při tom příkladu od Philomata připomenutém: Interrogabant eum discipuli eius. Staří to takto vykladali, a dobře, iuxta discrimina temporum,^{xxii} podlé způsobu toho času. *I tazáchu ho učedlníci jeho*; lépe nežli by bylo řečeno *i otazováchu*; ale lépe také nežli Philomates: *otazují se a tíží se*; [...] Při tom pak slovu *tázati* to slovece *se* může býti i nebýti kladeno, ačkoli Philomat<es> jest proti tomu. Dobře díš *otázal se ho* a též *tázal ho proč by činil*, phrasis theologica usitata.^{xxiii} Item, *tázali se ho učedlníci jeho, otěž se ho*.

Příčemž i to může býti spatřino, na některých místech při jednom a témž slovu, mutata persona, aut tempore, aut modo etc.^{xxiv} lépe a slušněji vzní s přidáním toho slova, a někdy bez něho. Jako když takto díš: *Co mne tížeš, těž se těch kteříž sou mne slýchali*. Ale takovou rozličnost regulemi chtíti obsáhnouti (exiguae esset utilitatis, laboris vero pene infiniti),^{xxv} ač by snad nebylo nemožné, však maličko užitečné a velmi pracné, vtipného a pilného člověka zvyk, bez regulí to zpraví.

^{xxii} podle rozdílu časů ^{xxiii} běžný teologický obrat ^{xxiv} se změnou osoby, času nebo způsobu atd. ^{xxv} přinášelo by to jen skrovný užitek, zato by to však stálo téměř nekonečné úsilí

(ibid., 113b–114a)

Diatheses

Perhaps most relevant to the current dissertation are two sections, one on translating Latin passive participles in the original text by Philomates (passive participles are discussed on pages 129a–129b, with comments by Blahoslav on 130b–131b) and another one on translating the Latin passive into Czech in Blahoslav's own Book I (200b–203a). By comparing the two sections, it becomes clear that both authors consider the Czech periphrastic passive to be the primary equivalent of the Latin analytical construction with the verb *esse* 'to be' and a passive participle, e.g. *verbum caro factum est* 'slovo tělo učiněno jest', *ter virgis caesus sum* 'tříkrat metlami mrskán sem', and the reflexive passive to be the primary equivalent of the Latin synthetic passive form, e.g. *luditur* 'hrá se'.

After discussing some aspects of translating Latin participles into Czech (including a few uncontroversial notes about the analytical passive forms), Blahoslav makes a very interesting observation that is an obvious predecessor of the contemporary discussion about the difference between the passive, resultative and verbonominal readings of the Czech passive participles:

Jsou některá participia, jichž nevždycky a nepojednou každý čtenář poznati může býti participia, ale domnívá se že jsou nomina, pro podobnost jednoho k druhému; jako toto slovo *proměněná*, a *proměněna jest*. Ale tať samým akcentem, t. tím štrejškem na poslední syllabě znamnána býti mohou a mají. Dobře díš: *Tvář jeho proměněna jest*, tj. proměnila se. Item: *Stojí proměněna všecka*. Item: *Pěkná*

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byvši líbila se, proměněná již se nelíbí, t. když jest proměněna. Ale tu již participia transeunt in naturam nominum ut supra.^{xxvi} Item: *Vyplynula voda z jeho boku*. Item: *Krev z Krystova boku vyplynulá obmývá hříšné lidi*.

Než při některých slovích jsou světlí rozdílové. Jako: *uveden, uvedený, pověšen, pověšený* etc.

Latinská forma tato k tomu jest velmi podobna: *mutata mente dixit: maje již mysl proměněnou* (a neb *proměniv mysl svou*) *i řekl*. *Mutata est mens, proměněna jest mysl*. *Ipsius mens mutata aliud faciet quam heri pollicebatur, mysl jeho proměněná* (t. proměněna jsuci) *jiné učiní nežli to co včera slíboval*.

^{xxvi} participia se stávají jmény, jak (bylo řečeno) nahoře

(*ibid.*, 133b–134a)

By way of example, Blahoslav warns of the ambiguity between the reflexive passive and actual reflexive constructions; when there is a danger of such ambiguity when translating Latin synthetic passive forms (*docetur* ‘it is being studied, some studying is going on’, *traditur filius homini* ‘Son of man is betrayed’, *arguitur ab omnibus* ‘would be overcome/convicted by all’), he prefers to avoid this ambiguity by using a personal construction (with a first or second person Actor, e.g. *učíme se* ‘we are studying’, or with a third person plural Actor, e.g. *zrazují Syna člověka* ‘they betray the Son of man’); the periphrastic passive is only rarely suggested as another alternative (*byl by ode všech přemahán* ‘would be overcome by everyone’, *musí být snášáno* ‘must be endured’). Some other means for expressing generalized Actors, such as using the words *jeden* ‘one’ or *člověk* ‘man’ are mentioned but deemed inelegant. Because of its relevance for this dissertation, this somewhat lengthy passage is quoted here in full:

Formae loquendi impersonales, quae apud Latinos sunt usitatissimae,^{xxvii} v češtině se ne všudy a ne vzdycky trefují. Nebo zle by řekl: *Quid agitur? Docetur. Co se dělá? Učí se*. Amphibologia^{xxviii} by tu byla; neb takž také vyložiti by musil jiné slovo, t. indicativum activi in tertia persona singularem:^{xxix} student *učí se*. Protož musí per circuitiōnem aut resolutionem^{xxx} takto pověditi: *Nu což děláte?* I odpovíš (místo toho slova *učí se*): *Teď se učíme* a nebo *Učíme se*. Item *perculitur* neříkej *bije se* (neb to slyše někdo, pomyslí by, že sám se kdos bije); ale řekni si vis simili forma uti,^{xxxi} *provodí se pranice*; pakli chceš

simplicius et usilatus,^{xxxii} tedy rci *pereme se, bijí se* etc. Marci 14: ta slova *traditur filius hominis* vyložíš-li *vydává se*, neb *zrazuje se*, jako Beneš; bude nesrozumitelně, neb jest to ἀμφίβολου^{xxxiii} obrátiti se může i jinam. Jako: *Svou řečí se ten člověk sám zrazuje*. Staří vykládali per futurum^{xxxiv} *zrazen bude*, vel *vydán bude*. Ale nejslušněji by takto vyložiti se mohlo, kdyby nebylo o starý zvyk: *Aj zrazují Syna člověka*. — Item, jeden vyložil ta slova: A baptismo censetur Christianus, *hned po křtu drží se člověk za křesťana*; est merus latinismus.^{xxxv} Lépe díš *držán býti má* a nebo *mají jej za křesťana*. Ač proto někdy některá mohou i vykládána býti *má* a nebo *mají jej*: neb se mluvívá tak. — *Bojuje se*, luditur, *hrá se, leda se hrálo*. Někteří pak κακόζηλοι aut rudiores,^{xxxvi} chtějí sobě formovati locutionem impersonalem^{xxxvii} beze vši potřeby, z toho slova marně přidaného *jeden*. Říkají takto: *A coť jeden ví kam jíti když tam nebýval. Nemůž se jeden najísti a napítí aby nebylo svády. Mohl by se jeden zabítí. Div se jeden nepřetrhne* etc. Verštatní locutio, tam může trpína byti, ale ad theologos non pertinet,^{xxxviii} neb jest to germanismus. Někteří místo toho slova *jeden*, užívají *člověk*. *Coť člověk ví. Musí člověk, snésti* etc. Est quidem tolerabilior locutio, at aequae non elegans; *Je to sice vazba přípustná, ale rovněž není vkusná* k běžnému mluvení se nezle hodí. Vážní lidé a rozumní takto říkávají místo toho: *Kdoť ví co je to?* Item: *Musí to vše snášino, neb sněšeno býti*. Item. *Nemůž ani pokrmu ani nápoje užíváno byti bez svády* etc. Jiní také ani jednoho ani druhého z těch slov užívají, ale říkají takto: *Nelze se vystřící. Nelze se zdržeti. Nemůže* (t. nemůže člověk) *se mu vymluviti, tak předce obdržuje hostě* etc. A tenť způsob není zlý. A však dosti pěkně se dí: *Již hle neuslyšíš téměř o ničemž dobře rozprávěti*, t. neuslyší se. Item: *Vejdeš-li do kostela, neuzříš tam mnoho lidu, půjdeš-li do krčmy, tam divně lidi^{xxxix} nalezneš*; t. vejde-li se, uzří se, půjde-li se, nalezne se.

Těž persona tertia passivi^{xl} nechce se dobře trefovati. Jako, Act<orum> 17: colitur Deus, Beneš vyložil: *ctí se Bůh*, nedobře; vlastnost zachovati chtěje fecit duram orationem ac incomptam, et dubiam,^{xli} neb by někdo myslil snad, že se tu mluví o tom, jak sám se (neb sebe) Bůh ctí; mohl by říci raději, resolvendo orationem:^{xlii} *aniž jej ctí ruce lidské*. — A jinde, Mat<thaei> 15: *zle se od dabla trápí*. Daleko by slušněji per activum^{xliii} vyložil takto: *dceru mou velmi trápí dábel*. — Mat<thaei> 26: Filius hominis traditur, *zrazuje se*. Lépe vyložíš per futurum:^{xliv} *zrazen bude* a nebo *zrazují*, ut vulgo loquuntur.^{xlv} —

Luc<ae> 7: *malomocní se čistí*. Lépe: *očistění přijímají*. Ač Beneš řekl: *umítá se*; ale také by tak mohl říci: *snědlo se*. Marci 14: *Filius hominis traditur, Syna člověka zrazují*; inepte by řekl *zrazuje se*. — Luc<ae> 3: *exciditur, vytíná se*; lépe podle naší phrasi *vytínají*. Ego posui futurum pro praesente,^{xlvi} pro starý zvyk. — Item, jeden též vyložil: *Deus qui a me laudaris, Bože jež se ode mne chválíš*. — Item, Efes<ios> 5: *impleamini, naplňujte se Duchem svatým*. Lépe: *naplnění buďte Duchem svatým*; a neb *plni buďte Ducha*, to jest, darův Božích duchovních (jako by řekl) radse nežli vína, nebo víno zplozuje radost neb lítost a vesselí hříšné, ale darové ducha Páně, rozmnožují v srdci člověka radost lítost, utěšení, a vesselost svatou, jakož příklad na Panu kterýž se byl rozvesselil v duchu. — Item Korint<hios> 14: *arguitur ab omnibus, Beneš vyložil tresce se ode všech*, někteří *přemáhá se ode všech*. Lépe takto: *Ale kdyby všickni prorokovali* (t. obvyklým jazykem) *a všel by mezi ně nikdo nevířící neb neučený, i byl by ode všech přemáhán (i v své mysli jimán) a ode všech rozsu-zován nebo souzen*. — Item Galat<as> 3: *Benedicuntur cum fideli Abraham. Požehávají se s věrným Abrahamem*. Někdo by rozuměl takto: Jakož věrný Abraham sebe požehnal, tak i oni požehávají sebe svatým křížem etc. Beneš lépe vyložil: *požehnání bývají* etc. — Též i to slovo *obmývají se*, neb *umývají se*, *lavantur*. Lépe takto: *lavant se ipsos, myjí se sami*; *lavantur, myjí je*, aneb *obmyváni bývají*, a neb *docházejí obmytí*; bude čestěji a srozumitedlněji, a nebude žádná amphibolia.^{xlvii} Licet ponetur hac ratione frequentativum pro primitivo per enallagen,^{xlviii} a dobře, v takové potřebě. — Item, Mat<thaei> 26: *traditur, Syn člověka se zrazuje v ruce hříšných*. Lépe by řekl *Syna člověka zrazují v ruce* etc. U latiníků díš-li *produnt et subaudies homines*,^{xlix} bude barbarismus; ale česky se tak mluví obyčejně, nempe *verbum sine nominativo*,¹ *obloupili jej, zabilí ho, oběsili ho* etc. Mistr Jan Hus v Postilli, v kázání w: Toho slova český jedním slovem podobně k rozumu nemohu vyložiti, nebo řek-li bych *non iudicatur, nesoudí se*, to slovo vztahuje se k jinému rozumu. Pakli bych řekl *není souzen*, t. *non est iudicatus*. Pakli dím *nebude souzen*, to jest *non erit iudicatus*. I zdálo mi se lépe říci, že kdož věří v něho *nesoudí ho*.

I tak summou, vejklad passivi huius ad verbum,^{li} jest nezpůsobný; dura admodum expositio, et inelegans ac difficilis intellectu; loquendi genus prorsus non imitandum.^{lii}

^{xxvii} Neosobní způsoby vyjadřování, které jsou hojně využívány latiníky ^{xxviii} dvojznačnost, víceznačnost ^{xxix} tj. oznamovací způsob činného rodu v třetí osobě jednotného čísla ^{xxx} oklikou nebo rozvedením ^{xxxi} chceš-li užít podobného způsobu ^{xxxii} prostěji a obvykleji ^{xxxiii} dvojznačné, víceznačné ^{xxxiv} budoucím časem ^{xxxv} je čistý latinismus. ^{xxxvi} špatní napodobitelé nebo méně vzdělaní ^{xxxvii} neosobní vazbu ^{xxxviii} teologům nepřisluší ^{xxxix} neobyčejně mnoho lidí, až napodiv mnoho lidí ^{xl} třetí osoba trpného rodu ^{xli} dopustil se výroku tvrdého a neohrabaného, a nadto ještě dvojznačného ^{xlii} rozvedením výroku ^{xliii} činným rodem ^{xliv} budoucím časem ^{xlv} jak se obecně říká ^{xlvi} Dal jsem čas budoucí místo přítomného Blahoslavův překlad Nového zákona z r. 1568 má *vytat bude* ^{xlvii} dvojznačnost, víceznačnost ^{xlviii} Ačkoli se v takovém případě bude klást sloveso frekventativní místo základního záměnou ^{xlix} díš-li *produnt* (“vydávají”) a rozumíš tím *lidé* ^l totiž sloveso bez 1. pádu (tj. podmětu) ^{li} doslovný překlad tohoto trpného rodu ^{lii} je to výklad příliš tvrdý, nepěkný a těžko pochopitelný; způsob vyjadřování rozhodně nehodný napodobení.

(ibid., 200b—203a)

Summary

I have dedicated so much space to the work of Philomates and Blahoslav because I am fascinated by the breadth of the discussion in Philomates' treatise and the depth of insight of Blahoslav's commentary; a very large number of phenomena related to the concept of valency are mentioned and exemplified, including rection, reflexive verbs and verbs with a free (optional) reflexive, the issues of aspect and their relevance for translating the wide inventory of Latin tenses, the boundary between participles and adjectives, the ambiguity between the reflexive passive and constructions actually expressing true reflexivity etc. In terms of terminology, Blahoslav makes use of any terminology that was developed for the description of Latin and can be straightforwardly applied to Czech, such as the terms for various parts of speech, the first, second and third person, frequentative verbs, active and passive voice and impersonal constructions, even the term for the fact that a verb may require (“govern”) a certain case; he also makes use of older Czech terminology, especially in the area of phonetics/orthography (Vintr, 1972); however, where Czech differs from Latin, he is struggling with a lack of appropriate terminology, whether it be the specifically Slavic category of verbal aspect, the existence of reflexive verbs, or the different number of cases in the

nominal paradigms (most of the confusion is around the term *ablative*, which stands for most uses of the case that we nowadays call *local*, but is also used for certain uses of the genitive and even some prepositional phrases, and in the term *ablativus instrumenti* stands for the case that we nowadays call *instrumental*; on the other hand, uses of the locative case after the preposition *o* ‘about’ are treated as a separate case called *casus octavus*). This lack of terminology will be the main challenge for Czech grammarians in the subsequent centuries.

2.3 Sentence diagrams

Early development: Sentence diagrams in schools but not in print

Today, it may seem impossible to think of a dependency structure without visualizing a dependency tree. And yet, for hundreds of years, scholars and even school children have discussed subjects, predicates, objects and other kinds of sentence units without this useful aid. The first time sentence diagrams were extensively used in public schools may well be the 1850s in the United States. Their appearance was influenced by several factors, one of which was the introduction of blackboards into American classrooms in the 1830s and 1840s; unlike in Europe, slates were seldom used and paper was expensive. According to Hagen (2015), grammar was mostly taught orally until then, with an emphasis on what we would today consider to be a morphological analysis of individual word forms. In 1830, James Ray gave the following advice:

In the study of Grammar the blackboard may be used to exhibit the inflections of the various parts of speech; it may also be used in syntax, to point out the connection of the principal words to each other. The method of doing this is by writing on the board the sentence to be parsed, and then connecting by curved lines those words that have any grammatical connection with each other. The instructor at the same time pointing out what that relation is. It may be observed that in teaching grammar the use of the blackboard is confined to the teaching of the elementary principles of the science, [and] is used by the teacher for the purpose of illustrating these principles.

(*Transactions of College Teachers* VI, p. 104, quoted by Lyman, 1922, p. 148)

In the Czech context, a similar approach was advocated by Rufer (1905).¹⁰ To save space, he advised that only the first letters of each word of the sentence

¹⁰ The information about the content of (Rufer, 1905) is taken from Novotná (2005, p. 44–48).

should be written down, so that the whole sentence fits on a single line. The sentence is to be divided into a subject part and a predicate part by a line; if the subject is not expressed (Czech is a pro-drop language, so this situation is quite common), it is to be marked by a dot or a zero in front of the sentence. The subject and the predicate are to be connected by a curve, and additional sentence elements are to be found, analysed for their type (e.g. object, attribute, adverbial) and connected with “nice, nimble curves” (Czech: *pěknou, pružnou křivkou*) to their headwords. Rufer warned that it is necessary to be systematic in the use of symbols and marks, so that any notation is clear to the pupils. A similar approach was described by Glos (1929).

Sentence diagrams in pedagogical treatises and school books

It is clear from the passages quoted above that sentence diagramming was part of school treatment of syntax already before we find first complete sentence diagrams in print. When sentence diagrams started appearing in print, it was in pedagogical treatises and school textbooks. Thus, for example, Franz Kern used them extensively in his *Zur Methodik des deutschen Unterrichts* ‘On the Methodology of German Lessons’ (1883b; cf. Figure 2.3), but not in his more scientifically conceived *Deutsche Satzlehre* ‘German Syntax’ published in the same year.

As soon as sentence diagrams began being used in schools, it was necessary to devise ways of capturing complex phenomena such as coordination, subordinate clauses, attributive complements (with dual dependencies) and others that do not fit neatly into a simple tree-like dependency structure. Unlike theoretical syntax models of the second half of the 20th century, sentence diagramming systems developed for pedagogical purposes are not bound by the requirements of a formal system, so they typically mix a core tree-like dependency structure with other devices (certain elements are captured as subelements of other elements rather than their children, there is special notation for coordinated constructions, etc.)

According to Hagen (2015), the first complete diagramming system (at least in the English speaking world) was developed by Clark in his *Practical Grammar: In which Words, Phrases, and Sentences Are Classified According to Their Offices and Their Various Relations to One Another* (1847). The basic elements of his graphs are sometimes unfairly referred to as “clumsy bubbles” by those who write about them (Hudson, 2014a,b); the suggestion to use rectangles with connecting lines comes from March (1867), a book with a title that should make today’s computational scientist’s heart sing with joy: *A Parser and Analyzer for Beginners, with Diagrams and Suggestive Pictures*, cf. Figure 2.1. The variety of sentence diagrams best known to the American public was introduced by Alonzo Reed

and Brainerd Kellogg in *Graded Lessons in English* (1876) and *Higher Lessons in English* (1877), cf. Figure 2.2.

An early version of graphical representation of sentence structure – albeit not full sentence diagrams – in a scientific publication can be found in the works of Jan Gebauer, who was an experienced secondary school teacher besides being an influential linguist. In his monumental four volume *Historická mluvnice jazyka českého* ‘Historical grammar of the Czech language’ (Volume IV: Syntax, published posthumously as Gebauer, 1929), as well as in its abbreviated versions intended for the general public and for secondary schools (1890; 1904), he uses in-text marking: a hyphen for showing that several consecutive words form a single syntactic unit, e.g. *po-nemoci* ‘after-an-illness’, and \smile for a close syntactic/semantic relationship between two syntactic units, e.g. *chlapec \smile chodí \smile bos* ‘the-boy \smile walks \smile barefooted’, cf. Figure 2.4.¹¹ Gebauer also introduced an ingenious way of capturing the structure of compound sentences, cf. Figure 2.6.

Concerning the teaching of Czech as a native language, Novotná (2012, especially p. 186–191) found graphical analysis of both simple and compound sentences in a number of school textbooks from the 1930’s (but not in earlier textbooks from the 20th century, cf. also Novotná, 2005). In some textbooks, students were taught to underline different types of clause elements with different kinds of lines; this was sometimes used together with arrows showing the dependency structure (Bojanovská et al., 1936), othertimes as the only means of capturing the structure of a clause (Žofková and Tožička, 1933). Vítek and Sirotek (1935) introduced a double line between the subject and the predicate, both of which were placed inside a rectangle, while the remaining clause elements were placed inside circles; Mrázek (1936) used rectangles for all clause elements, but highlighted subject and predicate by a thicker border. Neither Vítek and Sirotek nor Mrázek required that students be able to produce a graphical representation of sentences. Novotná (2012) also found graphical representations of compound sentences in (Autrata, 1913; Žofková and Tožička, 1933; Bojanovská et al., 1936; Kohoutek and Komárek, 1937).

Sentence diagramming accepted by the scientific community

Probably the first Czech book dedicated fully to sentence diagramming—and definitely the best known—is Vladimír Šmilauer’s *Učebnice větného rozboru* (1955). This book was used as a coursebook for the students of the Czech and Slovak languages at the Faculty of Arts in Prague; in fact, it was the first tutorial material

¹¹ The \smile sign is also used for any other purposes where a teacher would draw a line on a blackboard, such as for delimiting syllables in the discussion of syllable boundaries.

(with an emphasis on exercises) published by the university, with a number of revised editions (3rd in 1958, 5th in 1968, 6th in 1972) to keep it up-to-date with other major publications on Czech syntax (Šmilauer, 1972, p. 3). However, this textbook was not Šmilauer’s first take on sentence diagramming; it was preceded by a 10-page appendix to his academic grammar *Novočeská skladba* (1947), with the title *Klíč k mluvnickému rozboru větnému (pro školní potřebu)* ‘A key to syntax analysis of sentences (for schooling purposes)’, cf. Figure 2.7.

Among professional linguists, sentence diagrams were popularized by Lucien Tesnière who was the first linguist to use them in research articles and monographs. In his own words (Tesnière, 1959, 2015, Chapter 3, §9, Footnote 9), he conceived the stemmas independently in 1932, first used them in a published article in 1934 (written a year earlier) and used them in teaching since 1935. However, we know today that at the time when he conceived them, Tesnière was acquainted with sentence diagrams of some of his predecessors but found in them “a lot of fancy things and a tendency to geometrize at all costs” and he thought “there was something more” in his own design (Mazziotta and Kahane, 2015).¹² In 1936,¹³ he discovered several instances of graphical representations of sentences in Russian grammars (Ušakov et al., 1929, 3rd part, pp. 6–7, and 4th part, p. 5; Krjučkov and Svetliev, 1936, pp. 6–7); neither of these authors treat subjects as dependent on verbs, and, as Tesnière phrases it, “the stemma appears, at least in the grammars I know and have just quoted, only in a very fleeting and transient way, as the demonstration of a principle. It seems to me that these Russian authors have neither recognized the practicality, which seems obvious to me, nor foreseen all the developments to which the stemma can lead.” Even though Tesnière’s primacy in the area of sentence diagramming has been disputed, his *Eléments de syntaxe structural* ‘Elements of Structural Syntax’ (1959) certainly established sentence diagrams in mainstream linguistics, cf. Figure 2.8.

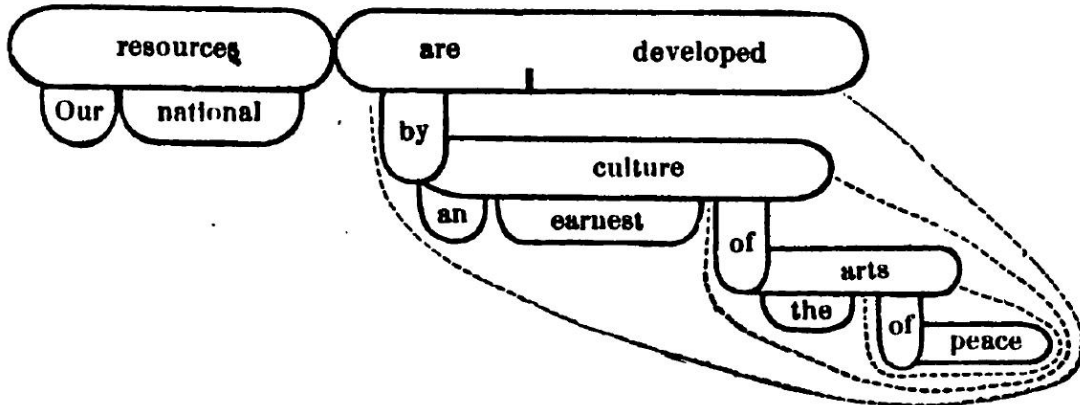
¹² Mazziotta and Kahane (2015) quote the following letter to Fernand Mossé, dated July 7th 1932:

Je me rappelle en effet le petit livre anglais que vous m’aviez montré, mais il me semble que j’y avais trouvé beaucoup de choses fantaisistes et une tendance à géométriser à tout prix. L’exemple que vous me donnez est dans tous les cas correct. Mais je crois qu’il y a quelque chose de plus dans ma conception.

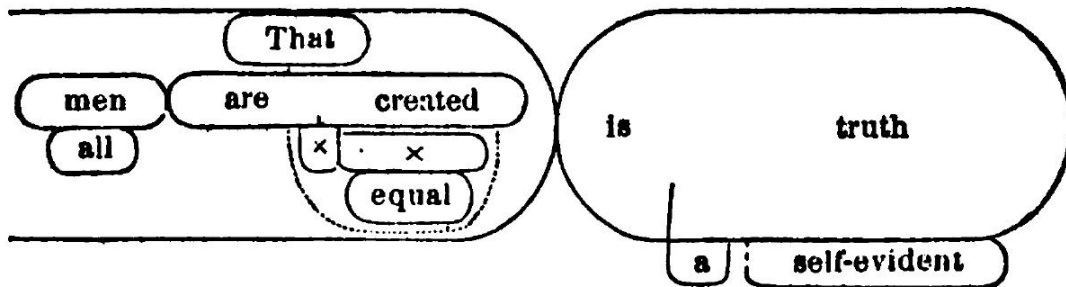
¹³ Interestingly, this is the same year in which Mrázek (1936, p. 6) justifies the use of sentence diagrams by a reference to “Russian grammars” (Novotná, 2012, p. 190).

2 VALENCY IN HISTORICAL AND INTERNATIONAL PERSPECTIVES _____

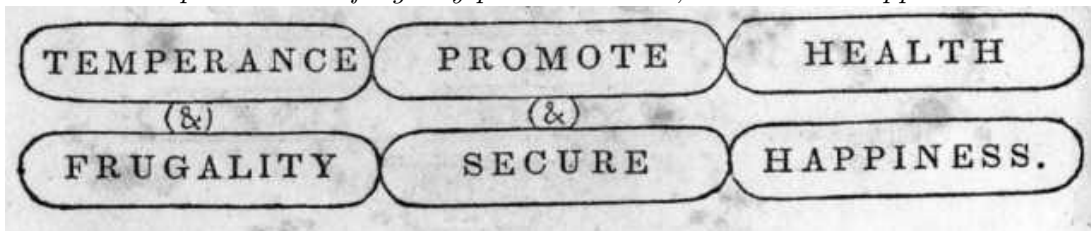
Our national resources are developed by an earnest culture of the arts of peace.



That all men are created equal is a self-evident truth.



Temperance and frugality promote health, and secure happiness.



I saw Cain and Abel's mother. I saw Cain's and Noah's mother.

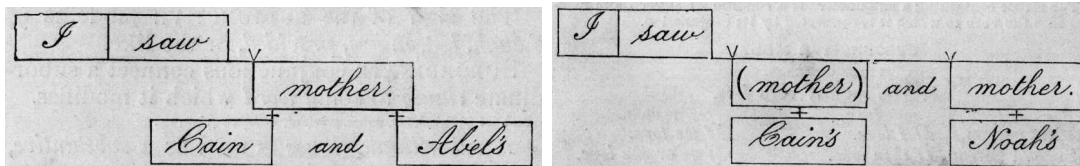
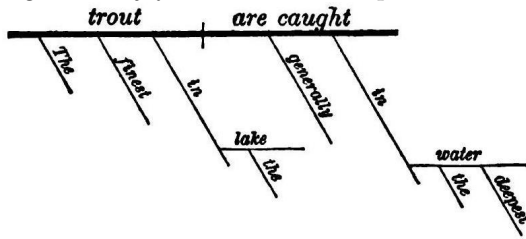


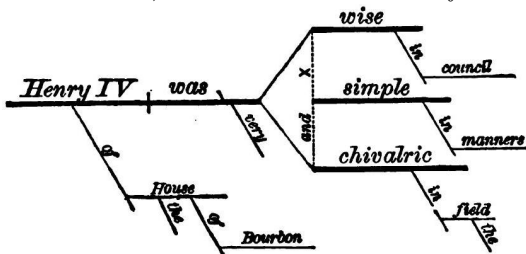
Figure 2.1: Examples of sentence diagrams from Clark's pioneering book (1847, images taken from the 1858 and 1853 editions) and its follow-up by March (1867). The images with darker background are taken from Hagen (2015).

The finest trout in the lake are generally found in the deepest water.



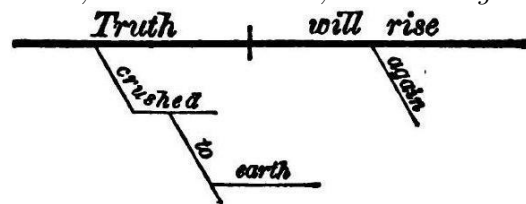
You will notice that the diagram of the [prepositional] *phrase* is made up of a slanting line, standing for the introductory and connecting word, and a horizontal line, representing the principal word. Under the latter, are placed the little slanting lines standing for the modifiers of the principal word. Here and elsewhere, all modifiers are joined to their principal words by slanting lines.

Henry IV., of the House of Bourbon, was very wise in council, simple in manners, and chivalric in the field.



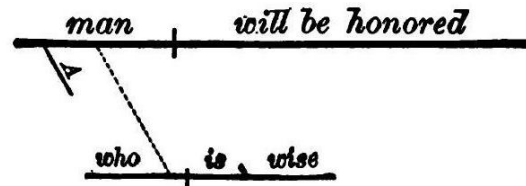
In this diagram, the complement line separates into three parts, to each of which is joined a phrase diagram. The line standing for the word-modifier, is joined to that part of the complement line which represents the *entire* attribute complement.

Truth, crushed to earth, will rise again.



In this diagram, the line standing for the principal word of the participial phrase is broken; one part slants, and the other is horizontal. This shows that the participle *crushed* is used like an adjective to modify *Truth*, and yet retains the nature of a verb, expressing an action received by truth.

A man who is wise will be honored.

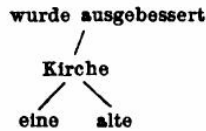


You will notice that the lines standing for the subject and predicate of the *independent clause* are heavier than those of the *dependent clause*. [...] You will see that the pronoun *who* is written on the subject line of the dependent clause. But this word performs the office of a conjunction, also, and this office is expressed in the diagram by a dotted line. As all modifiers are joined by *slanting* lines to the words they modify, you learn from this diagram that *who is wise* is a modifier of *man*.

Figure 2.2: Several Reed-Kellogg diagrams with the respective explanations, taken from a 1879 edition of (Reed and Kellogg, 1876). Notice that passives verb forms are treated as a single sentence element (the predicate).

Das bestimmende Wort ist abhängig von dem durch dasselbe bestimmten oder wird von ihm regiert.

Die Abhängigkeit eines Wortes von einem andern bezeichnet man (graphisch, durch ein Schema) durch einen von dem regierenden Wort nach unten gezogenen Strich, an dessen Ende das regierte (oder abhängige) Wort steht:



oder ohne Worte durch bloße grammatische Bezeichnungen:

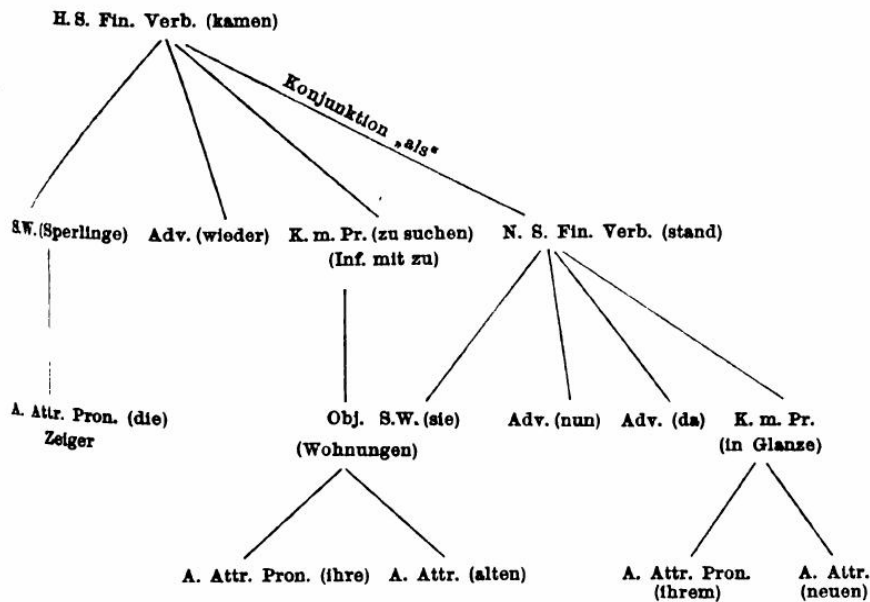


Figure 2.3: Two sentence diagrams from a pedagogical treatise by Kern (1883b). The two sentences are *Eine alte Kirche wurde ausgebessert*. ‘An old church got renovated.’ and *Als sie nun in ihrem neuen Glanze da stand, kamen die Sperlinge wieder, ihre alten Wohnungen zu suchen*. ‘As it now stood there in its full splendour, the sparrows came back to search for their old dwellings.’ Note that in the diagram of the second sentence, the subordinate clause is moved to the right; this corresponds to the order in which individual sentence elements should be analysed in a school setting (starting from the finite verb of the main clause, then filling in the subject, then finally filling in other sentence elements that further specify the content of the verb).

- a) 1. Doplněk při slovese jest výraz, jenž omezuje a určuje děj slovesný ve smyslu věcném a spolu skrze sloveso táhne se ke jménu podstatnému (nebo jeho zástupci). Na př.: chlapec je bos, chlapec chodí bos, Jidáš stal-se zrádcem.

Také přívlastek táhne se ke jménu podstatnému, na př. bosý chlapec. Přívlastek a doplněk jsou si tím podobny; ale je mezi nimi přece rozdíl, a to ten, že přívlastek táhne se ke jménu podstatnému bezprostředně, doplněk pak skrze sloveso: bosý chlapec — a chlapec je bos, chlapec chodí bos, vidím chlapce bosa.

2. Podstatné jméno (nebo jeho zástupce), k němuž doplněk se táhne, bývá nejčastěji v podmětě příslušné věty, někdy v některém jejím členu jiném, zejména v předmětě nebo v příslovečném určení.

a) Podstatné jméno, k němuž doplněk se táhne, je v podmětě. Na př.: Chlapec chodí bos. — Dívka chodí bosa. — Přítel leží nemocen. — Dám stojí prázdno. — Ženy prostovlasý vyběhly. — Dávám se vinen (= já dávám-se vinen; já = zájmeno, místo jména podstatného). — Narodil jsem se slep, nebo slepý. — Dělán se nemocen. — Zdám se zdrav. — Jidáš stal-se zrádcem. — Učiněn jsem bohat. — Učiněn jsem velikým boháčem. — Sv. Vojtěch zvolen-jeť biskupem.

- b) 314. Věty, jejichžto podmět i přísudek jsou výrazy jednoduché, slovou holé. Na př. slunce vychází (podmět slunce, přísudek vychází, oboje výraz jednoduchý).

Za holé pokládají se také věty, které mají v přísudku sloveso jsem (n. nejsem), jsi atd. s nějakým slovem doplňovacím. Na př.: Bůh jest věčný; — ty jsi řekl; — (já) jsem po-nemoci atp. — Sloveso jsem, jsi atd. v těchto větách nazývá se sponou (copula). Srov. § 332.

- c) 448. Zvratné osobní se.

1. Tvary jeho viz v § 163. Jsou jen čísla jednotného, ale platí také pro množné.

2. Zájmenem tímto vyjadřuje se předmět, který je spolu podmětem děje. Na př.: chválím se, (já chválím se, t. j. slovem se vyjadřuje se táž osoba, která je podmětem věty „já chválím“), —

Figure 2.4: Gebauer's in-line marking of a relation between two words (1904, p. 238, §358; p. 218, §314; p. 306, §448). In the majority of cases, there is a dependency relation between the words connected with a \smile , but on a few occasions, it seems that the sign is just used for emphasizing any relation that is relevant for the discussion (examples *b* and *c*). The use of the short \smile between neighbouring words is quite common throughout the chapter on syntax, a topic for which Gebauer uses the lovely Czech term *větosloví* 'sentencology'; the longer curved lines between non-neighbouring words are rare.

a) 361. *Spojení v jednotu větnou.*

1. Věta skládá se ze členův, a členové její mohou být opět výrazy složité. Když větu docela rozložíme, dostáváme řadu jednotlivých slov. Na př.:

země | otáčí | se | každých | čtyřadvacet | hodin | okolo | své osy.

2. Slova jednotlivá pojí se ve větě v jednotky členské, a tyto dále v jednotu větnou. V příkladě našem lze toto spojování takto znázorniti:

země | otáčí se | každých čtyřadvacet hodin | okolo své osy.

To jest:

slova „otáčí se“ pojí se v jednotku členskou (= holý přísudek); —

slova „každých čtyřadvacet hodin“ pojí se v jednotku členskou jinou (= příslovečné určení času); —

slova „okolo své osy“ pojí se v jednotku členskou opět jinou (= příslovečné určení způsobu); —

členové „otáčí se“, — „každých čtyřadvacet hodin“ — a „okolo své osy“ pojí se v členskou jednotku vyšší, totiž v jednotku přísudkovou, v přísudek rozvinutý a plný; —

konečně přísudek „otáčí se každých čtyřadvacet hodin okolo své osy“ pojí se s podmětem „země“ v jednotu větnou.

362. Všecko toto spojování děje se smyslem, přízvukem (větným), grammatickou shodou, syntaktickou vazbou, t. zv. slovosledem (t. pořádkem slov) a dílem také zvláštními spojkami.

b) 379. Věty v souvětí podřadném pojí se smyslem a jinými pojidly k sobě vespolek a tím spojují se v jednotu vyšší, v jednotu souvětňnou.

Na př. v souvětí právě uvedeném „přijde čas (A), že se zeptá zima (že Aa), co dělal v létě (co Aaa)“ pojí se nejprve Aaa v jednotku s Aa, a tato jednotka pojí se dále s A v jednotu souvětňnou; obrazec toho spojení:

A, že Aa, co Aaa.

V souvětí souřadně i podřadně složeném (v. § 371 č. 3) „co nás mrzí (co Aa), to se nás drží (A), a co jest milo nám (a co Ba), to nechce k nám (B)“ spojují se členové podle obrazce:

co Aa, A, a co Ba, B.

Figure 2.5: Gebauer's marking of phrase structure (1904, p. 244, §361–362; p. 256–257, §379). *a* is concerned with the division of the sentence into a subject phrase (*země* ‘the Earth’) and a (complex) predicate phrase (*otáčí se každých čtyřadvacet hodin okolo své osy* ‘rotates around its axis every twenty four hours’) with its subphrases. In *b*, the composition of compound sentences from individual clauses is shown.

8. V souvětích složitějších oddělují se jednotlivé věty čárkami podle pravidel tuto podaných a tak, jak toho žádá vešpolný poměr vět jednotlivých. Na př.:

Přijde čas, že se zeptá zima, cos dělal v létě. Věta druhá závisí na první, jest tedy od ní oddělena čárkou; věta třetí závisí zase na druhé, je tedy od ní též čárkou oddělena. Obrazec, který poměr vět těchto i interpunkci ukazuje:

*A,
.. že Aa. . . .
. . . . co Aaa.*

Prosím, kdož budou čísti knihy tyto, aby nevelmi vážili slov, nýbrž více k smyslu hleděli. Obrazec:

*A,
. aby Aa, nýbrž Ab.
. . . kdož Aaa, . .*

Co nás mrzí, to se nás drží, a co jest milo nám, to nechce k nám. Obrazec:

*. . . . to A, to B.
Co Aa, a co Ba, . . .*

Spojka *a* patří vlastně k větě *B*, ale pošinuje a připojuje se v tomto a tomu podobných případech k větě *Ba*. Mělo by vlastně býti: „Co nás mrzí, to se nás drží, *a*, co jest milo nám, to . . .“, ale místo toho je starý obyčej, čárku po *a* vynechávati a psáti: „. . . ., *a* co jest milo nám, to . . .“ *).

Figure 2.6: Gebauer’s system for capturing the dependency structure of compound sentences (1904, p. 276–277, §402; explained on p. 251–252, §370). In his system for assigning labels (p. 251–252, §370), main clauses are given capital letter labels (*A*, *B*, *C*). The label of a subordinate clause starts with the label of its head (*Aa*, *Ab* are clauses subordinated to the main clause *A*; *Aaa* is a clause subordinated to the clause *Aa*). Connectives and connecting expressions are also included in the diagram. The sentences discussed are: *Přijde čas, že se zeptá zima, cos dělal v létě.* ‘Time will come such that winter asks you what you did in the summer.’ with the structure *A such that Aa what Aaa*; *Prosím, kdož budou čísti knihy tyto, aby nevelmi vážili slov, nýbrž více k smyslu hleděli.* ‘I ask those who shall read these books to pay not much attention to words but rather more to the meaning.’ with structure *A those who Aaa to Aa but rather Ab*; *Co nás mrzí, to nás drží, a co jest milo nám, to nechce k nám.* ‘What troubles us that clings to us, and what is dear to us that shies away from us.’ with structure *What Aa that A, and what Ba that B*.

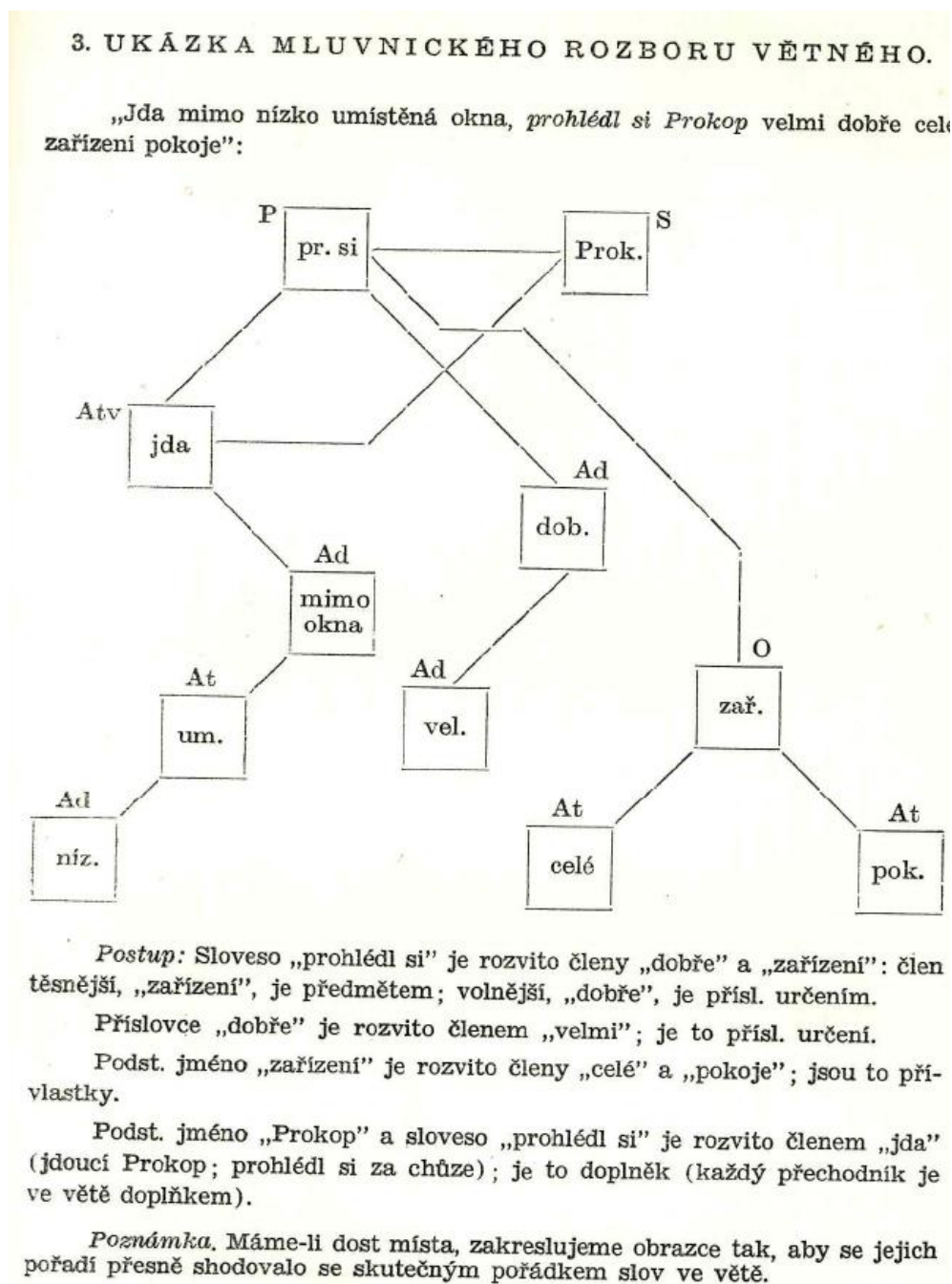


Figure 2.7: Analysis of the sentence *Jda mimo nízko umístěná okna, prohlédl si Prokop velmi dobře celá zařízení pokoje*. ‘Walking by the low situated windows, Prokop scrutinized the furnishings of the room.’ from the appendix of Šmilauer’s *Novočeská skladba* (1947). Note the double dependency of the attributive complement (Atv) *jda* ‘walking’. A note at the bottom of the page says “When we have enough space, we draw the shapes so that their order exactly reflects the real order of words in the sentence.”

A mes enfants, Michel, Bernard et Yveline Tesnière, je dédie ce livre dont leurs curiosités d'élèves de sixième A ont hâté la maturation.

'To my children, Michel, Bernard and Yveline Tesnière, students at the sixth grade level, I dedicate this book, the development of which has been promoted by their curiosities.'

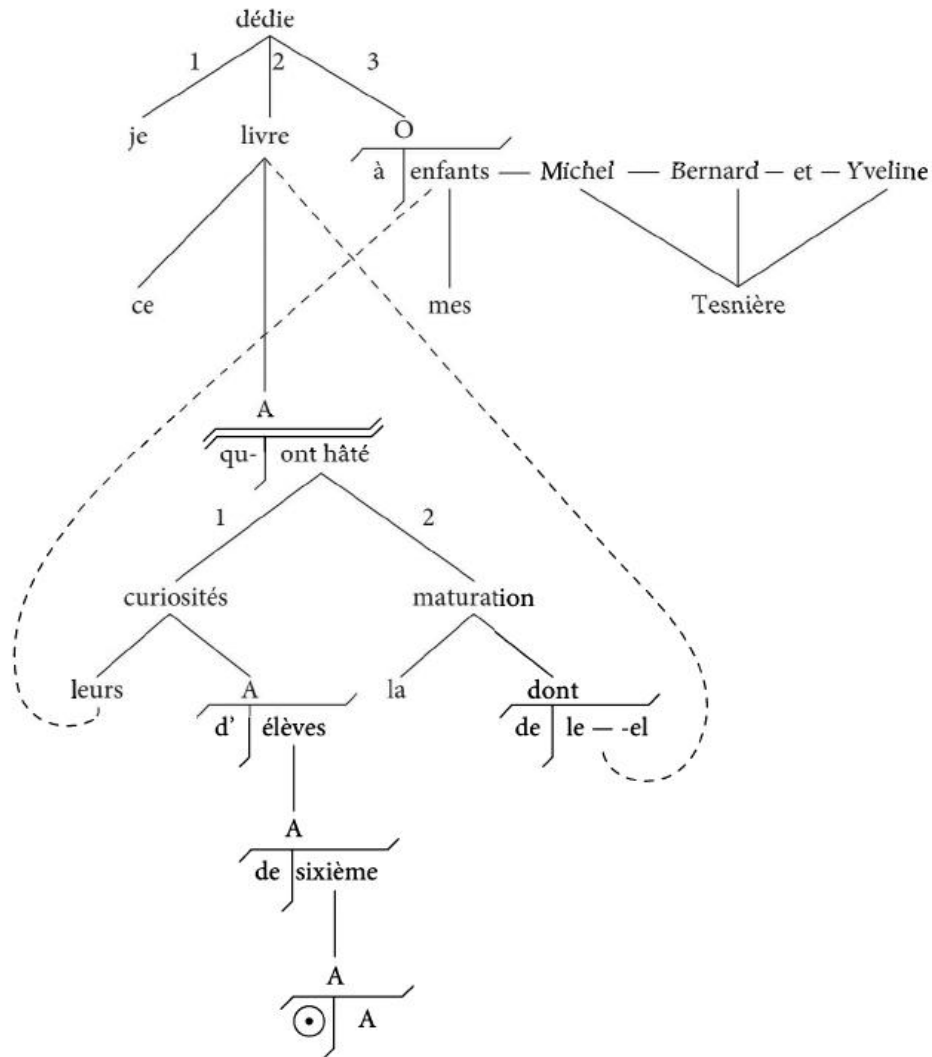


Figure 2.8: The stemma of Tesnière's dedication of his *Eléments de syntaxe structural* (1959), as it appears in the English translation (Tesnière, 2015). Note that Tesnière's stemmas do not reflect the word order; in fact, he recommends to place the actants on the left side of the verb and the circumstants on the right side (Chapter 48, §14), and to place the first, second and third actant from left to right in that order (Chapter 50, §15).

2.4 Predecessors of the Valency Theory of the Functional Generative Description

A full description of valency involves *lexicon* (an inventory of lexical units with their specific characteristics) as well as *grammar* (which captures general rules which can be applied to whole classes of words), even though different theories of valency may differ in the exact division of labour between the two. On the one hand, the term *valency* may refer to the ability of a particular lexical unit to bind a certain number and type of dependent units; in that sense, valency is rooted in the semantics of the word and at the same time it is an exponent of its meaning in the deep structure of the sentence. It is typical for autosemantic parts of speech, such as nouns, adjectives, some adverbs, and, most importantly, verbs, which through their valency potential form the centre of the sentence. Even though semantically related words often exhibit the same valency, deviations and exceptions are frequent. On the other hand, valency is a general phenomenon fundamental to the syntactic formation of sentence structure (Sgall, 2006). Moreover, valency behaviour is subject to several different kinds of changes that are regular enough to be captured by rules. For these reasons, parts of the description of valency belong to the sphere of grammar rather than lexicon.

This two-fold nature of valency is also reflected in the division of my brief literature review into a section on theoretical approaches (grammar, this and Section) and a section on lexicographic projects (lexicon, Section 2.6).

The valency theory of the Functional Generative Description—the theory upon which my own investigations are based—provides one particular set of answers to the questions emerging from the lively discussions between linguists of various theoretical backgrounds during the 1960's and early 1970's. Of more than 50 bibliographical references listed by Panevová (1974), three authors provided food for particularly deep thought: two internationally renowned linguists, Lucien Tesnière and Charles Fillmore, and the Slovak linguist Eugen Pauliny.

It was Tesnière (1959, Book D, Ch. 97, §3) who popularized the use of the word *valency* in linguistics:¹⁴

The verb may therefore be compared to a sort of *atom*, susceptible to attracting a greater or lesser number of actants, according to the

¹⁴ See (Przepiórkowski, 2018) for an insightful discussion of the valency metaphor in the (linguistic) writings of Charles Sanders Peirce (1897, p. 168–171), Solomon Davidovič Kacnel'son (1948, p. 132), Albert Willem de Groot (1949), and Charles F. Hockett (1958, p. 248–254).

number of bonds the verb has available to keep them as dependants. The number of bonds a verb has constitutes what we call the verb's *valency*.

(Tesnière, 2015, p. 239, translated by T. Osborne and S. Kahane)

Other terminology of the Functional Generative Description was also inspired by Tesnière's work, e.g. the word *actants* (which he used for subjects and objects of a verb); Tesnière's word for adverbials (in our terminology: free modifications) was *circonstant*. An important aspect of Tesnière's understanding of valency was that the subject is an actant of the verb in the same manner that the object is—a view that is one of the foundational stones of modern dependency grammars, as opposed to not only phrase-structure grammars tracing their history back to Noam Chomsky's *Syntactic structures* (1957), but also to dependency grammars of Tesnière's contemporaries (e.g., Šmilauer, the author of an influential grammar of Czech (1947), views the relation between subject and predicate as a special kind of relation between two elements on the same level). Tesnière's approach was close to the functional approach of the Prague school in that he viewed the relation between the sentence constituents (subject, object, etc.) and valency elements (actants and circumstants) as a relation of form and function.

Following Tesnière and building upon his ideas, the study of valency has been especially prominent in dependency theories; let us name at least the Russian Meaning \Leftrightarrow Text school (Mel'čuk, 1988). However, the concept is also crucial for some post-generative theories, where *subcategorization* is a concept similar to valency (especially in its surface-syntactic manifestations) but, at least in its early definition, excluding the subject from the list of arguments required by a verb (because a subject is a VP-external noun phrase and subcategorization originally only applied to VP-internal arguments). In the terminology of generative grammars, it is said that a verb *assigns theta roles* to its arguments and that these arguments are in certain *thematic relations* to the verb.¹⁵ Notions similar to valency/subcategorization also play a prominent role in the Lexical Functional Grammar (LFG) (Bresnan, 1982, 2001), Head-driven Phrase Structure Grammar (HPSG) (Pollard and Sag, 1994), Tree Adjoining Grammar (TAG) (Joshi et al.,

¹⁵ The relation between theta roles and thematic relations shows a more general property of valency: it is a phenomenon on the syntax-semantics interface (valency complementations of a word play certain semantic roles, such as expressing the Agent or Deep Object of a predicate, but at the same time, syntactic grammaticality is achieved only when the complementations are expressed by certain required forms). In some linguistic theories, the study of valency may lean more strongly towards semantic description, in other theories, it may lean more towards the syntax; see Section 3.1.4 for the position of FGD on this continuum.

1975; Joshi, 1985), and the theory of Deep Cases (Fillmore, 1968, 1977) which later evolved into Frame Semantics.¹⁶

The last author mentioned was particularly important for the early formulation of the Functional Generative Description; in *The Case for Case* (Fillmore, 1968), the term *case* does not refer to a morphological category, but to a relationship that belongs to the deep structure of the sentence (hence also *deep case*: a relationship between a verb and one of its argument noun/prepositional phrases). In contrast to Tesnière, who labelled actants with meaningless numerical labels, Fillmore comes up with a tentative list of six basic case relationships (Agentive, Instrumental, Dative, Factitive, Locative, and Objective); from the beginning, the list was expected to be extended with other labels as needed. Although the open (and hence somewhat arbitrary) nature of this set has been criticized by Jarmila Panevová, the author of the valency theory of FGD, she was inspired by the semantic nature of the labels. Moreover, Fillmore (1966, 1970) criticized the traditional Chomskyan grammar for constructing the deep structure of a sentence as being composed of a subject phrase and a verb phrase; this means that elaborate procedures have to be designed if the theory should account for related uses of a single verb such as *the door will open*, *the janitor will open the door (with this key)*, *this key will open the door*. He suggests that in the deep structure generation, a verb should be presented together with an unordered set of argument slots, each of which is labelled according to its semantic role (or ‘case’ relationship) with the predicate word (Fillmore, 1970, p. 41, §25). This structure captures all facts necessary for the semantic interpretation of the predicate, and purely syntactic phenomena—the left-to-right positioning of elements in the flow of speech, including the choice of the argument that fills the subject position—are the result of applying transformations for forming the surface structure. This approach to the division of labour between the deep and surface structure is very similar to that found in the Functional Generative Description.¹⁷

An important difference between the older concept of rection (case government) and the concept of valency is the stratificational formulation of the latter. In other words, already medieval grammarians knew that certain verbs force their

¹⁶ Both in LFG and in TAG the term (*predicate*) *argument structure* is used.

¹⁷ Fillmore (1970, p. 59–62, §59–62) explicitly states that he views his system as a branch of *interpretive semantics*—semantic interpretation of a sentence is computed from a combination of a grammatical description of the sentence and a semantic descriptions of the lexical items it contains. He contrasts this view with his understanding of the *generative semantics*, in which there is no level of ‘deep structure’ that is distinct from the level of semantic representation. In comparison, the tectogrammatical representation of a sentence, which is the output of the generative component of the Functional Generative Description, is also a level of *deep syntax* rather than semantics; cf. Section 3.1.1.

arguments to take on certain forms; the novelty of Fillmore's formulations lies in the distinction between deep cases on the one hand and their surface realization on the other. Such a two-layered formulation has multiple benefits: by shifting the concentration away from the surface forms of the complementations, it makes the relation between the lexical meaning of a verb and the set of its complementations more straightforward; it makes it possible to distinguish between deep and surface level obligatoriness, cf. Section 3.4; it allows a concise formulation of the various asymmetric relationships between form and function, cf. (Kurylowicz, 1949, in Czech 1974); a stratificational approach is also suitable for discussing converse pairs such as *buy–sell* that share the same set of situational participants but structure them differently (Fillmore, 1970).

In the Czech linguistic tradition, the stratificational approach was first explicitly formulated by Dokulil and Daneš (1958) as a two-layered approach to syntax which became the foundation of the valency theory formulated by Daneš et al. (1981). The terms *gramatický větný vzorec* 'grammatical sentence pattern' and *sémantický větný vzorec* 'semantic sentence pattern', introduced by Daneš, also appear in the works of other authors; in the works published in the 1980's (Grepel and Karlík, 1986; Daneš et al., 1987a), predicates are categorized by their grammatical sentence pattern, so the analysis goes from form to function (assigning each grammatical pattern its *semantic correlates*); in (1998, p. 57nn, §26nn), Grepel and Karlík structure the discussion around nine propositional types of elementary sentence structures—identity, existence, quality, appurtenance, location, localization, quantity, correlation, and process—investigating the grammatical sentence patterns used to express each, so the discussion goes from function to form.

Although Pauliny's *Štruktúra slovenského slovesa* 'The structure of a Slovak verb' (1943) is the earliest of the publications typically mentioned in connection with the roots of the FGD, a large number of deep insights into the nature of valency are already captured in it. In the first place, Pauliny posits a structuralist stratificational view of language (distinguishing a "formal" (=surface) layer from a layer of meaning). For example, already in §1, he mentions in passing that ellipsis of

¹⁸ Pauliny (1943, §1, p. 7), emphasis mine: Nemožno např. cítiť vetu *otec nesie* ako významovo úplnú, **ak sa pri nej nevysloví objekt, alebo ak sa objekt nedá domyslieť zo súvislosti**. [...] Je tiež známe, že nemožno vysloviť vetu *ide, starne* atď. bez subjektu (**ak je subjekt nevyslovený, musí sa nevyhnutne rozumieť zo súvislosti, aby sa veta mohla pokladať za významovo úplnú**).

¹⁹ Pauliny (1943, p. 16, §10): Dejanie samo o sebe vždy predpokladá jednak predmet, ktorý dejanie uskutočňuje, jednak predmet, ktor je dejaním zasahovaný a je jeho cieľom. Na pláne významovom sa preto javí tak, že existuje uskutočňovateľ dejania, agens (A), samo dejanie (D) a predmet dejaním zasiahnutý (Z). To sú atribúty, ktoré sprevádzajú každé dejanie.

a (semantically) obligatory complementation is possible.¹⁸ The central claim of his monograph is that each process requires an agent (an object that enacts the process) as well as a patient (an object that is affected by the process; p. 16, §10).¹⁹ *Intencia* ‘intention’ is a characteristic of a verb that indicates whether it demands or does not demand the agent and/or patient to be expressed (p. 16, §9). While an agent may only be expressed by a subject, a patient may be expressed either by an object or by a subject (p. 17, §10); in a prototypical situation, the subject is expressing the agent and the object is expressing the patient. A specific stance of Pauliny’s theory is that it is possible that a single (surface syntactic) element is expressing both the agent and the patient at the same time;²⁰ it is also possible that the expression of the predicate incorporates the agent and/or the patient. Verbs can be categorized depending on which elements of the agent–process–patient triad share a common expression. While in the active form most predicates enforce whether their agent may be expressed, the reflexive passive is mentioned as a means by which a speaker may intentionally de-emphasize the fact that a process is enacted by a certain agent (p. 28, §38).²¹

2.5 Existing reviews of the literature concerned with valency

It would be futile to try to write up yet another review of the vast body of literature concerning the study of valency that was published in the last fifty years. Reviews of appropriate scope written by researchers working within the FGD tradition are already quite numerous, although most of them are written in Czech (Panevová, 1980, Section 2.1; Sgall et al., 1986a, parts of Chapters 1–3, Sections 6.1 and 6.32; Urešová, 2011a, Sections 2.1 and 2.2); Kolářová (2010, Sections I.B and I.C) provides an overview of research concerning the valency of nouns. Literature overviews in English include (Žabokrtský, 2005, Section 1.1 and Chapters 2–3) and (Šindlerová, 2018, Sections 2.1 and 2.2); the first leans

²⁰ Contrast Pauliny’s approach with Fillmore’s postulate that a single complementation of a verb may bear only a single role.

²¹ Pauliny (1943, p. 28, §38): Vetné typy, o ktorých bola doteraz reč, boli tvorené slovesami, ktoré boli, ak by sa tak mohlo hovoriť, prototypmi. Všetky vetné typy vyplývaly z významu samého slovesa a ak tu aj niekde rozhodoval hovoriaci o intencii slovesného predikátu, rozhodoval len podľa možností, ktoré mu dával význam slovesa (pro možnosti vyjadriť osobitne pomenovanie agensu, alebo ho osobitne nevyjadriť). Typy viet, o ktorých teraz bude reč, závisia predovšetkým od vôle hovoriaceho. Tu hovoriaci rozhoduje, že nevyjadrí agens, a to nielen tým, že ho nevyjadří osobitným pomenovaním, ale tak, že nekladie vôbec dôraz na to, že dejanie je uskutočňované určitým agensom.

more heavily towards description of lexical resources while the latter is more complete in its coverage of theoretical linguistic research. Cinková (2009) reviews a body of literature concerned with the study of light verb constructions, with Chapters 7–9 devoted to lexicographic projects/approaches.

Reviews written by authors coming from other theoretical backgrounds are even more numerous. Of those that cover both Czech and international studies, let me mention at least three which start with Tesnière’s predecessors: (Daneš et al., 1973, now hard to obtain but summarized in two reviews: Jirsová, 1975; Stavinohová, 1975), (Daneš et al., 1981, Chapter 1), and (Ivanová, 2006, Chapters 1 (theory) and 2.0 (lexicons), p. 14–33).

Finally, a huge handbook of 1600 pages in two volumes dedicated solely to the issues of dependency and valency has been edited by Ágel et al. (2003). Besides in-depth contributions about a number of different theoretical approaches and even historical periods, this collection provides a particularly deep overview of the achievements of a fruitful tradition of valency thinking in the German speaking world.

2.6 Valency lexicons

The intention of the authors of the earliest valency dictionaries was to provide a useful resource for language learners.²² Three such dictionaries were published for German in the 1960’s and 1970’s (one for verbs, nouns and adjectives each: Helbig and Schenkel, 1969; Sommerfeldt and Schreiber, 1974, 1977). The design of their more recent cousin (Sommerfeldt and Schreiber, 1996) contains several interesting features: etymologically related words are treated in a single lexicon entry (including words of all parts of speech), and each entry is exemplified with two sets of examples (one set contains naturally occurring sentences taken from corpora, while the other set contains sentences constructed by the lexicographers so that they show the full valency potential of each headword). Another recent example is a valency dictionary for students of English (Herbst et al., 2004) and a machine readable pattern database extracted from this dictionary (Herbst and Uhrig, 2009), both prepared by a German team.

Concerning Slavic languages, the *Explanatory Combinatorial Dictionary of Modern Russian* (Mel’čuk and Zholkovskiy, 1984) (which exemplifies the lexical component of the Meaning \Leftrightarrow Text Theory as proposed by Mel’čuk, 1988) uses

²² Bräunling’s survey (1989) showed that valency lexicons were little used in class settings; currently, it is standard practice to include valency information directly in monolingual (learner’s as well as native speaker’s) dictionaries, ideally without employing any obscure notation.

a highly structured format for capturing lexical information including relations between words, both syntagmatic (corresponding to both semantic and syntactic valency) and paradigmatic. A five volume printed dictionary of the valency of Polish verbs *Słownik syntaktyczno-generatywny czasowników polskich*²³ has been published during the 1980–1992 period by Polański et al.. Much more current is a Polish project building a large database of Polish verbs called *Walenty*²⁴ (Przepiórkowski et al., 2014); it includes subcategorization frames and some other syntactic characteristics of lexical units. Electronic dictionaries may also be constructed by digitizing older projects, as can be seen, e.g., in (Popova, 1987; Balabanova and Ivanova, 2002) which is a valency dictionary of the 1000 most common Bulgarian verbs from the late 1980’s.

Roughly since the beginning of the 1990’s, valency theories have been applied to large language data. Motivation for creating language resources capturing the valency characteristics of lexical units was two-fold: on the one hand, these resources were used as a tool for maintaining consistency during the annotation of syntactically annotated corpora such as the PropBank and the Prague Dependency Treebank (PDT); on the other hand, it was expected that they would prove useful for natural language processing applications such as machine translation, text summarization and automatic disambiguation of word senses, where syntactic analysis and determination of the correct word sense are crucial. The necessary formalization that is a side-product of the creation of lexical resources simultaneously allows checking the consistency and theoretical and empirical adequacy of the foundations of linguistic theories and their subsequent clarification.

For English, one of the most prominent lexical resources explicitly focusing on capturing valency behaviour of lexical units is the *PropBank Lexicon*;²⁵ it is linked with annotation of the predicate argument structure of verbs in the PropBank (which is an extension of the syntactic trees of the Penn Treebank²⁶; Kingsbury et al., 2002; Palmer et al., 2005). The PropBank project is concerned with the syntactic behaviour of verbs, using simple *Arg0*, ... *Arg4*, *ArgM* notation. In contrast, arguments are marked with their semantic roles in the lexical database *VerbNet*²⁷ which extends the semantic classification first suggested by Levin (1993). VerbNet semantic classes are further enriched with syntactic information (Kipper et al., 2008). Finally, a project called *SemLink*²⁸ (Palmer, 2009)

²³ <http://rcin.org.pl/dlibra/publication?id=15746&tab=3>

²⁴ <http://zil.ipipan.waw.pl/Walenty>

²⁵ <https://propbank.github.io/>

²⁶ <https://catalog.ldc.upenn.edu/LDC99T42>

²⁷ <http://verbs.colorado.edu/~mpalmer/projects/verbnet.html>

²⁸ <https://verbs.colorado.edu/semlink/>

links the PropBank Lexicon and VerbNet to the *FrameNet*²⁹ lexical database, a strongly semantically oriented lexical resource capturing semantic frames of not just English verbs, but also nouns, adjectives and adverbs (Baker et al., 1998; Fillmore et al., 2002; Ruppenhofer et al., 2006).

Corpus Pattern Analysis (Hanks, 2004; Hanks and Pustejovsky, 2005) is a project aimed at creating a human-readable as well as machine-exploitable lexicon of English verbs (the so-called *Pattern Dictionary of English Verbs*); inspired by the full-sentence definitions of verb meanings in the *Collins COBUILD Advanced Dictionary* (Sinclair et al., 1987), the valency frames are captured through a combination of a pattern (e.g. Human|Institution *works* for State_of_Affairs) and an implicature (e.g. Human|Institution *attempts to achieve* State_of_Affairs). The labels for the semantic types of the participants (here Human, Institution, and State_of_Affairs) form a shallow semantic ontology. Where appropriate, the implicature also lists *semantic roles*; while *semantic types* capture the intrinsic property of the semantic participant filling the given valency slot, *semantic roles* are assigned to this participant by the fact that it is used in that specific valency position. An example of a verb that assigns semantic roles is the verb *to treat* (pattern: Human1|Process|Drug *treats* Human2|Animal|Disease|Injury), with the following implicature (semantic roles are linked to semantic types by an equals sign): *Human1 = Health Professional applies a Drug|Process = Medical to Human2=Patient|Animal=Patient for the purpose of curing the patient's Disease|Injury*. The project is fully corpus based in its methodology.

Of particular interest to Czech valency researchers is valency research of Slovak; the two languages are closely related with high levels of mutual intelligibility. *Valenčný slovník slovenských slovies na korpusovom základe* (Ivanová et al., 2014) extends its predecessors *Valenčný slovník slovenských slovies* (Nižníková and Sokolová, 1998) and *Valenčný slovník slovenských slovies 2. zväzok (na korpusovom základe)* (Nižníková, 2006), bringing the dictionary up to date with current theoretical understanding of valency and also providing a detailed semantic classification of Slovak verbs.

Finally, let us mention Czech valency-related language resources. Two dictionaries for the public exist in printed form, namely *Slovesa pro praxi* (Svozilová et al., 1997) and *Slovník slovesných, substantivních a adjektivních vazeb a spojení* (Svozilová et al., 2005); both are based on the concept of sentence patterns (“*větné vzorce*”) of Daneš et al. (1987b).

Probably the first electronic valency lexicon of Czech was the lexicon BRIEF created by Pala and Ševeček (1997). It contained around 15000 verbs and over 50000 valency frames but did not contain any division of individual meanings. BRIEF served as a basis for the electronic *Czech syntactic lexicon* (Skoumalová,

²⁹ <https://framenet.icsi.berkeley.edu/fndrupal>

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2001), which was a formalized lexicon based on the theoretical background of the Functional Generative Description that contained not just the basic valency characteristics of lexical units, but also information about diatheses, reflexivity and control; unluckily, it has never been published; The data of the Czech syntactic lexicon (as well as its predecessor BRIEF and other resources) have been consulted during the production of the valency lexicon *VALLEX* that we will discuss in more detail later. The same theoretical approach has been used in the PDT-Vallex³⁰ (Hajič et al., 2003; Urešová, 2011b; Urešová et al., 2014), a lexicon linked to the annotation of the Czech corpora of the Prague Dependency family³¹ that is still under further development. Finally, the lexical database *VerbaLex* (also based on BRIEF) developed at the NLP Centre in Brno adds a number of interesting features: it is structured around synsets (sets of synonymous lexical units) of the Czech EuroWordNet and it uses a two-level annotation of semantic roles (Hlaváčková, 2008; Hlaváčková and Horák, 2006).

³⁰ <http://lindat.mff.cuni.cz/services/PDT-Vallex/>

³¹ The *PDT-Vallex* is currently linked to the Prague Dependency Treebank (Hajič et al., 2018), the Prague Czech-English Dependency Treebank (Hajič et al., 2012), and the Prague Dependency Treebank of Spoken Language (Hajič et al., 2009a).

Valency in the Functional Generative Description

The *Functional Generative Description* (FGD) is a formal language description rooted in the ideas of the European structural tradition with history going back to the 1960's in Prague in former Czechoslovakia (Sgall, 1967; Sgall et al., 1969, 1986a,b). The relationship between sign and meaning is not analysed directly, but as a sequence of relationships (representations) between neighbouring layers of language description. The relationships of form and function may be viewed and described either as “generation”, i.e. by proceeding from the deepest level of description towards the surface form of the sentence, or as “analysis”, i.e. by proceeding from the surface structure towards the deeper levels. Although the original formulation of the FGD was highly influenced by the generative approach of Chomsky (1957) (to the extent that the word *generative* became part of its title), current FGD research is terminologically and methodologically neutral towards both of these approaches; in other words, language study is as much concerned with the question of what forms may be used for expressing individual syntactico-semantic functions as with the question of what functions may be expressed by a given form (Panevová et al., 2014, p. 24). Part II in this dissertation answers a question of the first kind, while the detailed analysis of all the functions of the reflexive *se* found in (Kettnerová and Lopatková, 2014) is an example of an answer to a question of the second kind.

This chapter summarizes and extends the introductory part of (Lopatková et al., 2016a). Besides the primary literature quoted directly in the text, I have also consulted existing summaries of the FGD found in previously defended theses (Razímová, 2004; Cínková, 2009; Homola, 2009; Bojar, 2009; Ševčíková, 2009; Kolářová, 2010; Kettnerová, 2014) and other materials (Lopatková, 2018). Most of the examples in this (and partly also the following) chapter are adopted from existing primary and secondary literature; because they only serve illustrative purposes, I have not placed great emphasis on either corpus evidence or tracking the source of each particular example.

Characteristic features of the FGD include:

- use of dependency syntax;
- emphasis on testable criteria for distinguishing linguistic phenomena;
- sentence as a basic unit of linguistic description;
- stratificational approach;
 - language description happens through a system of layers,
 - each layer provides a full representation of each sentence,
 - relation between elements of neighbouring layers is that of *representation*, i.e. (one or more) elements of a higher level are seen as a *function* represented by (one or more) elements of a lower level as its *form*—hence the term *functional* in the name of the theory;
- the highest level of explicit linguistic description concerns *linguistic / structural meaning* as represented on the tectogrammatical layer (the layer of underlying/deep³² syntax), whereas the level of *cognitive* (also *factual*) *content* is discussed only when such a reference clarifies issues belonging to the lower levels; see Section 3.1.1.

3.1 Linguistic analysis through a system of layers

3.1.1 Meaning vs. content

The distinction between *structural meaning* and *cognitive content*³³ may be described as the distinction between those aspects of “meaning” (in a broad sense) which the speaker/hearer knows as a speaker of the given language and which can be demonstrated directly on language material, and those aspects of “meaning” which the speaker/hearer knows based on his extralinguistic experience (knowledge of the world) and which are language independent (Sgall et al., 1986a, p. 137).

³² Ševčíková (2009, p. 17, f. 28) points out the paradox that we perceive tectogrammatrics simultaneously as *deep* syntax and *highest* level of description.

³³ The words *meaning* and *content* are usually used together with adjectives that help to clarify the distinction. *Meaning* can be *structural* (Panevová et al., 2014, p. 26), *literal* (Sgall, 1992), *linguistically structured*, or *linguistic* (“having to do with language” (Czech *jazykový*, German *sprachlich*), not “having to do with linguistics”; Sgall et al., 1986b, p. 11). *Content*, on the other hand, can be *ontological*, *cognitive* (Sgall et al., 1986a, p. 137; Sgall et al., 1986b, p. 13) or *factual*, sometimes identified with *factual knowledge* (Sgall et al., 1986b, p. 13). Sgall et al. (1986b, p. 13) and Sgall (1992, p. 276) point out the correspondence of meaning to Saussure’s ‘content form’ (as opposed to ‘content substance’), Hjelmslev’s and Coseriu’s ‘meaning’ (as opposed to ‘sense’ and to ‘content’, respectively), and to Lyons’ ‘descriptive meaning’.

3.1 LINGUISTIC ANALYSIS THROUGH A SYSTEM OF LAYERS

In other words, structural meaning is cognitive content reflected in language forms (Dokulil and Daneš, 1958, p. 232). Thus, for example, topic–focus articulation³⁴ belongs to the sphere of structural meaning because it is observable in its purely linguistic means of expression (intonation and word order) but categorization of metaphorical and hyperbolic expressions or assignment of truth values to sentences belongs to the area of situational content (Sgall, 1998, p. 19).

The difference between structural meaning and cognitive content may also be exemplified by the following short dialogue from (Sgall et al., 1986b, p. 23), in which the second speaker understands the meaning but not the content of the sentence—she is not able to identify the objects that the sentence refers to:

A: *Do you think we should buy a computer?*

B: *Do you mean your institute or your family?*

One of the main ambitions of FGD is to provide a formalism in which the highest level of description fully captures (the structure of) linguistic meaning. In this sense, we may identify linguistic meaning with the tectogrammatical representation, as is done e.g. by Panevová et al. (2014, p. 26).

Although Sgall et al. (1986b, p. 97)³⁵ claim that “[i]t is an urgent task to study the relationship between (linguistic) meaning and (factual) content”, later research within the FGD movement has largely ignored this task, likely because situational content has been delegated to other scientific disciplines:

Several starting points for a systematic study of content have been established in model theory and intensional semantics on the one hand, and in the linguistically oriented branches of artificial intelligence, in speech act theory and research in the structure of different kinds of texts on the other. [...] Meaning constitutes a level of the language system, while content is a complex layer, certain aspects of which are described by the formal languages of logic, while others belong to psychology, to cognitive science, and perhaps to other disciplines as well. (Sgall et al., 1986b, p. 97)

³⁴ Topic–focus articulation may also be referred to as *information structure* or (following Firbas, 1956) *functional sentence perspective*; in Czech, the term *aktuální větné členění* (lit. topical structuring of the sentence) has the longest tradition originating from Mathesius (1939) but unluckily cannot be easily translated into English.

³⁵ The book is one of the most important contributions towards the development of FGD; note that the word *meaning* in its title *The Meaning of the Sentence in Its Semantic and Pragmatic Aspects* refers to structural meaning in the above sense.

Of these related disciplines, especially logic has a much more prominent position in the book than in more recent FGD publications: topics such as synonymy, homonymy (ambiguity), and presupposition are analysed in much depth.

At present, a group of linguists led by Eva Hajičová and Šárka Zikánová is studying coreference and discourse relations. Surprisingly, the distinction between structural meaning and cognitive content is not mentioned explicitly in their investigation of discourse and coherence (Zikánová et al., 2015), although the authors themselves admit that “individual discourse relations [...] may be implicit (i.e. not signalled by any language expression but only deducible from the meaning of the given discourse units or arguments)” (p. 165), which suggest that at least some of the phenomena discussed (and annotated in the PDT on the *tectogrammatical* layer, which was traditionally reserved for phenomena of linguistic meaning) belong to the domain traditionally reserved for cognitive content.

On the other hand, Kettnerová explicitly uses the distinction between meaning and content in her analysis of lexical alternations (2014). In her work, we witness a subtle shift in the understanding of content; instead of the general and somewhat shapeless concept of cognitive content, she singles out certain of its aspects into the notion of *situational content*. Building upon the terminology used by Kováčová (2005) and inspired by the Meaning–Text Theory (Apresjan, 1992; Mel’čuk, 2004a,b), she defines situational content as an abstract model of an event or a static situation (including fictitious/imaginary events and situations) characterized by a certain number of situational participants, their semantic characteristics and the relationships they enter (Kettnerová, 2014, p. 79 and 83; Lopatková et al., 2016b).³⁶ This notion has proved to be useful for discussing valency-related phenomena, especially lexicalized alternations (cf. Panevová et al., 2014; Lopatková et al., 2016a) even though no precise metalanguage for the de-

³⁶ The notion of *situational content* coincides to a large extent with what Daneš (1985, Section 2.1.0, p. 12) calls a *conventionalized intellectual model of a type of a real situation*:

Věty zobrazují svým významem různé reálné situace (popř. i situace fiktivní), a to rázu dějového i statického, jak je člověk ve světě poznává. Mohli bychom říci, že v každém jazyce se vytvořila a je mluvčímu k dispozici velká množina konvencionalizovaných intelektuálních modelů různých typů reálných situací (Serebrennikov mluví o elementárních jazykových modelech reálných mikrosituací). Jejich základ tvoří sémantické predikáty (jejich lexikální vyjádření pak nazýváme predikátory). Každý predikát vytváří kolem sebe strukturu syntaktickosémantických funkčních pozic (intenční pole). Tyto pozice mají charakter participantů zobrazované situace; každý participant je při tom charakterizován jistou sémantickou rolí (agens, patiens atp.).

Note that the terminology used in the quoted passage is not the same as the terminology used by researchers working within the FGD tradition.

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scription of situational content has been set up; situational participants are labelled with intuitively delimited cognitive roles, and the relationships between them are not given any labels at all.³⁷ In fact, the researchers working with the notion harbour no ambition for such a formalization as they share Bolinger’s view (1975, p. 221) that meaning is “an exceedingly ill-assorted fellow. One can scarcely invite him inside the house without admitting at the same time one or more of his drunken friends.”³⁸

3.1.2 The full system of layers

The Functional Generative Description works with a number of layers of linguistic representation; each of these layers provides a full representation of each reading/interpretation of each sentence.³⁹ In the original formulation of FGD presented in (Sgall, 1967; Sgall et al., 1969), there are five layers, each with two types of units, elementary and complex—complex units are *composed* of elementary ones. The layers are connected to each other by the inter-layer relation of *representation* which sometimes connects elementary units of one layer to elementary units of the neighbouring layer and complex units to complex units, but other times it connects complex units of a lower layer to elementary units of an upper layer, see Figure 3.1.

layer	elementary units	complex units
tectogrammatical (deep syntax)	semanteme	proposition
phenogrammatical (surface synt.)	tagmeme	syntagmeme (sentence)
morphemic	seme	morpheme, formeme
(morpho-)phonemic	morphophoneme	morph
phonetic	distinctive feature	phone (sound)

In some cases, a complex unit is just a string of elementary units (e.g., a morph is a string of morphonemes); in other cases, the relation of composition combines elementary

³⁷ Kettnerová and Lopatková (2010b,a) proposed to adopt lexical-conceptual structures (Rappaport Hovav and Levin, 1998) for capturing the differences between the situational meaning of related lexical units that express the same situational content; this approach does not appear in later publications.

³⁸ I take the quote from Martinková (2013, p. 12).

³⁹ Due to ambiguity and synonymy, there is not a 1-to-1 relationship between sentences and their representations on any given level. An important aspect of the tectogrammatical representation is that ambiguity and synonymy of lexical and grammatical morphemes are already resolved (ambiguous elements of lower layers are disambiguated, synonymous elements share a common representation); it can thus serve both as a starting point for semantic interpretation and for a transition to the lower layers of description (such as morphemics) where ambiguity and synonymy are not yet (fully) resolved (Sgall, 1992, p. 276). Note, however, that the tectogrammatical representation is not an Interlingua; it captures the linguistic meaning and therefore reflects the structure of each particular language (e.g. Sgall et al., 1969, p. 48).

3 VALENCY IN THE FUNCTIONAL GENERATIVE DESCRIPTION

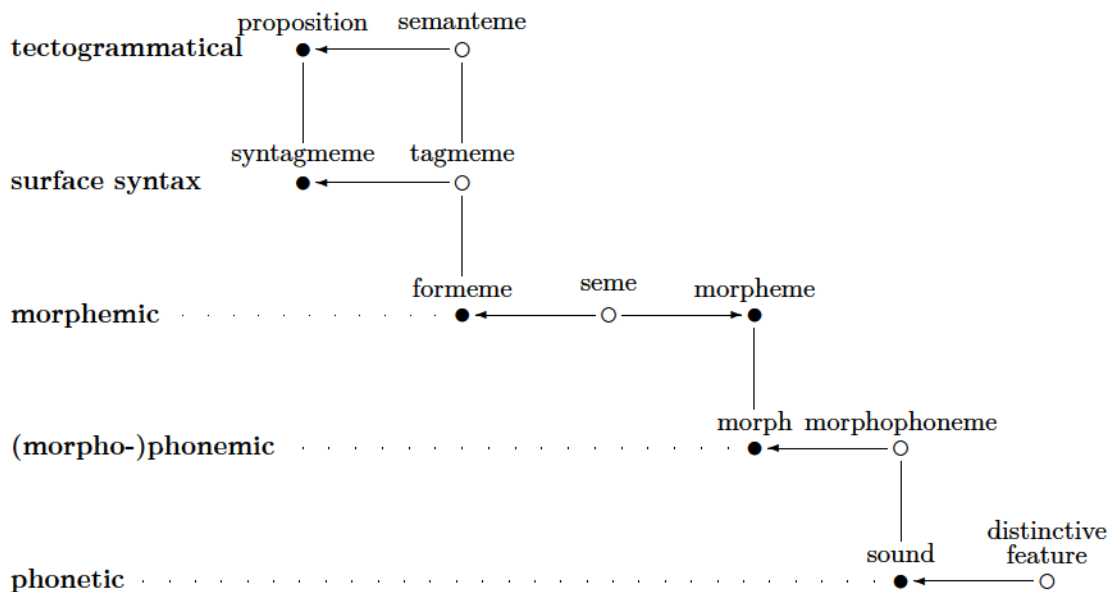


Figure 3.1: The system of layers in the Functional Generative Description. ○ represents elementary units, ● represents complex units, horizontal arrows capture the relation of composition, vertical lines capture the relation of representation. I have traced the source of this image to Sgall (1967, p. 56); in (Sgall et al., 1969, p. 26) and (Hajičová, 1975, p. 14), *sentence* has been renamed to *syntagmeme*. The Czech terminology for the units of the respective layers is (top to bottom) *tektogramatická rovina: propozice, sémantém; větně člen- ská rovina: věta/syntagmém, tagmém; morfologická rovina: formém, séma, morfém; morfonologická rovina: morf, morfoném; fonetická rovina: hláska, distinktivní rys*. The L^AT_EX code for the image is based on its encoding by Štěpánek (2006, p. 6).

units of different types (e.g., a declination morpheme is a combination of semes of case, number and gender, and a formeme may consist of a seme of a preposition and a seme of case (*k* ‘towards’+dative)).

On the tectogrammatical layer, Sgall (1967, p. 69 and 74) divides the group of *semantemes* (elementary units) into three subtypes: lexical semantemes (*semoglyphs*, in other words lexical units), morphological semantemes, and functors. Their specification

⁴⁰ A single semoglyph (lexical unit) may be represented by multiple sememes such as *chození–chodit* ‘walking–to walk’, *čtení–číst* ‘reading–to read’, *zeleně–zelený* ‘in a green manner, greenly–green’ (Sgall, 1967, p. 55).

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and the way they combine into a proposition (represented by a formula in the language of predicate logic) is similar to the division of tagmemes into three types and the way they combine into a syntagmeme, which I shall discuss promptly.

On the layer of surface syntax, the three types of tagmemes are *lexical tagmemes* (*sememes*, representing the semoglyphs of the tectogrammatical layer),⁴⁰ *morphological tagmemes* (also referred to as suffixes, and being the “units of morphological meaning”, e.g. “means” as a function of the morpheme *s* ‘with’+instrumental), and *sentence parts* (Czech: *větné členy*, syntactic functions such as subject, also called *syntactic tagmemes*). A syntagmeme, i.e. the representation of a sentence on the layer of surface syntax as the complex unit of that layer, is a formula in which syntactic functions are present as functions of two arguments (\sim edges of a dependency graph);⁴¹ the arguments themselves may either be a sememe with a (finite and limited) sequence of suffixes, or a formula recursively constructed from such units.

The following quote from (Hajič et al., 2016, p. 71) explains well how the early works of Noam Chomsky influenced the original formulation of FGD as a *generative* theory.

The principles of FGD were formulated as a follow-up to the functional approach of the Prague School and with due respect to the strict methodological requirements introduced to linguistics by N. Chomsky. The FGD framework was formulated as a generative description that was conceived of as a multi-level system proceeding from linguistic function (meaning) to linguistic form (expression), that is from the generation of a deep syntactico-semantic representation of the sentence through the surface-syntactic, morphemic and phonemic levels down to the phonetic shape of the sentence. [...] The main focus was laid on the account of the deep syntactic level, called “tectogrammatical” (the term borrowed from Putnam’s (1961) seminal paper on phenogrammatology and tectogrammatology).⁴²

Perhaps surprisingly, although the Functional Generative Description is based on a *dependency syntax* (both on the tectogrammatical and on the surface-syntactic layers),

⁴¹ Functions representing coordination and apposition may have more than two arguments; they can be interpreted as a dimension perpendicular to the tree structure indicated by the other syntactic functions in the sentence (Hajičová, 2006), in other words, coordination and apposition lead to a “multiplication” of a single syntactic position (node in the tree) but, unlike other syntactic functions, do not introduce a new syntactic position.

⁴² Hajič et al. (2016) probably meant to reference (Curry, 1961) rather than (Putnam, 1961); both papers appeared in the same collection but it was the former that introduced the distinction between *phenogrammatology* (language as it appears or manifests itself) and *tectogrammatology* (language as it is built, its underlying structure). Moreover, (Curry, 1961) is referenced in early works by Sgall (Sgall, 1963; Sgall et al., 1969, p. 16) and the term *functor*, borrowed by Curry from the Polish philosopher Kotarbinski in the sense of a “phrase

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the original generative component of the proposed formal system is a *context-free phrase-structure grammar* generating the set of all grammatically correct tectogrammatical representations of the sentences of a given language (Sgall, 1967, p. 97m; Sgall et al., 1969, p. 76m; Říha and Machová, 1975). The terminal symbols of this grammar include all the semantemes; the non-terminal symbols include symbols such as *Sentence* (appearing in the initial sequence *border Sentence border*), *Pred*, several subkinds of *VP* and *NP*, etc. However, in contrast to Chomsky's approach, a representation of a sentence consists of the string output by the grammar;⁴³ it is not comprised of a syntactic tree representing the history of the generation. The relation of representation between each pair of neighbouring layers is captured by a pair of *pushdown transducers*⁴⁴ that transform the representation of a sentence on an upper layer into its representation on a lower layer (Sgall et al., 1969, Section 2.2.4, p. 39–40).^{45,46}

It needs to be said that this generative formulation of the theory does not play any significant role in current research based on the Functional Generative Description. Instead, a declarative (static) specification of the underlying structures in terms of a dependency-based framework has been formulated by Petkevič (1995).

which combines phrases to form other phrases", appears with the same meaning in Sgall's early writings on FGD.

⁴³ In the works quoted above, the string output by the generative component corresponds to a linearization of the dependency tree in which nodes are listed in the left-to-right order and the tree structure is represented by parentheses, operators and other means. In (Sgall and Hajičová, 1970), the generative component also outputs a linearization of the dependency tree, but this time the order reflects the structure of the tree (the nodes are listed in depth-first, then left-to-right order) and the linear order of children relative to their parent must be captured by specific notation. While this means that the linearization does not directly reflect word-order, its advantage is that one of the pushdown transducers is no longer needed as its main job was to transform the former type of linearization into the latter type.

⁴⁴ By a transducer we mean a machine that has no recursive properties. Sgall et al. (1969, p. 42) assume that the transducers from the morphemic layer downwards may be weakly equivalent to finite transducers, in other words, the relationships between the lower three layers are less complex than the relationships between the upper three layers.

⁴⁵ These transducers are indeterministic in order to be able to capture synonymy by producing multiple different outputs for a single input.

⁴⁶ The exact structure of the generation and transduction machinery has been subject to constant reinvention; here I describe the system used by Sgall et al. (1969), who also mention (p. 40) that in the earlier system described in (Sgall, 1967), there were two transducers between the top two layers and between the phenogrammatical and morphemic layers, but a single transducer between any other pair of neighbouring layers.

3.1.3 A simplified system of layers

In recent FGD research, the emphasis has been on the study of syntax, which is also reflected in the system of layers used in the annotation scenario for treebanks based on the FGD framework:⁴⁷

w-layer (word layer)

- sentence as a string of graphemes/phonemes

m-layer (morphological layer)

- sentence as a string of tokens (words and punctuation), each of which is defined by its lemma and its morphological tag (which together uniquely identify its form)⁴⁸

a-layer (analytical layer, also called surface syntax)

- sentence as a dependency tree
- there is a one-to-one correspondence between tokens of the m-layer and nodes of the dependency tree
- the order of the nodes in the tree reflects the surface word order and thus the tree may be non-projective
- each node is characterized by an analytical function capturing its relation to its parent (e.g. Predicate, Subject, Attribute), and complete information about the corresponding token on the morphological layer (i.e. its lemma and tag)

t-layer (tectogrammatical layer, also called deep/underlying syntax)

- layer of linguistically structured meaning
- nodes correspond (mostly) to autosemantic/lexical words (with exceptions for coordinating conjunctions, rhematizers, nodes for list-like structures, etc.)
- the core representation of each sentence is a dependency tree capturing the dependency relations between autosemantic/lexical words, including nodes

⁴⁷ These treebanks form the so called Prague Dependency Family, including the Prague Dependency Treebank (Hajič et al., 2018), the Prague Czech-English Dependency Treebank (Hajič et al., 2012), and a number of smaller projects such as the Prague Arabic Dependency Treebank (Hajič et al., 2009b) and the Czech Legal Text Treebank (Kříž and Hladká, 2017). There are two public interfaces for searching some of these corpora, tree-based PML-TQ (Pajas et al., 2009; <https://lindat.mff.cuni.cz/services/pmltq/>) and CQL-based (Sketch-Engine-like) KonText (Josífko, 2014; <https://lindat.mff.cuni.cz/services/kontext/corpora/corplist>).

⁴⁸ The “*tag + lemma = form*” rule is known as the *golden rule of morphology*; in practice, it is not always strictly adhered to (Hlaváčová and Lopatková, 2008; Hlaváčová, 2016). Hlaváčová (2017) recently proposed an extension of the Czech tagset and the use of a “multiple lemma” (i.e., a set of lemmas representing a paradigm consisting of spelling/stylistic variants of a word) as a means of addressing the current exceptions.

representing restored ellipses, especially obligatory valency complementations not present in the surface structure (with technical solutions enabling treating coordination and other non-dependency phenomena as part of a tree structure)

- auxiliary words are usually not present on the tectogrammatical layer in the form of separate nodes, but they contribute to the choice of functors and subfunctors and to deep morphological attributes (so called *grammatemes*) which capture the meaning of individual morphological categories (e.g. number, tense), surface-syntactic structures (e.g. passive diathesis) etc.
- the nodes of the tree are additionally also linearly ordered (left-to-right); the order reflects the topic–focus articulation and the tree is always projective
- additional relations esp. for coreference, anaphora resolution and discourse relations do not respect the tree structure and may even connect nodes in the tectogrammatical representation of different sentences
- each node is characterized by its lemma, a functor capturing its relation to its parent (e.g. Predicate, Actor, Means), and a large set of additional attributes (possibly including a subfunctor, a set of *grammatemes*, information about non-dependency relations to other nodes (e.g. coreference), a link to a valency lexicon, multi-word expressions annotation, etc.)

3.1.4 Place of valency in the system of layers

In the Functional Generative Description, valency belongs to the *tectogrammatical layer*, i.e. the layer of linguistically structured meaning, but has specific impact on lower layers (Panevová, 1974, 1975, 1980, 1994). Before we go into the details in the subsequent sections, let us sum up the main features of this approach. See also example entries from a valency lexicon in Figure 3.3.⁴⁹

Three aspects of valency are crucial, namely the number and type of valency complementations (Section 3.3), their obligatoriness, and the forms through which the complementation may be expressed in the surface structure of the sentence. It turns out that neither of these three aspects can be inferred based on general rules—they are specific to individual *lexical units* (*LU*; Section 3.2), i.e., to each meaning of each word—and in that sense valency belongs to the

⁴⁹ A reader interested in a more detailed discussion of the issues covered in the rest of this Chapter may consult (Žabokrtský, 2005, Chapters 4 and 5) but should be aware that some principles envisaged by Žabokrtský were either never fully implemented in *VALLEX* or were later reconsidered and are not applied any longer.

3.1 LINGUISTIC ANALYSIS THROUGH A SYSTEM OF LAYERS

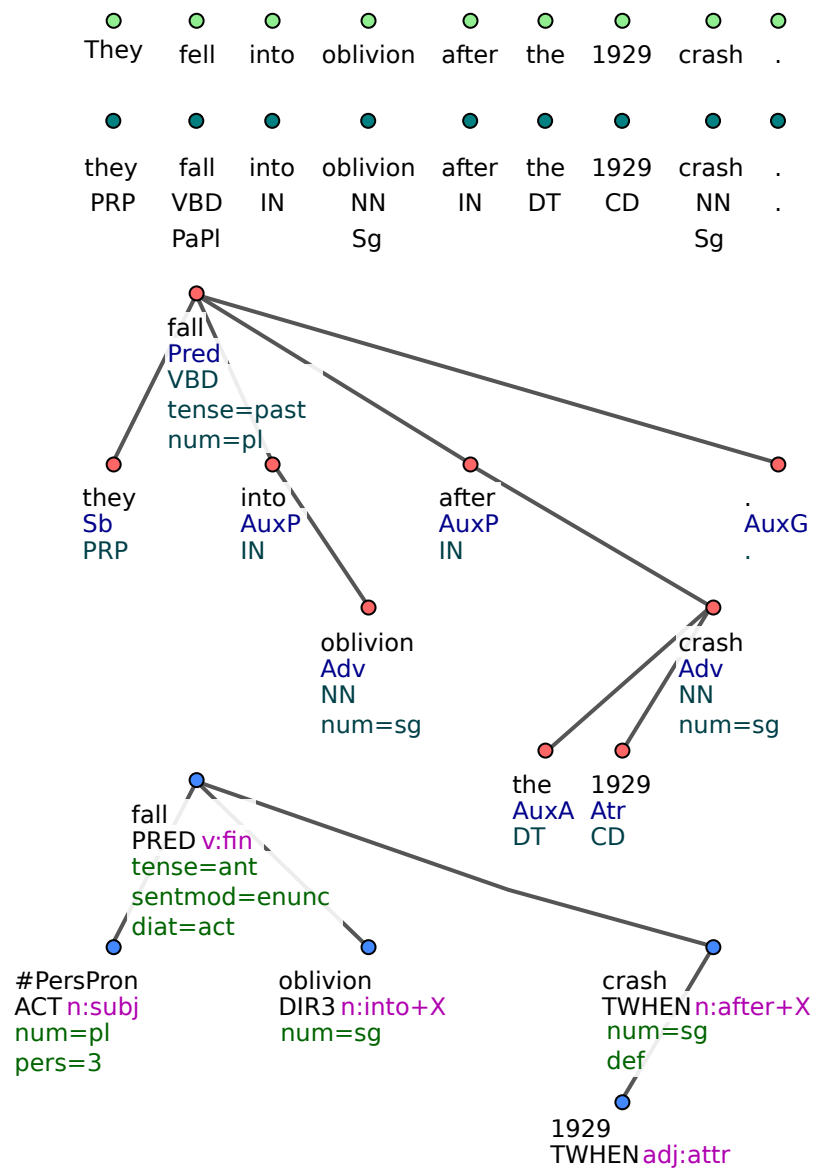


Figure 3.2: Analysis of a sample sentence from the Prague Czech-English Dependency Treebank on the w-layer, m-layer, a-layer and t-layer, adjusted and simplified.

3 VALENCY IN THE FUNCTIONAL GENERATIVE DESCRIPTION

lexical component of language description.⁵⁰ In the FGD, the core information on valency characteristics of lexical units is encoded in the form of valency frames (one for each lexical unit; Section 3.6): a sequence of slots for the valency complementations, each labelled with a tectogrammatical *functor* (Section 3.3.2) which captures the syntactic-semantic relation of the given complementation to the governing word (a coarse-grained semantic role), and supplemented with information about its obligatoriness (Section 3.4) and a list of possible syntactic/morphological forms for its expression (Section 3.5).

On the other hand, part of the aim of syntactic research concerning valency is to develop a concise and economical description of valency that relies on rules wherever possible. For example, a single lexical unit with a single valency frame may apply to all aspectual counterparts of a given verb, and for this reason, lemmata that differ only in aspect are treated together within what we call a *lexeme* (Section 3.2). Additionally, grammaticalized alternations (e.g. diatheses, reflexive or reciprocal usage) are handled by syntactic rules while the lexicon only specifies the applicability of each rule to the given lexical unit (Section 3.7).

⁵⁰ We usually use the term *lexicon* both for the idealized lexical component of language description and for the actual approximation of this lexical component elaborated through lexicographic research.

3.1 LINGUISTIC ANALYSIS THROUGH A SYSTEM OF LAYERS

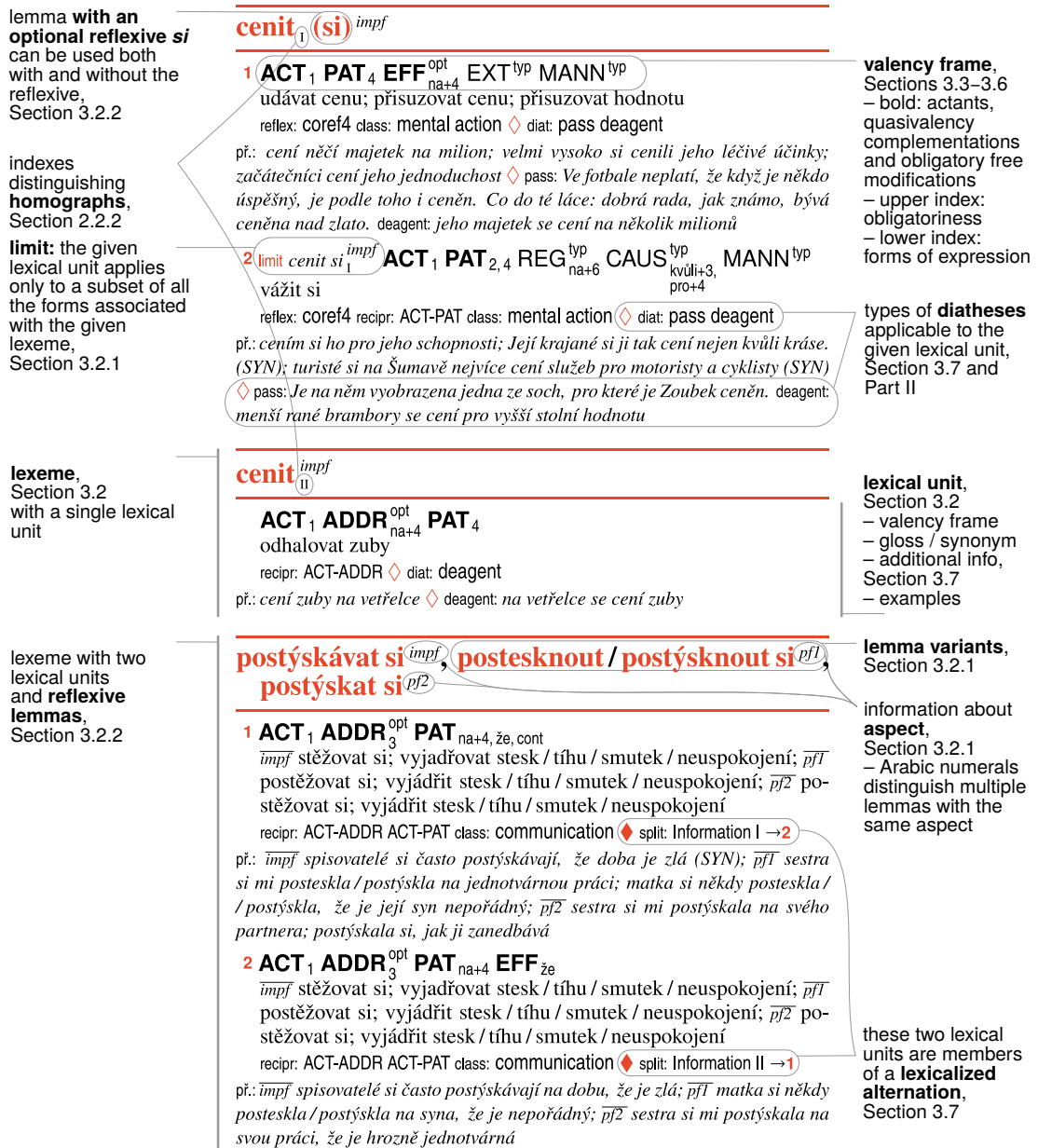


Figure 3.3: Example entries from the valency lexicon VALLEX (Lopatková et al., 2016a), abridged.

3.2 Structure of the lexicon: lexemes and lexical units

A *lexeme* is an abstract unit associating

- a formal component, i.e., a set of *lexical forms*—a whole morphological paradigm of a word or several words, and
- a meaning component, represented by a set of *lexical units* corresponding to the individual senses of the word(s).^{51,52}

Lexemes are considered the basic unit of lexicographic description,⁵³ the set of morphological forms can be effectively captured by listing the corresponding lemmas while the complex relationships between the syntactic and semantic characteristics of individual lexical units (senses) are captured through valency frames and a set of attributes.

Figure 3.4 shows how a difference in valency is linked to a difference in meaning. In *VALLEX*, there is exactly one valency frame for each lexical unit, as it is assumed that two differently structured uses of the same lemma have a different (structural) meaning (even though they may, but do not have to, express the same situational content). This principle is discussed in Section 3.2.3.

3.2.1 Aspect and aspectual pairs (or n-tuples)

The study of aspect has been a hot topic in Czech linguistics of the 1960's (discussed in a separate book by Kopečný, 1962, and on the pages of the *Slovo a slovesnost* journal: Isačenko, 1960b; Seidel, 1960; Poldauf, 1964; Kopečný,

⁵¹ Žabokrtský (2005, p. 34): Besides lexeme, we decided to use the notion of *lexical unit* (LU) in the following sense (citation from Verspoor et al., 1997, p. 216): “Cruse (1986) distinguishes lexemes from lexical units. ...The latter are form-meaning complexes with (relatively) stable and discrete semantic properties, and the meaning component is called a sense, corresponding to the intuitive notion of sense...” Obviously, the term LU is used here roughly in the sense of Filipec’s (1994) ‘monosemic lexeme’—loosely speaking, given word in the given sense. However, it should be distinguished that the term *lexical unit* cannot be interchanged with the term *sense*: the latter is only one of more components of the former.

⁵² The terms *lexeme* (Czech *lexém*) and *lexical unit* (Czech *lexikální jednotka*, sometimes also *lexie*) are introduced here in the meaning in which they are used in FGD. Roughly speaking, our *lexeme* is equivalent to *hyperlexém* = *polysémický lexém* = *lexikální jednotka* (hyperlexeme, polysemic lexeme, lexical unit) of Filipec and Čermák (1985), and our *lexical unit* is equivalent to *monosémický lexém* = *základní lexikální jednotka* = *lexie* (monosemic lexeme, basic lexical unit, lexie) in their work. See (Martinková, 2013) for an overview of the use of these terms in Czech linguistics in general.

⁵³ The treatment of aspectual counterparts within a single lexeme belongs to the theoretical foundations of FGD and has been applied in the valency lexicon *VALLEX*; however, it

3.2 STRUCTURE OF THE LEXICON: LEXEMES AND LEXICAL UNITS

1965; Poldauf, 1966a; Kopečný, 1966; Poldauf, 1966b) and thus it is not surprising that it is also reflected in the foundations of FGD. In particular, verbal aspect is considered to be a morphological category expressing the opposition between imperfectivity/processuality/continuation of an event (without respect to its completion) and perfectivity/complexity/completion/boundedness of an event (Panevová et al., 1971, Panevová et al., 2014, p. 30, Nübler et al., 2017; Ševčíková and Panevová, 2018); in the case of aspectual pairs, both members of an aspectual pair have a common representation on the tectogrammatical layer, namely the infinitive of the imperfective member of the pair.⁵⁴

In the valency lexicon *VALLEX*, four values of verbal aspect are distinguished, namely perfective, imperfective, biaspectual and iterative (marked by the upper indices *impf*, *pf*, *biasp* and *iter*). Of these, iterative verbs are in fact a subgroup of imperfective verbs with a characteristic morphological form expressing repetitiveness, and biaspectual verbs have two morphological paradigms and may be used as either perfective or imperfective without any change in meaning.⁵⁵ In line with the tectogrammatical representation envisaged in the theoretical formulation of FGD, verbs that differ only in verbal aspect (perfective or imperfective, including the iterative and biaspectual subtypes) are considered to be realizations of a single lexeme; they typically share syntactic and semantic characteristics.

The concept of a pure aspectual pair is an important one; in practice, only aspectual counterparts derived by suffixes such as *ochutnávat^{impf} – ochutnat^{pf}* ‘to (try the) taste’, *dokončovat^{impf} – dokončit^{pf}* ‘to finish’, *vyrůstat^{impf} – vyrůst^{pf}* ‘to grow up’, *otáčet^{impf} – otočit^{pf}* ‘to turn’, and suppletive pairs such as *brát^{impf} – vzít^{pf}* ‘to take’ or *nacházet^{impf} – najít^{pf}* ‘to find’ are treated within a single lexeme in *VALLEX*. Although derivation of perfective verbs by adding resultative prefixes to imperfective verbs is common in Czech, it is hard to determine which one of these derived verbs should be considered the aspectual counterpart of the imperfective verb

has not been applied in the data of the Prague Dependency Treebank, nor in the valency lexicon *PDT-Vallex*.

⁵⁴ Ševčíková and Panevová (2018, preprint), emphasis mine: If the imperfectivity vs. perfectivity concern the same event or, stated differently, if the imperfective verb and its perfective counterpart share the same lexical meaning and differ just in the aspect, they form a *pure aspectual pair*. In general, the imperfective verb is considered to be the unmarked member of the aspectual opposition (Mathesius, 1947; Isačenko, 1960a; Kopečný, 1962).

⁵⁵ By “two paradigms” we mean the analysis of a biaspectual verb as a pair of a perfective and an imperfective verb that happen to be homonyms, i.e., they are expressed by the same forms; we also say that they form a formally unmarked aspectual pair (Nübler et al., 2017). According to Ševčíková and Panevová (2018) (who quotes Jindra, 2008; Chromý, 2014) and Jindra (2011, p. 527), the aspect of biaspectual verbs is disambiguated by the context.

3 VALENCY IN THE FUNCTIONAL GENERATIVE DESCRIPTION

(Isačenko, 1960b),⁵⁶ pairs of verbs differing in prefixes, are therefore not treated in a single lexeme.

In line with the assumption that the imperfective verb is the unmarked member of the pair, the imperfective lemma is always listed first in *VALLEX*. Note, however, that in terms of derivation, the perfective is often primary, as in *dávat^{impf} – dát^{pf}* ‘to give’; see Ševčíková and Panevová’s paper (2018) for a detailed discussion of this topic. If an iterative variant exists, it is also treated within the same lexeme, e.g. *nasedat^{impf} – nasednout^{pf} – nasedávat^{iter}* ‘get onto (a bus)’.⁵⁷ Occasionally, several pure aspectual pairs may overlap, such as in the case of the imperfective verb *dohánět^{impf}* with its corresponding perfective verbs *dohnat^{pf}* and *dohonit^{pf}*, or in the case of the perfective verb *odvinout^{pf}* with two corresponding imperfective verbs *odvinovat^{impf}* and *odvíjet^{impf}*; in such cases, all three lemmas are treated in a single lexeme (*dohánět^{impf} – dohnat^{pf1} – dohonit^{pf2}* ‘to catch up with’, *odvinovat^{impf1} – odvíjet^{impf2} – odvinout^{pf}* ‘to unwind’). Although rare, aspectual 4-tuples also exist (*zasunovat^{impf1} – zasouvat^{impf2} – zasunout^{pf1} – zasout^{pf2}* ‘to insert, slide in’).

Sometimes multiple lemmas with the same aspect are orthographic or phonetic alternatives of each other (also referred to as *lemma variants*). In the list of lemmas for a given lexeme, variants are separated by a slash symbol; they are exchangeable in all contexts, as in *dýchat^{impf} – dýchnout/dechnout^{pf}* ‘to breathe’ or *dozvídat/dovídat se^{impf} – dozvědět/dovědět se^{pf}* ‘to get to know’.

Lexemes in which some lexical units are associated only with a subgroup of the available aspectual variants are fairly common; cf. Figure 3.4 on p. 65, where units (1) and (2) are associated with both the imperfective and the perfective forms (represented by the pair of lemmas *odpovídat^{impf} – odpovědět^{pf}*), while (3) and (4) are associated with the imperfective forms only (represented by the lemma *odpovídat^{impf}*). In the Data Component of the lexicon, these two units are marked by the attribute–value pair *limit: odpovídat^{impf}*.

⁵⁶ One possible criterion might be the existence of secondary imperfectives; compare the derivation chain *dát^{impf}* ‘give’ → *přidat^{pf}* ‘add’ → *přidávat^{impf}*, where the derived perfective forms a pure aspectual pair with the secondary imperfective, with the derivation chain *psát^{impf}* → *napsat^{pf}* ‘write’, where no secondary imperfective can be formed and where there is hardly any difference in lexical meaning between the two existing verbs. Discussion of the relevant literature can be found in (Nübler et al., 2017).

⁵⁷ In this dissertation, lexeme headers are listed without the iterative lemmas.

3.2.2 Homonymy: criteria for distinguishing separate lexemes

The valency lexicon *VALLEX* uses Roman numerals to distinguish homographs,⁵⁸ as in *nakupovat_I^{impf} – nakoupit^{pf}* ‘to buy, shop’ vs. *nakupovat_{II}^{impf} – nakupit^{pf}* ‘to pile up, amass, accumulate’. There are no formal criteria for distinguishing between homonymy and mere polysemy; the authors contend with the formulation that in the case of homographs, there is no obvious semantic link between the two lexemes. The homograph index is used also in cases that the two lemmas without any obvious semantic link additionally differ by the presence/absence of the reflexive *se/si*, as in *dít_I^{impf}* ‘to say’ vs. *dít_{II} se^{impf}* ‘to happen, take place’, and in the case of two lemmas that differ in aspect (even if there is a clear semantic connection between them), as in *vylétat_I^{impf1} – vyletovat^{impf2} – vyletět/vylétnout^{pf1}* ‘to soar, set off flying’ vs. *vylétat_{II}^{pf2}* ‘to leave by flying out’.

On the other hand, none of the following three kinds of reflexive lemmas (in which the reflexive *se/si* is part of the lemma) are marked as homographs in *VALLEX*.⁵⁹

- *Derived (secondary) reflexives*, reflexive lemmas in which the reflexive *se/si* acts as a derivative morpheme; there is a clear semantic relation between the two lemmas—the reflexive variant may express unintentional or spontaneous event (so-called decausatives), e.g. *šít se^{impf}* ‘to pervade (something spreads somewhere)’, derived from *šít^{impf}* ‘to disperse (someone spreads something somewhere)’, or reciprocity, e.g. *dohadovat_I/dohadovat_{II} se^{impf} – dohodnout se^{pf}* ‘to agree on’, derived from *dohadovat_I/dohadovat_{II}^{impf} – dohodnout^{pf}* ‘to discuss’. Although not considered homographs, derived reflexives are treated in separate lexemes from their non-reflexive counterparts.
- *Lemmas with an optional reflexive* (also referred to as “lemmas with free *se/si*”), lemmas in which there is no substantial difference in lexical meaning between the reflexive and non-reflexive variant, e.g. *myslet/myslit (si)^{impf}* ‘to think’. Lemmas with optional reflexive are treated within the lexeme of their non-reflexive counterpart.

⁵⁸ No marking is used to distinguish between homonyms (words that share both the written and the spoken form) from homographs proper (words with a common written form but different pronunciation).

⁵⁹ In addition to reflexive lemmas, the reflexives *se/si* also play a role in grammaticalized alternations: reflexive constructions such as *Petr se myje mýdlem*. ‘Peter washes himself with soap.’, reciprocal constructions such as *Petr a Marie se líbají*. ‘Peter and Mary kiss each other.’, and diatheses such as *O návrhu se diskutuje již od minulého roku*. ‘The proposal has been under discussion since last year.’ For a detailed discussion of the representation of all these

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- *Reflexiva tantum*,⁶⁰ reflexive lemmas with no non-reflexive counterpart, e.g. *bát se^{impf}* ‘to be afraid’, *smát se^{impf}* ‘to laugh’; some of these are inherently reciprocal, e.g. *setkávat se^{impf} – setkat se^{pf}* ‘to meet’. Naturally, such lemmas have to be covered in a separate lexeme but they do not need a homograph index as they do not have a non-reflexive counterpart.

Example (1) demonstrates these principles on the verb *stát*.⁶¹ The infinitive form *stát* is analysed as three different homographs belonging to different lexemes corresponding to sense clusters that can be broadly characterized as *stát_I^{impf}* ‘to cost’, *stát_{II}^{impf}* ‘to stand’ and *stávat_{III} se^{impf} – stát_{III} se^{pf}* ‘to become’. The formal component of the first lexeme (1a) is represented by a single imperfective lemma *stát_I^{impf}*; the formal component of the second lexeme (1b) is represented by a lemma with an optional reflexive *stát_{II} (si)^{impf}*; finally the formal component of the third lexeme (1c) is represented by the aspectual pair of reflexiva tantum *stávat_{III} se^{impf} – stát_{III} se^{pf}*. (Note that in the third lexeme, *stát* even has a different aspect than in the first two.) The meaning component of each of these lexemes is represented by multiple lexical units corresponding to individual senses; each lexical unit is characterized by its own valency frame. In some cases, a lexical unit applies only to a subset of all the forms present in the formal component of its lexeme; for example, the first two lexical units of lexeme *stát_{II} (si)^{impf}* (1b) are limited to the non-reflexive forms.

- (1) a. *stát_I^{impf}*
ACT_{nom} **ADDR**_{acc}^{opt} **PAT**_{acc} ‘cost’
ACT_{nom} **PAT**_{za+acc} **BEN**_{dat}^{typ} ‘be worth’
ACT_{nom} **PAT**_{o+acc} ‘want, be interested in, care for’
- b. *stát_{II} (si)^{impf}*
limit: *stát_{II}^{impf}* **ACT**_{nom} **MANN**_{typ} **LOC**_{typ} ‘stand, be upright’
limit: *stát_{II}^{impf}* **ACT**_{nom} **LOC** ‘stand, be located’
ACT_{nom} **PAT**_{na+loc, za+instr} ‘stand behind, stick to, uphold, insist’
- c. *stávat_{III} se^{impf} – stát_{III} se^{pf}*
ACT_{nom, že} **PAT**_{dat, s+instr}^{opt} **TWHEN**_{typ} **LOC**_{typ} ‘happen’
ACT_{nom} **PAT**_{z+gen} ‘become (PAT becomes ACT)’
ACT_{nom} **PAT**_{instr, adj-instr} **ORIG**_{z+gen}^{opt} ‘become (ACT becomes PAT)’

phenomena in a lexicon, see Section 3.7, (Kettnerová and Lopatková, 2014), or the grammar component in (Lopatková et al., 2016a).

⁶⁰ The Latin word *tantum* ‘only’ is an adverb, so the plural of the term *reflexivum tantum* is not, as one might be tempted to think, *reflexiva tanta*. Cf. more commonly used terms *singularia* and *pluralia tantum*.

⁶¹ Only the first three lexical units of each lexeme are shown in the example.

3.2.3 Polysemy: criteria for distinguishing separate lexical units

At the beginning of Section 3.2, I have explained that the formal component of a lexeme consists of the available lexical forms and is represented by a list of lemmas, and the meaning component consists of the individual senses and is represented by a set of lexical units (LUs). It is a known fact that there are no generally accepted testable criteria for distinguishing individual senses; indeed, there is often a gradual transition from one sense to another. In the valency lexicon *VALLEX*, senses are distinguished mainly by syntactic criteria, with the underlying assumption that a difference in syntax is always accompanied by a difference in meaning (even if ever so slight), and conversely, a difference in meaning is typically reflected in a different syntax.⁶²

Different valency frames (whether they differ in the number, type or obligatoriness of valency complementations) always belong to separate lexical units, even when the meaning of these lexical units is close, as in the case of lexical alternations (2), where the two lexical units are additionally linked to each other by a value of one of the attributes *split*, *conv* or *multiple* (see Section 3.7 for more details). The rule is also applied to pairs or *n*-tuples of frames that only differ in the syntactico-semantic relation of a complementation to its parent (3 and 4).

(2) *nakládat*^{impf} – *naložit*^{pf} ‘to load’

- a. **ACT**_{nom} **PAT**_{acc} **EFF**_{instr}^{opt}
naložit vůz.PAT senem.EFF
 ‘load the wagon.PAT with hay.EFF’
- b. **ACT**_{nom} **PAT**_{acc} **DIR3**
naložit seno.PAT na vůz.DIR3
 ‘load hay.PAT onto the wagon.DIR3’

(3) *posílat*^{impf} – *poslat*^{pf} ‘to send’

- a. **ACT**_{nom} **PAT**_{acc} **DIR3** **INTT**_{k+dat, na+acc, inf}^{opt} **DIR**^{typ}
poslat peníze do banky / na účet.DIR3
 ‘send money to the bank / transfer money to an account’

⁶² A similar approach can be found in Patrick Hanks’ project called Corpus Pattern Analysis, resulting in the Pattern Dictionary of English Verbs (PDEV, Hanks, 2004, <http://pdev.org.uk>). Hanks’ approach is based on the Theory of Norms and Exploitations. The most salient difference between the two approaches is that Hanks labels valency positions by a list of coarse-grained *semantic types* such as HUMAN|INSTITUTION (which is a very common type of position) or ALCOHOLIC_DRINK (which is rather rare), e.g. HUMAN *abstains from*

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- b. **ACT**_{nom} **ADDR**_{dat} **PAT**_{acc} **DIR**^{typ}
poslat peníze dětem.ADDR
'send money to the kids.ADDR'

(4) *pocházet*^{impf} 'to come from'

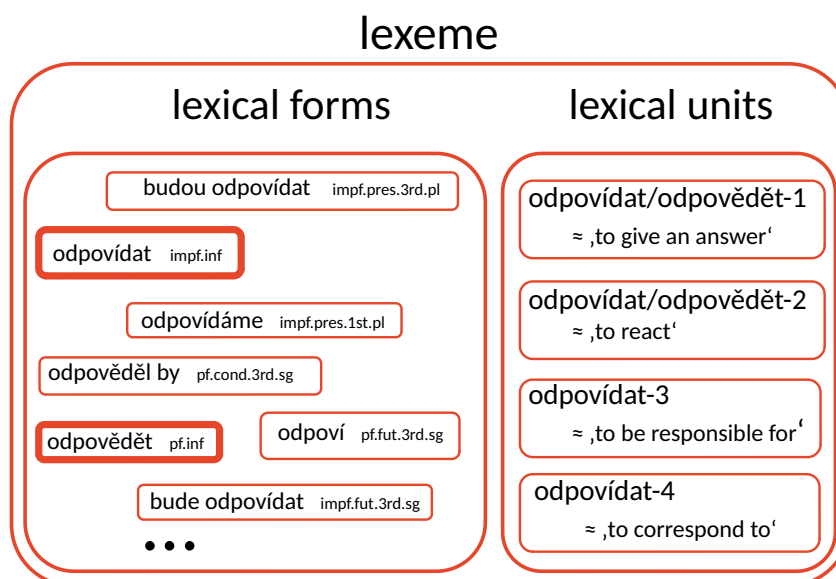
- a. **ACT**_{nom} **PAT**_{od+gen, z+gen}
jediné omezení pocházelo z uspořádání.PAT věcí (Intercorp v10)
'the only limitation came from the fundamental ordering.PAT of things'
- b. **ACT**_{nom} **DIR1**
Pocházím totiž z planety.DIR1 zvané Země. (Intercorp v10: Hitchhiker's Guide)
'I came from a planet.DIR1 called Earth you know.'
- c. **ACT**_{nom} **TFRWH**
pocházel z dvacátých až třicátých let.TFRWH minulého století (Intercorp v10)
'it came from the twenties.TFRWH or thirties.TFRWH of the last century'

On the other hand, two (or more) clearly distinct senses are treated in separate lexical units even if they have the same valency frame:

(5) *chovat*^{impf} **ACT**_{nom} **PAT**_{acc} **LOC**^{typ}

- a. *chovat*^{impf} 'to cradle, hold in one's arms'
chovala dítě.PAT v náručí.LOC
'she.ACT held a baby.PAT in her arms.LOC'
- b. *chovat*^{impf} 'to keep'
choval prasata.PAT na farmě.LOC
'he.ACT kept pigs.PAT at the farm.LOC'

ALCOHOLIC_DRINK|DRUG|FOOD. A more detailed description of the PDEV can be found in Section 2.6.



lexeme *odpovídat*^{impf} – *odpovědět*^{pf}

1. *odpovídat*^{impf} – *odpovědět*^{pf} ‘to give an answer’

ACT_{nom} **ADDR**_{dat} **PAT**_{na+acc} **EFF**_{acc, aby, at, zda, že, cont} **MANN**^{typ} **MEANS**^{typ}_{instr}

Petr dětem odpovídá na otázky smíchem. (Lopatková et al., 2016a, p. 23)

‘Peter answers/responds to the questions of the children with a laugh.’

2. *odpovídat*^{impf} – *odpovědět*^{pf} ‘to react’

ACT_{nom} **PAT**_{na+acc} **EFF**_{instr}

Pokožka odpovídá na podráždění zarudnutím. (ibid.)

‘The skin responds to irritation with redness.’

3. *odpovídat*^{impf} ‘to be responsible for’

ACT_{nom} **ADDR**^{opt}_{dat} **PAT**_{za+acc} **MEANS**^{typ}_{instr}

Budu odpovídat za jeho bezpečí.

‘I will answer for his safety.’

4. *odpovídat*^{impf} ‘to correspond to’

ACT_{nom, že} **PAT**_{dat} **REG**^{typ}_{instr}

Máme muže odpovídajícího popisu Rogera Thornhilla. (glosbe.com)

‘We’ve got a man here who answers to the description of Thornhill, Roger.’

Figure 3.4: Illustrating the concepts of *lexeme*, *lexical units* and *lexical forms*. A similar figure has been used at least since (Žabokrtský, 2005, p. 35), e.g. lately in the introductory part of *VALLEX* (Lopatková et al., 2016a, p. 24).

3.3 Delimiting and labelling complementations

3.3.1 What constitutes a complementation

First of all a terminological remark: in FGD, the term *complementation* is used strictly as a countable noun referring to a single slot opened by a valency-bearing headword (verb, noun, adjective or adverb), and by extension, also to its filler. Thus, for example, when we say “accusative complementation”, we mean a slot that may be filled with a nominal⁶³ in accusative (without excluding the possibility that the slot may be filled by other forms as well), or a nominal in accusative that fills the slot in a particular sentence. The set of complementations required or specifically permitted by a headword (i.e., its actants and obligatory free modifications, see below) constitute a *valency frame*.

Notice that only autosemantic (“lexical”) words have valency; in particular, prepositions do not. At first, this may seem surprising: from a certain point of view, prepositions also “open a slot”, namely a slot for a nominal in a given case. However, that is a phenomenon of surface syntax; on the tectogrammatical level (which is the primary level for treating valency), prepositions do not have any separate existence—they are not represented by separate nodes of the syntactic tree but rather the choice of a particular preposition may be captured in a grammateme or by a subfunctor of the autosemantic word with which it combines.

Some linguistic theories limit the concept of valency to complementations expressed as the subject and direct or indirect object of its headword.⁶⁴ In FGD, no such limitation is taken into account. Complementations—even actants—may be expressed by prepositionless or prepositional⁶⁵ cases, infinitives, or dependent clauses of several kinds (see Section 3.5); many complementations do not even allow for a realization by a direct case. In fact, there is a single aspect in which

⁶³ I use the term *nominal* for syntactic nouns, that is nouns, adjectives, pronouns and numerals with syntactic behaviour similar to nouns.

⁶⁴ According to Zeisler (2016), Tournadre (2009) and Van Valin (2009) even claim that specifying the recipient of *give* verbs is superfluous (however, her presentation does not include the bibliography section, so I’ve been unable to identify which particular works are referred to). In Tesnière’s (1959) approach, there is a different limitation: actants have to be expressed by nouns or the equivalent of nouns, while circumstants are always adverbs or the equivalents of adverbs (Chapter 48, §6–7).

⁶⁵ By a prepositionless case, we mean a nominal which is not part of a prepositional group and is in the given case. By a prepositional case, we mean a prepositional group, not one particular case of that name (as exists e.g. in Russian).

subjects and objects are treated prominently in the valency theory of FGD: with a few exceptions,⁶⁶ they constitute actants (introduced in Section 3.3.2).

3.3.2 Actants and free modifications

Corresponding to the argument–adjunct distinction in other linguistic theories and closely following original Tesnière’s (1959) distinction between actants and circumstants, two kinds of valency complementations are distinguished in FGD—*actants* (also called (*inner*) *participants* or *arguments*) and *free modifications* (*adjuncts*).⁶⁷ The differences between actants and free modifications are summed up in Figure 3.5.

Actants

The subject and the direct object are prototypical *actants*. The morphemic form of actants is determined by the verb through rection (case government); they

⁶⁶ In the valency lexicons *VALLEX* and *PDT-Vallex*, prepositionless nominative is used as a free modification of a verb only once, namely as an Attributive Complement (**COMPL**, expressed by an adjective in the nominative case) of the verb *narodit se* ‘be born’:

narodila se slepá.COMPL ‘she was born blind.COMPL’

A prepositionless nominative can also be used as a free modification of a noun (but does not appear so in either *VALLEX* nor *PDT-Vallex*):

jméno Marie.ID ‘name Mary.ID’, *název Star Wars.ID* ‘title Star Wars.ID’.

A prepositionless accusative may express a free modification only with 11 lexical units, where it is either classified as an Attributive Complement (**COMPL**, again expressed by an adjective in the nominative case):

představil si sebe vítězícího.COMPL ‘he imagined himself (as) winning.COMPL’,

or as Extent (**EXT**)

činí/dělá/vychází to 30 €.EXT ‘that makes 30 €.EXT’,

měří dva metry.EXT ‘his height is two meters.EXT’,

váží tři kila.EXT ‘it weighs three kilograms.EXT’,

sestoupila pět schodů.EXT ‘she went down five steps.EXT’,

ujet/ujít 100 kilometrů.EXT ‘to ride/walk for 100 kilometres.EXT’,

zhubla/přibrala tři kila.EXT ‘she lost/gained three kilos.EXT’.

A prepositionless dative is commonly classified as a Benefactor (**BEN**)

staví dětem.BEN dům ‘he is building a house for his children.BEN’.

⁶⁷ Beware: even within the writings of a single author, the terminology has been evolving over the decades. Thus for example, Panevová et al. (2014, p. 28, footnote 27) claim that the term *participant* is synonymous with the term *actant*. However, in the oldest works such as (Panevová, 1974), the term is used in the sense in which we use the term *complementation*, and the terms *inner* and *free participants/modifications* are synonymous with our *valency* and *non-valency* complementations; in other words, *inner participants* refer to all complementations that belong to the valency frame (including adverbials).

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occur with a verb only once.⁶⁸ Both obligatory⁶⁹ and optional actants characterize a verb in a unique way and in this sense, they have to be listed in its valency frame. Empirical research has shown that the highest number of actants taken by a Czech verb is five, e.g.⁷⁰

- (6) *Petríkovi.ADDR maminka.ACT předělala loutku.PAT z kašpárka.ORIG na skřítku.EFF.*
(Lopatková et al., 2002, p. 27, adjusted)

‘For Peter.ADDR, mother.ACT **changed** the puppet.PAT from a clown.ORIG into a gnome.EFF.’

As we have mentioned before, the founders of the Functional Generative Description have made a conscious decision to forgo attempts at fine-grained semantic analysis at the level of cognitive content, hoping that this would allow them to avoid arbitrariness in the assignment of functor labels. They therefore introduced only as many actant types (identified by their functor) as is necessary to give each actant of any given verb a unique label; the five types are distinguished based on a mixture of syntactic and semantic criteria; for the concept of *actant shifting*, refer to Section 3.3.3:

Actor (ACT) when there is no actant shifting, **ACT** is the complementation corresponding to the personal or impersonal originator of an action, bearer of an action of state, causator, or experiencer; it is usually realized in active sentences as the subject; due to actant shifting, the first actant of any verb

Patient (PAT) when there is no actant shifting, **PAT** is the complementation broadly corresponding to the affected object; it is often realized as the direct object; due to actant shifting, the second actant of any verb

Addressee (ADDR) the beneficiary or recipient of a process or state, typically animate, often expressed as an indirect object or by an equivalent prepositional phrase

⁶⁸ Coordination and apposition are counted as a single occurrence, e.g., *(Jan a Marie).ACT šli do kina.* ‘(John and Mary).ACT went to the cinema.’ contains only a single Actor (**ACT**).

⁶⁹ We refer here to the obligatoriness on the tectogrammatical layer; obligatory complementations may be subject to different types of ellipsis on the surface layer, see Section 3.4.

⁷⁰ This maximum number may be higher in some other languages, in which case additional actants would have to be introduced. Dating back to Apresjan (1974, p. 137), six semantic and, consequently, six deep-syntactic actant positions (plus an additional one for direct speech) are distinguished in the Meaning-Text Theory (Mel’čuk, 2004b, endnote 1; Apresjan et al., 2010; Mel’čuk, 2011), based on such cases as the verb *komandirovat* ‘to send on a mission’: X[i] sends Y[II] from Z[III] to W[IV] to do P[v] for the period T[VI]. Panevová and Ševčíková (2011, p. 175) point out that when the allegedly “six-valent” Russian verbs are analysed through the prism of the Functional Generative Description, not all of these

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Actants, i.e. **ACT** (Actor), **PAT** (Patient), **ADDR** (Addressee), **EFF** (Effect), **ORIG** (Origin), **MAT** (Material; only with nouns)

- (i) occur with a single headword only once;
- (ii) appear only with a limited group of headwords which can be listed;
- (iii) are always characteristic of the meaning of the verb with which they combine and therefore are listed in the valency frames of all such verbs;
- (iv) their morphemic form is determined by the headword;
- (v) are often expressed by the subject or direct object;
- (vi) do not form semantically homogeneous groups: a single actant functor covers a semantically diverse group of complementations;
- (vii) are subject to cognitive shifting, i.e., there is a tendency to express the first actant by a nominative and the second actant by an accusative irrespective of their semantic content, see Section 3.3.3.1;
- (viii) are typically obligatory, see Section 3.4;

Free modifications, e.g. **LOC** (where?), **DIR1** (where from?), **TWHEN** (when?), **MANN** (how?), **MEANS** (with what?), **BEN** (for whose benefit?), ...

- (i) may occur multiple times with a single headword;
- (ii) appear with most headwords except for a few semantically motivated exceptions;
- (iii) are characteristic of the meaning of the verb (and therefore listed in the valency frame) only if they are obligatory, see Section 3.4;
- (iv) the list of the possible morphemic realizations of a free modification is determined by the functor, not by the headword;
- (v) are often expressed by adverbial phrases;
- (vi) form semantically homogeneous groups of complementations, each characterized by the corresponding functor;
- (vii) are not subject to cognitive shifting, i.e., their form is not influenced by the headword's tendency to have a complementation of certain form;
- (viii) are typically optional;

Figure 3.5: Characteristics of actants and free modifications complementations. In the writings of the founders of the Functional Generative Description, the first two characteristics are used as defining/operational criteria for distinguishing between actants and free modifications.

Quasivalency complementations, i.e. **DIFF** (Difference: by how much?), **INTT** (Intent: for what purpose?), **OBST** (Obstacle), **MED** (Mediator)

- (i) occur with a single headword at most once;
- (ii) appear only with a limited group of headwords;
- (iii) are always characteristic of the meaning of the verb with which they combine and therefore are listed in the valency frames of all such verbs;
- (iv) their form is determined by the headword (but is less varied than the form of actants: **DIFF** only ever takes the form *o+loc*, for **INTT** it is always a subset of *k+dat,na+acc,inf* with the full set being the norm (one exception: *zastavit – zastavovat* ‘stop’ also allows *aby* ‘in order to’), for **OBST** it is typically *o+acc* ‘against sth’ with exceptions for *píchat se – píchnout se* ‘prick’ *instr* ‘with sth’, *zachytit – zachytnout* ‘catch, snag’ *za+acc* ‘on sth’, *zachytit se – zachytnout se* ‘get caught, snag’ *za+acc* ‘on sth’);
- (v) are typically expressed by prepositional phrases;
- (vi) belong to semantically homogeneous groups;
- (vii) are not subject to cognitive shifting, i.e., their form is not influenced by the headword’s tendency to have a complementation of certain form;
- (viii) are typically optional;

Figure 3.6: Characteristics of quasi-valency complementations. Note that characteristics (i–iv) are shared with actants and characteristics (v–viii) are shared with free modifications.

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Effect (**EFF**) corresponds to the effected object, expresses a result of action/process or a property or state that the Patient has or is assigned as a result of a process/state

Origin (**ORIG**) the origin/source of a process or state, either local or conceptual, realized as a “right valency” complementation⁷¹

- (7) a. *Řekl synovi.ADDR pravdu.PAT.*
'He.ACT told his son.ADDR the truth.PAT.'
- b. *Bratrovi.ADDR nezaplatili dohodnutou mzdu.PAT.*
'They.ACT didn't pay my brother.ADDR the agreed-upon wage.PAT.'
- c. *Prezident.ACT ho.PAT jmenoval generálem.EFF.*
'The president.ACT appointed him.PAT as a general.EFF.'
- d. *My.ACT tomu.PAT říkáme efekt.EFF sněhové koule.*
'We.ACT call it.PAT snowball effect.EFF.'
- e. *Vyrábějí ze dřeva.ORIG stoly.PAT.*
'They.ACT make tables.PAT from wood.ORIG.'
- f. *Petra.PAT od ní.ORIG dělily dva roky.ACT.*
'She and Peter were separated by two years.'
lit. 'Two years.ACT separated Peter.PAT from her.ORIG.'

The five verbal actants are also used in the valency frames of nouns (especially deverbal nouns); an additional exclusively nominal actant is also used:

Material/Partitive (**MAT**) corresponds to the content of a container denoted by the headword

- (8) *balík papíru.MAT, polovina dortu.MAT*
'a wad of paper.MAT, a half of the cake.MAT'

Free modifications

Adverbials are prototypical *free modifications*; in contrast to actants, their morphemic form is not determined by the verb but rather by their meaning, e.g. *děti přišly domů / do školy / na jeviště* 'the children came home / to school / onto the platform'. Free modifications can occur more than once with a verb:

⁷¹ The concept of “left” and “right” valency comes from Tesnière (1959); it reflects the surface-syntactic opposition between the subject (left v.) and objects/adverbials (right v.).

- (9) *Až v neděli.TWHEN dopoledne.TWHEN 3. září.TWHEN v 11 hodin.TWHEN oznámila britská vláda světu,...* (SYN6)

‘Not before the morning.TWHEN on Sunday.TWHEN September.TWHEN the 3rd at 11 o’clock.TWHEN **did** the British government **announce**...’

Just as actants, free modifications are either obligatory, or optional. However, unlike actants, many free modifications (especially those expressing time, location and manner) can be combined with almost any verb as its optional complementations;⁷² only obligatory free modifications characterize the meaning of the lexical unit (e.g., *Petr přijel domů.DIR3*. ‘Peter arrived home.DIR3.’ and *Děti se dobře.MANN chovaly*. ‘Children behaved well.MANN.’) and thus have to be listed in the valency frame.

The classification of free modifications is based on semantic criteria; the exact set of free modifications used differs slightly from author to author, see Appendix A for the free modifications found in the Prague Dependency Treebank and the valency lexicons *VALLEX* and *PDT-Vallex*.

Quasivalency complementations

Four⁷³ complementations do not neatly fit the distinction between actants and free modifications; they share characteristics (i–iv) in Figure 3.5 with actants but (v–vii) with free modifications; Lopatková and Panevová (2006) therefore introduced a separate category of *quasivalency complementations*, see also (Panevová et al., 2014):

Difference (**DIFF**) *inflace se zvýšila o 5 %.DIFF* ‘the inflation has risen by 5 %.DIFF’

Intent (**INTT**) *jít do lesa na jahody.INTT, jít nakoupit.INTT* ‘go picking.INTT berries, go shopping.INTT’

Obstacle (**OBST**) *poranit se o střep.OBST* ‘hurt oneself on a shard.OBST of glass’

Mediator (**MED**) *zatahat někoho za rukáv.MED* ‘pull at someone’s sleeve.MED’⁷⁴

⁷² There are many examples of verbs that combine with unexpected free modifications. To give just one: it would seem that thanks to its static nature, the verb *ležet* ‘lie, be found at a position’ should combine with a modification of Location (**LOC**) but not with any of the three modifications of Direction (From, **DIR1**, Through, **DIR2**, or To, **DIR3**). And yet it is possible to say *Existuje v ČR takový bod, že z něj.DIR1 všemi směry.DIR3 leží Německo?* ‘Is there any location in the Czech Republic such that Germany lies in all directions.DIR3 from it.DIR1?’

⁷³ For the possible reclassification of **ORIG** and even **ADDR** as a quasi-valency complementation, see (Lopatková and Panevová, 2006, p. 84), (Cinková, 2009, p. 66, Sec. 6.3.5) and (Panevová et al., 2014, p. 49, Sect. 2.3.5).

⁷⁴ **MED** occurs neither in the valency lexicons *VALLEX* and *PDT-Vallex*, nor in the data of the Prague Dependency Treebank 3.0. In fact, *PDT-Vallex* contains a single occurrence

Phrasemes

In order to treat multi-word predicates such as verbal idiomatic expressions and light verbs as dependency structures, the non-verbal part of these predicates is marked with the functors **DPHR** and **CPHR**. Due to their special character, the corresponding complementations stand outside the distinction between actants, free modifications and quasivalency modifications.

Dependent part of a phraseme (DPHR) *Novináři ho neustále chytali za slovo.* ‘The journalists kept jumping **on the semantics** / taking him up **on it**.’

Dependent part of a complex predicate (CPHR) *Elastor se psem v náručí tady budil pozornost.* ‘Elastor with a dog in his arms attracted **attention**.’

Functors for non-valency relations

In this text, we have discussed only functors that label dependants of valency bearing words. For a full analysis of sentences in the form of trees (e.g. in annotated corpora), additional functors have to be introduced for labelling the non-dependency relations that are also found in natural sentences, e.g. apposition (*Hobit aneb.APPS cesta tam a zase zpátky* ‘The Hobbit or.APPS there and back again’), various kinds of coordination (*Petr, nebo.DISJ Marie* ‘Peter, or.DISJ Mary’), parenthesis (*Přijel na chatu (čekali.PAR ho)*. ‘He came to the cottage (they had been expecting.PAR him).’), rhematizers (*Jen.RHEM on o tom nevěděl*. ‘Only.RHEM he didn’t know about it.’), or even relations between subparts of such structures as addresses, lists and mathematical formulae. The full set of functors is discussed by Panevová et al. (2014); detailed guidelines for annotation of the Prague Dependency Treebank 2.0 have been formulated by Mikulová et al. (2006).

3.3.3 The principle of actant shifting

By a rule known as *actant shifting*, the classification of the first two actants is based on purely formal criteria—the first actant is always marked as an Actor (**ACT**) and the second actant as a Patient (**PAT**), cf. Figure 3.7. On the other hand, semantic criteria are involved in the classification of the remaining three actants.

3.3.3.1 Cognitive shifting of actants

Actant shifting is first and foremost motivated by the fact that in active Czech sentences (and similarly in other languages), the first actant is most commonly

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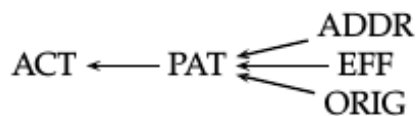


Figure 3.7: Schema of actant shifting from (Panevová, 1974, p. 31). In designing a valency frame of a lexical unit, the functors **ACT** and **PAT** have to be assigned to some complementation before one of the last three functors can be used.

structured as the subject (a nominal in nominative), and the second actant is most commonly structured as the direct object (a nominal in accusative); intuitively, this seems to reflect a *cognitive shift*, in which the nominative complementation is perceived as the active participant and the accusative complementation as the passive participant even when this does not, strictly speaking, correspond to the state of affairs expressed by the verb.

- (10) a. *Petr*.**ACT**._{nom} *spadl z útesu*.
 ‘*Peter*.**ACT**._{nom} **fell** from a cliff.’
 situational participant expressed by **ACT** (shifted **PAT**): ‘Bearer of action’⁷⁵
- b. *Z tohoto materiálu*.**PAT** *se vytvořily otevřené hvězdokupy*.**ACT**._{nom}.
 ‘From this matter.**PAT** open star **clusters**.**ACT**._{nom} **have formed**.’
 situational participant expressed by **ACT** (shifted **EFF**): ‘Result’
- c. *Jak vykopat studnu*.**PAT**._{acc}?
 ‘How to **dig** a well.**PAT**._{acc}?’
 situational participant expressed by **PAT** (shifted **EFF**): ‘Result’
- d. *Pavel*.**ACT** *oslovil Petra*.**PAT**._{acc}.
 ‘Paul.**ACT** **addressed** *Petra*.**PAT**._{acc}.’
 situational participant expressed by **PAT** (shifted **ADDR**): ‘Addressee’

of a quasivalency complementation (*nese rozdat*.**INTT** *handouty* ‘he’s carrying some handouts to give them out.**INTT**’) and the Prague Dependency Treebank 3.0 contains several hundred instances of **DIFF** and **INTT** but the other two quasivalency complementations have been introduced later and therefore were not used in PDT.

⁷⁵ Here and elsewhere in this text, roles of situational participants are captured through simplifying labels such as ‘Agent’, ‘Theme’ etc. Bear in mind that no explicit theory

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The idea that actant shifting should reflect cognitive shifting is formulated in the following criteria for assigning the Actor and Patient labels (Sgall et al., 1986b, Section 2.11, p. 125–127):

Actor is

- the single actant of a single-actant verb,
- in the case of a verb with multiple actants, it is the actant that exhibits the same linguistic structuring (surface representation, distribution) as does the prototypical Actor of single-actant verbs.

Patient is

- the actant other than the Actor in the case of two-actant verbs,
- in the case of verbs with three or more actants, the actant that has the same linguistic structuring as the Patient of two-actant verbs.

3.3.3.2 Justifications for actant shifting

By introducing actant shifting, the founders of FGD avoided both extremes seen in the prominent approaches to valency known at the time:

- Tesnière’s classification (1959) of actants was purely syntactic and did not reflect the semantic relation between the verb and its complementation, leading to empty formalism.
- Fillmore’s classification (1968, 1977) was based purely on semantic characteristics of complementations with no regard for their surface realization, leading to subjectivity in determining the number of different labels and assigning them to individual complementations. The same lack of formal criteria for assigning semantic roles can be seen in the work of Daneš et al. (cf. 1981, p. 57).

Interestingly, these two extremes can be seen even in lexical resources developed in the recent decades, sometimes even simultaneously. For example, arguments in the PropBank lexicon⁷⁶ (Kingsbury et al., 2002; Palmer et al., 2005) are given meaningless numerical labels, and to make up for that level of pure formalism, also roleset specific (i.e. arbitrary) semantic descriptors (e.g. the verb *yell* has arguments **Arg0**: *Yeller*, **Arg1**: *Utterance*, **Arg2**: *Hearer*). However, a single assignment of labels is used for related syntactic structures with the same verb and also with nouns derived from it; e.g. one of the senses of the verb *open* has arguments **Arg0**: *Opener*, **Arg1**: *Thing Opening*, **Arg2**: *Instrument* and **Arg3**: *Benefactive*, which can be used to annotate structures such as *Texas Instruments Inc..Arg0 opened a plant.Arg1 in South Korea. The branch of the Bank.Arg1 opened in July.*

of situational participants has been worked out in FGD, so the labels are used rather informally.

⁷⁶ <https://propbank.github.io/>

Douglas.Arg0 opened the bottle.Arg1 with a can opener.Arg2. This can opener.Arg2 opens bottles.Arg1, too! South Korea.Arg0 has opened its market.Arg1 to foreign cigarettes.Arg3. The opening of the Kuantu Bridge.Arg1 to traffic.Arg3. In FGD, these different structures correspond to separate lexical units. If they are regular and pertain to two lexical units within the same lexeme that share the same situation with the same set of situational participants, they are referred to as *lexical alternations* and are annotated in *VALLEX* as links between the lexical units and further described by rules in the grammar component, see Section 3.7.

Panevová et al. (2014, Sect. 2.3) justify actant shifting by the fact that the semantic roles of participants follow from the lexical semantics of the verb and complementation in question; it is not necessary to capture them by the actant label.⁷⁷ In other words, actant shifting is a natural consequence of the decision to concentrate on linguistically structured meaning and avoid analysis of cognitive content. It is hypothesized that irrespective of the cognitive content, verbs structure their first two complementations in the same way (as Actor and Patient). In most cases, this hypothesis is justified by the surface-syntactic realization of these complementations as subject and direct object.

3.3.3.3 Differences between actant shifting and cognitive shifting

In the following discussion, I distinguish *cognitive shifting* (the empirically verifiable fact that most verbs with one actant express this actant as a subject, and most verbs with at least two actants express one of them as the subject and one of them as the direct object)⁷⁸ from *actant shifting* (a labelling convention that says that each verb with at least one actant has an Actor and each verb with at least two actants has an Actor and a Patient). This distinction is necessary because in FGD, actant shifting is also applied in cases where it is not motivated by the typical cognitive association of the subject (nominative case) with the Actor and the direct object (accusative case) with the Patient.⁷⁹ In other words, the first

⁷⁷ Semantics of the complementation is also decisive for its semantic role:

Jan.ACT otevřel dveře.PAT.

‘John.ACT opened the door.PAT.’

semantic role of the ACT: ‘Agent’

Vítr.ACT otevřel dveře.PAT.

‘The wind.ACT opened the door.PAT.’

semantic role of the ACT: ‘Causator’

⁷⁸ In this chapter, we only consider forms of expression applicable in unmarked (active, non-reflexive and non-reciprocal) constructions.

⁷⁹ Of the remaining three actants, two can also be associated with typical forms: the Addressee with the indirect object (dative case) and the Origin with prepositional phrases *z+gen* ‘from,

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actant is labelled Actor even if it cannot be expressed as the subject and the/a second actant is labelled as a Patient even if it cannot be expressed as a direct object. In this context, Panevová (1998) admits that it would be more appropriate to name the first two actants simply “First Actant” and “Second Actant” but sticks with the terms “Actor” and “Patient” for convenience.

Panevová (1998) distinguishes the following cases of actants taking a form other than the typical one:

- the complementation retains its broad semantic classification; possible reasons for the atypical form include:
 - stylistic reasons, e.g. a genitive of negation or a partitive–genitive instead of a nominative for expressing the Actor, e.g. (11a);
 - the argument does not allow realization through a nominal, e.g. (11b);
 - atypical rection, e.g. (11c);
- due to actant shifting, not only the form but also the semantics of the complementation are atypical, e.g. (12).

- (11) a. *Přibýlo vody_{ACT.gen.} Není peněz_{ACT.gen.}*
‘(The volume of) water_{ACT.gen.} rose. There’s no money_{ACT.gen.}’
while the semantics matches the Actor label, the form is unusual (a genitive expressing partitiveness/negation rather than a nominative)
- b. *Apeloval na své kolegy_{ADDR}, aby_{PAT} práci dokončili včas.*
‘He_{ACT} appealed to his colleagues_{ADDR} to finish_{PAT} the work on time.’
while the semantics matches the Patient label, the form is unusual (a clause rather than an accusative)
- c. *Obešlo se to_{ACT} bez problémů_{PAT}.*
‘It_{ACT} went along without difficulties_{PAT}.’
while the semantics matches the Patient label, the form is unusual (atypical rection)
- (12) a. *Z toho chlapce_{PAT.z+gen} vyrostl pohledný muž_{ACT}.*
‘That boy grew into a handsome man.’
lit. ‘Out of that boy_{PAT.z+gen} ‘from’ grew up a handsome man_{ACT}.’
both the semantics and the form are typical for Origin, but due to actant shifting, the complementation is labelled as a Patient
PAT ← ORIG

of’ and *od+gen* ‘from, by’. The expressions of Effect are more varied and include clausal complements (especially those introduced by the conjunction *že* ‘that’ and content clauses), as well as certain prepositional phrases and in specific cases even the direct object.

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- b. *Petr*.**ACT**._{nom} *bratřovi*.**PAT**._{dat} *věřil*.

‘Peter.**ACT**._{nom} trusted **his brother**.**PAT**._{dat}.’

both the semantics and the form are typical for Addressee, but due to actant shifting, the complementation is labelled as a Patient

PAT ← **ADDR**

The situation exemplified in (12) is particularly troubling: actant shifting was introduced as a labelling convention supposed to avoid arbitrariness in the assignment of labels, but here we arbitrarily throw away a label that is appropriate for the semantics as well as formal (surface-syntactic) properties of a complementation and replace it with a default value.

According to the formulation of actant shifting that I have quoted at the end of Section 3.3.3.1, nominative complementations of Czech verbs should be given the Actor label, and accusative complementation should be given the Patient label (except in the case of single-actant verbs). Accusative complementations not labelled as a Patient contradict the intuition that actant shifting should reflect cognitive shifting as demonstrated in the surface forms. However, both *VALLEX* and *PDT-Vallex* contain verbs with at least three actants such that a non-accusative complementation is shifted into the Patient position and the accusative complementation is given another label.⁸⁰ The rationale is that the accusative is not semantically homogeneous; there are verbs where it semantically clearly corresponds to the Patient label, but also verbs where its semantics is closest to Addressee (10d and 13a) or Effect (10c and 13b). If the verb has another actant that can be reasonably labelled as a Patient, the annotator labels the accusative complementation in line with its semantics rather than its form. However, this means that accusative Addressees/Effects of two-valent verbs always get shifted (they get the Patient label) but accusative Addressees/Effects of three-valent verbs (sometimes) do not:

- (13) a. *informovat*^{biasp} ‘to inform’
ACT_{nom} **ADDR**_{acc} **PAT**_{o+loc, aby, af, zda, že, cont}
informovat někoho.**ADDR**._{acc}, *že*.**PAT** ...
 ‘inform someone.**ADDR**._{acc} that.**PAT** ...’
PAT ← **EFF**
- b. *vypovídat*_I^{impf} ‘to tell’
ACT_{nom} **PAT**_{opt o+loc} **EFF**_{opt acc}

⁸⁰ It also happens in the case of verbs where the accusative complementation gets the Actor label, which is discussed in Section 3.3.3.4.

3.3 DELIMITING AND LABELLING COMPLEMENTATIONS

to vypovídá mnohé.EFF.acc o jeho možnostech.PAT
 ‘that tells a lot.EFF.acc about his possibilities.PAT’

For cases where the semantics of the complementations does not provide clear clues as to which complementation should get the Patient label, Panevová (1974, p. 31; 1980, p. 45) specified the order of precedence for the PAT label as (semantic) ‘Patient’ > ‘Effect’ > ‘Addressee’ > ‘Origin’; in other words, if there is no ‘semantic Patient’ but there is a ‘semantic Effect’ as well as a ‘semantic Addressee’ or ‘semantic Origin’, then the ‘semantic Effect’ gets the PAT label (even if the ‘semantic Addressee’ or ‘semantic Origin’ can be expressed by an accusative and the ‘semantic Effect’ can not, as in (13a)).⁸¹

Panevová et al. (2014, p. 45–46) provide further guidelines for assigning labels in these ambiguous cases:

- a valency complementation that is surface-syntactically obligatory tends to be the Patient, e.g. *chránit někoho.PAT.acc před něčím.EFF/proti něčemu.EFF* ‘defend someone.PAT.acc against something.EFF’;
- if there is no dative complementation and the accusative complementation corresponds to a situational participant with the feature [+animate], then the accusative complementation is an Addressee and the remaining complementation is a Patient, e.g. *obklopovat někoho.ADDR.acc něčím.PAT.instr* ‘surround someone.ADDR.acc with something.PAT.instr’, *ptát se někoho.ADDR.acc na něco.PAT* ‘ask someone.ADDR.acc about something.PAT’.⁸²

The application of these guidelines is further complicated by the fact that before the question of actant shifting is considered at all, it is necessary to distinguish actants from free modifications. Even in the case of synonymous verbs such as (14a and 14b), the same situational participant (here ‘Crime’) may be evaluated as an actant of one lexical unit (14a) but as a free modification of the other (14b). This means that in (14b), the complementation corresponding to ‘Crime’ cannot be shifted into the Patient position; the Addressee is shifted instead.⁸³

- (14) a. *obviňovat^{impf} – obvinít^{pf}* ‘to accuse’
ACT_{nom} **ADDR**_{acc} **PAT**_{z+gen,že}

⁸¹ This rule is also applied in the manual for the annotation of the t-layer of PDT 2.0 (Mikulová et al., 2006, Section 6.2.1.4, p. 103–105). It was also applied in the annotation of VALLEX entries (Markéta Lopatková, personal communication).

⁸² This criterion has been suggested by Panevová and Skoumalová (1992).

⁸³ The example is taken from Šindlerová (2018, p. 26–27). The annotation of these two verbs is practically the same in both VALLEX and PDT-Vallex.

3 VALENCY IN THE FUNCTIONAL GENERATIVE DESCRIPTION

Soudce.**ACT**._{nom} *obvinil* *Radka*.**ADDR**._{acc} *z vraždy*.**PAT**._{z+gen}.
 ‘The judge.**ACT**._{nom} accused Radek.**ADDR**._{acc} of murder.**PAT**._{z+gen} ‘from.’

- b. *obžalovávat*^{impf} – *obžalovat*^{pf} ‘to charge, accuse’

ACT_{nom} **PAT**_{acc} **CAUS**^{typ}_{pro+acc, z+gen, že}

Soudce.**ACT**._{nom} *obvinil* *Radka*.**PAT**._{acc} *z vraždy*.**CAUS**._{z+gen}.

‘The judge.**ACT**._{nom} accused Radek.**PAT**._{acc} of murder.**CAUS**._{z+gen} ‘from.’

In *VALLEX*, over ninety lexical units that have an accusative Effect are part of a lexicalized alternation (splitting of a situational participant) of the types Information (15) or Phenomenon (16). The situational participant ‘Information’ or ‘Phenomenon’, respectively, is expressed by a single complementation (the Patient) in (15a and 16a), but its expression is split between two valency complementations in (15b and 16b). Because of the semantics of these two complementations, it is more natural to label the complementation with the form *o+loc* ‘about’ as the Patient and the accusative complementation as the Effect, even though this is contrary to the “accusative implies Patient” intuition.

- (15) a. *konstatovat*^{biasp} ‘to state, observe, note’

ACT_{nom} **PAT**_{acc, zda, že, cont}

učitel *konstatoval*, *že žáci jsou líní*

‘a teacher noted that the pupils are lazy’

- b. *konstatovat*^{biasp} ‘to state, observe, note’

ACT_{nom} **PAT**_{o+loc} **EFF**_{acc, že}

učitel *konstatoval o žácích*, *že jsou líní*

‘a teacher stated about the pupils that they are lazy’

- (16) a. *soudit*^{impf} ‘to think, deem’

ACT_{nom} **PAT**_{acc, že} **CRIT**^{typ} **MANN**^{typ}

soudil, *že je poněkud hysterická*

‘he thought that she is somewhat hysterical’

- b. *soudit*^{impf} ‘to think, deem’

ACT_{nom} **PAT**_{o+loc} **EFF**_{acc, že}

soudil o ní, *že je poněkud hysterická*

‘he deemed her hysterical’

3.3.3.4 Verbs with an atypical Actor

It turns out that at least for some languages Tesnière (1959) was not right that the single argument of a verb with a single actant is always expressed in the nominative. In other words, some verbs have a single actant that cannot be expressed as the subject of the sentence. When the principle of actant shifting is applied to these verbs, the single actant is marked as an **ACT**.⁸⁴

For some of these subjectless verbs, the **ACT** corresponds to a semantic participant which has the semantic feature ‘Human’ and plays one of the roles typical for an **ACT** (e.g. ‘Experiencer’ or ‘Bearer of state’); labelling it as **ACT** is therefore consistent with the labelling of semantically similar verbs.

For example, this is the case for a group of single actant verbs expressing (typically negative) bodily sensations;⁸⁵ the actant is the undergoer of the sensation, expressed either by an accusative (17a), or by a dative (17b). The location of the sensation is a free modification—indeed, it is repeatable, see (17a), and it may take any form typical of the free modification **LOC**.

- (17) a. *píchat^{impf} – píchnout^{pf}* ‘to prick’
ACT_{acc} LOC
Píchá mě^{ACT,acc} dole^{LOC} v zádech^{LOC}.
 ‘I have a stich in the bottom of my back.’
 lit. ‘It **pricks me^{ACT,acc} low^{LOC} in my back^{LOC}.**’
- b. *bušit^{impf}* ‘to throb’
ACT_{dat} LOC
Buší mu^{ACT,dat} ve spáncích^{LOC}.
 ‘His temples are throbbing.’
 lit. ‘It is **throbbing to-him^{ACT,dat} in temples^{LOC}.**’

Such verbs often have a second lexical unit, in which the location of the sensation is expressed by a second actant, typically as a nominative noun (18b). Sometimes a two-actant lexical unit corresponding to a figurative usage is also available; in such cases, the second actant has propositional character, allowing for realization by a nominative, an infinitive, a content clause, or a relative clause introduced by the conjunction *že* ‘that’ (18c).

- (18) *bolet^{impf}* ‘to hurt’

⁸⁴ The topic of this Section as well as a discussion of several other groups of verbs can be found in (Panevová, 1998, Section 2).

⁸⁵ This is Panevová’s (1998) group 2.2.1.

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- a. **ACT_{acc} LOC**
*Cestou do schodů mě. **ACT. acc** **bolí** u srdce. **LOC**.*
‘On the way up the stairs, I feel pain near my heart.’
lit. ‘On the way up the stairs, it **hurts me. ACT. acc** near my heart. **LOC**.’
- b. **ACT_{acc} PAT_{nom}**
***Bolí** mě. **ACT. acc** **srdce. PAT. nom**.*
‘My heart. **PAT. nom** **hurts me. ACT. acc**.’
- c. **ACT_{acc} PAT_{nom, inf, že, cont}**
***Bolí** mě. **ACT. acc** u **srdce. LOC**, **že. PAT** tak **mluvíš**.*
‘It’s a dagger in my hear that you speak so.’
lit. ‘That. **PAT. rel. clause** you speak so **hurts me. ACT. acc** near my heart. **LOC**.’

In order to maintain consistency between the three frames, a rule which I will henceforth call the ‘*Experiencer*’ as Actor Rule has been introduced:

When a verb expressing an experience has both a nominative and a dative or accusative actant, the classification of the two actants reflects the semantics of the participants: if the actant with the dative/accusative form expresses an ‘Experiencer’, it is labelled as an Actor (and the nominative actant as a Patient).

On the one hand, giving dative and accusative ‘Experiencers’ the **ACT** label leads to a consistent treatment of a semantically homogeneous group of verbs expressing bodily sensations. On the other hand, the ‘*Experiencer*’ as Actor Rule means moving away from the original intention that actant shifting should reflect cognitive shifting as reflected in the surface structure.⁸⁶

Moreover, the ‘*Experiencer*’ as Actor Rule is based on the semantic notion of ‘Experiencer’ even though FGD does not provide any formal criteria for assigning semantic roles, leaving the line between the lexical units that fall under this rule and those that do not unclear. As an example, let us examine the word *bušit* ‘beat, throb’. (19a) features a single actant, so due to actant shifting (but without resorting to the ‘*Experiencer*’ as Actor Rule), the valency frame is analysed as **ACT_{dat} LOC**. Sentence (19b) captures a related physical phenomenon, features a dative actant filled with an animate ‘Bearer of the process’ and a nominative actant expressing a bodily location, so one would expect that it is analysed as

⁸⁶ When I say *Janu bolí noha* ‘[Jane’s] leg hurts her’, the sentence is structured in accordance with its cognitive representation in my mind, namely that Jane’s leg is actively involved in subjecting her to suffering while Jane is a passive sufferer. In other words, *Jane’s leg hurts her* is linguistically structured in much the same way as *Jane’s husband beats her* and not in the same way as *Jane is experiencing pain*.

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ACT_{dat} **PAT**_{nom}. However, two arguments exist for assigning **ACT**_{nom} **BEN**_{dat}^{typ} instead.⁸⁷ Firstly, examples that feature both a nominative actant and the free modification of Location (19c) suggest that the nominative actant cannot be interpreted as an alternative expression of the location of the sensation; secondly, the free modification **MANN** which we see in (19d) does not express a manner of experiencing a beating sensation, but rather the manner in which the heart beats.

(19) *bušit*^{impf} ‘to throb’

a. **ACT**_{dat} **LOC**

V hlavě.LOC mu.ACT.dat bušilo a bodalo.

‘There were throbs and stabs in his head.’

lit. ‘In head.LOC to-him.ACT.dat **was throbbing**.’

b. **ACT**_{dat} **PAT**_{nom} OR **ACT**_{nom} **BEN**_{dat}^{typ}

To mě.???.dat bude večer bušit srdce.???.nom.

‘In the evening my heart will be beating (quickly).’

lit. ‘It to-me.???.dat in the evening **will beat** heart.???.nom.’

c. *Krev.ACT.nom mu.BEN.dat bušila ve spánkách.LOC.*

‘Blood was throbbing in his temples.’

lit. ‘Blood.ACT.nom **was throbbing** to-him.BEN.dat in the temples.LOC.’

d. *Srdce.ACT.nom (mu.BEN.dat) splašeně.MANN buší.*

‘The heart is beating in alarm.’

lit. ‘Heart.ACT.nom (to-him.BEN.dat) **beats** in alarm.MANN.’

The ‘*Experiencer*’ as *Actor Rule* is surprising in one more respect. Throughout the development of the FGD, emphasis has been laid upon the distinction between structural meaning and cognitive content; tectogrammatical representation has been devised so that it reflects the former without getting bogged down in attempts to capture the latter. Why then do we suddenly apply the concept of an ‘*Experiencer*’, which clearly belongs to the area of cognitive content, as a criterion for determining the tectogrammatical representation of certain structures? One argument that remains in the sphere of language phenomena is the translation of these verbs to other languages; for example in the case of the following verbs, the ‘*Experiencer*’ is expressed by the subject of the corresponding English verb:

⁸⁷ The first offered analysis is used in the valency lexicon *PDT-Vallex*, while the second analysis is found in the valency lexicon *VALLEX* and also in *PDT-Vallex* as a frame of a closely related verb *rozbušit se* ‘start beating’.

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- (20) a. *bavit^{impf}* ‘to enjoy’
ACT_{acc} **PAT**_{nom, inf, že, cont}
tvé vyprávění.PAT.nom mě.ACT.acc nebaví
‘I_{ACT.acc} do not enjoy your story_{PAT.nom}’
- b. *líbit se^{impf}* ‘to like’
ACT_{dat} **PAT**_{nom, inf, že, cont}
líbí se mi.ACT.dat Maruška.PAT.nom
‘I_{ACT.dat} like Mary_{PAT.nom}’
- c. *mrzet^{impf}* ‘to be sorry’
ACT_{acc} **ADDR**_{opt na+loc} **PAT**_{nom, že, cont}
maminku.ACT.acc mrzelo, že.PAT.že k nim babička nepřijela na Vánoce
‘mum_{ACT.acc} was sorry that_{PAT.že} that grandma did not visit them for Christmas’

There are two problems with that argument: firstly, the tectogrammatical representation was never supposed to be an interlingua, on the contrary, it is supposed to reflect the deep structure of the language in question; secondly, a large number of verbs that fall under the ‘Experiencer’ as Actor Rule are actually structured similarly in English (where the ‘Experiencer’ is expressed by a direct or indirect object).⁸⁸

3.3.3.5 Actant shifting: Summary

In the discussion of actant shifting, we have come across multiple general principles for the labelling of actants:

1. there should be only as many different labels as necessary;⁸⁹
2. the labels belong to the tectogrammatical layer of representation and thus should capture the structural characteristics of each complementation;⁹⁰
3. the labels should not attempt fine-grained distinctions of cognitive content (e.g. semantic roles) of the complementations;

⁸⁸ It is possible that structural characteristics of the verbs in this group can be formulated. For example, when verbonominal constructions are formed from these verbs, the nominative complementation undergoes an atypical set of changes (cf. Rule G8 *verbonom_exper* in Section 5.3). That difference, however, does not shed any light on a preferable labelling of actants.

⁸⁹ Sgall et al. (1986b, Section 2.10, p. 101): [...] the number of elementary units on the tectogrammatical level should be as small as possible, so that clear reasons can be given for every newly recognized unit or distinction.

⁹⁰ Sgall et al. (1986b, Section 2.10, p. 101): [...] the tectogrammatical units should be characterized as closely to the surface units as possible, so that the reasons for assuming a difference between the two levels can be clearly stated in every instance [...]

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4. despite 3, the labels should capture generalized semantic characteristics of the type of complementation (unlike numerical labels);
5. the labels should not disguise similarities between structurally and/or semantically related lexical units (18) but simultaneously should reveal structural differences between them (14–16).⁹¹

Principle 1 means that we need only five actant labels. In FGD, it is customary to call them Actor (First Actant), Patient (Second Actant, in older works also Objective), Addressee, Effect, and Origin.

When semantic/cognitive roles are associated with prototypical forms of expression (e.g. ‘Agent’ is expressed by the subject, ‘Affected Object’ by the direct object, and ‘Recipient’ by the indirect object), all of the above mentioned requirements can be satisfied simultaneously.

However, we have seen that the vast majority of verbs structure (two of) their complementations as subject and direct object irrespective of their cognitive content. Additionally, verbs that structure their actants non-prototypically have to be considered particularly carefully. In such cases, it is impossible to adhere to all of the above listed principles simultaneously.

The principle of actant shifting as quoted in Section 3.3.3.1 is a specific application of principles 2 and 3 at the expense of adhering to principles 4 and 5. On the other hand, the guidelines that were applied in *VALLEX* and *PDT-Vallex* lexicons⁹² try to balance all four principles. They may be found unsatisfactory in that there is no clear set of priorities between the principles 2–5. The strict requirement that each monovalent verb has an Actor and each verb with at least two actants has an Actor and a Patient contradicts principle 2 (it forces us to label complementations as Actor and Patient even when their surface-syntactic structuring calls for a different label); application of the ‘*Experiencer*’ as Actor Rule contradicts principle 3 as we have not been able to formulate it without using terms belonging to the sphere of cognitive content; use of the Actant and Patient labels as catch-all labels for complementations that share neither common structural expression nor common semantic characteristics contradicts principle 4; and finally, the fact that some (syntactic and/or semantic) Effects and some (syntactic and/or semantic) Addressees are shifted while others are not leads to an inadequate application of principle 5.

Is it possible to devise a more satisfactory set of guidelines for the labelling of actants? Perhaps. A first step towards such goal must entail an investigation of the role that actant labels play in existing linguistic research. For example,

⁹¹ This principle applies to related meanings of the same verb as well as to (nearly) synonymous lexical units of different verbs.

⁹² These guidelines were summed up in Sections 3.3.3.3 and 3.3.3.4.

it turns out that actant labels are irrelevant for the description of diatheses—the rules rely on surface-syntactic forms and, occasionally, on concepts from the sphere of situational content. On the other hand, the labelling of actants is crucial for tasks such as cross-linguistic studies (e.g. Šindlerová, 2018), where principle 5 is particularly important for meaningful outcomes.

The foundational stones of the valency theory of FGD deserve a continuing attention, despite the inevitable costs of implementing any changes of the theoretical framework in existing annotated data (lexicons, treebanks). On the other hand, the current theory has stood the test of large-scale annotation projects and it is not going to be easy to provide a more adequate and consistent alternative.

3.4 Obligatory and optional complementations: the dialogue test

The most concise summary of the treatment of obligatoriness in FGD has been formulated by Bojar:

The distinction between *obligatory* and *optional* modifiers is defined on the t-layer only. To summarize the *dialogue test* by Panevová (1980), the modifier is obligatory if its value must be known to the speaker, although the speaker might decide not to express it explicitly on the surface layer. (Bojar, 2009, Sec 2.2.2, p. 7)

On the first sight, the reader may be surprised that in a theory that puts such a strong emphasis on testable criteria, the definition of obligatoriness is relying on the concept of what an (idealized) speaker must know at the moment of utterance—a feature that is not directly observable in any recorded linguistic data. Why not rely on the grammaticality test (if surface ellipsis of the given complementation leads to ungrammaticality of the whole utterance, then we would mark the complementation as obligatory; otherwise we would mark it as optional)?

- (21) a. **Petr dává*. **Petr dává dárky*. **Petr dává mamince*. (1st example: VALLEX)
 ‘*Peter gives. *Peter gives presents. *Peter gives to the mother.’
 Actants **PAT** and **ADDR** are obligatory.
- b. **Marie nenávidí*. (VALLEX)
 ‘*Mary hates.’
 Actant **PAT** is obligatory.

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- c. **Jan se choval.* (VALLEX)

‘*John behaved.’

Free complementation **MANN** is obligatory.

The problem with relying on grammaticality is that usually it is possible to find contexts in which such ellipses are perfectly grammatical. Surface ellipses of obligatory complementations include generalized actants (22a–22c), textual ellipsis⁹³ (22d and 22e), and systemic ellipsis of an obligatory free complementation that is characteristic of some verbs (22f and 22g).

- (22) a. *Všem se nám kupříkladu říká, že lepší je **dávat** než přijímat.* (SYN6)

‘We are all told that it is better **to give** than to receive.’

Generalized actants **ACT**, **PAT** and **ADDR**.

- b. *Ne, Agnes si neumí představit, že by otec uměl **nenávidět**.* (SYN6)

‘No, Agnes cannot imagine that her father could **hate**.’

Generalized actant **PAT**.

- c. *Američané **jsou nenávidění** na mnoha místech.* (SYN6)

‘The Americans **are hated** in many places.’

Generalized actant **ACT**.

- d. *Bydlel tehdy v Praze? **Bydlel.***

‘Did he live in Prague then? He did. (lit. **Lived.**)’

Textual ellipsis of **ACT** (dropped subject, expressed by agreement of the verb) and **LOC** (so called *actual ellipsis* in yes–no questions and dialogues).

- e. *Miloval a **nenáviděl**. Nebylo příliš důležité, že miloval pouze to, čím se slušelo opovrhovat. A naopak.* (SYN6)

‘He loved and he **hated**. It was not particularly important that he loved only that which should be despised and vice versa.’

Textual ellipsis of **ACT** (dropped subject, expressed by agreement features of the verb) and **PAT** (expressed indirectly in the following context).

- f. *Byli tu zrovna naši, kteří učili místní obyvatelstvo **chovat se** při použití chemických zbraní.* (SYN6)

‘By chance some of our people who taught the locals **to behave** during a chemical

⁹³ Textual ellipsis refers to the kind of ellipsis which may be filled with an element appearing elsewhere in the same textual context. It is typical of coordinated constructions and also includes elided subjects (a typical occurrence in Czech and other pro-drop languages; the

attack were here just then.’

Systemic ellipsis of obligatory free complementation **MANN**.

g. *Leo to umí. Chovat se k hostům.* (SYN6)

‘Leo is good at it. **Behaving** towards the guests.’

Systemic ellipsis of obligatory free complementation **MANN**.

Because of this ubiquitous presence of ellipsis, we need a test that can be applied to complementations that are elided in the surface structure in order to distinguish whether they are obligatory or optional on the level of linguistic meaning (tectogrammatology). The *dialogue test* (Panevová, 1974, p. 16–19, based on “method of given and new information” formulated by Sgall and Hajičová, 1970, §3.1) serves this purpose; it is usually demonstrated on the difference between these two dialogues:

Dialogue 1:

A: *Jan právě přišel.* ‘John has just come.’

B: *Kam?.DIR3* ‘Where to?.DIR3’

A: **Nevím.* ‘*I don’t know./I have no idea.’

Dialogue 2:

A: *Jan právě přišel.* ‘John has just come.’

B: *Odkud?.DIR1 Proč/kvůli čemu?.INTT S kým?.ACMP* ‘Where from?.DIR1 Why/what for?.INTT With whom?.ACMP’

A: *Nevím.* ‘I don’t know./I have no idea.’

In the first dialogue, the answer *I don’t know* would be acceptable only if it would be clear from the context that the question *where to?* is elliptical – (the speaker believes that) the hearer knows where John came to, but he is asking for an even closer specification of the place.⁹⁴ On the other hand, there is nothing deviant about the answer *I don’t know* in the second dialogue in which the questioner asks for supplementary information such as *where from? why? with whom?* etc. If *I don’t know* is not an acceptable (non-deviant) answer for a question asking for a certain valency complementation, we mark that complementation as obligatory; if it is acceptable, we mark it as optional (facultative). Optional free modifications have such a loose relation to their head verbs that they do not need to be listed in its valency frame (even though we sometimes list them as typical if they frequently co-occur with the given headword, see Section 3.6).

identity of the subject can usually be inferred from the agreement features of the verb and/or the context).

⁹⁴ Panevová (1974, p. 19) mentions that Beranová (1972) tested a modified version of the dialogue test on verbs of movement in a Russian text and confirmed that obligatory free

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Perhaps surprisingly, the dialogue test sometimes indicates that even actants and quasivalency complementations (i.e. complementations whose form is determined by the headword) are optional.⁹⁵ In such cases, the complementation will be listed in the valency frame of the verb but will be marked as optional:

Dialogue 3:

A: *Koupil nové auto.* ‘He’s bought a new car.’

B: *Od koho?.^{ORIG}* ‘Who from?^{ORIG}’

A: *Nevím.* ‘I have no idea.’

B: *Kdo?.^{ACT}* ‘Who?^{ACT}’

A: **Nevím.* ‘*I have no idea.’

Through similar dialogue tests, we arrive at the following valency frame for the meaning of the verb *přicházet^{impf} – přijít^{pf}* ‘to to come’ tested in Dialogues 1 and 2:

ACT_{nom} **DIR3** **INTT**^{opt}_{k+dat, na+acc, inf} **DIR**^{typ}

The frame contains two obligatory complementations, an actant (Actor) and a free modification (Direction-to), and an optional quasivalency complementation (Intent); the verb also typically appears with other Direction complementations (Direction-from **DIR1** or Direction-through **DIR2**, here abbreviated to **DIR**). The meaning of *kupovat^{impf} – koupit^{pf}* ‘to to buy’ tested in Dialogue 3 has the frame

ACT_{nom} **PAT**_{acc} **ORIG**^{opt}_{od+gen} **BEN**^{typ}_{dat, pro+acc} **RCMP**^{typ}_{za+acc}

in which the actant Origin is optional but Actor and Patient are obligatory.

An important quality of any test for obligatoriness is that it is consistent across different contexts in which the given lexical unit may be used—the same complementation must always obtain the same obligatoriness label no matter what sample context is used during testing.⁹⁶ The dialogue test has stood the test of extensive application during the annotations of two valency lexicons (*PDT-Vallex* and *VALLEX*), the first of which is linked to large amounts of corpus data.

complementations expressing direction were elided from the surface structure only in cases that the reader had already been acquainted with the value of the elided complementation.

⁹⁵ In fact, quasivalency complementations are typically optional.

⁹⁶ Panevová (1978, p. 38) claims that it is enough to find a single situation in which the answer *I do not know* is appropriate to disprove the hypothesis that a complementation is obligatory. In later literature devoted to the valency theory of FGD, I have not found much discussion of the problem of consistency of the dialogue test.

3.4.1 Typical and alternating complementations

In practice, some verbs appear with an optional free modification so often that such usage may be considered typical. This is the case not just on the level of individual lexical units; verbs belonging to semantically homogeneous groups of verbs (such as “verbs of transport”) often share the same set of typical free modifications. Although, strictly speaking, the theory does not support including free modifications in the valency frames, the authors of the valency lexicon *VALLEX* decided to capture and mark typical complementations as well. No formal criteria for the inclusion of typical modifications have been established; the decisive impulses come from high frequency encountered during the exploration of corpus data, behaviour that is consistent within a semantic class, and partly also from lexical semantics of the headword.

The valency lexicon *PDT-Vallex* adheres to the theory and records information about typical modifications only by way of examples, not directly in the frame. On the other hand, it introduces the concept of an obligatory group of alternating free modifications, i.e. a group of several free complementations such that in any given context, the writer/speaker is able to answer at least one of the respective *wh*- questions and thus the group as a whole passes the dialogue test (Urešová, 2011a, p. 51). In essence, this can be seen as a shorthand for multiple related valency frames; in the current version of *PDT-Vallex*, this mechanism is used for fine-grained semantic distinction of the various types of specifications of manner. In *VALLEX*, these senses are sometimes indeed handled by multiple valency frames; more often, however, they are subsumed under a single frame with a generally understood complementation (MANN, Manner, cf. (23a and 23b)), or with a set of typical complementations (23c and 23d).

(23) a. *PDT-Vallex*:

projevovat se ‘to manifest itself, seem; behave, act’

ACT_{nom} BEN | MANN | ACMP | CRIT | CPR | COMPL

nedostatek se projevoval živelně.MANN ‘the shortage manifested itself wildly.MANN’

projevoval se podle pravidel.CRIT ‘he behaved according to the rules.CRIT’

projevovat se hazardérsky.CPR ‘to behave in a hazardous way.CRIT’

projevovat se bezchybně.ACMP ‘to show no errors’, lit. ‘to behave without errors.ACMP’

M. A. se projevuje jako nejvýraznější postava.COMPL of the team ‘M. A. turns out to be the most noticeable.COMPL person on the team’

b. *VALLEX*:

projevovat se^{impf} – projevit se^{pf} ‘to manifest itself’

ACT_{nom} MANN

Petr se projevil hloupě.MANN ‘what Peter did was silly’, lit. ‘Petr manifested himself in a silly way.MANN’

projevil se stejně.MANN jako hrdina.CPR ‘he acted as a hero would’, lit. ‘he acted in the same manner.MANN as a hero.CPR’

c. *PDT-Vallex:*

trávit ‘to spend’

ACT_{nom} **PAT**_{acc} **BEN** | **LOC** | **MANN** | **MEANS** | **ACMP** | **CRIT** | **CPR**

tráví volný čas učením.MEANS ‘he spends his free time studying.MEANS’

tráví čas příjemně.MANN ‘he spends time pleasantly.MANN’

tráví hodinu dost hazardérsky.CPR ‘he spends the hour in a hazardous way.CPR’

tráví prázdniny podle plánu.CRIT ‘he spends the holiday according to plan.CRIT’

tráví čas v souladu s předpisy.ACMP ‘he spends time in line with the regulations.ACMP’

tráví den ku prospěchu věci.BEN ‘he spends the day for the benefit of the issue.BEN’

trávil Vánoce bez manželky.ACMP ‘he spent Christmas without his wife.ACMP’

d. *VALLEX:*

*trávit*₁^{impf} ‘to spend’

ACT_{nom} **PAT**_{acc} **MANN**_{typ} **MEANS**_{typ instr} **LOC**_{typ} **ACMP**_{typ s+instr}

trávili jsme prázdniny u moře.LOC ‘we spent the holiday at the seaside.LOC’

3.5 Forms of expression

The set of morphemic forms available for the expression of any valency or non-valency complementation is limited. In fact, the limitations imposed by a verb on the forms of its complementations are the most noticeable aspect of valency, as can be seen from the fact that the concept of rection (case government) has existed already in the Middle Ages (cf. Chapter 2). In most approaches to lexicographic description of valency, these limitations are captured explicitly. Two principles help to reach maximum efficiency of lexicographic description:

- The forms listed in the valency frames are those corresponding to unmarked usage—in the case of verbs it is the active, non-reflexive, non-reciprocal usage; the forms used in marked structures can be derived through rules in the grammatical component of the lexicon, see Section 3.7.
- The set of forms of a given complementation may be either explicitly enumerated, or implied by the functor.

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In case of *explicitly enumerated forms* a list of forms is listed as a lower index next to the functor of the given complementation. In case of actants and quasivalency complementations, the lower index contains the full list of forms that may be used for the expression of the complementation—no other form may be used for the expression of the given complementation in an unmarked (active, non-reciprocal and non-reflexive) usage. However, in the case of free modifications, the list enumerates just the forms that are typical for the given headword, and other forms typical for the type (functor) of the complementation may also be used.

For the majority of free modifications, the set of forms used for their expression is largely independent of the headword. The choice of a particular form is determined by the functor, a subfunctor (i.e. a detailed sub-specification of the semantics of the complementation, e.g. in the case of **LOC**, the difference between *on the table* and *under the table* is captured by subfunctors) and the word filling the valency slot, e.g. *he lives / is thinking / is giving something to someone on a hill.LOC / in the village.LOC / near the square.LOC; he wrote the letter by hand.MEANS / on a computer.MEANS / with a pen.MEANS / in ink.MEANS*. In lexicographic description of valency, it is implicitly assumed that the complementation may be expressed by any form which is appropriate for its semantics, and no forms are listed in the lexicon.

Notation of explicitly listed forms

The explicitly listed forms may include any of the following:

- **Prepositionless cases.** In line with the Czech linguistic tradition, we mark the requirement for a nominal in a given case by a number (1 – nominative, 2 – genitive, 3 – dative, 4 – accusative, 5 – vocative, 7 – instrumental; 6 – locative appears only in prepositional groups). In this dissertation, these numerical labels were replaced by an abbreviated name of the case.
- **Prepositional groups.** Each prepositional group is listed as the preposition plus the number of the case that it requires (e.g. *z+gen, na+acc, o+loc*).
- **Infinitive of a verb.** Marked as *inf*.
- **Dependant clauses.** Dependant clauses introduced by a subordinating conjunction are represented by the lemma of the conjunction, e.g. *zda* ‘whether’, *že* ‘that’, *ať* ‘so that’. Dependant content clauses which are not introduced by conjunctions (e.g. indirect questions introduced by a pronoun or a pronominal adverbial) are represented by the value *cont*, e.g. in *ptal se, kolik lidí tam bylo* ‘he asked how many people were present’.
- **Constructions requiring adjectives.** In some cases, the requirement for a given case is limited to adjectives (not to all nominals); such forms are represented as *adj-number*, e.g. *adj-nom* in *cítím se slabý* ‘I feel weak’, possibly

combined with a preposition, e.g. *za+adj-acc* in *považoval za nutné odeslat dopis včas* ‘he considered it necessary to post the letter in time’.

- **Constructions with *být* ‘to be’.** The infinitive of the verb *být* ‘to be’ may be combined with a prepositionless case or an adjective, e.g. *být+instr* in *demolice se zdá být řešením* ‘a demolition seems to be a solution’, *být+adj-nom* in *zdá se to být přijatelné* ‘it seems to be acceptable’.
- **Parts of phrasemes.** When the set of possible realizations of some complementation is very limited, the whole set is listed, e.g. *napospas* ‘high and dry’ in *ponechat napospas* ‘leave high and dry’.
- **Possessive forms.** Exclusive for the valency complementations of nouns, the requirement for a possessive form is marked as *pos*, e.g. *jeho neustálé vztekání, že ...* ‘his never ceasing rage that ...’, *tvorba hypotéz a jejich ověřování* ‘formulation of hypotheses and their verification’.

3.6 Valency frames

In line with the FGD theory, the valency frame of each verb contains

- all its actants, both obligatory and optional,
- all its quasi-valency complementations, both obligatory and optional,
- its obligatory free modifications.

Furthermore, the theory postulates that any information about any of the complementations which is lexically bound (cannot be inferred by the application of general rules) has to be included in the valency frame; Sgall (1992, 275–276) lists the following characteristics of individual complementations/valency slots that belong to this category:

1. obligatoriness,
2. subcategorization properties, i.e. the list of morphemic forms that may be used to express an actant or a quasi-valency complementation,
3. possibility to reoccur in a single clause,
4. being an obligatory or optional controller,
5. possibility to be chosen as subject,
6. deletability: is surface ellipsis of the given complementation possible even outside of the so-called *actual ellipsis* (i.e. not in an answer to a yes–no question or in the specific context of a dialogue between two speakers)?
7. further characteristics that depend on the studied language, e.g. possibility to precede the verb in the surface word order.

Of these characteristics, only 1 and 2 are currently listed both in *VALLEX* and *PDT-Vallex*. For 3, the answer is assumed to follow from the categorization of the given complementation as actant (cannot reoccur) or a free complementation

(can reoccur). In *VALLEX*, 4 is treated for complementations that may be expressed by an infinitive, and is marked in a separate attribute of the lexical unit called *control*; the possibility to be chosen as subject (5) can be inferred from the annotation of diatheses, and again is treated as an attribute of the lexical unit as a whole, see Section 3.7 and Chapter 4. Surface deletability is not marked in either of the lexicons. For practical applications, it could be meaningful to include frequency information rather than mere yes–no indicators, e.g. how common is each of the morphemic forms (2), how frequent is surface ellipsis of the complementation (6), how often does the complementation fill the prominent surface-syntactic position of the subject (5).⁹⁷ Answers to such questions are not available in *VALLEX*, but can be partially inferred from the corpus data linked with the *PDT-Vallex* lexicon.

3.6.1 Order of the complementations in a valency frame

Czech is a language with free word order, or to be more exact, Czech word order does not reflect syntactic relationships between sentence elements but rather features such as topic–focus articulation and contextual boundedness. Nonetheless, it was found that there is a default word order—called *systemic order* (Sgall et al., 1986b, Section 3.13, p. 194–203, Sgall et al., 1986a, Section 6.33, p. 134; Hajičová, 1998). To be more specific, Czech word order is determined by features such as topic–focus articulation and contextual boundedness. Contextually bound elements usually constitute the topic and (with unmarked intonation) appear towards the beginning of the sentence, while contextually non-bound (valency and non-valency) complementations of the main verb usually appear in the systemic order towards the end of the sentence. In other words, the systemic order is the unmarked order in which complementations of the main verb are found in the deep (tectogrammatical) and surface structure of a clause; deviation from this default order are used to express topic-focus articulation.

In the valency lexicon *VALLEX*, the systemic order is respected in the case of actants. Overall, the order of complementations in a valency frame in *VALLEX* is as follows:

1. actants in the systemic order, i.e. **ACT – ADDR – PAT – ORIG – EFF**;

⁹⁷ An extreme approach in this direction is advocated by Przepiórkowski (2016) who suggests that the distinction between actants and free modifications as well as the distinction between obligatory and optional complementations should be dropped; instead, a lexicographic description of *any* lexical unit (LU) should list all possible complementations (functors) and for each of them a number of attributes, some binary (can it be used with the given LU at all? is it semantically obligatory?), others captured as a measure of extent (to

2. obligatory free modifications;
3. quasivalency complementations;
4. typical complementations.

Within groups 2–4, the order of complementations is determined by the author of each individual entry.

3.6.2 Typographic conventions

In this dissertation, I follow the typographic conventions of the printed versions of *VALLEX* (Lopatková et al., 2016a) and *NomVallex* (Kolářová et al., pear):

- Complementations that belong to the valency frame in the strict sense—actants, quasivalency complementations and obligatory free modifications—are marked in bold, e.g. **LOC** for obligatory complementation Location.
- If an actant or a quasi-valency complementation is optional, it is marked with the mark ^{opt} in upper index, e.g. **EFF**^{opt} for optional Effect.
- Typical (optional) free modifications that do not belong to the valency frame in the strict sense are printed in normal (non-boldfaced) font and have the upper index ^{typ}, e.g. **BEN**^{typ} for a typical Benefactor.
- The list of morphemic forms is given as lower index after the functor name; it is omitted for free modifications with typical/default forms.

3.7 Additional attributes of lexical units. Division of the lexicon into Data and Grammar Components

Besides the valency frame, each lexical unit in the *VALLEX* and *PDT-Vallex* lexicons is accompanied by a gloss (a near synonym or a paraphrase) and a set of illustrative examples. A little less than half of the lexical units in *VALLEX* are grouped into 22 coarse-grained semantic classes such as *communication*, *exchange*, or *social interaction*; roughly one in five LUs is marked as idiomatic. The remaining attributes carry information about syntactic behaviour of the given verb; they are all optional and are filled in only when appropriate for the given lexical unit:

- grammaticalized alternations, namely
 - attribute *diat* listing all types of diatheses applicable to the given verb, see Figure 1.1 (repeated in the Appendix as Figure B.3) and Chapter 4;

what extent is the complementation iterable when used with this particular LU?), finally

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- attribute *reflex* listing two types of reflexive constructions in which the verb may appear: *coref3* when a dative complementation may be subject to reflexivization and *coref4* when an accusative complementation may be subject to reflexivization,⁹⁸ e.g. *coref3*: *opravil si.BEN chybu* ‘he corrected himself.BEN an error.PAT’, *coref4*: *opravil se.PAT* ‘he corrected himself.PAT’;
- attribute *recipr* listing all pairwise combinations of complementations that may be subject to reciprocity, e.g. *ACT-PAT*: *opravili se navzájem* ‘they corrected each other’, *ACT-BEN*: *navzájem si opravili úkoly* ‘they corrected the homework for each other’; in a few cases, reciprocity of three complementations is also possible, e.g. *ACT-ADDR-PAT*: *Když se vzájemně představili, usedli k jednání.* ‘When they introduced each other, they sat down to discuss the matters.’
- lexicalized alternations: the values of attributes *split*, *conv* and *multiple* contain a label of the type of lexicalized alternation of which the given LU is a member, number I or II indicating which member of the pair the current LU represents, and a link to the other member of the pair, e.g. in the lexeme *nakládat^{impf} – naložit^{pf}* ‘to load’, the first two lexical units are
LU1: **ACT**_{nom} **PAT**_{acc} **DIR3** *conv*: I: Locatum-Location (formation) → LU2
LU2: **ACT**_{nom} **PAT**_{acc} **EFF**_{instr}^{opt} *conv*: II: Locatum-Location (formation) → LU1;
- control: in the case that one of the complementations may be realized by an infinitive, the attribute *control* lists the complementation(s) that may be coreferential with the unexpressed subject of this infinitive, e.g. *control*: **ACT**: *Marie.ACT se bála mluvit na veřejnosti* ‘Mary.ACT was afraid to speak in public’; *control*: **PAT**: *dotáhl ho.PAT podívat se na tu spoušť, kterou způsobil* ‘he forced him.PAT to come and see the havoc he had caused’; the value *ex* is used in the case that no such complementation is found in the frame, e.g. *control*: *ex*: *odejít nepřipadá v úvahu* ‘it is not acceptable to leave’;
- light verb constructions: a light verb has a separate valency frame with a valency slot for the predicative noun (marked by the **CPHR** functor); such lexical units also have attribute *lc* that gives a list of nominal lexical units that combine with this particular light verb to form light verb constructions, attribute *full* that links the light verb to the nearest “full/lexical” verb, and attribute *map* that lists pairs of complementations, one of the light verb and one that is found in the frame of the predicative noun that fills the

some having a free form (under what conditions does this complementation combine with this predicate?).

⁹⁸ In Czech school syntax, morphological cases are traditionally numbered (dative=3, accusative=4), see Section 3.5 for more details.

CPHR position, such that the two are coreferential (rules in the Grammar Component specify that the corresponding semantic participant is surface-syntactically expressed as a complementation of the verb); in the case that one of the verbal valency complementations has the semantic role of ‘Instigator’ of the action/process specified by the light verb construction, that complementation is listed in the attribute *instig*.

Subtypes and examples of grammaticalized and lexicalized alternations can be found in Appendix B.

3.8 Valency within the system of layers

In Section 3.1, we have introduced the FGD as a system of language description consisting of several layers, each of which is linked to the neighbouring layers by the relationship of form to function. This stratificational approach is also applied to the study of valency.⁹⁹ Let us look at a simplified valency frame of the lexical unit of the verb *dávat^{impf} – dát^{pf}* ‘to to give’: **ACT**_{nom} **ADDR**_{dat} **PAT**_{acc} . When this valency frame serves as the centre of a tectogrammatical structure of the sentence *Jan dal Marii knihu* ‘John has given a book to Mary’ (cf. Figure 3.8), individual valency complementations are seen as functions of forms that belong to the analytical layer—in the active diathesis, the node with the functor **ACT** is the function of the verb’s subject, **ADDR** is the function of the indirect object, and **PAT** is the function of the direct object. In turn, the nodes on the analytical layer (while acting as the forms for expressing the elements of the tectogrammatical layer) can be seen as functions of nodes on the morphological layer. Thus the node with analytical function Object, lemma *kniha* and morphological features **number=singular** is the function of a node on the morphonological layer with the same lemma and the morphological tag **noun|feminine|accusative|singular**. Finally, this node of the morphological layer serves as a function expressed through the word *knihu* on the word layer.

Because all three complementations are obligatory, they will be present in every tectogrammatical structure with this lexical unit; however, ellipsis is possible on the analytical layer (and hence also on all lower layers), such as in the case of the question-answer pair *Dal Jan knihu Marii? – Nedal.* ‘Has John given the book to Mary? – Hasn’t.’ in which all three complementations are elided; cf. Figure 3.8. In this case, the tectogrammatical nodes for the complementations represent functions that have no forms on the analytical layer.

⁹⁹ This discussion and the accompanying figure are phrased in terms of the simplified system of four layers, namely tectogrammatical (t-layer, deep syntax), analytical (a-layer, surface

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At the same time, it is possible for a single tectogrammatical node to be the function of a whole group of analytical nodes; for example, the **PRED** node (when labelled with appropriate grammatemes) may be expressed by an analytical verb form such as *byl by dal* 'would have given'.

syntax), morphological (m-layer) and word layer (w-layer), cf. Section 3.1.3. The same principles apply to the full system of layers (Section 3.1.2).

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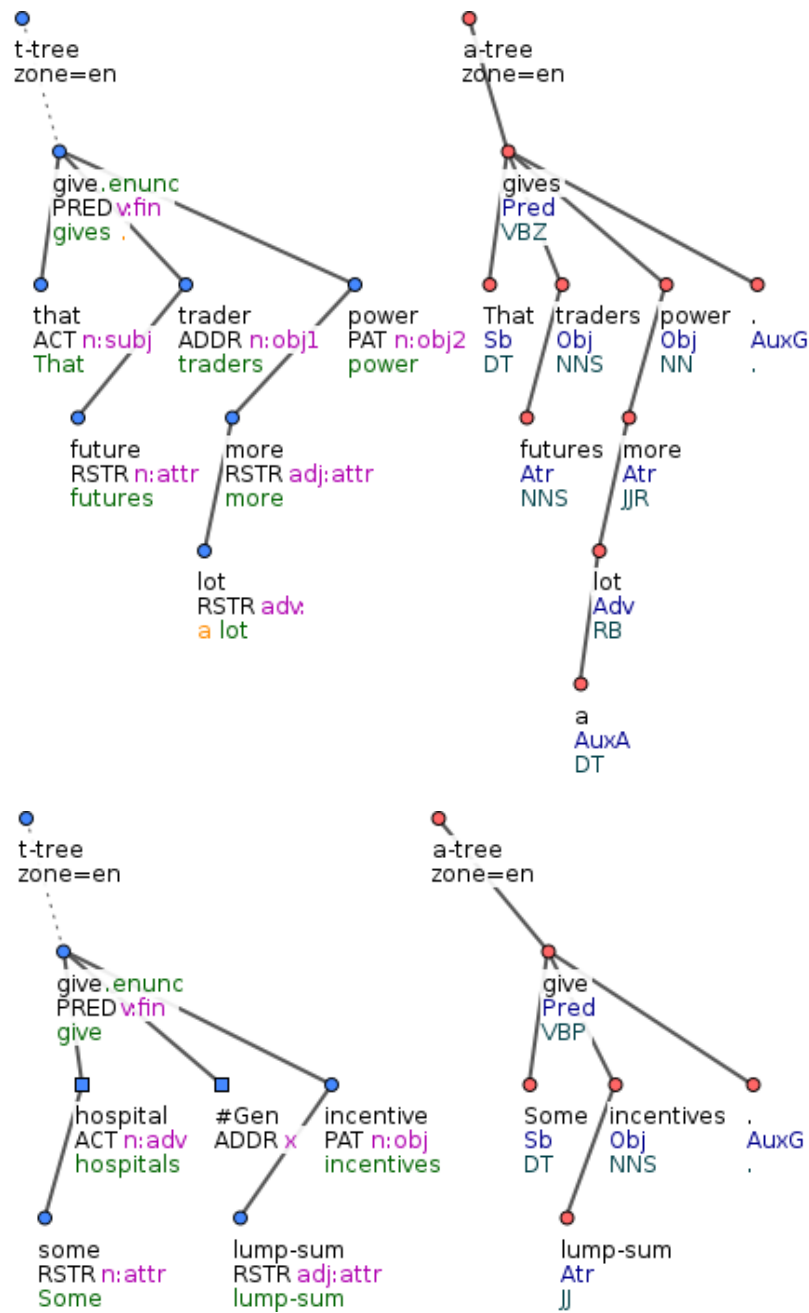


Figure 3.8: t-layer and a-layer representations of two sentences with the verb *give* taken from the Prague Czech-English Dependency Treebank. All three obligatory valency complementations of *give*—Actor (ACT), Patient (PAT) and Addressee (ADDR)—are expressed in the sentence *That gives futures traders a lot more power*. However, in *Some [hospitals] give lump-sum incentives*., there is a contextual ellipsis of the Actor (*hospitals*), and the Addressee is generalized. These obligatory complementations are restored on the t-layer (and marked by a square rather than a circle).

Part II

Verbal diatheses and related deverbal adjectives

General structure of the rules

The Grammatical Component is an integral part of the valency lexicon *VALLEX* and has been envisaged already in the original design of the lexicon proposed by Žabokrtský (2005); Lopatková et al. (2006); the possibility to form the marked structures of diatheses was marked in the *Czech syntactic lexicon* (Skoumalová, 2001), an unpublished predecessor of *VALLEX*. Thanks to the Grammatical Component, the Data Component may contain only the valency frames that correspond to the unmarked (active, non-reflexive and non-reciprocal) usage of the individual lexical units; the surface-syntactic realization of individual valency complementations in a marked usage of a lexical unit may be induced from the forms used in the unmarked usage by application of grammatical rules. The rules for grammaticalized alternations (diatheses, reflexivity and reciprocity, see Section 3.7) are typically limited to a change in the morphemic form of the relevant complementations; they are applied to the “unmarked valency frames” that are

¹⁰⁰ According to the original design of the lexicon proposed by Žabokrtský (2005, Section 5.11, pages 73–80), the same approach should be applied in order to capture lexicalized alternations economically. For example, of a pair of related lexical units such as *nakládat*^{impf} – *naložit*^{pf} ‘to load’ **ACT**_{nom} **PAT**_{acc} **DIR3** ↔ **ACT**_{nom} **PAT**_{acc} **EFF**_{instr}^{opt} *naložit seno na vůz* ‘load hay onto the truck’ ↔ *naložit vůz senem* ‘load the truck with hay’, only one would be stored in the lexicon (so-called *basic lexical unit*) while the other could be derived by the application of rules from the Grammatical Component (a *derived lexical unit*). Although the relevant part of the Grammatical Component has already been worked out by Kettnerová (2014) and Lopatková et al. (2016a), both such units are currently present in the basic (unexpanded) form of the lexicon; this simplifies storing information relevant to only one member of the pair, such as examples. Moreover, currently used rules capture which complementation(s) of one member of the pair correspond to which complementation(s) of the other member of the pair but do not need to deal with the list of possible morphological realizations of these complementations (they are captured in the lexicon). A large number of subtypes (each with just a few members) would have to be specified in order to be able to generate the valency frame of the second member of the pair.

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listed in the Data Component of the valency dictionary; the morphemic forms relevant for marked usage can be derived by the rules listed in the Grammatical Component of the dictionary and can be written in the form of *derived valency frames*.¹⁰⁰

In this part of the dissertation, I describe and discuss the rules that I have developed for capturing the diatheses, i.e., the changes in the surface structure that are accompanied by a change of the verbal category of voice. These rules have been published in a similar form as (Lopatková et al., 2016a, Chapter 3), where an interested reader finds chapters devoted to the other kinds of grammaticalized alternations (reflexivity and reciprocity) as well as lexicalized alternations. I would like to thank the co-authors of that book for their critical input on the formulation of the rules.¹⁰¹

The formalization presented here is inspired by the work of Pajas (2005); Urešová and Pajas (2009), and Urešová (2011a), from whom I have taken the basic structure of the rules; they designed rules for consistency checks of the annotation of the Prague Dependency Treebank, and in particular, for checking consistency of marked usage of verbs with information in the valency lexicon. Each rule consists of a set of conditions and a list of changes that need to be applied to the valency frame. In order to provide a description that is simultaneously more economical and more transparent, I introduced two changes of the formalism, namely functor variables (which allow for efficient grouping of rules that only differ in a functor of one or more of the complementations in the rule), and the distinction between basic rules (usually a single rule for the given type of diathesis) and supplementary rules (which capture those aspects of the formation of marked structures that are characteristic for individual syntactic classes of verbs).

Diatheses represent the central type of grammaticalized alternations; they are bound to a specific morphological meaning of the verb and they typically involve moving the Actor (**ACT**) away from the prominent syntactic position of the subject. The Data Component of the dictionary marks the availability of each diathesis as a value in the attribute *diat* of each lexical unit.

The rules for forming the marked structure of a diathesis from the unmarked frame listed in the lexicon¹⁰² have the following structure:

¹⁰¹ A detailed summary of the extent of my contribution is presented in the Preface.

¹⁰² Corpus data testifies to the possibility of combining diatheses with reciprocity, e.g. *Detaily dokumentu včetně ceny byly již oběma stranami dohodnuty* ‘Details of the document including the price have already been agreed upon by both parties’; Panevová et al. (2014, p. 114–115) even mention the possibility of combining different kinds of diatheses with each other, e.g. a combination of the deagentive diathesis with the recipient diathesis *když se nedostane zapláceno* ‘when one doesn’t get paid’, lit. ‘when [it] **REFLEX** doesn’t get paid’ (ibid.),

Type of diathesis	
Description	Name of the rule
Conditions	diat: Corresponding value of attribute diat Conditions for the valency frame Conditions on the reflexivity of the verb
Verbal form	Specification of the verbal form in the marked structure
Agreement	Specification of the verbal form based on agreement
FUNCTOR	Changes of morphemic forms of valency complementations with the given functor
Obligatory	Valency complementations that are changed to obligatory in the marked member, or that added to the valency frame ¹⁰³

Following notation is used in the formulation of individual rules:

Conditions for the application of the rule

A rule may be applied to valency frames of lexical units with the attribute *diat* bearing the corresponding value (i.e., *pass*, *deagent*, *poss*, or *recipient*), but only when the frame fulfils the conditions specified in the rule. The rule may also specifically mention that reflexive verbs do not form the given type of diathesis.¹⁰⁴

X and Y: Functor variables

Symbols **X** and **Y** are used as functor variables; when I want to limit the value of the variable, I write for example **Y**[**PAT**|**ADDR**] (**Y** is either Patient or Addressee). The variable **X** is special in that I always use it for the valency complementation that fills the subject position of the marked structure.

Y_i, -Y_i: Conditions for valency complementations

Some rules specify that a complementation allowing a specific form must or must not be present in the valency frame; thus the condition “**Y_{acc}**” claims the presence of a valency complementation that may be realized by an accusative (and

Před samotnou volbou výkonného výboru se dostalo poděkováno předsedovi SUCH Františku Ryšavému, který působil na tomto postu plných 22 let! ‘Before the committee election itself the SUCH chair František Ryšavý, who has been standing in position for full 22 years, got thanked.’, lit. ‘[...]it] **REFLEX** got thanked to the chair of SUCH František Ryšavý, who [...]’ (SYN7) Combinations of different kinds of grammaticalized alternations have not been studied yet, so the current formulation of the rules in the Grammatical Component do not capture this possibility.

¹⁰³ See comments on p. 108.

¹⁰⁴ Some of the conditions listed in the rules are superfluous in the sense that only verbs that satisfy them have the corresponding value of attribute *diat*, so in a technical sense, it is not necessary to test for these other conditions. For example, many rules mention having a nominative Actor as one of the conditions; strictly speaking, this is unnecessary, as all

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possibly other forms), and the condition “ $\neg Y_{\text{gen,acc}}$ ” forbids the presence of a complementation that could be realized by at least one of the listed forms, in this case either genitive or accusative (or by both of them).

$i \rightarrow j, *, \emptyset$: Changes of morphemic forms

The listed symbols are used for the description of changes of morphemic forms of valency complementations. A change is indicated by an arrow, with a list of forms in the unmarked structure to its left and a list of forms in the marked structure to its right; e.g. “acc \rightarrow nom” means that a complementation marked in the unmarked frame as accusative is changed into a nominative complementation in the marked frame.

When all forms allowed in the unmarked structure are to be replaced, I use the symbol * on the left side.

Symbol \emptyset on the right side means that the complementation cannot be present in the surface-syntactic structure of the sentence; note, however, that all complementations that are obligatory in the unmarked frame have to be present in the tectogrammatical structure of the sentence, even in the case of such a marked surface structure.

$se \rightarrow \emptyset, si \rightarrow \emptyset, se, si \rightarrow \emptyset$: Changes in the reflexivity of the verbal form

The listed symbols are used for the removal of the reflexives *se*, *si* in the case that the rule may be applied to verbs with a reflexive lemma; this happens with reflexive verbs that appear in the marked structure without the reflexive e.g. in passivization *modlit se^{impf}* ‘to to pray’ \rightarrow *být modlen*, (*začal nejbolestivější a nejštědřejší modlitbu, která kdy na zemi byla modlena* ‘he began the most painful and most generous prayer that has ever been prayed’),¹⁰⁵ or when it is necessary to prohibit double reflexivization, e.g. in deagentization *cenit_I (si)^{impf}* ‘to to value’ \rightarrow *cení se*, (*menší rané brambory se cení pro vyšší stolní hodnotu* ‘smaller early potatoes are valued for their higher cooking quality’).

Basic and supplementary rules

The passive diathesis is not formed in a uniform manner; it was necessary to formulate four different rules for capturing the formation of four different classes of verbs. However, to emphasize the similarity between these rules, I singled out a “basic” rule that captures the common parts of all these rules, namely

VALLEX lexical units annotated with one of the values **pass**, **deagent**, **poss**, or **recipient** fulfil the condition. Such superfluous conditions are listed to capture the linguistically relevant generalizations.

¹⁰⁵ Unless explicitly marked otherwise, all sentences and sentence fragments exemplifying marked usage of diatheses are taken from the corpora SYN3 and SYN7.

Rule G1 *pass_basic*. The valency frame describing the marked structure of the passive diathesis is then formed by taking the unmarked valency frame, applying the basic rule, and subsequently applying a supplementary rule such that the frame satisfies its conditions. For a few verbs, multiple ways of structuring the marked member of the passive/resultative diathesis are found in the data. In such cases, the unmarked valency frame satisfies the conditions for the application of multiple supplementary rules; for the derivation of all possible valency frames for the marked structures, we apply each pair of the basic rule with a supplementary rule. Ideally, the conditions specified in the rules and the annotation present in the lexicon should not allow for overgeneration (creation of marked valency frames that do not correspond to actual usage of the given lexical unit).¹⁰⁶

Similarly, there are two basic rules and two supplementary rules for the conversive type of the possessive resultative. In this case, however, each lexical unit matches the conditions of a single basic rule and a single supplementary rule.

A note on agreement of numerical expressions

In the rules, “agreement” refers to the fact that the verbal form has the same morphological features (typically person, number and/or gender) as one of its complementations. In FGD, agreement features of the verb are not listed on the tectogrammatical layer (there are no grammemes for person, number and gender) (Panevová et al., 2014, p. 30) because they can be inferred by rules during the translation to the lower layers of representation.

When the rules for diatheses use formulations such as “Agreement: passive participle: number+gender, X” (the passive participle agrees with complementation X in number and gender), they assume a mechanism for realizing the agreement on the layer of surface syntax. In most cases, this mechanism involves finding the surface-syntactic realization of X and then copying its morphological features to the surface-syntactic node representing the participle. However, the procedure is more complex in the case of numerical expressions.¹⁰⁷

On the tectogrammatical layer, a quantified entity is the parent of the quantifying expression; but on the layer of surface syntax, the quantifying expression governs the form of the quantified entity (cf. *pět aut.gen*, *desetina aut.gen* ‘five cars.gen, tenth of the cars.gen’) and therefore is placed as its parent.¹⁰⁸ Also the agreement fea-

¹⁰⁶ An exception that will be corrected in the near future is mentioned at the end of Section 5.1.4.1c on p. 143.

¹⁰⁷ In the following paragraph, I use these terms: a *numerical expression* is the whole phrase consisting of a *quantified entity* and a *quantifying expression*.

¹⁰⁸ Except for numerals *dva*, *tři*, *čtyři* ‘two, three, four’ that agree with the quantified entity in case (*dvě.nom auta.nom*, *se dvěma.instr auty.instr* ‘two.nom cars.nom, with two.instr cars.instr’) and therefore are analysed on the layer of surface syntax as a child of the quantified entity.

tures of the verb are determined by the quantifying expression: *pět.sg.neut aut.X.pl.neut bylo pochváleno.sg.neut* ‘five.sg.neut cars.X.pl.neut were praised.sg.neut’, *třetina.sg.fem aut.X.pl.neut byla pochválena.sg.fem* ‘a third.sg.fem of the cars.X.pl.neut was praised.sg.fem’. The procedure for realizing agreement must take this into account, e.g. by stipulating that the agreement features are not taken from the surface-syntactic realization of complementation **X** (the quantified entity) itself, but from the head of the subtree that is the surface-syntactic realization of the tectogrammatical subtree headed by **X** (i.e., the head of the subtree representing the surface syntactic structure of the whole numerical expression). Because the agreement features of the whole numerical expression are more relevant for this dissertation than its internal structure (e.g. in examples 58f–58g and 77a–77b), the quantifying expression is labelled as if it was the parent of the quantified entity even on the tectogrammatical layer, i.e. an example could be labelled as *dvě.X.pl.neut auta byla pochválena.pl.neut* ‘two.X.pl.neut cars were praised.pl.neut’.

A note on the added obligatory complementations

FGD postulates that each lexical unit has the same set of complementations with the same obligatoriness in all of its (unmarked and marked) uses—the rules for diatheses should not change the number and obligatoriness of valency complementations.¹⁰⁹ Obligatory complementations that cannot be expressed in the marked member of a diathesis (e.g. Actor in the deagentive diathesis) are analysed as instances of a generalised actant: when we apply the dialogue test and ask the speaker for more information about the given complementation, (s)he can provide an answer along the lines of “someone or something that is the typical filler for that complementation”.¹¹⁰

In disagreement with the theory, I postulate that sometimes the derived valency frame should contain a complementation that is not present in the unmarked frame; this includes the derived frames for the dispositional diathesis (in which there always is a complementation of Manner (**MANN**) (Lopatková et al., 2016a, Section 3.3, p. 632–634), and some types of the possessive resultative (Section 6.2) and recipient (Chapter 7) diathesis, both of which require a dative

¹⁰⁹ The terminology has been introduced in Sections 3.2.3 (lexical unit), 3.3 (complementation) and 3.4 (obligatoriness and generalized actants).

¹¹⁰ Not all linguists interpret the outcome of the dialogue test in this way; Grepl and Karlík (1998, p. 146) apply it to the sentence *To okno bylo rozbito včera odpoledne* ‘The window was broken yesterday afternoon’ and come to the conclusion that when the speaker is asked to fill in the information about the Actor (*Kdo ho rozbil?* ‘Who broke it?’), it is perfectly OK to answer *I don’t know.*; the Actor is therefore deemed optional. My own stance is that the dialogue test is not a good tool for distinguishing instances of generalised actants from instances of optional complementations.

4 GENERAL STRUCTURE OF THE RULES

complementation, a condition which leads to the addition of a Benefactor (**BEN**) when no other dative complementation can be found in the frame. Moreover, I claim that when the dialogue test is applied to the marked structures only, the speaker asked about these complementations can never answer *I don't know*; in the derived valency frame, these added complementations should be marked as obligatory.

Diatheses with the auxiliary *být* ‘to be’ and related verbonominal constructions

5.1 Passive and objective resultative diatheses with auxiliary *být* ‘to be’

Of all diatheses in Czech, the passive and resultative¹¹¹ diatheses have the closest structural counterpart in English: much like the English passive verbal form consists of a form of the verb *to be* and a past participle, in the marked member of these diatheses in Czech, the verbal form consists of the auxiliary verb *být* ‘to be’ and a passive participle (also called “-*n/t*- participle” due to its characteristic ending).¹¹² The passive and resultative diatheses differ in the semantic interpretation of this characteristic surface structure: the passive diathesis is interpreted as

¹¹¹ First note on terminology: This dissertation is concerned only with resultative constructions formed by a passive participle and the auxiliary *být* ‘to be’ (this chapter) or *mít* ‘to have’ (Chapter 6). Note that other forms with resultative meaning, such as adjectives derived from past participles, e.g. *odkvětlý* ‘out-of-bloom’, lit. ‘that which finished blooming’, are not discussed in this dissertation.

When I use the term *resultative* without any other attribute, I refer to the type that is usually specified as the *objective* (Nedjalkov, 1988) or *object-oriented resultative*. In PDT 3.0, this type is called *simple resultative* (Mikulová et al., 2013a). Corresponding Czech terms are *objektový* (Giger, 2015; Panevová and Karlík, 2017) or *prostý resultativ* (Panevová et al., 2014; Lopatková et al., 2016a; Mikulová et al., 2013b); in German it is the *Objekteresultativ* (Giger, 2003b) or *objektorientiertes Resultativ* (Giger, 2009). These terms distinguish it from two other kinds of resultative, namely the *subjective* (subject-oriented, subjektivý; Section 5.4) and *possessive* (posesivní; Chapter 6) *resultative*. The distinction between objective and subjective resultative is the same as the distinction between the conversive and non-conversive subtypes of the possessive resultative.

¹¹² Second note on terminology: I use the term *passive participle* only for the “short” forms that can be interpreted either as a form of a verb or as a short form of an adjective, e.g.

an expression of the passive sentence perspective, i.e., it is structured so that the (semantic) object of the action is in the hierarchically highest surface-syntactic position (the semantic object is expressed by the surface syntactic subject);¹¹³ on the other hand, the resultative diathesis is interpreted as an expression of the state the object has as a result of preceding action (Nedjalkov, 1988; Giger, 2009).¹¹⁴ Moreover, Czech passive participles also act as short forms of deverbal adjectives; a combination of a passive participle with the verb *být* may also be interpreted as a verbonominal predicate.

Let us reiterate: a combination of a passive participle and the verb *být* ‘to be’ may be part of the following three kinds of structures, cf. Figures 5.1–5.3:

1. the passive diathesis, i.e. a construction expressing an *action* or a *process* that the grammatical subject was, is, or will be subjected to; the combination is then analysed as a complex verbal form consisting of the auxiliary

otevřen ‘opened’, and not for the “long” forms that can only be interpreted as adjectives, e.g. *otevřený* ‘open’. Note that Čaha (2017) and others use the term in a broader sense that also includes the long forms.

¹¹³ The concept of *perspective* was introduced by Mathesius (1940), who defines *passive perspective* as “an arrangement of the lexical and grammatical material in the sentence that articulates that the person or thing standing in the contextual center of attention [...] was subjected to, is subjected to, or will be subjected to a process/action originating somewhere else” (Czech: “takové uspořádání lexikálního a gramatického materiálu ve větě, které vyslovuje, že osoba nebo věc stojící v kontextovém centru pozornosti [...] byla zasažena, je zasažována nebo bude zasažena děním vycházejícím odjinud”); for him, the passive voice was just one way of achieving the passive sentence perspective.

The origin of the term *hierarchizace propozice* ‘hierarchical order of a proposition’ is not known to me; it could be due to Daneš. In (1968b, p. 67), he proposes to distinguish the *grammatical sentence pattern*, e.g. NOUN_{nom}–FINITE VERB–NOUN_{acc}, from the *hierarchical order*, which itself has two parameters: (1) some elements of the sentence are central (those mentioned in the grammatical sentence pattern) while other elements are peripheral (e.g. an adjective specifying one of the nouns); (2) the central elements are differentiated according to their position in the network of syntactic (grammatical) dependencies, e.g. the subject stands in a hierarchically higher position than an object. According to Daneš et al. (1975), the term *hierarchizace* ‘hierarchical order’ refers to the various ways of “placing the participants of the proposition onto the scene, emphasizing them or conversely referring to certain participant only vaguely, pushing them into the background” (Czech: “Složky propozice lze různě hierarchizovat, tj. její participanty různým způsobem ,rozestavit na scéně’, tedy zvýraznit nebo naopak dekonkretizovat, odsunout do pozadí apod.”).

¹¹⁴ Third note on terminology: German terms *Vorgangspassiv* ‘processual passive’ and *Zustandspassiv* ‘statal passive’ are sometimes used for what we call passive and resultative diatheses; in German, these can be easily distinguished by the auxiliary (*werden* ‘to become’ for *Vorgangspassiv*, *sein* ‘to be’ for *Zustandspassiv*).

verb *být* and the passive participle,¹¹⁵ and on the tectogrammatical layer, it is represented by a single node; e.g. *Palk mi řekl, že okno bylo otevřeno násilím*. ‘Palk told me that the window **was opened** by force.’

2. the resultative diathesis, i.e. a construction expressing a *state* of the grammatical subject as a result of preceding action or process; due to its nature, this interpretation is only available for the passive participles of perfective (and biaspectual) verbs.¹¹⁶ In FGD, the combination of the verb *být* and the passive participle is analysed as a complex verbal form, with a single corresponding node on the tectogrammatical layer (Panevová, 2011); e.g. *Poté byla cesta volná, protože okno do šatny bylo již otevřeno*. ‘The rest of the way in was free as the cloakroom window **was already open / had already been opened**.’
3. verbonominal construction, i.e. a construction expressing a *characteristics/state* of the subject of the sentence which does not necessarily have to be a result of a preceding action/process; *být* is analysed as a copula and the *-n/t-* form as a short form of an adjective, and in FGD, both have a separate node even on the tectogrammatical layer; e.g. *Vak je na rozdíl od klokanů otevřen směrem dolů*. ‘In contrast to kangaroos, the pouch **is open** downwards.’

The boundaries between these three interpretations of the same surface structure (a passive participle and the verb *být* ‘to be’) are often blurry. This ambiguity is called *event–state homonymy (ambiguity)* in Czech linguistics. Therefore, in the valency lexicon *VALLEX* as well as in this dissertation, the passive and resultative diatheses are treated together and we assume that the resultative diathesis is possible whenever the passive diathesis is possible and vice versa; verbonominal structures are not captured in *VALLEX* (unclear cases have been treated as if they were diatheses) and only selected subtypes are briefly discussed in this dissertation (Section 5.2).

Conversely, when I examined corpus evidence, the query did not include cases of the verb *být* combined with deverbal adjectives derived from the passive participle, even though these so-called “long forms of the participle” can sometimes

¹¹⁵ Karlík (2017a,b) analyses *být* as a copula even in these cases, claiming that already Komárek (1979) has shown that the analytical (compound) verbal form is not a morphological category of the verb, in other words, that *být* is not an integral part of the verbal paradigm but a separately standing copula. A presentation summarizing the stance of several school and academic grammars on this issue has been prepared by Girašková and Hošková (undated).

¹¹⁶ Giger (2011, p. 858) mentions several exceptions; instances of imperfective verbs in the resultative diathesis are, however, usually literary or stylistically marked: *být psáno* ‘be written, be given once for all’, *Udělám taky, co je mi souzeno, řeklo děvče* ‘I shall do what I am destined to do’, *je vařeno/pečeno/placeno* ‘be cooked/baked/paid’.

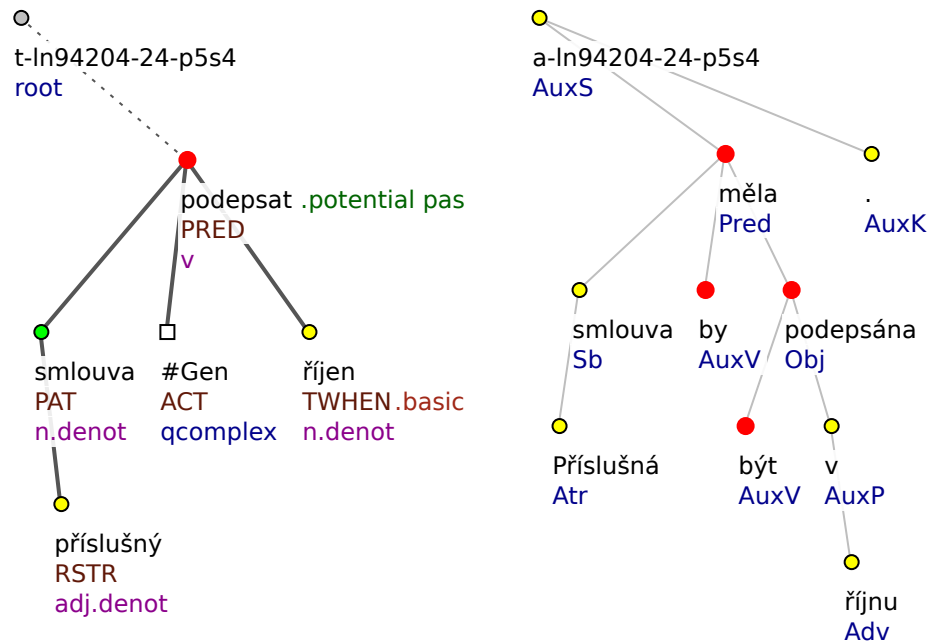
be used for forming the surface-syntactic structures of these diatheses, especially in the case of the resultative diathesis and/or informal speech. In general, both the participle and the adjective can then be used to express the resultative meaning, while only the participle can be used to express the passive meaning. On one hand, this interchangeability of the “short” (participle) and “long” (adjectival) forms is often used as a guideline in determining whether a given sentence should be considered resultative—if the participle can be replaced with the adjective, the resultative interpretation is valid. On the other hand, participle forms are sometimes used in purely adjectival meaning, such as in the sentence *stále ještě nebyl najeden* ‘he still was not full’, which features the word form *najeden* (passive participle of the reflexive verb *najíst se* ‘sate oneself, eat so much that one is full’). If we were to read this as a diathesis, this would have to be a case of periphrastic passive or of the resultative diathesis with auxiliary verb *být* ‘to be’ formed from the sentence *najedl se* ‘he ate to be full’. However, it is not possible that the same complementation would fill the subject position in both the active and the passive/resultative diathesis with auxiliary *být*.¹¹⁷ We have to read this sentence as a sentence with the adjective *najedený* ‘full, satiated’. For more on this topic, see Štícha (1980, 1986, 2004).

5.1.1 Passive and resultative in the Prague Dependency Treebank

The distinction between the three cases mentioned above may become clearer if we look at the annotation guidelines of the Prague Dependency Treebank (PDT 3.0), also demonstrated in Figures 5.1–5.3. Remember that on the t-layer, there are nodes only for autosemantic/lexical words: in cases 1 and 2 (passive and resultative diathesis), there is only a single node corresponding to the complex verbal form consisting of *být* ‘to be’ and the passive participle, and this node is labelled with the lemma of the passive participle and the corresponding value of the grammatical category *diatgram*. On the other hand, in 3 (verbonominal constructions), *být* is seen as a lexical word and it has a separate node also on the t-layer; the adjective is seen as its valency complementation and is labelled with the corresponding functor.

On the a-layer, there is a separate node for each orthographic word or punctuation mark in the sentence, which means that the complex verb form has to be given some internal tree structure no matter how it is treated on the t-layer.

¹¹⁷ In the case of the possessive resultative, we treat even the non-conversive cases—in which the same participant fills the subject position in both the unmarked and the marked member of the diathesis—as a diathesis.

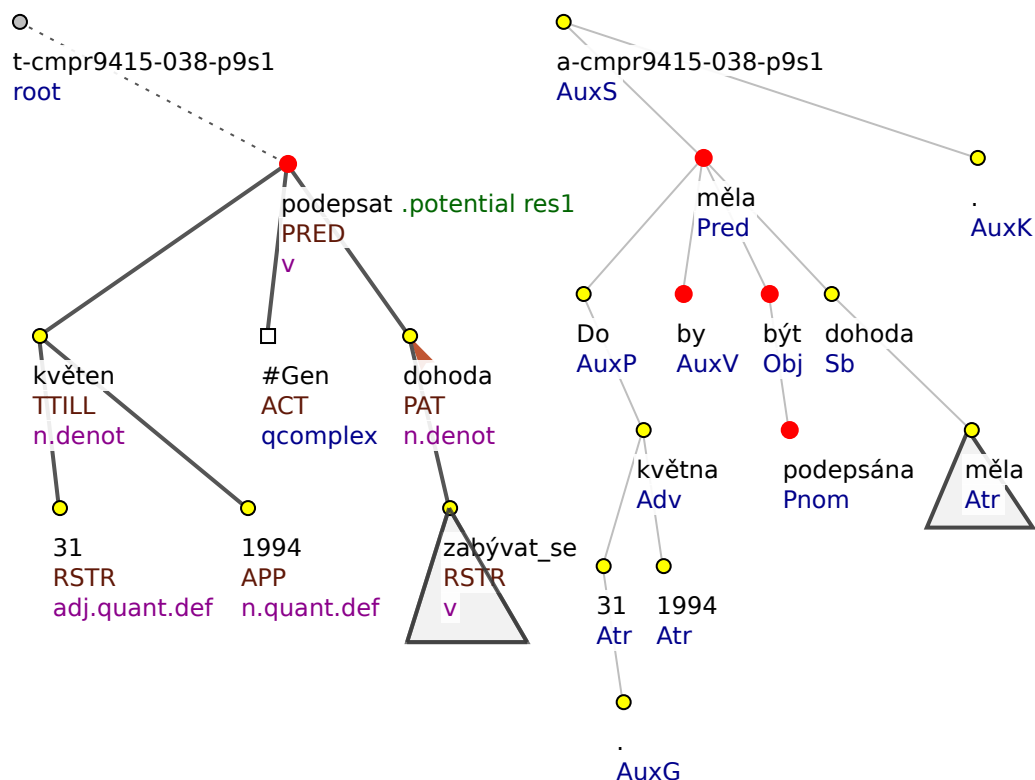


Příslušná smlouva by měla být podepsána v říjnu.

‘The relevant contract **should be signed** in October.’

Passive diathesis: On the t-layer (left), there is only one node corresponding to the complex verb form; it bears the grammateme *diatgram=pas* (for the passive diathesis) and in this particular case also *factmod=potential* (for the conditional mood, expressed in the complex verb form by the words *by měla* ‘should’). In the most typical analysis of the passive diathesis on the a-layer (right), *být* ‘to be’ is treated as an auxiliary verb (**AuxV**) with the passive participle of the lexical verb (here *podepsat* ‘sign’) as its parent.

Figure 5.1: Sample annotation of the passive diathesis in PDT.

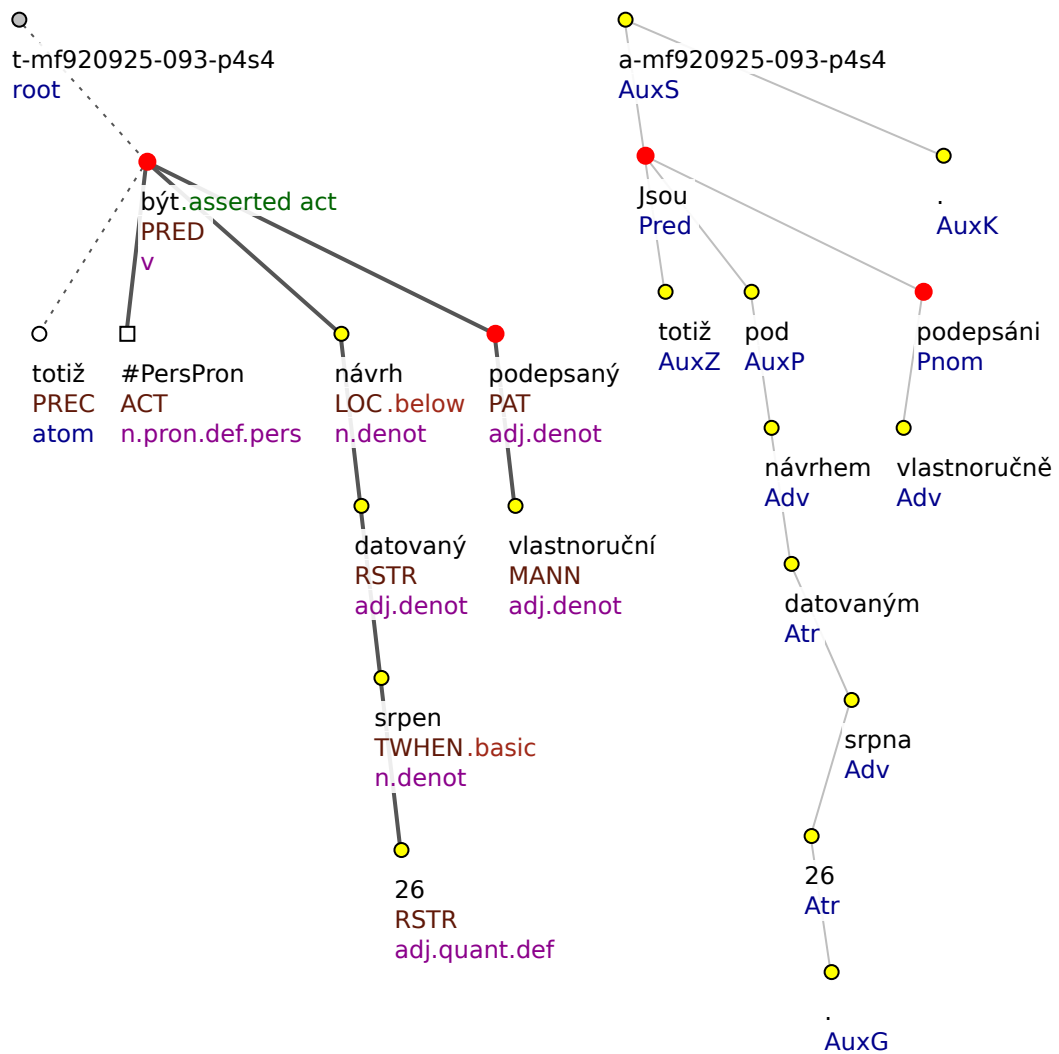


Do 31. května 1994 by měla být podepsána dohoda, [která by se měla zabývat restrukturalizací ruského dluhu].

'By May 31, 1994, an agreement **should be/have been signed** [that should deal with restructuring the Russian debt].'

Resultative diathesis: On the t-layer (left), there is only one node corresponding to the complex verb form; it bears the grammatememes *diatgram=res1* (for the resultative diathesis) and in this particular case also *factmod=potential* (for the conditional mood, expressed in the complex verb form by the words *by měla* 'should'). In the most typical analysis of the resultative diathesis on the a-layer (right), *být* 'to be' is treated as a copula with the passive participle of the lexical verb (here *podepsat* 'sign') as its child labelled as the nominal part of a verbonominal construction (Pnom). In both trees, the triangle corresponds to the relative clause *která by se měla zabývat restrukturalizací ruského dluhu* 'that should deal with restructuring the Russian debt'.

Figure 5.2: Sample annotation of the resultative diathesis in PDT.



Jsou totiž pod návrhem datovaným 26. srpna vlastnoručně podepsáni.

‘In fact, their own signatures can be seen on the proposal, which is dated August 26.’

lit. ‘[...] they **are** in-their-own-hand **signed** under the proposal [...].’

Verbonominal construction: In this case, *být podepsán* ‘be signed’ is treated as a verbonominal construction already on the t-layer (left); there is a separate node for *být* ‘to be’ as the Predicate (functor **PRED**, in this case with grammemes **diatgram=act** because it is not a marked member of any diathesis and **factmod=asserted** for “neutral” mood) and for the adjective *podepsaný* ‘signed’ as its child. The same structure is mirrored on the a-layer (right), except that *podepsaný* is labelled with the analytical function **Pnom** for the nominal part of a verbonominal construction.

Figure 5.3: Sample annotation of a verbonominal construction in PDT.

It turns out that there is no single analysis corresponding to each of the three cases outlined above; this is at least partly an inconsistency of annotation which should be avoided, and an outline of how each of these cases should be treated on the a-layer has been given by Urešová (2011a). In the typical annotation found in PDT 3.5, case 1 is analysed so that *být* is a child of the participle and is labelled **AuxV** (an auxiliary verb), while cases 2 and 3 are treated as verbonominal constructions, so that *být* is the head of the corresponding subtree and the participle/adjective is its child labelled **Pnom** (nominal part of a verbonominal predicate). In other words, the dividing line between verbonominal constructions and verbal forms is drawn between cases 1 and 2+3 on the a-layer, but between cases 1+2 and 3 on the t-layer.

When explicit labelling of diatheses in an attribute called **diatgram** was added to the t-layer in PDT 3.0,¹¹⁸ the following rules were used to distinguish between the passive (value **pas**) and resultative (value **res1**) reading of the combination of *být* ‘to be’ and a passive participle:

- if an Actor (**ACT**) is expressed in the surface structure, it is a passive;
- if the agreement features of both members of the combination are neuter singular and there is a generalized Actor, it is a resultative;
- the procedure could rely on the manual annotation of the a-layer that had been carried out earlier:¹¹⁹ where *být* ‘to be’ was treated as a child of the participle and labelled as an auxiliary verb (**AuxV**), the corresponding single node on the t-layer was labelled as passive; if the verb *být* ‘to be’ was analysed as the head of the participle, which in turn was labelled with the analytical function **Pnom** (i.e., the a-layer structure was that of a verbonominal construction with a copula), the corresponding node on the t-layer was labelled as resultative.

Following these annotation guidelines, PDT 3.0 contains 3743 instances of the passive diathesis and 967 instances of the resultative diathesis.

5.1.2 Passive and resultative diathesis in the Data Component of *VALLEX*

The possibility to form the passive diathesis is marked in the Data Component of the lexicon by the value **diat: pass**. Implicitly, this value also encompasses the possibility to form the marked structures of the resultative diathesis.

¹¹⁸ **diatgram** replaced the attribute **dispmo**d, which only captured the dispositional diathesis; the other diatheses were not explicitly annotated in PDT 2.0.

¹¹⁹ The annotation of the data in the Prague Dependency Treebank started from the lowest two layers, w-layer and m-layer; the a-layer was added next and the t-layer was added last.

The valency frame capturing the structure of the marked member of the passive diathesis can be derived from the unmarked frame in the lexicon by the (simultaneous or successive) application of two rules:

- Rule G1 `pass_basic` (Section 5.1.3); this rule captures the changes in the morphological form of the verb, its agreement and the change in the morphological form of Actor (**ACT**; the complementation which takes the prominent role of the subject of the unmarked member of the diathesis)
- depending on the presence or absence of an accusative complementation, one of the supplementary rules described in Section 5.1.4; these rules capture the changes in the morphological forms of complementations other than the Actor and possibly also the removal of the reflexive *se/si*.

For a few verbs, multiple ways of structuring the marked member of the passive or resultative diathesis are found in the linguistic data. In that case, the unmarked valency frame fulfils the conditions for the application of multiple supplementary rules; for the derivation of all possible valency frames for the marked structures, we apply each pair of the basic rule with a supplementary rule separately.

5.1.3 The basic rule

The changes captured in the basic rule are common to all lexical units that form the marked structures of passive and/or resultative diathesis.

¹²⁰ We distinguish nominative and accusative forms of the passive participle; however, the two forms are different only in the case of singular feminine forms (*-na/-ta* vs. *-nu/-tu*), rarely also plural masculine animate forms (*-ni/-ti* vs. *-ny/-ty*) (Urešová, 2011a, s. 142), e.g.:

(feminine, nominative singular) *Nemocnici nebyla **prodloužena** smlouva se zdravotní pojišťovnou.* ‘The contract between the hospital and the health care insurer was not **extended**.nom.’

(feminine, accusative singular) [...] *kdy nemocnice nedostala **prodlouženu** smlouvu se zdravotní pojišťovnou [...]* ‘[...] when the hospital did not get the contract **extended**.acc [...]’ (SYN7)

(masculine animate, nominative plural) *V tomto skleníčku jsou **usídlení** velcí černí pavouci.* ‘Big black spiders are **settled**.nom in this little greenhouse.’

(masculine animate, accusative plural) *V tomto skleníčku mám **usídleny** velké černé pavouky.* ‘I have big black spiders **settled**.acc in this little greenhouse.’ (SYN7)

Theoretically, the nominative and accusative forms also differ for singular masculine animate forms (*-n/-t* vs. *-na/-ta*), but in this case, the use of constructions requiring the accusative is avoided, as the form is extremely unusual, e.g.

(masculine animate, nominative singular) *Bořislavi byl **hlášen** jeden cizinec.* ‘One foreigner was **reported**.nom to Bořislav.’

(masculine animate, accusative singular) *Jednoho cizince má **hlášena** Bořislav.* ‘Bořislav has one **reported**.acc? foreigner.’ (SYN7)

¹²¹ Although the rule explicitly mentions only the auxiliary verb *být*, its iterative variants *bývat* and *bývávat* may also be used.

5 CONSTRUCTIONS WITH THE AUXILIARY *BÝT* ‘TO BE’

Passive and resultative		Rule G1
Basic rule (verbal form, agreement, form of Actor)		<code>pass_basic</code>
Conditions	diat: <code>pass</code> ACT _{nom}	
Verbal form	→ <i>být</i> ‘to be’ + passive participle in nominative ¹²⁰	
Agreement	passive participle: number+gender, X <i>být</i> : number+gender+person, X	
ACT	* → instr, (<i>od</i> +gen, <i>z</i> +gen, <i>ze strany</i> +gen)	

Verbal form:

Rule G1 `pass_basic` specifies the verbal form as consisting of the auxiliary verb *být* ‘to be’ and nominative form of the passive participle of the lexical verb.¹²¹

Variable **X**, agreement:

In line with the general structure of the rules (cf. Chapter 4), the variable **X** denotes the valency complementation that is expressed as the subject of marked member of the diathesis, i.e., the complementation that is expressed in the unmarked structure by an accusative or a genitive. The complex verb form agrees with this complementation in number, gender and person. Further specification of this complementation is left for the supplementary rules (see Section 5.1.4 below).

When the complementation **X** is expressed by one of the alternative forms not mentioned in the rule, or when it is present in the valency frame but is generalized (not expressed in the surface-syntactic structure with the implication that it is filled by whoever or whatever is a typical filler in the given context, see Section 3.4), the agreement features of the verb are those of 3rd person neuter singular, cf. (24a–24b).¹²² The same agreement features are also used in the case that the supplementary rule specifically prohibits presence of a complementation that could be realized as the subject of the marked member of the diathesis, (24c).

¹²² This rule does not apply to instances of “actual” ellipsis of the subject in marked constructions:

krmít^{impf} ‘to feed’ **ACT**_{nom} **PAT**_{acc} **MEANS**^{typ}_{instr}

X=**PAT**_{acc→nom}

Je dobré slyšet pravdu, ne lži, kterými jsme opakovaně krmeni.

‘It’s good to hear the truth, not the lies that [we.x.pl] are repeatedly fed.passpart.nom.anim.pl.’

(by application of Rule G2 `pass_trans_acc`, **X** is the accusative complementation, i.e. the **PAT**; although it is not present in the surface-syntactic structure, it is a case of the so-called *actual* (context-bound) *ellipsis* and the agreement of the verb form is therefore determined by this unexpressed complementation).

- (24) a. *dokazovat*^{impf} – *dokázat*^{pf} ‘to prove’
ACT_{nom} **ADDR**_{opt dat} **PAT**_{acc, zda, že, cont} **ORIG**_{opt na+loc} **BEN**_{typ dat}
X=PAT_{zda}
Zda × *Skopec skutečně muže zavraždil, bude muset být dokazováno podle nepřímých důkazů.*
 ‘Whether × Aries really murdered the man will have to be determined_{.passpart.neut.sg} from indirect evidence.’
 (Rule G2 *pass_trans_acc* identifies **X** as the accusative complementation, here **PAT**; in this sentence, it is realized by one of its alternative forms—the dependent clause introduced by the conjunction *zda* ‘whether’, and thus the agreement features of the verb are 3rd person singular neuter)
- b. *donášet*^{impf} – *donést*^{pf} ‘to inform on/against, rat out, flip on, snitch out’
ACT_{nom} **ADDR**_{dat} **PAT**_{acc, zda, že, cont}
X=PAT
Doufejme ve zdravý rozum toho, kterému je donášeno.
 ‘Let’s hope that whoever is informed has some common sense.’
 lit. ‘Let’s hope for common sense of whoever is flipped to.’
 (Rule G2 *pass_trans_acc* identifies **X** as the accusative complementation, here **PAT**; in this sentence, it is not expressed because it is

¹²³ Of around 500 instances of the passive diathesis with an expressed Actor that are found in the data of the Prague Dependency Treebank, the Actor is expressed by an instrumental in over 495 cases, but only once by the form *od+gen* ‘from, by’ (25b), once by the form *z+gen* ‘from’ (25c), and once by the form *ze strany+gen* ‘from, on somebody’s side’ (25d). Verbs that form passive-like verbonominal constructions in which the Actor may be expressed by a sentential complement or by the form *z+gen* ‘from’ are discussed in Section 5.3, e.g. *byl jsem překvapen/nadšen/udiven, že ...* ‘I was surprised/excited/astonished that ...’

¹²⁴ According to Karlík (2019), there is a hierarchy of forms of the Actor: if a verb can be used with the form *ze strany+gen*, it can also be used with the form *od+gen*; the instrumental can be used with all passive-forming verbs. Karlík illustrates this principle by the following examples:

Na obce je činěn investory.instr / od investorů.od+gen / ze strany investorů.ze strany+gen velký nátlak.
 ‘Villages are under great pressure from investors.’

lit. ‘Great pressure is exerted by investors.instr / from investors.od+gen / on the side of investors.ze strany+gen upon villages.’

*Družstva budou pořadateli.instr / od pořadatelů.od+gen / *ze strany pořadatelů.ze strany+gen vybavena mapou.*

‘Teams will be provided with a map by the organizers.instr / from the organizers.od+gen / on the side of the organizers.ze strany+gen.’

*Kněz byl vězněn policií.instr / *od policie.od+gen / *ze strany policie.ze strany+gen.*

‘The priest was kept prisoner by the police.instr / *from the police.od+gen / *on the side of the police.ze strany+gen.’

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generalized, and thus the agreement features of the verb are 3rd person singular neuter)

- c. *bránit*^{impf} 'to keep sb from doing sth'

ACT_{nom} **ADDR**_{dat} **PAT**_{v+loc, inf, aby} **MEANS**_{typ instr}

no **X** in the valency frame

Kdo nechce za Ledčice hrát, není mu bráněno v odchodu.

'If someone does not want to play for Ledčice, they're not kept from leaving.'

lit. '[...] it is **not**.3rd.sg to them **prevented**.passpart.neut.sg to leave.'

(the verb has neither accusative nor genitive complementation, so by the application of Rule G5 *pass_intrans_no*, there cannot be any subject in the marked member of the diathesis; thus the agreement features of the verb are 3rd person singular neuter)

Expressing the **ACT**:

The basic rule also specifies a change in the morphemic form of the Actor (**ACT**); in the marked member of the passive or resultative diathesis, the Actor is expressed by a prepositionless instrumental, it is not expressed at all, or, in some rare cases, it is expressed the prepositional phrases *od/z/ze strany*+gen 'from, by'.^{123,124}

- (25) a. *hodnotit*^{impf} 'to evaluate'

ACT_{nom} **PAT**_{acc, inf, zda, že, cont} **EFF**_{opt jako+acc, na+acc, jako+adj-acc} **MANN**_{typ} **MEANS**_{typ instr} **CRIT**_{typ}
ACT_{nom → instr}

... pracovník je hodnocen podstatně větším počtem hodnotitelů než v případě grantové přihlášky.

'...the staff is evaluated **by a much larger number**.ACT.instr of evaluators than in the case of a grant application.'

- b. *uvítat*^{pf} 'to welcome'

ACT_{nom} **PAT**_{acc, aby, že, cont} **MANN**_{typ}

ACT_{nom → od+gen}

[...] od našeho obchodnictva podnik tento bude s radostí uvítán[...]

'[...] this act will be gladly welcome **by our tradesmen**.ACT.od+gen[...]

- c. *potvrzovat*^{impf} – *potvrdit*^{pf} 'to confirm'

ACT_{nom} **ADDR**_{opt dat} **PAT**_{acc, zda, že, cont} **MEANS**_{typ instr}

Jména těchto členů prezidia zatím nejsou z jiných zdrojů LN potvrzena.

'The names of these presidium members have not yet been confirmed **by other sources**.ACT.fornitz+gen of the redaction.'

- d. *vznášet^{impf} – vznést^{pf}* ‘to raise (a question)’
ACT_{nom} **CPHR**_{acc}
Ze strany magistrátu.ACT.ze strany+gen byl vznesen neoficiální dotaz, jak [...]
 ‘The magistrate asked unofficially how [...]’
 lit. ‘From the magistrate’s side.ACT.ze strany+gen was raised an unofficial question how [...]’

Panevová et al. (2014, p. 104–105) as well as the annotation of the data of the Prague Dependency Treebank also work with the possibility that the Actor is expressed by a subordinate clause. However, the subordinate clause cannot be introduced just by a subordinating conjunction (e.g. *že* ‘that’) or another subordinator (e.g. a *wh*-word in the case of content clauses); the word *tím* ‘it.instr, that.instr’ has to be used as well. I propose to analyse the subordinate clause as a restrictive attribute of the word *tím* so that such cases fall under the label of “instrumental case”.¹²⁵

- (26) a. *postihovat^{impf} – postihnout^{pf}* ‘to affect, hit, afflict’
ACT_{nom,že} **PAT**_{acc}
Některé z nich byly postiženy tím.ACT, že Česká televize v roce 1993 nepřevzala koncepci kanálu OK 3, [...]
 ‘Some of them were affected by the fact.ACT that the Czech television did not adopt the concept of the channel OK 3 back in 1993, [...]’
- b. *proslavovat^{impf} – proslavit^{pf}* ‘to make famous’
ACT_{nom,že} **PAT**_{acc} **MEANS**_{typ instr}
Karlovarský festival je proslaven tím.ACT, že se sem sjíždějí mocní této země.
 ‘The festival in Karlovy Vary is famous for the number of the powerful people of this country who converge at its venue.’
 lit. ‘[...] is made famous through it that the powerful of this country converge there.’
- c. *rozhodovat^{impf} – rozhodnout^{pf}* ‘to decide (something)’
ACT_{nom,že} **PAT**_{acc} **BEN**_{typ pro+acc, proti+dat} **MANN**_{typ}
Závod byl rozhodnut tím.ACT, že jim pole ujelo už v prvních metrech.

¹²⁵ Note that (26) contains only lexical units for which I have no doubt that the subordinate clause belongs to the valency frame: in the active usage, the subordinate clause may be used even without being introduced by any form of the word *to* ‘it, that’. Contrast this with the verbonominal constructions such as *být překvapen, že ...* ‘be surprised that ...’, where a subordinate clause does not need to be introduced by the word *tím* even when it follows the participle; cf. Section 5.3.

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‘The race was decided **by the fact**.^{ACT} **that** the field was way ahead of them already after the first few meters.’

- d. *rozhodovat (se)*^{impf} – *rozhodnout (se)*^{pf} ‘to decide (about something)’

ACT_{nom, že} **PAT**_{o+loc, inf, aby, ať, zda, že, cont} **BEN**_{typ}
 pro+acc, proti+dat

*O Kirijenkovi již bylo rozhodnuto **tím**.^{ACT}, že prezident navrhl jeho kandidaturu potřetí.*

‘Kirijenko’s fate has already been decided **by the fact**.^{ACT} **that** the president nominated him for the third time.’

- e. *symbolizovat*^{impf} ‘to symbolize, represent’

ACT_{nom, inf, že} **PAT**_{acc, inf, že}

*Ve filmu Avatar je to dojemně symbolizováno **tím**.^{ACT}, že člověk potřeboval svého avatara, nové jiné tělo, které “posedl”, aby se dostal do přírodního stavu.*

‘It is symbolically represented in the Avatar movie **by the fact**.^{ACT} **that** one needs to “possess” their avatar, another body, to reach the natural state.’

- f. *vést*^{impf} ‘to lead, guide’

ACT_{nom, že} **ADDR**_{opt}
 acc **PAT**_{k+dat, aby, ať, že} **MANN**_{typ}

*Dále uvedl, že ke změně rozhodnutí disciplinárky byla Poláčková komise vedena **tím**.^{ACT}, že k incidentu došlo poprvé, [...]*

‘He also said that the commission was led to change the decision of the disciplinary committee **by the fact**.^{ACT} **that** this was a first such incident, [...]

5.1.4 Supplementary rules

Besides the basic rule, the derivation of the valency frame for the marked member of the passive and resultative diathesis requires the application of one of the supplementary rules; the choice of the supplementary rule depends on the structure of the valency frame.¹²⁶

The following sections capture these groups of verbs:

- transitive verbs, Section 5.1.4.1, namely:
 - verbs with an accusative complementation, Section 5.1.4.1a;
 - verbs with a genitive complementation that behave similarly to verbs with an accusative complementation, Section 5.1.4.1b;
 - verbs with a genitive complementation that sometimes behave in ways typical for verbs with an accusative complementation and other times not, Section 5.1.4.1c;

¹²⁶ When a complementation may be expressed by a genitive, multiple supplementary rules may be applied to the frame; see end of Section 5.1.4.1c on 143.

- intransitive verbs, Section 5.1.4.2, namely:
 - verbs with a genitive complementation that never exhibit behaviour similar to verbs with an accusative complementation, Section 5.1.4.2a;
 - verbs with neither accusative nor genitive complementation, Section 5.1.4.2b.

5.1.4.1 Transitive verbs (and syntactically similar verbs)

The transitive verb is the most common type of verb that appears in the passive or resultative diathesis. We use the term *transitive* in the traditional sense: a verb with an accusative complementation (Section 5.1.4.1a).¹²⁷ In particular, I show that when it comes to the passive and simple resultative diatheses, some verbs with a genitive complementation behave in the same manner as verbs with an accusative complementation (Section 5.1.4.1b), or fluctuate between the behaviour typical of transitives and the behaviour typical of intransitives (Section 5.1.4.1c).

5.1.4.1a Verbs with an accusative complementation.

For most verbs entering the passive and resultative diathesis, the valency frame describing the marked member of the diathesis is formed by application of the basic Rule G1 `pass_basic` and the supplementary Rule G2 `pass_trans_acc`.

Passive and resultative diathesis		Rule G2
Supplementary rule for transitive verbs (with change <code>acc</code> → <code>nom</code>) <code>pass_trans_acc</code>		
Conditions	diat: <code>pass</code> X _{acc}	
Verbal form	X Y <i>se, si</i> → ∅ <code>acc</code> → <code>nom</code> <i>jako</i> + <code>acc</code> → <i>jako</i> + <code>nom</code> <i>jako</i> + <code>adj-acc</code> → <i>jako</i> + <code>adj-nom</code> <code>adj-acc</code> → <code>adj-nom</code>	

Variable ~~X~~, agreement:

Variable ~~X~~ marks any complementation which may be expressed in the unmarked member of the diathesis by an accusative (most commonly `PAT`, but also `EFF`,

¹²⁷ We are aware that transitivity as a syntactic category may also be understood more broadly (Hopper and Thompson, 1980); cf. a short summary of the relevance of their “transitivity spectrum” for passivization in the last four paragraphs of (Dvořák, 2017b).

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ADDR, or **DPHR**,¹²⁸ exceptionally also **EXT**).¹²⁹ Rule G1 *pass_basic* specifies that the participle agrees with the complementation **X** in gender and number, the auxiliary verb *být* in gender, number, and moreover also in person.

The morphemic form of the accusative complementation **X** changes to nominative; if **X** can be expressed by additional forms, these forms are not changed.

- (27) a. *vrhat^{impf} – vrhnout^{pf}* 'to throw, cast'
ACT_{nom} **PAT**_{acc, instr} **DIR3** **DIR**_{typ}
X=**PAT**_{acc → nom}
Kostky byly vrženy.
 'The dice had been cast.'
X=**PAT**_{instr → instr}
Nikdo v celých Rybářích a v Karlových Varech nevěděl o tom, že bylo vrženo kamenem.
 'No-one in all of Rybáře and Karlovy Vary knew that a stone_{instr} had been thrown.'
- b. *doplňovat^{impf} – doplnit^{pf}* 'to add'
ACT_{nom} **PAT**_{k+dat} **EFF**_{acc, že, cont}
X=**EFF**_{acc → nom}
Tento cíl byl doplněn k seznamu původních pěti cílů regionální politiky...
 'This goal was added to the list of the five original goals of regional politics...'
X=**EFF**_{že → že}
Novelou bylo doplněno, že jediný společník nemůže žádat soud o zrušení své účasti ve společnosti.
 'The amendment additionally states, that a single associate cannot apply to the court for cancelling his share in a company.'

¹²⁸ The **DPHR** functor is used for the set part of a phraseologism; in *VALLEX*, its morphological features are not marked.

¹²⁹ When a verb has two accusative complementations, it is possible to apply the rule to one or the other, but not to both of them simultaneously:

vyučovat^{impf} – vyučít^{pf} 'to teach, train' **ACT**_{nom} **ADDR**_{acc} **PAT**_{dat, acc, v+loc, inf, aby, af}

X=**PAT**

... *učitelství pro střední školu bude vyučováno na přírodovědecké a filozofické fakultě.*

'... middle school pedagogy was taught at the faculty of natural sciences and the faculty of arts.'

X=**ADDR**

... *každý vychovatel vedle své pedagogické odbornosti je vyučen nějakému řemeslu.*

'... besides his pedagogical expertise, every tutor is trained in a handicraft.'

The rule does not capture the fact that the choice of the complementation which becomes the subject (i.e., the complementation marked by **X**), may block the expression of the other accusative complementation by an accusative, e.g. *Pavel je učen Petrem matematiku* 'Paul_{nom} is taught mathematics_{acc} by Peter', but **Matematika je učena Petrem Pavla* '*Mathematics_{nom} is taught by Peter (to) Paul_{acc}' (cf. Karlík, 2002, p. 417).

- c. *informovat^{biasp}* ‘to inform’
ACT_{nom} **ADDR**_{acc} **PAT**_{o+loc, aby, at, zda, že, cont}
X=ADDR_{acc → nom}
Protože o výzkumu zbraní a o jejich použití nebývá široká veřejnost informována...
 ‘Because the **general public** is usually not informed about arms research and its application...’
- d. *vytrhnout^{pf}* ‘to get sb out of a tight spot, deliver in the clutch, tie up a loose end, help out’
ACT_{nom, že, cont} **PAT**_{dat} **DPHR**_{trn z paty}
X=DPHR_{trn.acc z paty ‘thorn.acc from heel’ → trn.nom z paty ‘thorn.nom from heel’}
*Pomyslný **trn** z paty byl na čas vytržen. (WWW)*
 ‘This got them out of the tight spot for some time to come.’
 lit. ‘The imaginary **thorn** was removed from the foot for some time.’
- e. *ujít^{pf}* ‘to walk, cover a distance by walking’
ACT_{nom} **EXT**_{acc}
X=EXT_{acc → nom}
*Z osady, ze které ráno odešli, bylo ujito **přes deset kilometrů**...*
 ‘**Over ten kilometres** were walked from the village they left in the morning.’

Variable Y:

In the case that a transitive verb has a complementation that corresponds to a surface-syntactic complement expressed by one (or more) of the morphemic forms *jako+acc*, *jako+adj-acc*, or *adj-acc*, such a complementation is marked as **Y**. In the marked member of the passive and resultative diathesis, the accusative in these multi-word constructions changes to a nominative, so that the agreement with the complementation **X** is maintained:

- (28) a. *cítit^{impf}* ‘to feel’
ACT_{nom} **PAT**_{acc, že} **EFF**_{jako+acc, jako+adj-acc}
Y=EFF_{jako+acc → jako+nom}
*Rozdíl je to důležitý jenom pro specialistu, a tak jsou obvykle oba termíny cítěny **jako synonyma**.*
 ‘The difference is only important for specialists, and so both terms are usually felt **as synonyms**_{S.jako+nom}.’
- b. *označovat^{impf} – označit^{pf}* ‘to label, designate’
ACT_{nom} **PAT**_{acc} **EFF**_{jako+acc, za+acc, jako+adj-acc, za+adj-acc} **BEN**_{typ dat, pro+acc}
Y=EFF_{jako+adj-acc → jako+adj-nom}
Výrobky, které trestuhodně plývají s odpadem, nemohou být označeny

jako dobré.

‘Products that are guilty of too much waste cannot be labelled **as good**._{jako+adj-nom.}’

- c. *udržovat^{impf} – udržet^{pf}* ‘to keep’

ACT_{nom} **PAT**_{acc} **EFF**_{adj-acc, adj-instr}

Y=EFF_{adj-acc → adj-nom}

... *a cesta [...] byla naším špalírem udržována volná.*

‘... and the way through espalier was kept **free**._{nom.}’

Reflexive verbs:

Rule G2 *pass_trans_acc* can also be applied to reflexive verbs,¹³⁰ in which case the reflexive *se/si* is removed. This type of construction is found in *VALLEX* with a single verb with the reflexive *se* and in about a dozen lexical units with the reflexive *si*:

- (29) a. *modlit se^{impf}* ‘to pray’

ACT_{nom} **ADDR**_{opt k+dat} **PAT**_{opt acc} **AIM**_{typ za+acc, aby}

se → ∅

Pán Ježíš jde spolu s učedníky do Getsemanské zahrady, [...], aby začal nejbolestivější a nejštedřejší modlitbu, která kdy na zemi byla modlena. (WWW)

‘Accompanied by the apostles, Lord Jesus goes to the garden of Gethsemane [...] to start the most agonizing and yet most bountiful prayer that **has ever been prayed.**’

- (30) a. *oblíbovat si^{impf} – oblíbit si^{pf}* ‘to come to like, take to’

ACT_{nom} **PAT**_{acc}

si → ∅

Forť byl ve vesnici oblíben a požíval všeobecné vážnosti.

‘The forester **was [well] liked** in the village and enjoyed universal respect.’

¹³⁰ A systematic annotation of the types of reflexive verbs—reflexiva tantum and several subtypes of derived reflexives—was added to the data component of *VALLEX* only recently, so the rules do not distinguish the type of reflexive verbs.

If an action part of a rule specifies that the reflexive *se/si* should be removed, this action is also applied to verbs with optional reflexive (*se*)/(*si*). Because this can also be interpreted as saying that only the non-reflexive variant of the lemma forms the passive diathesis, verbs with an optional reflexive are not included in the lists of verbs forming the marked members of diatheses according to such rules. There are almost 40 lexical units with optional reflexive that form the passive diathesis according to Rule G2 *pass_trans_acc*, the list can be found at

<http://hdl.handle.net/11346/quest/vallex-FY12>

- b. *osvojovat si^{impf} – osvojit si^{pf}* ‘to acquire (knowledge)’
ACT_{nom} **PAT**_{acc, zda, že, cont} **ORIG**_{opt, od+gen, z+gen} **MANN**_{typ}
si → ∅
 ... učební zkušenosti jsou považovány výhradně za prostředky, s jejichž pomocí **byly osvojeny** určité vědomosti a dovednosti.
 ‘... learning experiences are seen purely as means through which certain knowledge and skills **were acquired**.’
- c. *osvojovat si^{impf} – osvojit si^{pf}* ‘to acquire, take possession of’
ACT_{nom} **PAT**_{acc}
si → ∅
 [otroci n]a závěr tohoto školení přijali povinně islám a bývali osvojeni svým novým pánem, jehož jméno také přebírali.
 ‘At the end of this training, [the slaves] had to embrace Islam and **were taken possession of** by their new master, whose name they also assumed.’
- d. *podrobovat si^{impf} – podrobit si^{pf}* ‘to conquer, subdue, bring under control’
ACT_{nom} **PAT**_{acc}
 Po jejím rozpadu zde vznikla opět markrabství a ta **byla** zase kolem roku 1000 **podrobena** polským knížetem Boleslavem až do jeho smrti.
 ‘When Great Moravia broke up, there were again margraviates, which **were** in turn **conquered** by Polish prince Boleslav from year 1000 until his death.’
- e. *poslouchat^{impf} – poslechnout si^{pf}* ‘to listen to’
ACT_{nom} **PAT**_{acc, jak, zda, že, cont}
 Pokud není k dispozici monitor, je rodička vyšetřena zevně a **jsou** ihned **poslechnuty** ozvy.
 ‘When a monitor is not available, the woman in labour is examined externally and heart rate **is listened** to.’
- f. *přehazovat si^{impf}* ‘to play hot potato’
ACT_{nom} **ADDR**_{s+instr} **PAT**_{acc} **DPHR**_{jako horký brambor}
 Vyprávěč s přijatým jménem Ilja **je** jako horký brambor **přehazován** událostmi ze strany na stranu ...
 ‘The events play hot potato with the narrator, who assumes the name Ilja.’
 lit. ‘The narrator, who assumes the name Ilja, **is flown** by the events to and back as a hot potato.’
- g. *uvědomovat si^{impf} – uvědomit si^{pf}* ‘to come to realize, become aware of’
ACT_{nom} **PAT**_{acc, zda, že, cont}
 Ze skutečnosti, že čas **je** člověkem **uvědomován** a poznáván, nelze ovšem vyvozovat přímé závěry o existenci času.
 ‘We cannot draw any direct conclusions about the existence of time from the fact

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that people recognize and get to know it.’

lit. ‘[...] time **is sensed** and explored by man [...]’ *Nauka o tom, že by se mysl mohla setkat s jevy, které by nemohly být uvědoměny, [...]*

‘The teaching that the mind could come across phenomena that cannot **be realized**, [...]’

- h. *vysluhovat si^{impf} – vysloužit si^{pf}* ‘to earn (a reward)’

ACT_{nom} **PAT**_{acc} **ORIG**_{opt od+gen} **CAUS**_{typ instr, za+acc}

Hodnosti mimo zbraně SS byly kancelářské a nebyly vyslouženy v poli.

‘Out-of-arms SS ranks were officer’s ranks and **were not earned** in combat.’

- i. *brát si^{impf} – vzít si^{pf}* ‘to focus on, keep a sharp eye on, target’

ACT_{nom} **PAT**_{acc} **DPHR**_{na mušku, na paškál}

Zvláště byl brán na mušku už úvodem zmíněný Horst Fuchs.

‘Especially above mentioned Horst Fuchs **has been targeted**.’

- j. *brát si^{impf} – vzít si^{pf}* ‘to take (seriously/to heart/...)’

ACT_{nom} **PAT**_{acc} **MANN**

Takže tutor učitele je podle mě dobrý, pokud je správně chápán a brán k srdci. (WWW)

‘So a tutor of the teacher is IMHO good if he **is** understood correctly and **taken** to the heart.’

- k. *zapamatovávat si^{impf} – zapamatovat si^{pf}* ‘to remember’

ACT_{nom} **PAT**_{acc, jak, zda, že, cont}

Zapamatováno může být jen to, co bylo odlišeno.

‘Only that which has been differentiated can **be remembered**.’

Verbs with both an accusative and a genitive:

A. Rule G2 *pass_trans_acc*, is also applied to verbs that feature two different complementations, one of which may be expressed by an accusative, the other by a genitive; in the marked member of the diathesis with such verbs, the genitive complementation cannot be shifted to the subject position (i.e., Rule G3 *pass_trans_gen* cannot be applied). Currently, there are only three such lexical units in *VALLEX*:

- (31) a. *ušetřit^{pf}* ‘to spare’

ACT_{nom} **ADDR**_{acc} **PAT**_{gen, před+instr}

X=ADDR_{acc → nom}

Dalších historek jsem byla ušetřena.

‘I’ve been spared [having to listen to] more anecdotes.’

- b. *zbavovat^{impf} – zbavit^{pf}* ‘to rid’

ACT_{nom} **ADDR**_{acc} **PAT**_{gen}

X=ADDR_{acc → nom}

Jste od této chvíle zbaven všech práv a výsad.

‘From this moment on, you’ve lost all your rights and privileges.’

lit. ‘From this moment on, you are rid of all your rights and privileges.’ *Tevisova krev bude průběžně zbavována nežádoucích zplodin metabolismu.*

‘Undesirable metabolic products will be continually removed from Tevis’s blood.’

lit. ‘Tevis’s blood will be continually rid of undesirable products of [his] metabolism.’

- c. *zprošťovat^{impf} – zprostit^{pf}* ‘to acquit’

ACT_{nom} **ADDR**_{acc} **PAT**_{gen}

X=ADDR_{acc → nom}

Keith Bakersfeld byl plně zproštěn viny.

‘Keith Bakersfeld was fully acquitted of any blame.’

B. Also verbs with the accusative and genitive as alternative morphemic forms of the same complementation form the passive and resultative diathesis by Rule G2 *pass_trans_acc*, the overall change is therefore **X**_{gen, acc → gen, nom}, in other words, the accusative changes to nominative and the other forms (including the genitive) stay unchanged in the frame:

- (32) *docilovat^{impf} – docílit^{pf}* ‘to achieve, attain’

ACT_{nom} **PAT**_{gen, acc, aby} **LOC**_{typ} **MEANS**_{typ instr}

X=PAT_{acc → nom}

*Tmavá **střídk**_{x.nom} bývá často docílena vhodnými (povolenými) surovinami...*

‘The dark **crumb**_{x.nom} is often achieved through (permitted) ingredients...’

X=PAT_{gen → gen}

*Právě použitím částečného sypání karamelového a pšeničného sladu bylo docíleno úplně nové chuťové **varianty**_{x.gen}.*

‘Exactly through the use of partly caramel topping and wheat malt a completely new taste **variant**_{x.gen} was achieved.’

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The following verbs also fall in this group;¹³¹ for the verbs marked with a question mark, a search¹³² in the SYN7 corpus did not confirm the passive diathesis with a genitive Patient, but my intuition suggests that it may be possible; for some of these cases, the genitive form may be perceived as outdated or literary (even in active sentences, and more so in the passive):

- dobývat*^{impf} – *dobýt*^{pf} ‘to conquer, seize (a city); earn (a success)’ **ACT**_{nom} **PAT**_{gen, acc}
- ? *dodávat*^{impf} – *dodat*^{pf} ‘to encourage, boost’ **ACT**_{nom} **ADDR**_{dat} **PAT**_{gen, acc}
- dopřávat*^{impf} – *dopřát*^{pf} ‘to grant, let sb. have sth.’ **ACT**_{nom} **ADDR**_{dat} **PAT**_{gen, acc, inf, aby}
- dosahovat*^{impf} – *dosáhnout*^{pf} ‘to achieve’
- ACT**_{nom} **PAT**_{gen, acc} **ORIG**_{opt na+loc, od+gen} **REG**_{typ v+loc} **MEANS**_{typ instr}
- ? *dostihovat*^{impf} – *dostihnout*^{pf} ‘to catch up with’ **ACT**_{nom} **PAT**_{gen, acc} **REG**_{typ v+loc}
- nabývat*^{impf} – *nabýt*^{pf} ‘to gain’ **ACT**_{nom} **PAT**_{gen, acc} **ORIG**_{opt od+gen, z+gen}
- ? *načerpát*^{pf} ‘to gain (knowledge), draw (strength)’ **ACT**_{nom} **PAT**_{gen, acc} **ORIG**_{opt od+gen, z+gen}
- následovat*^{impf} ‘to follow (someone’s example)’ **ACT**_{nom} **PAT**_{gen, acc}
- ? *ochutnávat*^{impf} – *ochutnat*^{pf} ‘to taste’ **ACT**_{nom} **PAT**_{gen, acc}
- ? *podržet*^{pf} ‘to retain’ **ACT**_{nom} **PAT**_{acc} **MEANS**_{typ instr, za+acc} **LOC**_{typ}
- ? *popřávat*^{impf} – *popřát*^{pf} ‘to wish, congratulate’ **ACT**_{nom} **ADDR**_{dat} **PAT**_{gen, acc, aby, af}
- popřávat*^{impf} – *popřát*^{pf} ‘to let sb have sth’ **ACT**_{nom} **ADDR**_{dat} **PAT**_{gen, acc}
- poslouchat*^{impf} – *poslechnout*^{pf} ‘to listen to, follow orders’ **ACT**_{nom} **PAT**_{gen, acc}
- používat*^{impf} – *použít*^{pf} ‘to use’ **ACT**_{nom} **PAT**_{gen, acc} **AIM**_{typ k+dat, na+acc, aby}
- ? *požívat*^{impf} ‘to benefit from, command (respect)’ **ACT**_{nom} **PAT**_{gen, acc} **LOC**_{typ}
- ? *přát*^{impf} ‘to wish, congratulate’ **ACT**_{nom} **ADDR**_{dat} **PAT**_{gen, acc, aby, af} **CAUS**_{typ k+dat}
- ? *přát*^{impf} ‘to wish’ **ACT**_{nom} **ADDR**_{dat} **PAT**_{gen, acc, být+adj-nom, inf, aby, af}
- ? *přidávat*^{impf} – *přidat*^{pf} ‘to give’ **ACT**_{nom} **ADDR**_{opt dat} **PAT**_{gen, acc, na+loc}
- uposlechnout*^{pf} ‘to listen to, follow orders’ **ACT**_{nom} **PAT**_{gen, acc}
- užívat*^{impf} – *užít*^{pf} ‘to use’ **ACT**_{nom} **PAT**_{gen, acc} **AIM**_{typ k+dat, na+acc, pro+acc} **BEN**_{typ pro+acc, proti+dat}
- využívat*_I^{impf} – *využít*^{pf} ‘to use’ **ACT**_{nom} **PAT**_{gen, acc} **AIM**_{typ k+dat, na+acc, pro+acc, aby} **EXT**_{typ na+acc}
- ? *vyžadovat (si)*^{impf} – *vyžádat (si)*^{pf} ‘to ask for, demand’
- ACT**_{nom, inf} **PAT**_{gen, acc, inf, aby, af, že} **ORIG**_{na+loc, od+gen, po+loc}
- vzpomínat (si)*^{impf} – *vzpomenout (si)*^{pf} ‘to remember’
- ACT**_{nom} **PAT**_{gen, acc, na+acc, jak, zda, že, cont} **COMPL**_{typ jako+gen, jako+acc, jako na+acc, jako+adj-acc} **MANN**_{typ}
- ? *zasluhovat (si)*^{impf} – *zasloužit (si)*^{pf} ‘to deserve, merit’
- ACT**_{nom} **PAT**_{gen, acc, být+adj-nom, inf, aby} **ORIG**_{opt od+gen} **CAUS**_{typ za+acc}
- zneužívat*^{impf} – *zneužít*^{pf} ‘to take advantage of’ **ACT**_{nom} **PAT**_{gen, acc} **AIM**_{typ k+dat, pro+acc}

¹³¹ Czech sentences exemplifying the passive/resultative diathesis of these lexical units can be found at <http://hdl.handle.net/11346/quest/vallex-CVLQ>

¹³² The search was performed as a query for a neuter singular passive participle of the verb lemma, followed by a filter for sentences in which a genitive noun or pronoun appears at most five positions to right or left of the passive participle.

In addition to the lexical units marked above with a question mark, there is one lexical unit in *VALLEX*, the reflexive verb *cenit si*, where the application of Rule G2 *pass_trans_acc* leads to a too generous list of morphemic forms of the Patient (**PAT**); the Patient cannot be expressed by a genitive in the marked member of the passive/resultative diathesis, at least not when the reflexive *si* is simultaneously deleted:

- (33) *cenit*_I *si*^{impf} ‘to value’
ACT_{nom} **PAT**_{gen,acc} **REG**_{na+loc}^{typ} **CAUS**_{kvůli+dat,pro+acc}^{typ} **MANN**^{typ}
 Rule G2 *pass_trans_acc*: **PAT**_{acc → nom}
cenit si špatnou kresbu.PAT.acc od Picassa → ... špatná kresba.PAT.nom od Picassa bude vždycky víc ceněna než lepší kresba od někoho méně vlivného, ...
 ‘value a bad Picasso drawing.PAT.acc → ... a bad Picasso drawing.PAT.nom will always be valued higher than a better drawing by someone less influential, ...’
 Rule G2 *pass_trans_acc*: **PAT**_{gen → gen}
*cenit si špatné kresby.PAT.gen od Picassa → * špatné kresby.PAT.gen od Picassa bude vždycky ceněno; ? vždy si.REFLEX bude ceněno špatné kresby od Picassa*
 ‘value a bad Picasso drawing.PAT.gen → * a bad Picasso drawing.PAT.gen will be valued; ? a bad Picasso drawing.PAT.gen will always be REFLEX valued’

5.1.4.1b Verbs with a genitive complementation (behaving similarly to verbs with an accusative complementation).

When it comes to forming the passive and resultative diathesis, some verbs with a genitive complementation behave similarly as verbs with an accusative complementation: in the marked member of these diatheses, the genitive complementation fills the subject position, in other words, the genitive changes into nominative. In *Vallex*, there are 6 lexical units in 4 lexemes for which this is the only way of forming the passive diathesis, cf. (34); all of them are reflexive.

Rule G3 *pass_trans_gen* may also be applied to verbs that fluctuate between the behaviour typical of transitive verbs and the behaviour typical of intransitive verbs, see Section 5.1.4.1c. Some of these fluctuating verbs are not reflexive, so reflexivity is not listed among the conditions for the application of the rule.

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Passive and resultative diathesis		Rule G3
Supplementary rule for frames where gen → nom		pass_trans_gen
Conditions	diat: pass $X_{\text{gen}} \& \neg Y_{\text{acc}}$	
Verbal form X	$se, si \rightarrow \emptyset$ gen → nom	

- (34) a. *dotýkat se^{impf} – dotknout se^{pf}* ‘to touch’
ACT_{nom} **PAT**_{gen} **MEANS**_{instr}^{typ}
X=PAT_{gen → nom}
*Poklepu jí na předloktí a ona mě škrábne do zápěstí, protože **těhotné**.x.nom mají nutkání dotýkat se a být dotýkány.*
 ‘I tap her on the forearm and she scratches my wrist, because **pregnant women**.x.nom are compelled to touch and be touched.’
- b. *dotýkat se^{impf} – dotknout se^{pf}* ‘to impinge’
ACT_{nom} **PAT**_{gen}
X=PAT_{gen → nom}
*Říká-li dnes ministr práce, že sociální **dávky**.x.nom nejsou a nebudou krizí nijak dotčeny...*
 ‘When the Labour Minister says that social **benefits**.x.nom are not and will not be affected by the crisis,...’
- c. *dotýkat se^{impf} – dotknout se^{pf}* ‘to impinge, touch upon’
ACT_{nom} **PAT**_{gen} **MEANS**_{instr}^{typ}
X=PAT_{gen → nom}
*Je v ní dotčen **problém**.x.nom, nakolik je člověk tvůrcem svých vlastních osudů...*
 ‘The **problem**.x.nom of the extent to which a person is the creator of their own fate is touched upon in the book.’
- d. *obávat se^{impf}* ‘to fear’
ACT_{nom} **PAT**_{gen, inf, aby, zda, že, cont}
X=PAT_{gen → nom}
***Tito**.x.nom byli právem obyvateli všude obáváni, neboť před nimi nezůstalo nic jistého.*
 ‘**They**.x.nom were rightfully feared by the inhabitants, for nothing was safe from them.’
- e. *otázat se^{pf}* ‘to question, ask’
ACT_{nom} **ADDR**_{gen} **PAT**_{na+acc, po+loc, zda}

[...] *byl policistou otázán, co tam dělá.*

‘[...**he**.**x**.**nom**] was asked by a policeman what he was doing there.’

- f. *tázat se^{impf}* ‘to question, ask’

ACT_{nom} **ADDR**_{gen} **PAT**_{na+acc, po+loc, zda, cont}

*Byl jsem tázán různými členy strany, [zda bych kandidoval na místo-
předsedu,] ale ne.*

‘[**I**.**x**.**nom**] had been asked by various party members [to run for the vice-chairman
post], but no.’

5.1.4.2 Intransitive verbs

Intransitive verbs, i.e. verbs without any accusative complementations, also form the marked structures of the passive and resultative diatheses. For the sake of the description of diatheses, we ascribe transitivity also to certain verbs with a genitive complementation, if they show evidence of similar syntactic behaviour, cf. Section 5.1.4.1b and Section 5.1.4.1c. The behaviour of intransitive verbs is captured by two supplementary rules: Rule G4 `pass_intrans_gen` for verbs with a genitive complementation behaving intransitively (Section 5.1.4.2a) and Rule G5 `pass_intrans_no` for verbs without an accusative/genitive complementation (Section 5.1.4.2b).

5.1.4.2a Intransitive verbs with a genitive complementation.

The behaviour of the majority of verbs with a genitive complementation is captured by the supplementary Rule G4 `pass_intrans_gen`. In the marked structures of the passive and resultative diatheses, these verbs do not allow the change of the genitive complementation into a nominative one: the forms of the complementations, except for Actor, are therefore the same as in the unmarked member of the diathesis. Because the supplementary rule does not specify variable **X** – no complementation is taking up the subject position in the marked member of the diathesis, cf. Section 5.1.3 – the verbal form in the marked member of the diathesis is always 3rd person neuter singular.

Passive and resultative diathesis		Rule G4
Supplementary rule for frames with genitive (without a change in the form of the genitive complementation)		<code>pass_intrans_gen</code>
Conditions	diat: <code>pass</code> <code>Y_{gen} & ¬X_{acc}</code>	
<i>only actions in Rule G1 <code>pass_basic</code></i>		

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- (35) a. *dbát^{impf}* 'to see to sth, take care of sth'
ACT_{nom} **PAT**_{gen, na+acc, o+acc, aby}
Y=**PAT**_{gen}
*Rozumí se samo sebou, že vedle politické autonomie musí **být dbáno** politické **centralizace**.*_{Y.gen.}
 'It is understood that besides political autonomy, political **centralization**_{Y.gen} must also **be taken care of**.'
Y=**PAT**_{o+acc}
*Myslíte, že **je** v současné době **o žáky** s tímto problémem dostatečně **dbáno**?*_{Y.o+acc}
 'Do you believe that students with this problem are provided with sufficient care?'
 lit. '[...] that **students**_{Y.o+acc} with this problem **are taken care of** sufficiently?'
Y=**PAT**_{na+acc}
Velmi přísně bylo dbáno na dodržení bezpečnostních zásad a veškerých protihlukových opatření.
 'Following_{Y.na+acc} all safety rules and noise precautions **was** stringently **seen to**.'
- b. *dbát^{impf}* 'to heed'
ACT_{nom} **PAT**_{gen, na+acc}
Y=**PAT**_{gen}
*Varovných **hlasů** podnikatelů **nebylo dbáno**.*_{gen}
 'Warnings_{gen} coming from the entrepreneurs **were not heeded**.'
- c. *lítovat^{impf}* 'to regret, repent'
ACT_{nom} **PAT**_{gen, že, cont}
*Hříšný skutek je něčím dočasným, **čeho** může **být vzápětí litováno**, kdežto názor je trvalejší povahy.*_{Y.gen}
 'A sinful **act**_{Y.gen} is something temporary that can **be repented** the next moment, while a stance is of a more permanent nature.'
- d. *lítovat^{impf}* 'to not to be willing to expend a sum'
ACT_{nom} **PAT**_{gen, inf}
***Není litováno nákladů** ani **času** na zajištění ochrany práv řadového českého občana v zahraničí.*_{Y.gen}
 'Neither expenses nor time are spared to ensure that an ordinary Czech citizen's rights abroad are heeded.'
 lit. 'Neither **expenses**_{Y.gen} nor **time**_{Y.gen} **are regretted** [...]'
- e. *namluvit^{pf}* 'to say, talk (a lot)'
ACT_{nom} **PAT**_{gen}
***Není v tom nic senzačního**, napsáno i **namluveno toho** bylo až dost.*_{Y.gen}

‘This is not sensational, more than enough [lit. **of it**._{Y.gen}] **has been** written and **said** about this.’

- f. *vyčkávat^{impf} – vyčkat^{pf}* ‘to wait upon’

ACT_{nom} **PAT**^{opt}_{gen, na+acc, zda, že, cont} **LOC**^{typ}

*Důležité je, aby **bylo** po natlakování **vyčkáno** určité **doby**._{Y.gen}, než nastane vyrovnání teplot – nejméně 15 minut.*

‘It is important that after pressurizing, certain **time**._{Y.gen} **is waited for** until the temperatures equalize—at least 15 minutes.’

- g. *zanechávat^{impf} – zanechat^{pf}* ‘to quit, stop’

ACT_{nom} **PAT**_{gen}

*povinnost vrátit uhrazenou částku nebo její část v případě, že **studia**._{Y.gen} **bude zanecháno***

‘duty to refund the sum in the case that the student drops out of school’

lit. ‘[...] in the case that **the study**._{Y.gen} **is quitted**’

Reflexive verbs:

In the case of intransitive reflexive verbs, the reflexive *se/si* is retained even in the marked member of the diathesis (cf. also (34 and 39)):

- (36) a. *dopouštět_I se^{impf} – dopustit_I se^{pf}* ‘to commit (a crime)’

ACT_{nom} **ADDR**^{opt}_{na+loc} **PAT**_{gen}

Y=PAT_{gen}

*Je to starý, těžce udržitelný produkt, u kterého bychom museli zdolat všechny hříchy, **kterých se** v něm **bylo dopuštěno**.*

‘It’s an old and hard to maintain product and we would have to overcome all sins **that.gen** **had been REFLEX** committed in it.’

- b. *dožadovat se^{impf} – dožádat se^{pf}* ‘to demand’

ACT_{nom} **PAT**_{gen} **ORIG**^{opt}_{na+loc, od+gen}

*Před XVII. stol. prostředky, jimiž **bylo dožadováno se** určitého **pohybu**._{Y.gen}, byly velmi omezeny; ale noty měly tehdy celkem určitou střední platnost.*

‘Until the XVIIth century, the means through which certain **movement**._{Y.gen} **was asked for** were rather limited; but note values had a fairly stable average duration in those times.’

- c. *vyvarovávat se^{impf} – vyvarovat se^{pf}* ‘to avoid’

ACT_{nom} **PAT**_{gen, inf, aby}

*Je žádoucí, aby **se bylo vyvarováno** různých **nedůsledností**._{Y.gen}, jako na příklad té, že nehodný muž bude z jedné instituce vyhozen, ale v jiné zůstává klidně sedět.*

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‘It is desirable that diverse **inconsistencies**_{Y.gen} **be avoided**, for example that an untrustworthy man is thrown out of one institution but retains his seat in another.’

In some of these reflexive verbs, the choice of Rule G4 *pass_intrans_gen* over Rule G3 *pass_trans_gen* is clearly motivated by the need to avoid ambiguity with the passive of a related non-reflexive transitive verb; for example, in 36b, the genitive cannot be transformed into a nominative because that would lead to ambiguity with the lexical unit *dožadovat (si)^{impf} – dožádat (si)^{pf}* ‘to demand (in formal contexts)’ **ACT**_{nom} **PAT**_{acc} **EFF**_{opt 0+acc} .

Outdated and literary instances In some cases, either the lexical unit itself or its passive usage according to Rule G4 *pass_intrans_gen* is clearly outdated or literary and was found only in pre-1930’s texts:¹³³

- (37) a. *dočkat^{pf}* ‘to wait for, stop any action until’
ACT_{nom} **PAT**_{gen}
[...] a proto dostal návěstí "volno", aniž bylo dočkáno hlášení_{Y.gen/?nom} příjezdu nákladního vlaku [...] (WWW, original text from 1928)
 ‘[...] and therefore he got a "free to go" signal before **it was waited** [for] **the report**_{Y.gen/?nom} of the arrival of the freight train [...]
- b. *držet se^{impf}* ‘to follow (advice, rule)’
ACT_{nom} **PAT**_{gen}
Já ovšem upozorňuji, že ani z té strany velkostatkářské, ač nechci žádných rekriminací činit, ne vždy téže zásady_{Y.gen} bylo se drženo. (WWW, original text from 1901)
 ‘But I remind you, even though I do not intend any recrimination, that this **principle**_{Y.gen} **has not always been followed** on the large-scale farmers’ side.’
- c. *lekat_I se^{impf} – leknout_I se^{pf}* ‘to take fright, get scared, start at sth’
ACT_{nom} **PAT**_{opt gen, aby, zda, že, cont}
*Co se druhého návrhu na daně z jmění týče, tož prosím, aby **nebylo se lekáno** příliš toho slova_{Y.gen}.* (WWW, original text from 1899)
 ‘Concerning the proposal for property tax, I beg you **not to start/get a fright** at that **word**_{Y.gen}.’
- d. *nadávat^{impf} – nadat^{pf}_{II}* ‘to swear, scold, reprimand, call names’
ACT_{nom} **ADDR**_{dat} **PAT**_{opt gen, 5, do+gen} **CAUS**_{typ kvůli+dat, za+acc, že}
*Zdali byl Rendl všeho vinen, **čehož**_{Y.gen} mu od měst **nadáno**, či nebyl, nedá se posud s jistotou říci; [...]* (corpus diakorp v6, original text

¹³³ In the case of one lexical unit, older texts provide multiple instances of a passive diathesis in which, contrary to rules Rule G4 *pass_intrans_gen* and Rule G3 *pass_trans_gen*, the

from 1862)

‘Whether Rendl was or was not guilty of [being] all **that**._{y.gen} **he was called** by the towns [...]’

- e. *nechávat*^{impf} – *nechat*^{pf} ‘to leave unfinished, give up’

ACT_{nom} **PAT**_{gen}

*Byl však vypálen pouze jeden milíř asi 35 m² a **bylo toho**._{y.gen} **necháno**, jelikož se to nepovedlo.* (WWW, original text from 1932)

‘Only one burn of a charcoal kiln of about 35 square meters was run and **it**._{y.gen} **was given up** as it did not work as expected.’

- f. *přidržovat se*^{impf} – *přidržet se*^{pf} ‘to follow (a rule)’

ACT_{nom} **PAT**_{gen}

*V podstatě **bylo se přidrženo ustanovení**._{y.gen} **obecného zákona občanského**, [...]* (WWW, original text from 1922)

‘In principle, the **provisions**._{y.gen} of the general civil law **were followed**, [...]’

- g. *vystříhat*_{II} *se*^{biasp} ‘to avoid (a bad behaviour)’

ACT_{nom} **PAT**_{gen,aby}

*Cizích **slov**._{y.gen} **budiž se vystříháno**, pokud to jest možno, a obdobně, jako to uloženo bylo pro jazyk německý.* (Naše řeč, Navrátil, 1917)

‘Foreign **words**._{y.gen} shall **be avoided** whenever possible, and similarly, just as it was demanded for the German language.’

- h. *zříkat se*^{impf} – *zřici se*^{pf1} – *zřeknout se*^{pf2} ‘to disclaim, disown, surrender, renounce, waive, alienate’

ACT_{nom} **PAT**_{gen}

*Podle § 13 odpůrčího řádu jest věřitel oprávněn požadovati to, čeho z odporovatelného jednání **bylo se zřeknuto**, [...]* (WWW, original text from 1931)

‘According to Section 13 of Creditors’ Avoidance of Transfers Act, the creditor is entitled to claim that which was alienated based on the contradictable action, [...]’

lit. ‘[...] claim that **which**._{y.gen} **was waived** based on the contradictable action, [...]’

5.1.4.2b Verbs with a genitive complementation fluctuating between transitive and intransitive behaviour

Another group of verbs with a genitive complementation exhibits a fluctuation between the behaviour typical for verbs with an accusative complementation (the genitive complementation may become the subject of the marked mem-

ber of the diathesis, i.e., the genitive may change into a nominative, Rule G3 *pass_trans_gen*) and the behaviour typical of verbs without such a complementation (in marked structures, the genitive does not always change into a nominative, Rule G4 *pass_intrans_gen*, see Section 5.1.4.2a).

- (38) *dosahovat^{impf} – dosáhnout^{pf}* 'to reach'
ACT_{nom} **PAT**_{gen}
 Rule G3 *pass_trans_gen*: **X=PAT**_{gen → nom}
Vrchol_{x.nom} byl dosažen 1. 4. 1999 v pozdních večerních hodinách všemi účastníky projektu.
 'The **top_{x.nom}** was reached in the late evening of April 1st, 1999 by all project participants.'
 Rule G4 *pass_intrans_gen*: **X=PAT**_{gen → gen}
 ... a *vrcholu_{x.gen} Sněžky bylo dosaženo v rekordním čase.*
 '... and the **top_{x.gen}** of Sněžka was reached in record time.'

Reflexive verbs:

The fluctuation between the two types of behaviour is also seen in reflexive verbs: in line with Rule G3 *pass_trans_gen*, the reflexive *se/si* is removed when the genitive is replaced by a nominative; but in line with Rule G4 *pass_intrans_gen* (see below), when the marked structure contains the genitive, the reflexive is not removed.

- (39) a. *domáhat se^{impf} – domoci se^{pf}* 'to claim, demand; attain, achieve, win'
ACT_{nom} **PAT**_{gen} **ORIG**_{opt na+loc, u+gen} **BEN**_{typ dat}
 Rule G3 *pass_trans_gen*: *se* → ∅, **X=PAT**_{gen → nom}
V případě, že zde byl případ, pro který writ nebyl ještě vytvořen, nemohlo být právo_{x.nom} domoženo u soudu. (WWW)
 'In the case that no writ has been issued yet for a particular case, the **right_{x.nom}** could not be claimed in a court.'
 Rule G4 *pass_intrans_gen*: *se* → *se*, **Y=PAT**_{gen → gen}
Z české strany byla hájena jednota země a domáháno se plné jazykové rovnoprávnosti_{y.gen}. (WWW)
 'On the Czech side, unity of the country was defended and full **equality_{y.gen}** of language rights was demanded REFLEX.'
- b. *dovolávat se^{impf} – dovolat se^{pf}* 'to quote in support of one's view; *impf*: appeal, demand; *pf*: attain by appealing for sth'
ACT_{nom} **PAT**_{gen}

Rule G3 *pass_trans_gen*: $se \rightarrow \emptyset$, $X = PAT_{gen \rightarrow nom}$

*Budova byla prodána, koupena, vrácena, zastavena, **vlastnické právo**._{x.nom} [bylo] posuzováno, souzeno i **dovoláváno** a výsledek?*

‘The building **was** sold, bought, returned, pawned, the **proprietorship**._{x.nom} evaluated, litigated, even **appealed for**—and the outcome?’

Rule G4 *pass_intrans_gen*: $si \rightarrow si$, $Y = PAT_{gen \rightarrow gen}$

*[...] asi to nebude příliš překvapivé, že **se jich**._{y.gen} po celou historii **bylo dovoláváno**, aby ospravedlnily jiné násilné a vykořisťující ideologie [...]* (WWW)

‘[...] it probably doesn’t surprise you that throughout all of history, **they**._{y.gen} **were REFLEX quoted** to give support to other violent and exploitative ideologies [...]

- c. *povšimnout si*^{pf} ‘to notice’

ACT_{nom} **PAT**_{gen, jak, zda, že, cont}

Rule G3 *pass_trans_gen* $si \rightarrow \emptyset$, $X = PAT_{gen \rightarrow nom}$

*Nemohla **být nepovšimnuta** totální **nespolupráce**._{x.nom} na úrovni radnice.*

‘The **lack**._{x.nom} of **cooperation** at the town-hall level could not **be unnoticed**.’

Rule G4 *pass_intrans_gen*: $si \rightarrow si$, $Y = PAT_{gen \rightarrow gen}$

*Pokud **si jí**._{y.gen} **bylo** kdy **povšimnuto**...*

‘If **she**._{y.gen} has ever been noticed **REFLEX ...**’

- d. *vážít si*^{impf} ‘to respect, appreciate’

ACT_{nom} **PAT**_{gen}

Rule G3 *pass_trans_gen* $si \rightarrow \emptyset$, $X = PAT_{gen \rightarrow nom}$

*Tento ledový **průmysl**._{x.nom} **je** i cizinci neobyčejně ceněn a **vážen**, poněvadž je to podnik výnosný, ale nebezpečný.*

‘This icy **business**._{x.nom} is highly **valued** and respected even by foreigners, as it is a business of profit, but also of danger.’

Rule G4 *pass_intrans_gen*: $si \rightarrow si$, $Y = PAT_{gen \rightarrow gen}$; humorous use of an overly literary form

*Dopis končil slovy, že patřím mezi zákazníky, **kterých**._{y.gen} **jest si váženo**, a proto jest pevně věřeno, že využiji všechny výhody, které jsou mi nabízeny.*

‘The letter ended with words expressing that I am one of the customers **who**._{y.gen}

reflexive is removed while the genitive is used; a proper analysis of such constructions can only be carried out by a researcher with better insight into the historical development of Czech.

hledět si^{impf} ‘to pay particular attention to’ **ACT**_{nom} **PAT**_{gen}

*Ústního **počítání**._{y.gen} **budiž** zvlášť pilně **hleděno**. (WWW, original text from 1878)*

‘**Counting**._{y.gen} orally **shall be practised** especially industriously.’

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are **REFLEX** valued, and therefore it is believed that I will peruse of any and all benefits that have been laid in front of me.’

- e. *všítmat si^{impf} – všimnout si^{pf}* ‘to notice’

ACT_{nom} **PAT**_{gen, jak, zda, že, cont}

Rule G3 pass_trans_gen: $si \rightarrow \emptyset$, **X=PAT**_{gen → nom}

*Umění neseďá v koutě, **umění**._{x.nom} musí **být všimnuto** – a posouzeno.*

‘Art does not shy away into a corner, **art**._{x.nom} must **be noticed**—and evaluated.’

Rule G4 pass_intrans_gen: $si \rightarrow si$, **Y=PAT**_{gen → gen}

*Na jevišti: pocity, že stojíme před veřejností, nebo že chceme, aby **si nás**._{y.gen} **bylo všimnuto**.*

‘On the stage: feeling that we are standing in front of the public, or that **we**._{y.gen} want to **be noticed REFLEX**.’

- f. *všítmat si^{impf} – všimnout si^{pf}* ‘to pay attention to’

ACT_{nom} **PAT**_{gen}

Rule G3 pass_trans_gen: $si \rightarrow \emptyset$, **X=PAT**_{gen → nom}

*Naučil jsem se (...) od Korintha Sókratovce, že nemají **nevšímání býti** [**ti**._{x.nom}], kdo v oděvu tom oblečení jsou, nýbrž že [...]*

‘I’ve learnt (...) from Socrates’s follower Corinth that [**they**._{x.nom}] who are clad in that clothing should not **be paid [no attention]**, but rather [...].’

Rule G4 pass_intrans_gen: $si \rightarrow si$, **Y=PAT**_{gen → gen}

*[...]; ostatní semenáče byly více nebo méně pravým pláňatům hruškovým podobny, a proto **nebylo si jich**._{y.gen} **všímáno**. (WWW)*

‘[...]; the other seedlings were more or less similar to true wild pears and therefore **they**._{y.gen} were paid **REFLEX [no attention]**.’

- g. *vyptávat se^{impf} – vyptat se^{pf}* ‘to question’

ACT_{nom} **ADDR**_{gen} **PAT**_{na+acc, po+loc, zda}

Rule G4 pass_intrans_gen: $si \rightarrow si$, **X=ADDR**_{gen → nom}

*Každý **jednotlivec**._{x.nom} **byl vyptáván** na jméno, šarži, regiment a pod.*

‘Every **individual**._{x.nom} **was questioned** about his name, rank, regiment and so on.’

Rule G4 pass_intrans_gen: $si \rightarrow si$, **Y=ADDR**_{gen → gen}

*[...] bylo vybráno 18 povolání (jako je například – policista, lékař, právník, řidič, učitel) a **bylo se [jich]**._{y.gen} **vyptáváno**, jestli._{pat} lidé ze slumu někoho od těchto povolání znají.¹³⁴ (WWW)*

‘[...] 18 jobs (such as a policeman, doctor, lawyer, driver, teacher) were selected

¹³⁴ There is actually no genitive complementation in this sentence; the claim that the form of the genitive complementation (the Patient) would be maintained in the marked structure is based on introspection.

and [it] **was REFLEX** asked [them._{Y.gen}] whether._{PAT} people from the slum know anyone with those jobs.’

The following two lexical units are related to those above (39c and 39e) as the less frequent members of the lexical alternation *split* with value *Stimul*. Due to their low frequency and rather hypothetical nature, their use in the passive is not documented in the corpus; however, it can be safely assumed that they behave in the same manner as their more frequent counterparts:

- (40) h. *povšimnout si^{pf}* ‘to notice’
ACT_{nom} **PAT**_{gen} **EFF**_{jak, že}
- i. *všimnat si^{impf} – všimnout si^{pf}* ‘to notice’
ACT_{nom} **PAT**_{gen} **EFF**_{jak, že}

Let me add that by looking at the valency frame of a verb with a genitive complementation and the current value of the attribute *diat*, it is impossible to determine whether just Rule G3 *pass_trans_gen*, just Rule G4 *pass_intrans_gen*, or both of these rules may be applied. I have carried out additional annotation for distinguishing these cases, but for technical reasons, it has not been projected onto the actual value of the attribute *diat* yet.

¹³⁵ The annotation of the passive/resultative diatheses was carried out systematically only for verbs with an accusative complementation. Nonetheless, about 70 lexical units that fall under Rule G5 *pass_intrans_no* and form the passive/resultative diathesis were also annotated, possibly because the example concordances were encountered during the annotation of other lexical units in the same lexeme. These lexical units can be viewed at <http://hdl.handle.net/11346/quest/vallex-K70Y>; of these, all reflexiva are listed in examples (44 and 45). (The query also matches several lexical units with an accusative complementation with a **DPHR** functor that form the passive diathesis according to Rule G2 *pass_trans_acc*.)

In Section 5.2, I show that derived reflexives that have neither accusative nor genitive complementation typically do not form the passive/(objective) resultative diathesis. In short, their passive participles are used with the verb *být* ‘to be’ in constructions where there is no shift of the nominative complementation away from its prominent subject position, so Rule G1 *pass_basic* does not apply; these constructions are the so-called *subjective* (also *subject-oriented*) *resultatives*:

ponořovat se^{impf} – ponořit se^{pf} ‘to immerse itself’ **ACT**_{nom} **DIR3**

V okamžiku maximální fáze [...] bude měsíční disk_{nom} do stínu ponořen *přibližně z 81 procent.*

‘In the maximum phase [...] about 81 percent of the moon **disc_{nom}** **will be immersed** in the shadow.’

5.1.4.2c Intransitive verbs without a genitive complementation.

Verbs without any complementation that could be realized either through an accusative or through a genitive form the passive and resultative diathesis according to the following Rule G5 *pass_intrans_no*:¹³⁵

Passive and resultative diathesis		Rule G5
Supplementary rule for frames without accusative/genitive		<i>pass_intrans_no</i>
Conditions	diat: <i>pass</i> $\neg X_{\text{gen, acc}}$	
Verbal form	<i>se</i> \rightarrow \emptyset	

- (41) a. *hýbat*^{impf} – *hnout*^{pf1} – *hýbnout*^{pf2} ‘to move’
ACT_{nom} **PAT**_{instr, s+instr} **DIR**_{typ} **BEN**_{typ, dat}
*Jídlo a pití sice zmizely, jinak **nebylo** s ničím **hnuto** s výjimkou postele.*
 ‘Other than that food and drink have disappeared, nothing has been moved except for the bed.’
 lit. ‘...it has not been moved with nothing but the bed.’
- b. *měřit*^{impf} ‘to treat fairly’
ACT_{nom} **PAT**_{dat} **DPHR**_{stejně}
*Každý si bude hlídat, jestli **je** všem **měřeno** stejně.*
 ‘Everyone will watch out for signs of injustice.’
 lit. ‘Everyone will watch whether [it] is measured the same to everybody.’
- c. *bránit*^{impf} ‘to hamper, impede, obstruct, hinder’
ACT_{nom} **PAT**_{dat}
*V mnoha firmách **bývá** prý vzniku zastoupení zaměstnanců **bráněno** a podnikatelé trvají na plné suverenitě vlastnictví.*
 ‘Apparently, the formation.PAT.dat of employee representation is hampered in many companies and entrepreneurs insist on maintaining full control over their property.’

In line with his earlier findings (Grepel and Karlík, 1983 and its edited version in Daneš et al., 1987a, p. 240–241), Karlík (2019) implies that intransitive verbs form the passive/resultative diathesis only if they take an object—he explicitly marks the Czech sentence **Bylo tancováno celý den*. ‘*It was danced all day.’ as incorrectly formed (both in Czech and in English, but not so in German: *Es wurde (von den Kindern) den ganzen Tag getanzt. Den ganzen Tag wurde (von den Kindern) getanzt.*). It is certainly the case that when speakers want to

avoid mentioning the Actor of such objectless verbs,¹³⁶ they normally use the deagentive diathesis. Our sample of passive-forming intransitive verbs confirms this hypothesis and allows us to elaborate it a little further: it includes verbs with an object in the form of a prepositional group (41a and 44a), as well as those with a dative object (41c) (possibly expressing a free Benefactor as in the somewhat dubious example 42f), but also some less typical cases: verbs with a complementation of Direction (42a and 42b) or Manner (42c), verbs with a complementation expressed by the instrumental case (42d), and even a verb with a complementation expressed by a content clause (42e).

- (42) a. *kopat*^{impf} – *kopnout*^{pf} ‘to kick’
ACT_{nom} **PAT**^{opt}_{instr} **DIR3**^{typ}
Jeden byl povalen na zem, bylo do něj.DIR3 kopáno.
 ‘One was forced on the ground and kicked.’
 lit. ‘[...] it was kicked into him.DIR3.’
- b. *nahlížet*^{impf} – *nahlédnout*^{pf} ‘to look, consult’
ACT_{nom} **DIR3**
Do pojistné smlouvy.DIR3.do+gen`into` subdodavatele bývá nahlíženo, dojde-li ke vzniku vážnější škody.
 ‘The insurance contract.DIR3.do+gen`into` of the sub-supplier is usually consulted [only when] a more serious damage is caused.’
- c. *činit*^{impf} ‘to act, do’
ACT_{nom} **MANN**
Zda je tak.MANN činěno v souladu.CRIT se zákonem, nám nepřísluší hodnotit.
 ‘Whether it is done so.MANN in line.CRIT with the law is not up to us to judge.’
- d. *topit*_I^{impf} ‘to heat (up); use for heating, burn’
ACT_{nom} **LOC**^{typ} **MEANS**^{typ}_{instr}
Předloni bylo v cementárnách topeno zemním plynem v pouhém 1,6 procenta, [...]
 ‘The year before the last cement mills used natural gas only for 1.6% of their heating needs, [...]’
 lit. ‘The year before the last in cement mills, [it] was heated with natural gas only in 1.6% [of cases, ...]’

¹³⁶ The term *objectless verbs* here refers to a subgroup of intransitive verbs that is characterized by the lack of presence of any type of objects, that is complementations expressed by a prepositional group, clause, or a prepositionless accusative, genitive, dative, or instrumental.

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- e. *projevovat^{impf} – projevít^{pf}* ‘to show, manifest, demonstrate’
ACT_{nom} **PAT**_{že}
 [...] *ujednání obsažené v zástavní smlouvě nevzbuzuje žádné pochybnosti o tom, co jím bylo projevono, totiž že.PAT zástavní právo se zřizuje k zajištění pohledávky z označené úvěrové smlouvy do částky dvou miliónů.*
 ‘[...] the agreement of the mortgage contract does not allow any uncertainty as to what **is being demonstrated**, namely that.PAT.že the Chattel mortgage is set up to cover outstanding debt based on the said contract up to two million [crowns/dollars/Euro/...].’
- f. *hrabat^{impf}* ‘to rummage, poke, fumble’
ACT_{nom} **LOC**
Nehrabu a není mi [v telefonu.LOC] hrabáno. (WWW, a discussion forum on the topic *Čte vám partner zprávy?* ‘Does your partner read through the messages in your phone?’)
 ‘I do not snoop and it’s not snooped on me.’
 lit. ‘I do not fumble [through his phone] and it **is not fumbled** to me.BEN.dat [in my phone.LOC].’
- g. *hrabat^{impf} – hrábnout^{pf}* ‘to dig, rummage’
ACT_{nom} **PAT**_{opt instr}
Před námi [tady.LOC] tedy bylo poměrně nedávno hrabáno, a tak jsme žádné cennosti v zemi neobjevili.
 ‘Thus it **was dug** [here.LOC] not too long before us and so we have not extracted any valuables from the ground.’

One more phenomenon pointed out by Karlík (2019) is worth mentioning. In creative language use, the passive diathesis may imply a reinterpretation of an intransitive verb as a transitive verb. Both in the example given by Karlík (43a) and in the three examples found in our data (43b–43d), all of which are semantically closely related, this transitive reinterpretation amounts to implying that the Actor did not perform the action of his own free will but was forced to do so.¹³⁷

¹³⁷ In the following example, it seems that the transitive usage is a rare part of the beer-brewers’ jargon:

ležet^{impf} ‘to lie’

ACT_{nom} **LOC**^{typ}

Podle pivovaru se jedná o India Pale Lager, což je sice protimluv, ale snaží se tím vyjádřit, že pivo je vařeno a leženo jako světlý ležák. (WWW)

‘The brewery claims it’s an Indian Pale Lager, which is a contradiction, but it is meant to express that the beer **is brewed and laid** as a pale lager.’

- (43) a. *odcházet^{impf} – odejít^{pf}* ‘to leave, quit’
ACT_{nom} **PAT**_{z+gen}
Trenér mužstva byl [?? majitelem klubu] odejit.
 ‘The coach of the team was forced to quit [by the owner of the club].’
 lit. ‘The coach of the team **was quitted**.’
- b. *kráčet^{impf}* ‘to be moving in a certain direction’
ACT_{nom} **INTT**_{opt k+dat, na+acc, inf} **DIR**_{typ} **LOC**_{typ}
Kam jste kráčeny, telekomunikace?
 ‘Where **are you being headed**, telecommunication technologies?’
- c. *mizet^{impf}* ‘to disappear’
ACT_{nom} **LOC**_{typ} **DIR1**_{typ}
Ti, kteří mizí z obrazovky (respektive jsou mizeni), si chtějí aspoň trochu pamatovat jednoho z mála “věrných diváků”.
 ‘Those who disappear from the screens (or more exactly: **are disappeared**) want to remember one of their “faithful viewers”.’
- d. *utíkat^{impf} – utéci/utéct^{pf}* ‘to run away, flee’
ACT_{nom} **DIR1** **INTT**_{opt k+dat, na+acc, inf} **DIR**_{typ}
Jak mohl vytrvat...? jak mohl utéct...? byl prostě utečen.
 ‘How could he persevere...? how could he flee...? he **was simply fled**.’

Reflexive verbs:

In the case of reflexive verbs, the examples suggest that while the reflexive *se* is removed from the marked constructions, the reflexive *si* is maintained:

- (44) a. *postarat se^{pf}* ‘to take care, look after’
ACT_{nom} **PAT**_{o+acc}
Přestože se děti uprchlíků shodovaly, že je o ně dobře postaráno, část z nich se chce vrátit domů.
 ‘Although the refugee children agreed that they are taken good care of, part of them wants to move back home.’
 lit. ‘...that [it] **is** for them well **taken care**, ...’
- b. *postarat se^{pf}* ‘to take care, arrange’
ACT_{nom} **PAT**_{o+acc, aby} **BEN**_{typ dat, pro+acc}
A pokud se navíc ještě zamilujete nebo pokud se do toho přimíchá pseudonáboženská lidová mystika, je o průšvih postaráno.
 ‘And when we additionally fall in love or a pseudo-religious mysticism is mixed into the brew, a downer is guaranteed.’
 lit. ‘[...] [it] **is arranged** for a downer.’

- c. *zasloužit se*^{pf} ‘to earn, warrant, merit’

ACT_{nom} **PAT**_{o+acc} **MEANS**_{typ}
_{instr}

Ten jim však odpověděl (rescripsit), že o ius respondendi se podle zvyklostí nelze ucházet, ale musí se o něj být zaslouženo, a že tehdy beneficium beze všeho udělí.

‘But instead he replied (rescripsit) that according to custom, ius respondendi cannot be solicited but that it must be deserved, and that therefore he may bestow the beneficium without further ado.’

lit. ‘[...] cannot be solicited but [it] must **be merited**, [...]’

- (45) a. *počínat si*^{impf} ‘to behave, act’

ACT_{nom} **MANN** **REG**_{typ}
_{v+loc}

*Takto-li si počínáno, nezajde žádná sazenice, a během léta narůstají silné rostliny.*¹³⁸ (Araneum 15.04)

‘When done this way, no seedling will die, and only strong plants grow in the summer.’

lit. ‘If **acted** in this way, [...]’

- b. *pohrávat si*^{impf} – *pohrát si*^{pf} ‘to toy (with something)’

ACT_{nom} **PAT**_{s+instr} **MANN**_{typ}

To jenom když si s jejím srdcem bylo pohráváno jako s nějakou hračkou...

‘Only when they have toyed with her heart as with some kind of a toy...’

lit. ‘Only when **it has been toyed** with her heart as with a toy...’

5.2 Adjectives derived from passive participles

The spectre of meanings that can be expressed by the verb *být* ‘to be’ combined with a passive participle is not limited to instances of the passive and simple resultative diatheses; other such constructions are analysed as verbonominal, i.e.,

¹³⁸ To be fair, I have to admit that it is easy to Google instances of the passive participle *počínáno* (in the sense used in (45a)) in passive constructions without the reflexive *si*; such sentences are typically found in administrative texts, and while both me and my husband evaluate them as faulty, they outnumber the instances of passives with *počínáno si*: *Při provádění stavby bude počínáno tak, aby bylo co nejméně omezeno užívání sousedních pozemků...* (WWW, Úřad městyse Budišov, 2013); *Při demontáži bude počínáno se šetrností tak, aby nebyly poškozeny vnější břízolitové ostění anebo v co nejmenší míře.* (WWW, Sporthotel Milevsko, 2018); *při vjezdu a vstupu na pozemek bude počínáno tak, aby nedocházelo ke škodě na majetku MČ Praha 4;* (WWW, Městská část Praha 4, 2019).

5.2 ADJECTIVES DERIVED FROM PASSIVE PARTICIPLES

být is seen as a copula rather than an auxiliary and the participle is seen as a short form of a deverbal adjective rather than an integral part of an analytical verbal form. In this Chapter, I present a preliminary treatment of selected verbonominal constructions that feature either the passive participle itself, or a (long form of) the deverbal adjective derived from it. I show that constructions with adjectives lexically derived from passive participles are structurally very close to passive constructions and their formation can be described by rules that are analogous to the rules describing the passive/resultative diathesis. This Chapter is a pilot study that covers only the phenomena that I encountered during examination of corpus evidence that was gathered for the annotation of the passive/resultative diathesis; the rules and classification formulated in this Chapter are a tentative starting point for dedicated research rather than a fully thought-out theoretical description.¹³⁹

According to Panevová (1998, p. 9), the valency frame of a syntactically derived deverbal adjective is the same as the valency frame of its source verb except for the removal of one complementation;¹⁴⁰ she says that one of the verb's valency slots is annihilated because it is expressed as the syntactic element that is characterized by the adjective.¹⁴¹ She points out that different valency complementations may be subject to annihilation: it is an **ACT** in 46a, a **PAT** in 46b and an **ADDR** in 46c:

- (46) a. *ponořovat se^{impf} – ponořit se^{pf}* ‘to immerse oneself, plunge’ **ACT_{nom} DIR3**
Měsíc^{ACT} se ponoří do zemského stínu z 81 procent.
 ‘81 percent of the Moon disc will go into the shadow of the Earth.’
 lit. ‘The Moon^{ACT} will immerse itself in the shadow of the Earth from 81 percent.’
ponořený ‘immersed’ **DIR3**
Měsíc^{ACT} bude do zemského stínu ponořený z 81 procent.
 ‘81 percent of the Moon disc^{ACT} will be immersed in the shadow of the Earth.’

¹³⁹ A systematic corpus-based lexicographic treatment of the valency of adjectives is the main topic of the project *Valency of Non-verbal Predicates. An Extension of Valency Studies to Adjectives and Deadjectival Nouns* (2019–2021, funded by the Grant Agency of the Czech Republic, No. 19-16633S), of which I am a team member.

¹⁴⁰ This assumption only applies to *syntactically derived* (in the sense of Kuryłowicz, 1936) deverbal adjectives; the more substantial shift of meaning during lexical derivation is bound to be accompanied by a more substantial change of the valency structure. Lexical derivation of deverbal adjectives has not been much investigated yet.

¹⁴¹ Panevová (1998, p. 9): [...] jedno místo z “úplného” rámce slovesného [...] je u adjektiva “přirozeným” způsobem zlikvidováno na vrub toho členu, kterému je adjektivem přisouzen příznak [...] “Zlikvidované” místo do valence adjektiva nepatří (v tom se lišíme od pojetí Prouzové, 1983), protože jde o zcela jiný významový i syntaktický vztah.

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- b. *přečíst^{pf}* ‘to read (all of something)’ **ACT**_{nom} **ADDR**_{dat}^{opt} **PAT**_{acc, zda, že, cont}
Jan mi podal noviny, které.PAT [on.ACT] přečetl.
 ‘John passed me a newspaper which.PAT he.ACT has read.’
nepřečtený ‘unread (adjective)’ **ACT**_{nom} **ADDR**_{dat}^{opt}
Jan mi podal [jím.ACT] nepřečtené noviny.
 ‘John passed me a [by him.ACT] unread newspaper.’
- c. *informovat^{biasp}* ‘to inform’ **ACT**_{nom} **ADDR**_{acc} **PAT**_{o+loc, aby, ať, zda, že, cont}
My.ACT jsme zákazníka.ADDR dobře informovali o našich servisních službách.PAT.
 ‘We.ACT informed the customer about our repair services.’
informovaný ‘informed’ **ACT**_{nom} **PAT**_{o+loc, aby, ať, zda, že, cont}
Zákazník [námi.ACT] dobře informovaný o našich servisních službách.PAT navštěvuje náš servis pravidelně.
 ‘A customer [who is] well informed about our repair services.PAT visits the repair centre regularly.’

On the other hand, Piřha’s formulations (1982) imply that the valency frame of an adjective contains a slot filled by the adjective’s syntactic parent.¹⁴² I share his view that a description of syntactic derivation amounts to a description of the grammatical rules that link a tectogrammatical structure associated with the verb to the surface-syntactic structure associated with the adjective;¹⁴³ after all, it has been postulated in FGD that syntactic derivatives are represented on the tectogrammatical layer by the lemma of their source word and the change of part of speech is captured through a morphological grammateme (e.g. Panevová et al., 2014, p. 31). However, this view entails the assumption that a syntactically derived deverbal adjective shares the valency frame (the number, type and obligatoriness of individual valency complementations) with its source verb—the reduction of the number of valency complementations concerns only the level of surface syntax, i.e. the forms of expression of individual valency complementations.

¹⁴² Piřha (1982, p. 113): [...] adjektiva odvozená od sloves vyžadují doplnění, které má jejich základové sloveso [...] Deverbativní adjektiva, která se lexikalizovala (jsou tedy i sémanticky osamostatnělá), rámec základového slovesa většinou ztrácejí. Podrřžují z něho někdy konatele či pacienta v podobě řídícího substantiva, [...]

¹⁴³ Piřha (1982, p. 113): Při syntaktické derivaci [...] jde vlastně o popis gramatických pravidel, která při podobných nominalizacích přiřazují hloubkové struktury slovesné povrchovou formu adjektivní. Podobně jako při nominalizacích substantivních dochází v povrchové struktuře k řadě změn. Především se vždy jeden z aktantů podkladového slovesa stává řídícím substantivem derivovaného adjektiva

5.2 ADJECTIVES DERIVED FROM PASSIVE PARTICIPLES

In the following discussion of the valency of deverbative adjectives, I employ a broadly defined concept of passive valency: just as valency in the usual sense refers to elements that must be present for the construction with a given word to be semantically complete and that are expressed as its syntactic children, *passive valency* refers to elements that are required for semantic completeness and may prototypically be expressed as the word's parent (e.g. *yellow fence*), even though it is also possible that there is no direct syntactic relation (the semantic link between the word and its “passive valency complementation” is then mediated by other elements in the sentence structure, e.g. *the fence was/seemed/was supposed to be yellow*) (Boguslavsky, 2003).¹⁴⁴

In the valency frames of adjectives mentioned in this Section, I treat passive valency as a form of expression of a valency complementation and mark it by an upward arrow (↑). Such complementation must be¹⁴⁵ present in the deep syntactic structure containing the given adjective; it never has a surface-syntactic realization as a child of the adjective in question—instead, the syntactic element that fills the slot is marked in the tectogrammatical structure by a coreference arrow.¹⁴⁶ The variable **X** is (in the rules for the formation of adjectives) reserved for the functor of the complementation that is realized through passive valency. The valency frames mentioned in (46) thus are:

- (47) a. *ponořený* ‘immersed’ **ACT**_↑ **DIR3** (X=ACT)
 b. *nepřečtený* ‘unread (adjective)’ **ACT**_{nom} **ADDR**_{dat}^{opt} **PAT**_↑ (X=PAT)

¹⁴⁴ *Passive valency* may also be defined as the set of all word classes on which a lexical item can depend (Mel'čuk, 2003); the definition employed here follows Boguslavsky (2003), from whom I also take the two examples with the word *yellow*. Both Mel'čuk and Boguslavsky are proponents of the Meaning–Text Theory in which the existence of actants is postulated on three layers of language description (semantic, deep syntactic and surface-syntactic), but surprisingly 1-to-1 correspondence between semantic, deep syntactic and surface-syntactic actants is not postulated. Concerning adjectives, both authors admit the existence of a *semantic actant slot* for the noun modified by the adjective, but Mel'čuk (2003, 2004a,b), who does not admit the filling of semantic valency slots by anything other than syntactic actants, postulates that this semantic actant slot is blocked on the level of deep syntax, while Boguslavsky views it as an instance of passive valency—it is filled by the syntactic governor of the adjective or other systematic syntactic means.

¹⁴⁵ The passive valency slot is obligatory even if the corresponding slot in the valency frame of the source verb is optional.

¹⁴⁶ Coreference arrows show grammatical and textual relationships that go across the tree structure, such as the relationship between a personal pronoun and its antecedent. Readers who prefer Panevová's (1998) approach in which the surface-syntactic parent of an adjective does not have a separate slot in the valency frame may interpret the arrow as a symbol for a “throw away” action.

- c. *informovaný* 'informed' **ACT**_{nom} **ADDR**_↑ **PAT**_{o+loc, aby, af, zda, že, cont} (X=ADDR)

5.2.1 Adjectives derived from passive participles of transitive verbs

The surface-syntactic structures containing adjectives syntactically derived from passive participles can be described by rules that copy the structure of rules for the passive/resultative diathesis. The central type is represented by adjectives derived from transitive verbs (including those with a genitive complementation that form passive structures according to Rule G3 *pass_trans_gen*).

Adjectives derived from participles		Rule G6
Adjectives derived from passive participles of transitive verbs		verbonom_trans
Conditions	ACT _{nom} & X _{acc,gen}	
Lemma	<i>se, si</i> → ∅	
Agreement	derived adjective: case+number+gender, X	
ACT	* → instr, (<i>od</i> +gen)	
X	* → ↑	
Y	<i>jako</i> +acc → <i>jako</i> +nom	
	<i>jako</i> +adj-acc → <i>jako</i> +adj-nom	
	adj-acc → adj-nom	

A few quick remarks on the details of this rule:

- the rule can be applied to verbs with an accusative complementation (*Fjodora.x_{acc} mučí pomyslením, že ...* → *Fjodor.x_↑ mučený pomyslením, že ...* 'the thought that ... is torturing Fjodor.x_{acc} → Fjodor.x_↑ tortured by the thought that ...') as well as verbs with a genitive complementation that behave transitively or fluctuate between transitive and intransitive behaviour (*dosáhli jsme místa/hodnoty.x_{gen}* → *námi dosažené místo/hodnota.x_↑* 'we reached a location.x_{gen}, we attained a value.x_{gen} → location.x_↑ reached by us, value.x_↑ attained by us')
- the rule can be applied to reflexive verbs (*obávat se někoho.x_{gen}* → *někdo.x_↑ obávaný* 'fear somebody.x_{gen} → somebody.x_↑ feared'), again including those that fluctuate between transitive and intransitive way of forming the passive (*povšimnout si někoho.x_{gen}* → *někdo.x_↑ (ne)povšimnutý* 'notice someone.x_{gen} → someone.x_↑ (un)noticed')
- the accusative or genitive complementation of the verb corresponds to a passive valency complementation of the adjective

5.2 ADJECTIVES DERIVED FROM PASSIVE PARTICIPLES

- the adjective agrees in case, number, and gender with its passive valency complementation, e.g. *muže jsme našli [my.x.↑.nom] zcela vyčerpaní.nom* ‘we.x.nom found the man [when we were] absolutely exhausted.nom’, *muže.x.↑.acc jsme našli zcela vyčerpaného.acc* ‘we found the man.x.↑.acc [when he was] absolutely exhausted.acc’
- the Actor of the adjective can be expressed by an instrumental or, less frequently, by the prepositional phrase *od+gen* ‘from’.¹⁴⁷
- if the valency frame contains a complementation that can be expressed by one of the forms *jako+acc*, *jako+adj-acc*, or *adj-acc*, then the accusative in that form is changed to nominative and used as such irrespective of the case in which the adjective is used (e.g. *vtoupil do místnosti.x.↑.gen zařízené.gen jako kancelář.jako+nom* ‘he entered a room.x.↑.gen furnished.gen as an office.jako+nom’; *umění, které se přibližuje dionýsské kráse.x.↑.dat chápané.dat jako opilství.jako+nom* ‘an art form that comes closest to Dionysian beauty.x.↑.dat understood.dat as drunkenness.jako+nom’; *smlouva mezi Lyman & Lyman a profesorem.x.↑.instr Fysstem, dále jmenovaným.instr jako “autor”.jako+nom* ‘an agreement between Lyman & Lyman and professor.x.↑.instr Fysst, further referred.instr to as “author”.jako+nom’)

The relationship between the formation of passives and the formation of adjectives derived from passive participles is by no way straightforward. Examples of passives for which the corpus does not give any evidence of the existence of the corresponding adjective are rare but exist, e.g. *[rozhodčím] byl máván ofsajd* ‘an off-side was waived [by the referee]’ (**mávnutý – mávaný* ‘waived.adj’); *jme úmyslně mýleni* ‘we are being misled on purpose’ (**mýlený* ‘misled.adj’); *tentokrát jsem k tomu byl přiměn* ‘this time I’ve been compelled to it’ (**přiměný/přiměť* ‘compelled.adj’); *v těchto místech jsou pasažéři [letadla] nejsnáze dostávání ven* ‘the passengers in this part [of the plane] are the easiest to get out’, lit. ‘in this area are the passengers gotten out the easiest’ (**dostávaný ven* ‘(in the process of being) gotten out’). On the other hand, an adjective that is formally equivalent with the “long form of the participle” sometimes exists even though the participle itself is not found in the corpus (and thus the passive/resultative diathesis is also not found), e.g. *proplakané noci* ‘wept-through nights’ (**noci byly proplakány* ‘nights were wept through’).¹⁴⁸

We may now compare Rule G3 *pass_trans_gen* with the rules for forming the passive diathesis (Rules G1 *pass_basic*, G2 *pass_trans_acc*, and

¹⁴⁷ According to Piřha (1982), the form *od+gen* may be less frequent because speakers try to avoid ambiguity with a modification of Origin. Note, however, that this form of the Actor is also rare with the passive diathesis, cf. Footnote 123 on page 121.

¹⁴⁸ Such adjectives may also be derived from intransitive verbs; Čaha (2017) gives these examples: *opadaný strom* ‘a leafless tree’, lit. ‘a defoliated tree’; *vyspaný člověk* ‘a rested person’, lit. ‘a slept person’.

G3 *pass_trans_gen*). We see that when an adjective formed according to Rule G6 *verbonom_trans* is used in a verbonominal construction with the verb *být* ‘to be’, the surface form differs from a passive construction only in the use of an adjective vs. a participle, e.g. *výrobky nemohou být označeny jako dobré* vs. *výrobky nemohou být označeny jako dobré* ‘the products cannot be labelled as good’.

5.3 Resultative and adjectives derived from verbs with an accusative ‘Experiencer’ and nominative ‘Stimulus’

In this section, I discuss a group of verbs that express a psychological experience.¹⁴⁹ In the unmarked structure, there is an ‘Experiencer’ which is expressed by an accusative¹⁵⁰ and a ‘Stimulus’ which is expressed by a nominative, subordinate clause, or an infinitive. Due to the ‘*Experiencer*’ as *Actor Rule* (Section 3.3.3.4) that has been applied during the annotation of *VALLEX* entries, the typical frame of these verbs is **ACT**_{acc} **PAT**_{nom, inf, že, cont} (possibly with additional complementations depending on the exact lexical content of the verb). Thus, there is no nominative Actor and these verbs do not satisfy the conditions of Rule G1 *pass_basic*; when their passive participles combine with the verb *být* ‘to be’ (which they frequently do), the combination has to be described by a separate rule.

- (48) *fascinovat*^{biasp} ‘to fascinate’
ACT_{acc} **PAT**_{nom, inf, že, cont} **MEANS**_{typ instr}
Navštívil jsem ho s tátou a byl jsem jím. PAT.instr fascinován.
 ‘I visited him with my dad and I’ve been fascinated by him. PAT.instr.’

These verbs differ from the typical passive-forming verbs not only in the swapped roles of the valency complementations,¹⁵¹ but, more importantly, in the forms in which the complementation expressing the ‘Stimulus’ may be expressed in the constructions with a passive participle. The instrumental case is one of them, which is not surprising considering that in an active sentence the ‘Stimulus’

¹⁴⁹ A full list of these verbs can be seen at <http://hdl.handle.net/11346/quest/vallex-HQTF>

¹⁵⁰ In the case of the verb *dotýkat se*^{impf} – *dotknout se*^{Pf} ‘to hurt, offend, insult’, the ‘Experiencer’ is expressed by a genitive.

¹⁵¹ Which are a result of a somewhat arbitrary annotation decision.

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may be expressed by a nominative and the change of nominative into instrumental is typical of the central types of all diatheses that use the passive participle (cf. Rules G1 *pass_basic*, G14 *poss_conv_act1*, G16 *recipient*, and G17 *recipient_addBEN*). What is surprising is the fact that the forms *od+gen* and *ze strany+gen* are not grammatical, but the form *z/ze+gen* ‘from’ (which is rare with “true passives”) is frequent—it may be used to emphasize that the ‘Stimulus’ causes the experience unintentionally (often it has the feature [-Human], as in (49a)). Moreover, it is often possible to express the ‘Stimulus’ by a subordinate clause, unlike in the case of passive constructions, where subordinate clauses have to be introduced by the word *tím* ‘it.instr, that.instr’ (cf. (49b) with (26) and the discussion that precedes it).

(49) *zděsit*^{Pf} ‘to scare, terrify’

ACT_{acc} **PAT**_{nom, inf, že, cont} **MEANS**_{typ instr}

a. *zděsilo ji.ACT.acc to* → [*ona.ACT.nom*] *je tím.PAT.instr / z toho.PAT.z+gen / *od toho.ACT.*od+gen* *zděšena*

‘it scared her →? she is scared from.z+gen/by.instr/*from.*od+gen it’

b. *zděsilo nás.ACT.acc, že ...* → *byli jsme [my.ACT.nom] zděšeni, že.PAT.že by učitelům mělo stačit tříleté bakalářské studium.*

‘[the fact] that.PAT.že ... scared us.ACT.acc → [we.ACT.nom] were scared that.PAT.že three years in a Bachelor program should be enough for teachers.’

In this dissertation, I analyse the combination of a passive participle of these verbs with the verb *být* ‘to be’ as a resultative construction formed according to Rule G7 *res_exper*. For comparison, I also show Rule G8 *verbonom_exper* for forming the derived verbonominal constructions. On the first sight, the verbonominal constructions differ from the resultative constructions of these verbs only by choice of long vs. short forms of the participle; however, they are assigned a different syntactic structure because in the case of verbonominal constructions, the Actor is treated as the passive valency of the adjective.

5 CONSTRUCTIONS WITH THE AUXILIARY *BÝT* ‘TO BE’

Resultative diathesis		Rule G7
Passive-like constructions of verbs with accusative Experiencer		res_exper
Conditions	ACT _{acc.gen} & PAT _{nom}	
Lemma	<i>se</i> → ∅	
Verbal form	→ <i>být</i> ‘to be’ + passive participle in nominative	
Agreement	passive participle: number+gender, ACT <i>být</i> : number+gender+person, ACT	
ACT	* → nom	
PAT	nom → instr, z/ze+gen inf → ∅	

Verbonominal constructions		Rule G8
Passive-like constructions of verbs with accusative Experiencer		verbonom_exper
Conditions	ACT _{acc.gen} & PAT _{nom}	
Lemma	<i>se</i> → ∅	
Agreement	derived adjective: case+number+gender, ACT	
ACT	* → ↑	
PAT	nom → instr, z/ze+gen inf → ∅	

Let me first show the single verb belonging to the ‘Stimulus’–‘Experiencer’ group for which verbal Actor is expressed by a genitive (with all other verbs discussed in this Section, it is an accusative):

- (50) a. *dotýkat se^{impf} – dotknout se^{pf}* ‘to hurt, offend’
ACT_{gen} **PAT**_{nom, inf, že, cont} **MEANS**_{typ instr}
Přece se ale nelze tolerovat góly z ofsajdu! Vy.ACT.nom byste nebyl dotčen?
‘One cannot accept goals coming from offside! Wouldn’t you.ACT.nom be **aggrieved**?’

In the case of most of the verbs in the ‘Stimulus’–‘Experiencer’ group, *VALLEX* contains two related lexical units, one for a situation with an impersonal ‘Stimulus’ that is not actively involved in causing the experience of the ‘Experiencer’, the other one with a personal ‘Agent’ that is actively (and typically intentionally or at least consciously) involved. In such cases, Rule G7 **res_exper** captures the formation of resultative constructions derived from the former lexical unit, while passive constructions formed from the latter (if they exist) are formed according to Rules G1 **pass_basic** and G2 **pass_trans_acc**.

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- (51) a. *otravovat^{impf} – otrávit^{pf}* ‘to annoy’
ACT_{acc} **PAT**_{nom, inf, že, cont} **MEANS**_{typ instr}
 resultative, Rule G7 res_exper:
*ta nespravedlnost/píseň.PAT.nom ho.ACT.acc otráвила →? [on.ACT.nom] byl otráven z té nespravedlivosti.PAT.z+gen / tou písní.PAT.instr (SYN7) / *od té nespravedlnosti/písně.od+gen*
 ‘that injustice/song.PAT annoyed him.ACT →? he was annoyed from.z+gen / by.instr / *from.*od+gen that injustice/song’
otravovat^{impf} – otrávit^{pf} ‘to bother, annoy’
ACT_{nom} **PAT**_{acc} **MEANS**_{typ instr}
 passive, Rules G1 pass_basic and G2 pass_trans_acc:
 [...] *administrativní předivo [sociálního systému] je třeba vyladit tak, aby lidé.PAT.nom nebyli zbytečně otravováni úředním šimlem.ACT.instr.*
 ‘[...] the administrative nets [of the social system] need to be optimized so that people.PAT.nom are not unnecessarily bothered by the bureaucratic procedure.ACT.instr.’
- b. *překvapovat^{impf} – překvapit^{pf}* ‘to surprise’
ACT_{acc} **PAT**_{nom, inf, že, cont} **MEANS**_{typ instr} **ACMP**_{typ s+instr} **MANN**_{typ}
 resultative, Rule G7 res_exper:
Byl jsem překvapen [já.ACT.nom], že.PAT mladé lidi tyto věci opravdu zajímají.
 ‘[I.ACT.nom] was surprised that.PAT young people are really interested in these things.’
překvapovat^{impf} – překvapit^{pf} ‘to surprise’
ACT_{nom} **PAT**_{acc} **MEANS**_{typ instr} **ACMP**_{typ s+instr} **MANN**_{typ}
 passive, Rules G1 pass_basic and G2 pass_trans_acc:
Na útěku, v katastru obce Heidenaab, [on.PAT.nom] byl 27. února 1997 překvapen 66letým důchodcem.ACT.instr Hansem Feilnerem.
 ‘While on the run in the Heidenaab district, he.PAT.nom was surprised by a 66-year old pensioner.ACT.instr Hans Feilner on February 27, 1997.’
- c. *zklamat^{pf}* ‘to disappoint’
ACT_{acc} **PAT**_{nom, inf, že, cont} **REG**_{typ v+loc} **MEANS**_{typ instr}
 resultative, Rule G7 res_exper:
zbytek.ACT.nom je zklamán a vkládá naděje v soc. dem
 ‘the rest.ACT.nom are disappointed and pin their hopes onto the Social Democrats’
zklamat^{pf} ‘to disappoint’
ACT_{nom} **PAT**_{acc} **MEANS**_{typ instr}
 passive, Rules G1 pass_basic and G2 pass_trans_acc:
Vzbuzená důvěra.PAT.nom byla trestuhodně zklamána v průběhu tzv. třetí

vlny privatizace, [...]

‘[Thus] awoken faith.PAT.nom **had been** woefully **disappointed** during the so-called third privatization round, [...]

- d. *zmást^{pf}* ‘to confuse’

ACT_{acc} **PAT**_{nom, inf, že, cont} **MEANS**_{typ instr}

resultative, Rule G7 *res_exper*:

Můj podmanitel.ACT.nom, jenž byl, jak mi později řekl, mým zjevem.PAT.instr
zmaten, hned si mne oblíbil.

‘My **captor**.ACT.nom, who had been, as he told me later, **confused by my appearance**.PAT.instr, immediately took to like me.’

zmást^{pf} ‘to confuse’

ACT_{nom} **PAT**_{acc} **MEANS**_{typ instr}

verbonominal (central type), Rule G6 *verbonom_trans*, or resultative with elided auxiliary, Rules G1 *pass_basic* and G2 *pass_trans_acc*:

[...] a ten se zřejmě k tomu už i chystal, ale [on.PAT.nom] zmaten Mikuláškem.ACT.instr, rozhodl se ještě chvílku vyčkat, zvědav, co se z toho vyklube.

‘[...] and apparently he indeed was getting ready to do it but, [he.PAT.nom] **confused** by Mikulášek.ACT.instr, he decided to wait upon it, curious what comes out of it.’

- e. *znechucovat^{impf} – znechutit^{pf}* ‘to disgust’

ACT_{acc} **PAT**_{nom, inf, že, cont} **MEANS**_{typ instr}

resultative, Rule G7 *res_exper*:

Jsem atletikou.PAT.instr po svém případě znechucena [já.ACT.nom] a po čtyřleté přestávce se vracet nehodlám.

‘Since my own case [I.ACT.nom] have been **disgusted** by athletics.PAT.instr and after a four year break do not intend to come back.’

resultative, Rule G7 *res_exper*:¹⁵²

*muž.PAT.nom se.ACT.acc sám znechutil [svým chováním] →? tak mohl být muž.ACT.nom znechucen i sám ze sebe.PAT?.z+gen (SYN3) / sám sebou.PAT.instr / *sám od sebe.PAT.od+gen*

‘he.PAT.nom disgusted himself.ACT.acc [with his own behaviour] →? the man.ACT.nom could also have been disgusted from.z+gen/by.instr/*from.od+gen himself.PAT?’

znechucovat^{impf} – znechutit^{pf} ‘to put off, spoil sth for sb’

ACT_{nom} **ADDR**_{opt dat} **PAT**_{acc} **MEANS**_{typ instr}

passive, Rules G1 *pass_basic* and G2 *pass_trans_acc*:

¹⁵² The delicate interplay between reflexivity and resultative construction in this example make the proposed analysis somewhat questionable. In particular, the analysis only holds true if we assume that in the case of a reflexive construction, the reflexive pronoun *se* ‘(him/her/...)-self’ is always placed in the hierarchically lower surface-syntactic position than the “lexically

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Práce.PAT.nom mi.ADDR byla soustavně znechucována cílenými úniky.MEANS informací...

‘My job.PAT.nom was systematically spoiled for me.ADDR by targeted leaks.MEANS of information.’

- f. *zraňovat.impf – zranit.Pf* ‘to hurt’

ACT_{acc} **PAT**_{nom, inf, že, cont} **LOC**_{typ na+loc} **MEANS**_{typ instr}

resultative, Rule G7 res_exper:

[...] žádná lidská bytost.ACT.nom není nezraněna či prosta utrpení

‘[...] no human being.ACT.nom is [fully] unhurt or free from suffering’

resultative, Rule G7 res_exper, but has resultative meaning:

Pokud jsou muži.ACT.nom zranění nějakou deprivací.PAT.instr v dětství, [...]

‘When men.ACT.nom are hurt by some deprivation.PAT.instr in childhood, [...]

zraňovat.impf – zranit.Pf ‘to hurt’

ACT_{nom} **PAT**_{acc} **LOC**_{typ na+loc} **MEANS**_{typ instr}

passive, Rules G1 pass_basic and G2 pass_trans_acc:

[...] učeň.PAT.nom Alois Strnad [...] byl místním krejčovským mistrem.ACT.instr

Josefem Dryšlem zraněn a je nyní práce neschopen.

‘[...] the apprentice.PAT.nom Alois Strnad [...] was hurt by the local tailors’ foreman.ACT.instr Josef Dryšl and is now unable to work.’

In some cases, Rule G7 res_exper slightly overgenerates the list of possible forms of the Patient. For example, (52a) contains a subordinate clause joined to the main clause by the words *tím, že* ‘through that’, lit. ‘it/that.instr that’; because the syntactic head of the phrase *tím, že* is the pronoun *tím* ‘it.instr, that.instr’, it is represented in the list of forms by the form instr; the clause cannot be joined to the main clause directly, just by the conjunction *že* ‘that’ (which is listed in the frame because it can be used in an active usage, cf. (52c), and is not removed by Rule G7 res_exper).

- (52) *zmáhat.impf – zmoci/zmoct.Pf* ‘to exhaust, overcome’

ACT_{acc} **PAT**_{nom, inf, že, cont} **MEANS**_{typ instr}

- a. *[...] z nichž jsou někteří zmoženi tím.PAT.instr, že kousek od ohně se čepuje pivo.*

‘[...] some of whom are overcome by the beer that is served not far from the campfire.’

lit. ‘[...] some of whom are exhausted through the fact.PAT.instr that beer is served not far from the campfire.’

complete” expression of the same situational participant. Thus the lexical item *muž* ‘man’ has the PAT role in the active construction but the ACT role in the resultative construction—in both cases, it fills the subject position.

- b. **[...] z nichž někteří jsou zmoženi, že.PAT.*ze kousek od ohně se čepuje pivo.*
- c. *Nejvíc mě zmohlo, že.PAT.ze v letadle bylo strašné horko.*
 ‘My exhaustion was largely due to the heat in the airplane.’
 lit. ‘That.PAT.ze it was so hot on the plane **has exhausted** me the most.’
- d. *Byl zmožen z práce.PAT.z+gen tak, že usnul na trávě*
 ‘He was so **exhausted from working** PAT.z+gen that he fell asleep on the grass’

Similarly, the form z+gen can only be used with some verbs in this group:

- (53) *uklidňovat^{impf} – uklidnit^{pf}* ‘to calm (down), soothe, quieten’

ACT_{acc} **PAT**_{nom, inf, že, cont} **MEANS**_{typ instr}

- a. *Uklidněn, že.PAT.ze jeho účast na zasedání v Opavě byla úspěšná, usíná.*
 ‘He falls asleep, **calm that.ze** his part in the Opava meeting was successful.’
- b. *Je tím.PAT.instr / *z toho.PAT.*z+gen docela uklidněn.*
 ‘That calms him quite a bit.’
 lit. ‘He is soothed by that.PAT.instr / *from that.*z+gen quite a bit.’

5.4 Subjective resultative derived from reflexive verbs

As I have mentioned in Footnote 135, derived reflexive verbs with neither accusative nor genitive complementation are specific in that there is no shift of the nominative complementation away from its prominent subject position when par-

¹⁵³ According to Giger (2009, p. 269), the *subjective resultative*, i.e. the type of resultative in which the subject of the marked construction is filled by the same situational participant as the subject of the original unmarked verbal construction, is less common than the *objective resultative*, where the subject of the marked construction is filled by the situational participant that was the direct object of the original unmarked verbal construction.

¹⁵⁴ Giger’s (2009, 2011, 2015) *subjective resultative* covers also constructions such as *květy jsou zvadlé, tvář má opuchlou* ‘the flowers are wilted, he has swollen face’ that are formed with *-l*-participle rather than *-n/t*-participle. Such constructions are analysed in FGD not as diatheses (verbal forms) but as verbonominal constructions with the corresponding (lexically rather than syntactically derived) deverbal adjective (Panevová et al., 2014, p. 106). As far as I know, subjective resultatives derived from passive participles have never been explicitly treated in FGD yet. Interestingly, Giger (2015, p. 148–149) claims that subjective resultatives of the type discussed here—those derived from *-n/t*-participles of reflexive verbs that also have a transitive counterpart—are the only (with a few exceptions) type of subjective resultatives in Russian.

iciples of these verbs appear together with the verb *být* ‘to be’. In the terminology of (Giger, 2009), these constructions are *subjective resultatives*.^{153,154}

Subjective resultative		Rule G9
Subjective resultatives derived from reflexive verbs with <i>se</i>		res_subjective
Conditions	ACT_{nom} & $\neg Y_{gen,acc}$ & SE_derived	
Lemma	$se \rightarrow \emptyset$	
Verbal form	\rightarrow <i>být</i> ‘to be’ + passive participle in nominative	
Agreement	passive participle: number+gender, ACT <i>být</i> : number+gender+person, ACT	
ACT	* \rightarrow nom	

For a comparison, here is a rule for forming the related deverbal adjectives:

Verbonominal constructions		Rule G10
Subjective resultative with the “long form” of the participle		verbonom_subjective
Conditions	ACT_{nom} & $\neg Y_{gen,acc}$ & SE_derived	
Lemma	$se \rightarrow \emptyset$	
Agreement	adjective: case+number+gender, ACT	
ACT	* $\rightarrow \uparrow$	

- (54) a. *identifikovat se^{biasp}* ‘to identify (with)’
ACT_{nom} **PAT**_{s+instr}
Otázka je, do jaké míry je tato úzká skupina.ACT.nom identifikována s touto zemí.
 ‘It is questionable to what extent this narrow group identifies with this country.’
 lit. ‘It is questionable to what extent **is** this narrow **group.ACT.nom** **identified** with this country.’
- b. *koncentrovat se^{biasp}* ‘to concentrate’
ACT_{nom} **PAT**_{k+dat, na+acc, aby}
Pohár je minulostí, nyní jsme [my.ACT.nom] plně koncentrováni na ligu.
 ‘The Cup is a thing of the past, now [we.ACT.nom] **are** fully **concentrated** on the League.’
- c. *naklánět se^{impf} – naklonit se^{Pf}* ‘to lean towards (an option)’
ACT_{nom} **PAT**_{k+dat}
Nikdy jsem nebyl v žádné straně a býval jsem nakloněn [já.ACT.nom] spíše pravicově.

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‘I’ve never been member of any party and [I_{ACT}] **used to be inclined** rather to the right.’

- d. *nalepít se*^{pf} ‘to stick/cling (to sth)’

ACT_{nom} **PAT**_{na+acc}

*Pár*_{ACT.nom} *základních obchůdků, jako je lékárna, tabák či malé elektro, **bývá nalepeno** i na Kaufland.*

‘A **handful**_{ACT.nom} of basic shops, such as a pharmacy, a tobacco shop or a small shop with electrical supplies, are usually located even at a Kaufland store.’

lit. ‘... **are usually glued** even to a Kaufland store.’

- e. *osvědčovat se*^{impf} – *osvědčit se*^{pf} ‘to prove useful’

ACT_{nom} **REG**_{v+loc}^{typ} **COMPL**_{jako+nom}^{typ}

*Nechápu, proč prostě nepřijmeme model nějakého západoevropského státu, **který**_{ACT.nom} **je již osvědčen.***

‘I don’t get why we simply cannot apply a model of some West-European state that has already proved useful.’

lit. ‘... **that**_{ACT.nom} **is** already **proven** useful.’

- f. *ponořit se*^{pf} ‘to immerse oneself, become absorbed’

ACT_{nom} **PAT**_{do+gen}

***Politici**_{ACT.nom} **bývají** natolik **ponořeni** do své “práce”, že někteří nečtou noviny, [...]*

‘**Politicians**_{ACT.nom} **are** often **immersed** in their “work” so deeply that some do not read newspapers, [...]

- g. *přiklánět se*^{impf} – *přiklonit se*^{pf} ‘to accept; side (with)’

ACT_{nom} **PAT**_{k+dat, na+acc}

*Ať jsem udělala cokoliv, **rozhodčí**_{ACT.nom} už **byli přikloněni** na její stranu.*

‘No matter what I did, the referees had already sided with her.’

lit. ‘... the **referees**_{ACT.nom} **were** already **tilted** towards her side.’

Because there is no shift of the Actor away from the subject position, these constructions cannot be derived by the rules for forming the passive diathesis (Rule G1 *pass_basic*, which stipulates a change of form for the Actor, applies to all subtypes). However, when the reflexive verb is a decausative,¹⁵⁵ there may be ambiguity between the subjective resultative derived from the decausative (reflexive) verb and the resultative diathesis of the corresponding non-reflexive verb:

¹⁵⁵ In *VALLEX*, such derived reflexive verbs have the value *derived-decaus* marked in the attribute *reflexverb*.

- (55) a. *angažovat se*^{biasp} ‘to be engaged, take part’ **ACT**_{nom} **LOC**^{typ} **REG**_{v+loc}^{typ}
angažovat^{biasp} ‘to engage’ **ACT**_{nom} **PAT**_{acc} **LOC**^{typ}
Palestininci musejí dále ukončit násilí a zahájit postup vůči všem, kteří jsou angažováni v teroristických aktivitách.
 ‘The Palestinians further have to stop any violence and advance against those, who_{nom} are engaged in terrorist activities.’
- b. *naklánět se*^{impf} – *naklonit se*^{pf} ‘to tilt, bend, lean’ **ACT**_{nom} **DIR**^{typ}
naklánět^{impf} – *naklonit*^{pf} ‘to tilt, incline’ **ACT**_{nom} **PAT**_{acc} **DIR3**^{typ}
Jeho hlava_{nom} byla nakloněna vpravo, pravá paže visela dolů přes boční opěradlo.
 ‘His head_{nom} was tilted to the right, the right arm hanging down over the armrest.’
- c. *rozptylovat se*^{impf} – *rozptýlit se*^{pf} ‘to disperse, clear’ **ACT**_{nom} **LOC**^{typ} **DIR**^{typ}
rozptylovat^{impf} – *rozptýlit*^{pf} ‘to disperse’ **ACT**_{nom} **PAT**_{acc} **LOC**^{typ} **DIR**^{typ}
 [...] bylo tomu tak nanejvýš dvakrát třikrát, při určitém nasvícení, když byly ve vzduchu rozptýleny určité vůně_{nom} [...]
 ‘[...] that happened at most two or three times, under a particular light, when certain scents_{nom} were dispersed in the air [...].’
- d. *rozptylovat se*^{impf} – *rozptýlit se*^{pf} ‘to disperse (on its own)’ **ACT**_{nom} **MEANS**^{typ}
rozptylovat^{impf} – *rozptýlit*^{pf} ‘to dispel, put to rest’ **ACT**_{nom} **PAT**_{acc} **MEANS**_{instr}^{typ}
Pak začaly ovce bečet své obvyklé “Čtyři nohy dobré, dvě nohy špatné” a chvilkové napětí_{nom} bylo rozptýleno.
 ‘Then, as usual, the sheep broke into “Four legs good, two legs bad!” and the momentary awkwardness was smoothed over. (George Orwell)’
 lit. ‘[...] and the momentary awkwardness_{nom} was dispersed.’

As with other cases of structural ambiguity, the context may disambiguate between the two readings. The following verbs are decausatives, but the context excludes the interpretation of the whole sentence as a resultative diathesis of the corresponding non-reflexive verb.

- (56) a. *ponořovat se*^{impf} – *ponořit se*^{pf} ‘to immerse (oneself)’
ACT_{nom} **DIR3**
V okamžiku maximální fáze [...] bude měsíční disk_{ACT, nom} do stínu ponořen přibližně z 81 procent.
 ‘In the maximum phase [...] about 81 percent of the moon **disc**_{ACT, nom} will be immersed in the shadow.’
- b. *příklánět se*^{impf} – *příklonit se*^{pf} ‘to tilt’
ACT_{nom} **DIR3** **BEN**_{dat}^{typ}
Díky tomu je severní polokoule_{ACT, nom} polovinu roku příkloněna ke

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Slunci.

'Thanks to that **is** the northern **hemisphere**.ACT.nom **tilted** towards the Sun for half a year.'

- c. *shromážďovat se*^{impf} – *shromáždit se*^{pf} 'to gather'

ACT_{nom} **LOC**

*Vešel jsem do ulice, kde **bylo shromážděno hodně**.ACT.nom lidí a hrála tam nějaká kapela.*

'I walked onto a street where **many**.ACT.nom people **were gathered** and where a band was playing.'

- d. *zatahovat se*^{impf} – *zatáhnout se*^{pf} 'to cloud over, overcast'

ACT_{nom} **MEANS**_{typ instr}

***Obloha**.ACT.nom **byla** stále **zatažena** těžkými, šedými mračny.MEANS, ale byly o něco světlejší, řidší.*

'The **sky**.ACT.nom **was** still **clouded over** with heavy, grey clouds, but they were a little lighter and thinner.'

- e. *zatahovat se*^{impf} – *zatáhnout se*^{pf} 'to hole up'

ACT_{nom} **DIR3**

*Domáci fotbalisté si vytvořili územní a herní převahu a **hosté**.ACT **byli zataženi** hluboko na své polovině.*

'The home players dominated both the territory and the game and the **guests**.ACT **were holed up** deep in their half [of the pitch].'

- f. *zkracovat se*^{impf} – *zkrátit se*^{pf} 'to become shorter'

ACT_{nom} **PAT**_{opt na+acc} **ORIG**_{opt z+gen} **DIFF**_{opt o+acc}

*U starého člověka **jsou** v důsledku imobility během dvou dnů **zkráceny extenzory**.ACT.nom a **vazivo**.ACT.nom, zvláště u dolních končetin.*

'In an old person, immobility leads to shortened extensors and tendons within two days, especially in the lower limbs.'

lit. '[...] **extensors**.ACT.nom and **tendons**.ACT.nom **are shortened** within two days, [...]'

The disambiguation between the two readings may also be influenced by the choice of one or the other member of an aspectual pair, passive in (57a) and resultative in (57b); note, however, that the two interpretations in this example involve two different lexical units:

- (57) a. passive:

spojovat^{impf} – *spojit*^{pf} 'to associate, link, combine'

ACT_{nom} **ADDR**_{s+instr} **PAT**_{acc} **EFF**_{opt do+gen, v+acc}

***Intelligence**.PAT.nom **bývá spojována** se schopností analýzy, obvykle i tvořivosti. (made-up)*

‘People usually associate intelligence with the ability to analyse, and usually also with creativity.’

lit. ‘**Intelligence**.^{PAT.nom} **is usually associated** [...]’

- b. subjective resultative:

spojovat se^{impf} – *spojit se*^{pf} ‘to come with, join, link to’

ACT_{nom} **ADDR**_{s+instr} **PAT**_{do+gen, v+acc}^{opt} **BEN**_{proti+dat}^{typ}

Intelligence.^{ACT.nom} *bývá spojena se schopností analýzy, obvykle i tvořivostí.*

‘Intelligence usually comes together with the ability to analyse, and usually also to creativity.’

lit. ‘**Intelligence**.^{ACT.nom} **is usually linked** to [...]’

In Rule G10 *verbonom_subjective*, I have formulated the most common conditions for the subjective resultative derived from an *-n/t*-participle; however, a couple of verbs that do not satisfy all of these conditions also form subjective resultatives in the same manner:

- (58) a. *zatahovat se*^{impf} – *zatahnout se*^{pf} ‘to become cloudy (of weather)’

LOC^{typ}

does not have an Actor

Při snídani se dívám ven, je bílo a hrozně zataženo.

‘During the breakfast, I look out of the window, [it] **is** white and terribly **clouded**.’

- b. *naučit se*^{pf} ‘to learn, master by studying’

ACT_{nom} **PAT**_{dat, acc, inf, že, cont} **ORIG**_{od+gen, z+gen}^{opt} **MANN**^{typ}

has an accusative complementation (because the source verb has two accusative complementations and only one of them is lost during de-causativization)

*Čekal jsem jednoznačné otázky a odpovědi z klasických testů, u kterých, pokud [vy].^{ACT.nom} **jste** dobře **naučeni**, nemusíte tolik přemýšlet.*

‘I was expecting clear questions and answers of typical tests, where you do not have to think much if [you] have mastered the material.’

lit. ‘[...] if [you].^{ACT.nom} **are** well **studied/taught**.’

- c. *nadechovat/nadychovat se*^{impf} – *nadechnout/nadýchnout se*^{pf} ‘to breathe in’

ACT_{nom} **PAT**_{gen}^{opt}

has an optional genitive complementation

*A nyní, když [vy].^{ACT.nom} **jste nadechnuti** a napjati k prasknutí, se rázem uvolněte.*

‘And now, when you are full of air and stretched to the utmost, suddenly let go.’

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lit. 'And now, when [you._{ACT.nom}] **are breathed in** and stretched to the point of bursting, suddenly relax yourself.'

- d. *najíst se^{Pf}* 'to eat to be full'

ACT_{nom} **PAT**_{opt gen}

napít se^{Pf} 'to drink to be full'

ACT_{nom} **PAT**_{gen} **DIR1**_{typ} **AIM**_{typ ná+acc}

reflexiva tantum, not derived reflexives; have an optional genitive complementation

Mám se přímo skvěle, [já._{ACT.nom}] jsem najeden a napit jako houba.

'I am having a great time, I have eaten to be full and drunk to be [soaked] as a mushroom.'

lit. '..., [I._{ACT.nom}] **am full-eaten** and **full-drunk** as a mushroom.'

- e. *napít se^{Pf}* 'to become soaked with something'

ACT_{nom} **PAT**_{instr}

reflexivum tantum, not a derived reflexive

[...] *provazy._{ACT.nom}, kterými spouštěli rakev do hrobu, byly napity vodou a obaleny mazlavým blátem [...]*

'[...] the **ropes._{ACT.nom}** they used for lowering the coffin into the grave **were soaked** with water and covered with slimy mud [...]

- f. *napadnout^{Pf1} – napadat^{Pf2}* 'to fall down and cover'

ACT_{nom} **LOC**_{typ} **DIR**_{typ}

not a reflexive verb

Na pozemku kolem jejich příbytku byl napadán čerstvý sníh._{ACT.nom}. Bylo to v zimě a bylo napadnuto asi patnáct._{ACT.nom} centimetrů sněhu.¹⁵⁶

'The land around their dwelling was covered with freshly fallen snow. It was in winter and about fifteen centimetres of snow had fallen.'

lit. 'On the land around their dwelling fresh **snow._{ACT.nom}** **was fallen**. It was in winter and about **fifteen._{ACT.nom}** centimetres of snow **were fallen**.'

- g. *připadávat^{impf} – připadnout^{Pf1} – připadat^{Pf2}* 'to additionally fall (of snow)'

ACT_{nom} **LOC**_{typ}

not a reflexive verb

Druhý den je již připadnuto okolo 15._{ACT.nom} cm, testujeme univerzálny. (WWW) Nakonec jsme zdárně dojeli domů, kde už bylo připadáno asi 4._{ACT.nom} cm těžkého mokrého sněhu. (WWW)

'The next day about 15._{ACT.nom} cm **is** already **fallen**, we try out the universals

¹⁵⁶ For the specific treatment of agreement in the case of numerical expressions, see p. 107.

5.4 SUBJECTIVE RESULTATIVE

[=universal skis]. In the end we managed to get home where roughly 4.ACT.nom cm of heavy wet snow **was newly fallen.**'

Resultative diathesis with the auxiliary *mít* ‘to have’ (possessive resultative)

Constructions with the passive participle and the auxiliary verb *mít* ‘to have’ express the so-called possessive resultative (Nedjalkov, 1988; Giger, 2003b). Such structures can be interpreted in two possible ways (Panevová et al., 2014, p. 105–108):

- (59) *uklízet*^{impf} – *uklidit*^{pf} **ACT**_{nom} **PAT**_{acc}
uvařit^{pf} **ACT**_{nom} **PAT**_{acc} **ORIG**_{z+gen}^{opt} **BEN**_{dat, pro+acc}^{typ}
vyžehlit^{pf} **ACT**_{nom} **PAT**_{acc}

a. **poss_{both}**

Nebyla vaše starost, jestli budou mít uklizeno, uvařeno a vyžehleno.

‘It was not your task to make sure that their house will be tidy, their food will be cooked and their clothes will be ironed.’

lit. ‘It was not your task whether they will have tidied, cooked and ironed.’

b. **poss_{nonconv}**

To už bude mít polní kuchyně uvařen vojenský oběd.

‘By that time, the field kitchen will be finished with the army lunch.’

lit. ‘By that time the field kitchen **will have** the army lunch **cooked**.’

c. **poss_{conv}**

Není to sice úplně ten typ, který musí mít každý den uvařeno, ale rozhodně má rád, když se o něj pečuje.

‘He’s not quite the type that has to have a hot meal ready every day, but he certainly enjoys being cared for.’

lit. ‘...who has to **have cooked** every day, but ...’

6 POSSESSIVE RESULTATIVE (WITH THE AUXILIARY *MÍT* 'TO HAVE') _____

In (59a), it is irrelevant whether the subject ('they') performs the action themselves or whether someone else performs it for them. On the other hand, in (59b) and (59c), it is clear from the context whether the subject is identical with the Actor (what we identify as the non-conversive type and mark as $\text{poss}_{\text{nonconv}}$) or whether the Actor is moved away from the subject position (the conversive type, marked as $\text{poss}_{\text{conv}}$).¹⁵⁷

Panevová et al. (2014) claim that out of 60 instances of a possessive resultative construction in the PDT, 23 are ambiguous and can be interpreted both as conversive and as non-conversive. Moreover, even if disambiguation is possible, it is inaccessible to the kind of naive, syntax-based automatic methods that were used for annotation preprocessing in *VALLEX*. Therefore, the possibility to form the marked members of a possessive resultative diathesis is marked in *VALLEX* by the value poss which is common to both types (conversive and non-conversive); individual examples are marked $\text{poss}_{\text{both}}$, $\text{poss}_{\text{conv}}$, or $\text{poss}_{\text{nonconv}}$ as appropriate but the absence of an example of either type does not imply that the type is excluded for the given lexical unit.

- (60) a. *dohrávat*^{impf} – *dohrát*^{pf} 'to finish playing'

ACT_{nom} **PAT**_{acc}

$\text{poss}_{\text{nonconv}}$

Také 2. pivní liga má pro letošek dohráno.

'Also 2nd Beer League is over for this season.'

lit. 'Also 2nd Beer League has [it] finished playing for this year.'

(In *VALLEX*, the non-conversive type of possessive resultative is exemplified, and it is indeed the only type of possessive resultative possible with this lexical unit.)

- b. *načerpát*^{pf} 'to fill up, (re)fuel'

ACT_{nom} **PAT**_{acc} **DIR3**^{typ} **MEANS**_{instr}^{typ}

$\text{poss}_{\text{nonconv}}$

Když měl načerpány více než dvě stovky litrů, policejní hlídka ho při krádeži načapala a zatkla.

'When he had drawn more than two hundred litres, a police patrol walked in on his theft and arrested him.'

(In *VALLEX*, only the non-conversive construction is exemplified, but the verb allows for both types of possessive resultative.)

¹⁵⁷ Dvořák (2017a) phrases the distinction between the conversive and non-conversive type as the distinction between two interpretations of the subject: as an agent vs. as a recipient (Czech *agentní a recipientní interpretace subjektu*).

6.1 POSSESSIVE RESULTATIVE OF NON-CONVERSIVE TYPE

- c. *doporučovat*^{impf} – *doporučit*^{Pf} ‘to recommend’

ACT_{nom} **ADDR**_{dat} **PAT**_{acc, inf, aby, ať, zda, že, cont}

POSS_{conv}

My všichni ostatní jsme měli takřka být doporučeno nevycházet ven.

‘All the rest of us had so-to-say been told not to go out.’

lit. ‘All the rest of us had so-to-say recommended not to go out.’

(In *VALLEX*, the conversive type of possessive resultative is exemplified, and it is indeed the only type of possessive resultative admitted by this lexical unit.)

- d. *modernizovat*^{biasp} ‘to modernize’

ACT_{nom} **PAT**_{acc}

POSS_{conv}

Za poloviční částku by seniori měli modernizovány domovy důchodců a penziony.

‘For half the price, seniors could have the nursing homes and guest houses modernized.’

(In *VALLEX*, only the conversive type is exemplified, although the verb admits both types.)

6.1 Possessive resultative of non-conversive type

The formation of non-conversive possessive resultative constructions is captured in the following Rule G11 *poss_nconv*:

Non-conversive possessive resultative		Rule G11
Actor is the subject of the marked member of the diathesis		<i>poss_nconv</i>
Conditions	diat: <i>poss</i> ACT _{nom}	
Verbal form	→ <i>mít</i> ‘to have’ + passive participle in accusative ¹⁵⁸ <i>se, si</i> → ∅	
Agreement	passive participle: number+gender, Y _{acc} [PAT EFF] <i>mít</i> : number+gender+person, ACT _{nom}	
ACT	* → nom	

6 POSSESSIVE RESULTATIVE (WITH THE AUXILIARY *MÍT* ‘TO HAVE’) _____

Analysis provided in Rule G11 *poss_nconv* is based on a description of these constructions provided by Panevová et al. (2014); the non-conversive type of possessive resultative diathesis is interpreted as special in that there is no reordering of valency participants in the surface structure of the sentence, the Actor remains in the prominent syntactic position of the subject, and the marked member of the diathesis differs only in the morphological form of the verb which signals a resultative sentence perspective.

Verbal form:

Rule G11 *poss_nconv* demands a verbal form composed of the auxiliary verb *mít* ‘to have’ and an accusative of the passive participle.¹⁵⁹ The auxiliary verb agrees in number, gender and person with the Actor, while the passive participle agrees in number and gender with a valency complementation expressed by an accusative; if there is no accusative complementation in the frame, or if the accusative complementation is not expressed in the surface structure of the sentence, then the participle has the features of neuter singular.¹⁶⁰

- (61) a. *nastupovat*^{impf} – *nastoupit*^{Pf} ‘to set off, start’
ACT_{nom} **PAT**_{acc}
Y = PAT
*Cestu*_{Y.fem.sg.acc} *za návratem do III. třídy mají slušně nastoupenu*_{pass-part.fem.sg.acc...}
‘They’ve set off successfully on the journey back into class III...’
lit. ‘They **have the journey**_{Y.fem.sg.acc} back into IIIrd class fairly well **set off**_{pass-part.fem.sg.acc...}’
- b. *nastupovat*^{impf} – *nastoupit*^{Pf} ‘to set off, start’
ACT_{nom} **PAT**_{do+gen, k+dat, na+acc} **COMPL**_{typ jako+nom} **LOC**_{typ} **DIR3**_{typ}
Y unidentified

¹⁵⁸ Czech passive participles take two forms, namely the nominative and the accusative, see Footnote 120.

¹⁵⁹ Although the rule explicitly mentions only the auxiliary *mít*, its iterative variant *mívat* may also be used.

¹⁶⁰ There are similarities between the Czech resultative and the English perfect (simple, non-continuous) tenses both in the formation of the verb form—the use of the auxiliary verb *mít* ‘to have’ and a participle—and in the meaning: both express the lingering effects of some past event or state. The main difference is that only a small minority of verbs enter the resultative diathesis, and therefore it is not meaningful to view it as a tense. More on the issue of gradual grammaticalization of the possessive resultative (i.e. a shift from a diathesis towards a regularly formed tense) can be found in the writings of Giger (2003b, Sections 6.3 and 6.4, p. 369–438) and Načeva-Marvanová (2010).

6.1 POSSESSIVE RESULTATIVE OF NON-CONVERSIVE TYPE

*Korejské automobilky mají na starém kontinentě skutečně nastoupe-
no*._{passpart.neut.sg} *k velkému růstu.*

‘Korean car producers **have** indeed **set off**._{passpart.neut.sg} for a great expansion on the Old Continent.’

Alternative forms of the Actor:

When the valency frame admits alternative forms of the Actor, these forms are removed by the rule:

- (62) a. *vyžadovat (si)*^{impf} – *vyžádat (si)*^{pf} ‘to exact, request and obtain’

ACT_{nom, inf} **PAT**_{gen, acc, inf, aby, ať, že} **ORIG**_{na+loc, od+gen, po+loc}

ACT_{nom, inf} → nom

Cizinci.**ACT** *mají vyžádáno 202 povolení...*

‘Foreigners.**ACT** have requested 202 permits...’

Nahlédnout*.ACT** *to má ovšem vyžádáno energetické osvobození od zakořeněných představ.*

‘*But **realizing**.**ACT**._{inf} that **has exacted** an energetic throwing away of ingrained ideas.’

Reflexive verbs:¹⁶¹

In the marked member of the non-conversive type of possessive resultative, the reflexive *se/si* is deleted.

- (63) a. *domlouvat se*^{impf} – *domluvit se*^{pf} ‘to agree, arrange’

ACT_{nom} **ADDR**_{s+instr} **PAT**_{na+loc, o+loc, aby, ať, zda, že, cont}

se → ∅

*A včera jste si telefonovali a dneska jste se sešli na večeri, jak **jste měli domluveno.***

‘And yesterday you called each other and today you met for dinner, as you had agreed.’

lit. ‘..., as you had [it] arranged.’

(This example can also be interpreted as derived from the irreflexive verb *domlouvat*^{impf} – *domluvit*^{pf} ‘to arrange, fix, discuss, agree’

ACT_{nom} **ADDR**_{s+instr} **PAT**_{acc, aby, ať, zda, že, cont} **BEN**^{typ}_{dat, pro+acc} ;

personally, I find such interpretation less natural.)

- b. *oblíbovat si*^{impf} – *oblíbit si*^{pf} ‘to become fond of, begin to like’

ACT_{nom} **PAT**_{acc}

¹⁶¹ About two dozen further examples of reflexive verbs found in non-conversive possessive resultative constructions can be found at <http://hdl.handle.net/11346/quest/vallex-ZSXB>

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si → ∅

Jiný alkohol konzumují mladí na diskotékách, jiný typ pití mají zase oblíben sportovci.

'Different alcohol is consumed by young people in the discos, different kinds of drinks are favourite with sportsmen.'

lit. '..., sportsmen have become fond of different kinds of drink.'

Our data contains only one case of a possessive resultative usage of a reflexive verb that is ambiguous between the conversive and non-conversive readings:

(64) a. *postarat se*^{pf} 'to take care of'

ACT_{nom} **PAT**_{o+acc, aby} **BEN**_{typ}
dat, pro+acc

Přál bych si, abych měl postaráno o svou budoucnost tak jako on.

'I'd like to **have** my future **taken care of** as well as he does.'

6.1.0.1 An alternative analysis of non-conversive resultative structures

Rather than seeing the basis for deriving the non-conversive resultative structure in the unmarked (active, non-reflexive and non-reciprocal) sentence structure, Daneš et al. (1987a, p. 248) see it in the reflexive structure with a Recipient expressed by the reflexive *si* or *pro sebe* 'for himself/herself'. Then the rules for forming the (conversive type of) possessive resultative are applied to this reflexive structure; the Recipient then becomes the subject of the derived structure, while, according to their analysis, the Agent cannot be expressed in the surface structure. Compare (65a) (regular formation of a conversive possessive resultative) with (65b) (suggested interpretation of forming the non-conversive possessive resultative):¹⁶²

(65) a. basis:

*Petr*_{Agent} *schoval* *psovi*_{Recipient} *kost do kouta*. 'Peter_{Agent} hid a bone in the corner for the dog_{Recipient}.'

derived structure (conversive possessive resultative):

*Ps*_{Recipient} *má kost schovánu v koutě*. 'The dog_{Recipient} has the bone hidden in the corner.'

the Agent can be expressed:

¹⁶² Example (65) does **not** come from (Daneš et al., 1987a).

6.1 POSSESSIVE RESULTATIVE OF NON-CONVERSIVE TYPE

Pes.Recipient má od Petra/Petrem.Agent v koutě schovánu kost. ‘The dog.Recipient has a bone hidden in the corner by/from Peter.Agent.’

- b. basis (reflexive structure):

Pes.Agent si.Recipient schoval kost do kouta. ‘The dog.Agent hid the bone in the corner for himself.Recipient.’

derived structure:

Pes.Recipient má kost schovánu v koutě. ‘The dog.Recipient has the bone hidden in the corner.’

the Agent cannot be expressed:

**Pes.Recipient má kost schovánu sám od sebe/sebou.Agent v koutě.* ‘The dog.Recipient has the bone hidden in the corner by/from himself.Agent.’

This analysis is intriguing in that it allows for a uniform treatment of both conversive and non-conversive type of possessive resultative; economy of language expression provides a simple enough explanation of the fact that in the case of referential identity of Agent and Recipient, duplicate expression of the corresponding situational participant is blocked in the marked structure.

However, some of the verbs that Daneš et al. use to exemplify their analysis are analysed in *VALLEX* as verbs with a free *si*, i.e., I do not share the view that *si* can be analysed as a separate complementation with the semantic role of a Recipient:

- (66) a. basis (in our analysis a structure with free *si*, according to Daneš et al. a reflexive structure):

Petr si tu knihu už prostudoval.

‘Peter has already studied the book thoroughly.’

lit. ‘Peter for-himself.*si* the book already studied thoroughly.’

derived structure:

Petr už má tu knihu prostudovánu.

‘Peter already knows the the content of the book, he has studied it thoroughly.’

lit. ‘Peter already has the book studied thoroughly.’ (structurally analogous to ‘Peter already has the book memorized.’)

the Agent cannot be expressed:

**Petr má tu knihu sebou prostudovánu.*

‘Peter already has the book studied thoroughly by/from/through himself.’

- b. basis (in our analysis a structure with free *si*, according to Daneš et al. a reflexive structure):

Už jsem si ten problém promyslel.

‘I have already thought over the whole issue.’

lit. ‘I have already thought over the issue for myself.’

derived structure:

Už mám ten problém promyšlený.

'I have already the issue thought over [and solved].'

Moreover, some of the examples that I analyse as cases of the non-conversive resultative structures do not allow for formulating such a reflexive basis for their derivation because the lexical unit does not enter the reflexive alternation (61 and 63). For these reasons, I adhere to the analysis proposed by Panevová et al. (2014) and distinguish the non-conversive type of possessive resultative as a diathesis that is distinct from the conversive type.

6.2 Possessive resultative of conversive type

For the derivation of the valency frame of the marked member of the possessive resultative diathesis of the conversive type, it is always necessary to apply two rules to the valency frame describing the unmarked member of the diathesis:

- one of the two basic rules, either Rule G12 `poss_conv_basic1` or Rule G13 `poss_conv_basic2`; these rules capture the changes in the morphological form of the verb, its agreement and also changes in the surface-syntactic expression of a dative complementation with the cognitive role of 'Recipient' and cover the cases when this complementation is, respectively is not, present in the valency frame listed in the lexicon;
- one of the supplementary rules, either Rule G14 `poss_conv_act1` or Rule G15 `poss_conv_act2`; these rules capture the changes in the morphemic form of the Actor (**ACT**).

6.2.1 Basic rules specifying the morphological form of the verb, agreement and the expression of the valency complementation with the role of 'Recipient'

The two basic rules for the conversive type of the possessive resultative diathesis differ in the presence of the valency complementation with the semantic role of 'Recipient' (approximated in the Rule by a dative complementation) in the valency frame:

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Conversive possessive resultative		Rule G12
Basic rule, ‘Recipient’ is present in the frame		poss_conv_basic1
Conditions	diat: poss ACT _{nom} & X _{dat} [PAT ADDR BEN]	
Verbal form	→ <i>mít</i> ‘to have’ + passive participle in accusative ¹⁶³ <i>se, si</i> → ∅	
Agreement	passive participle: number+gender, Y _{acc} <i>mít</i> : number+gender+person, X	
X	* → nom	
Obligatory	X ¹⁶⁴	

Conversive possessive resultative		Rule G13
Basic rule, ‘Recipient’ is not present in the frame		poss_conv_basic2
Conditions	diat: poss ACT _{nom} & ¬X _{dat} [PAT ADDR BEN]	
Verbal form	→ <i>mít</i> ‘to have’ + passive participle, accusative <i>se, si</i> → ∅	
Agreement	passive participle, number+gender, Y _{acc} <i>mít</i> , number+gender+person, BEN	
Obligatory	BEN _{nom}	

Verbal form:

Both rules specify the verbal form in the same way: it is an analytical (compound) form consisting of the auxiliary *mít* ‘to have’ and a passive participle. Concerning the agreement, see notes “Variable X, BEN, agreement” and “Variable Y, agreement” below.¹⁶⁵

Variable X, BEN, agreement:

The conversive type of possessive resultative is characterized by the presence of

¹⁶³ Czech passive participles take two forms, namely the nominative and the accusative, see Footnote 120.

¹⁶⁴ As I have explained on page 108, I postulate derived valency frame that differ from their unmarked counterparts in both number and obligatoriness of complementations, not just in the listed set of morphological forms. In the marked constructions, not only that X passes the dialogue test; it is actually surface semi-obligatory (it will always be expressed at least through agreement features of the verb).

¹⁶⁵ Although both rules explicitly mention only the auxiliary *mít* ‘to have’, its iterative variant *mívat* may also be used.

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a situational participant with the cognitive role of a 'Recipient'; this participant is not identical with the Actor but instead corresponds to the valency complementation **X** in Rule G12 *poss_conv_basic1* and to the Benefactor (**BEN**) newly added into the frame by Rule G13 *poss_conv_basic2*. In both cases, the 'Recipient' is realized by a nominative in the marked member of the diathesis, and the auxiliary verb *mít* agrees with it in number, gender and person.¹⁶⁶

- (67) a. *doručovat^{impf} – doručit^{pf}* 'to deliver'
ACT_{nom} **ADDR**_{dat} **PAT**_{acc} **DIR3**_{typ}
 'Recipient'=**ADDR**_{dat → nom}
Každý volič^{ADDR.nom} by již měl mít doručeny volební lístky.
 'Each voter^{ADDR.nom} should already have the ballots delivered.'
 (Rule G12 *poss_conv_basic1*: the valency frame contains the dative complementation Addressee (**ADDR**) with the cognitive role of a 'Recipient'; in the marked usage, this complementation shifts into the subject position)
- b. *omlouvát^{impf} – omluvit^{pf}* 'to excuse'
ACT_{nom} **ADDR**_{opt dat} **PAT**_{acc} **CAUS**_{typ instr, pro+acc, za+acc, že} **BEN**_{typ dat}
 'Recipient'=**ADDR**_{dat → nom}
Dnes máme celkem omluveno do deseti dětí.
 'Today 10 kids have excused themselves / have been excused.'
 lit. 'Today we^{ADDR.0} have 10 kids excused.'
 'Recipient'=**BEN**_{dat → nom}
Jedna^{BEN.nom} z dívek neměla omluveno 121 a druhá 87 hodin.
 'One of the girls had 121 skipped lessons and the other one 87.'
 lit. 'One^{BEN.nom} of the girls had 121 lessons unexcused and the other one 87.'
 (Rule G12 *poss_conv_basic1* can be applied in two ways – **X** may be identified as either of the two dative complementations, but never as both of them simultaneously)
- c. *svazovat^{impf} – svázat^{pf}* 'to bind'
ACT_{nom} **PAT**_{acc} **EFF**_{opt do+gen, v+acc} **MEANS**_{typ instr}
 'Recipient'=**BEN**_{→ nom}
Jeden^{BEN.nom} ji má svázánu v kůži, druhý se spokojil s běžnou verzí, třetímu stačí na výstřížku z novin.
 'One^{BEN.nom} has it bound in leather, other one is happy with an ordinary version, the third one can do with a cut-out from a newspaper.'

¹⁶⁶ We assume that the **BEN** added by Rule G13 *poss_conv_basic2* would be realized in the unmarked member of the diathesis by a dative; however, the Rule only specifies the form for the marked member, so only the transformed form (nominative) appears there.

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(Rule G13 *poss_conv_basic2*: the valency frame for unmarked usage does not contain any dative complementation with the cognitive role of ‘Recipient’, this complementation is therefore added in the marked usage as a Benefactor (**BEN**) expressed by a nominative)

- d. *přizpůsobovat^{impf} – přizpůsobit^{pf}* ‘to adapt’

ACT_{nom} **PAT**_{acc} **EFF**_{dat}^{opt}

‘Recipient’=**BEN**_{→nom}

Jak dále uvedla, pracovní dobu má každý zaměstnanec^{BEN.nom} přizpůsobenu svému zdravotnímu stavu^{EFF.dat}.

‘She has further indicated that each **employee**^{BEN.nom} has the working hours adjusted to their health status^{EFF.dat}.’

(Rule G13 *poss_conv_basic2*: the valency frame contains a dative complementation Effect (**EFF**, *zdravotní stav* ‘health status’), but this complementation does not carry the cognitive role of ‘Recipient’; therefore, the ‘Recipient’ is introduced by the rule as a Benefactor (**BEN**) *každý zaměstnanec* ‘every employee’)

Sentences listed in (68) formally/structurally have all characteristics of a possessive resultative, except that the valency complementation in the subject position can hardly be analysed as a ‘Recipient’.¹⁶⁷

- (68) a. *brzdit^{impf}* ‘to break’

ACT_{nom} **PAT**_{acc}^{opt}

T11 měla bržděna pouze zadní kola, zatímco T12 měla bržděny obě nápravy.

‘The T11 had brakes only on back wheels, while the T12 had breaks on both axles.’
lit. ‘The T11 had only the back wheels **braked**, while the T12 had both axles **braked**.’

- b. *datovat^{biasp}* ‘to date’

ACT_{nom} **PAT**_{acc} **MEANS**_{instr}^{typ}

... u selské usedlosti číslo 8, která má štít nad patrovou sýpkou datován 1864 a štít obytné části 1861.

‘... in the case of the country estate number 8, which has the gable above the attic granary dated 1864 and the gable of the living houses [dated] 1861.’

- c. *deklarovat^{biasp}* ‘to declare, inform officially’

ACT_{nom} **PAT**_{acc} **EFF**_{jako+acc, za+acc, jako+adj-acc, za+adj-acc}^{opt}

¹⁶⁷ Similarly to constructions (74), these examples lie on the boundary with verbonominal predicates with *mít* ‘to have’ as a copula (cf. Šmilauer, 1966); in *VALLEX*, they are captured as instances of the possessive resultative and are formed according to the usual rules.

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Kamión měl deklarováno, že převáží kovový šrot.

'The declared content of the truck was metal scrap.'

lit. 'The **truck had** [it] **declared** that it was carrying metal scrap.'

- d. *doplňovat^{impf} – doplnit^{pf}* 'to complement'

ACT_{nom} **PAT**_{acc} **EFF**_{opt}
instr, o+acc

Městečka, která jsou navíc na kopci (jako třeba Vrsar nebo Rovinj), mají úzké uličky doplněny o schody.

'Towns that are moreover situated on a hill (like Vrsar or Rovinj) have stairways in addition to the narrow alleys.'

lit. '... **have** the narrow alleys **complemented** with staircases.'

- e. *prorážet^{impf} – prorazit^{pf}* 'to perforate, break through'

ACT_{nom} **PAT**_{acc} **LOC**_{typ} **DIR2**_{typ} **DIR3**_{typ}

Vnitřní stěny mají proraženy obloukové otvory, které vile dodávají jedinečný ráz.

'The inner walls have round holes that give the house its unique character made [in them].'

- f. *připravovat^{impf} – připravit^{pf}* 'to prepare, make ready'

ACT_{nom} **PAT**_{acc} **EFF**_{opt}
k+dat, na+acc **BEN**_{typ}
dat, pro+acc

A to i přesto, že nové typy kuchyní mívají už připraveny speciální police na víno.

'It is so despite the fact that the new types of kitchen often have specialized wine shelves built in.'

Variable **Y**, agreement:

In the marked member of the diathesis, the passive participle agrees with an accusative valency complementation denoted by the variable **Y**. If there is no accusative complementation in the valency frame of the verb, or if the complementation is expressed by one of its alternative forms other than the accusative, the agreement features of the passive participle are neuter singular.

- (69) a. *testovat^{impf}* 'to test'

ACT_{nom} **PAT**_{acc, zda} **EFF**_{opt}
na+acc **REG**_{typ}

Y=PAT_{acc}

Mám lyže.^{Y= PAT. acc} testovány na jarní sněh, tohle ale byl sněh přemrzlý, s ostrými krystaly, které se zařezávají do skluznic.

'My skis have been tested for spring snow, but this was frozen snow, with sharp crystals that cut into the running surface.'

lit. 'I **have** the skis.^{Y= PAT. acc} **tested** for spring snow, ...'

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(agreement between the participle and the accusative complementation
PAT in number and gender)

- b. *umožňovat*^{impf} – *umožnit*^{pf} ‘to enable’

ACT_{nom} **ADDR**_{dat} **PAT**_{acc, inf, aby, že}

Y=**PAT**_{inf}

*V zařízeních, kde se výuka nepřerušila, měli jednotliví zaměstnanci
 umožněno se stávky zúčastnit.*_{Y= PAT.inf.}

‘In the institutions where instruction was not interrupted, the individual employees
 had a chance to take part in the strike.’

lit. ‘..., individual employees **had** [it] **enabled to take part**_{Y= PAT.inf} in the strike.’
 (the agreement features of the passive participle are neuter singular
 because the **PAT** is realized by an infinitive)

- c. *zabraňovat*^{impf} – *zabránit*^{pf} ‘to prevent, stop’

ACT_{nom} **ADDR**_{dat} **PAT**_{v+loc, inf, aby}

Y unidentified

*Průměrní uchazeči o studium, zejména bakalářské úrovně, by neměli
 mít zabráněno v přístupu ke vzdělání jen proto, že nejsou géniové.*

‘Average applicants for studies, especially at the Bachelor level, should not be
 stopped from studying just because they are not geni.’

lit. ‘..., should not **have** [it] **stopped** in accessing education just because they are
 not geni.’

(the verb has no accusative complementation, the agreement features
 of the passive participle are therefore neuter singular)

In a small (enumerated) group of verbs, a specific change of the Actor (**ACT**)
 from nominative into accusative takes place; this change is captured by Rule
 G15 *poss_conv_act2* below. With these verbs, the variable **Y** is identified with
 the **ACT**, but the agreement rules from Rules G12 *poss_conv_basic1* and G13
poss_conv_basic2 still hold, cf. (70).

- (70) *zalévat se*^{impf} – *zalít se*^{pf} ‘to fill with’

ACT_{nom} **PAT**_{opt instr} **BEN**_{typ dat}

ACT_{nom → acc}

... *a oči*_{Y= ACT.acc.neut.pl} *měl zality*_{passpart.acc.neut.pl} *slzami*.

‘... and her eyes were filled with tears.’

lit. ‘...and **he had eyes**_{Y= ACT.acc.neut.pl} **filled**_{passpart.acc.neut.pl} with tears.’

(**Y** is identified with **ACT**_{acc} by Rule G15 *poss_conv_act2*)

Reflexive verbs:

Reflexive verbs forming the conversive type of the possessive resultative are

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rare but exist, and fall under both Rule G12 *poss_conv_basic1* and Rule G13 *poss_conv_basic2*. The reflexive *se/si* is removed in the marked member of the conversive possessive resultative diathesis, see (72–74).

6.2.2 Supplementary rules

Two supplementary rules capture the changes of the morphemic forms of the Actor in marked members of the possessive resultative diathesis of the conversive type. We consider Rule G14 *poss_conv_act1* to be the central type while Rule G15 *poss_conv_act2* is limited to a small group of verbs.

Conversive possessive resultative		Rule G14
Supplementary rule (central type)		<i>poss_conv_act1</i>
Conditions	diat: <i>poss</i>	
ACT	nom → instr, <i>od+gen</i>	

- (71) a. *dávat^{impf} – dát^{pf}* ‘to give’
ACT_{nom} **ADDR**_{dat} **CPHR**_{acc}
ACT_{nom → instr}
*Navíc vyšlo najevo, že řidič nemá řidičský průkaz a má **soudem** dán zákaz řízení.*
‘Moreover it turned out that the driver does not have a driver’s license and has been banned from driving.’
lit. ‘[...] and **has** a driving ban **given by a court**.**ACT.instr.**’
- b. *dokazovat^{impf} – dokázat^{pf}* ‘to prove’
ACT_{nom} **ADDR**_{dat}^{opt} **PAT**_{acc, zda, že, cont} **ORIG**_{na+loc}^{opt} **BEN**_{dat}^{typ}
*Jde o rodinu, kde máme **od policie** dokázáno devět napadení manželky.*
‘It’s a case of a family where we have nine assaults on the wife proven **from the police**.**ACT.od+gen.**’

However, it is typical for this diathesis that the Actor (**ACT**) is not expressed in the marked member of the diathesis.

Although this is the central type, the Data Component of *VALLEX* contains only two lexical units of reflexive verbs that form the marked member of the conversive type of the possessive resultative diathesis according to Rule G14 *poss_conv_act1*:

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- (72) a. *postarat se^{pf}* ‘to take care of’
ACT_{nom} **PAT**_{o+acc, aby} **BEN**_{typ}
dat, pro+acc
ACT_{nom → od+gen}
Takže o tlak.PAT na sportovní výsledky mám postaráno od ní.ACT.od+gen.
 ‘It’s her who demands achievements in sport from me.’
 lit. ‘So I **have taken-care** of a pressure.PAT.o+acc for achievements in sport from her.ACT.od+gen.’
- b. *spojovat si^{impf} – spojit si^{pf}* ‘to link, associate’
ACT_{nom} **PAT**_{acc} **EFF**_{s+instr}
 ... *vyzývá sponzory, aby zvážili, zda chtějí mít své jméno spojováno s krvavou olympiádou.*
 ‘He appeals to the sponsors to consider whether they want to **have** their name **associated** with bloody Olympics.’
 (ACT not expressed)

Three lexical units with a free (optional) reflexive *si* also form the conversive possessive resultative constructions:

- (73) a. *pochvalovat (si)^{impf} – pochválit (si)^{pf}* ‘to praise’
ACT_{nom} **PAT**_{acc} **BEN**_{typ}
dat **CAUS**_{typ}
pro+acc, za+acc, že
Na plese jsem měla šaty pochváleny a já jsem se v nich cítila dobře.
 ‘I’ve got some praise for the dress during the ball and I felt good in it.’
 lit. ‘I’ve **got** the dress **praised** during the ball [...]’
 ↔ *Na plese mi někdo pochválil šaty [...]*
 ‘Someone praised my dress during the ball [...]’
- b. *rozebírat/rozbírat (si)^{impf} – rozebrat (si)^{pf}* ‘to buy out (buy so that the business is sold out)’
ACT_{nom} **PAT**_{acc}
 “Téměř všechno máme rozebráno,” dodává Kovandová a ukazuje na prázdné stojany a police v půjčovně.
 “‘Almost everything is sold out,’ says Kovandová and points to the empty stands and shelves in the rental shop.’
 lit. ‘We **have** almost everything **sold out**, [...]’
- c. *říkat (si)^{impf} – říci/říct (si)^{pf}* ‘to demand’
ACT_{nom} **ADDR**_{opt}
dat **PAT**_{acc, o+acc, aby, ať, zda, že}
Jelikož my máme poměrně striktně řečeno, do čeho mohou jednotlivé fondy investovat, [...]
 ‘Because we have fairly strict rules as to what individual funds may invest in, [...]’

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lit. 'Because **we have** [it] fairly strictly **said** what individual funds may invest in, [...]'

We have found a short list of derived reflexive verbs (all of which are decausative) that form specific structures that are similar to the possessive resultative but the Actor is changed from nominative to accusative, see (70 and 74). Grepl and Karlík (1998, p. 144) call this diathesis *decausativization of the Causator–Recipient type*.¹⁶⁸ Similarly to (68) listed above in Section 6.2.1, these constructions are on the boundary with verbonominal predicates with copula *mít* (cf. Šmilauer, 1966); in *VALLEX*, we group them under possessive resultative constructions.

Conversive possessive resultative		Rule G15
Supplementary rule (most reflexive verbs)		poss_conv_act2
Conditions	diat: poss	
ACT	nom → acc	

- (74) a. *proměňovat se^{impf} – proměnit se^{pf}* 'to change, transform, metamorphose'
ACT_{nom} **PAT**_{na+acc, v+acc} **ORIG**_{opt, z+gen}
ACT_{nom → acc}
*Samci plotic odchycení v sedimentačních nádržích dvou velkých čistíren odpadních vod **mají část**.**ACT**.acc varlat **proměněnu** na samičí pohlavní žlázy.*
 'Male roaches caught in sedimentation pools of two large sewage treatment plants **have a part**.**ACT**.acc of their testicles **metamorphosed** into female reproductive organs.'
- b. *shromažďovat se^{impf} – shromáždit se^{pf}* 'to gather, meet, come to one place'
ACT_{nom} **LOC**
ACT_{nom → acc}
*Ani on nemohl oslyšet naléhavé pozvání doktora Grégra, který zde chtěl **mít shromážděny** především dosavadní Sabininy **přátele**.**ACT**.acc.*
 'Neither he could ignore the invitation of doctor Grégr who wanted to **have** especially old Sabina's **friends**.**ACT**.acc **gathered** here.'
- c. *svírat se^{impf} – sevřít se^{pf}* 'to tighten (of throat), to knot (of stomach), to clench (of fist)'
ACT_{nom} **PAT**_{opt, do+gen, v+acc} **MANN**_{typ} **CAUS**_{typ, instr} **BEN**_{typ, dat}
ACT_{nom → acc}

¹⁶⁸ Czech: *decausativizace typu Kausátor–Recipient*

6.2 POSSESSIVE RESULTATIVE OF CONVERSIVE TYPE

Chtěla vykřiknout, ale nemohla, hrdlo.ACT.acc měla sevřeno.

‘She wanted to scream but couldn’t, she **had her throat.ACT.acc clenched.**’

- d. *stahovat se^{impf} – stáhnout se^{pf}* ‘to contort (with pain)’

ACT_{nom} **CAUS**_{typ}
instr, kvůli+dat **BEN**_{typ}
dat

ACT_{nom → acc}

tvář.ACT.acc měl staženu bolestí

‘his face was contorted with pain’

lit. ‘he **had his face.ACT.acc contorted** with pain’

- e. *usazovat se^{impf} – usadit se^{pf}* ‘to settle’

ACT_{nom} **LOC**

ACT_{nom → acc}

Pouze s výjimkou těch nejstarších kusů, které ve svém těle mají nadále usazený škodlivé látky.ACT.acc z té doby.

‘With the exception of the oldest heads that still **have harmful substances.ACT.acc** from that time **settled** in their bodies.’

- f. *ustalovat se^{impf} – ustálit se^{pf}* ‘to stabilize, steady, settle’

ACT_{nom}

ACT_{nom → acc}

Emitenti volného trhu většinou říkají, že to závisí na tom, až budou mít ustálenou strukturu.ACT.acc vlastníků.

‘The eminent persons of the free trade usually say that it comes down to the [alternative markets] having a stable proprietorship.’

lit. ‘[...] when **they have the structure.ACT.acc** of owners **stabilized.**’

- g. *vyvíjet se^{impf} – vyvinout se^{pf}* ‘to evolve, develop’

ACT_{nom} **PAT**_{opt}
z+gen **BEN**_{typ}
dat

ACT_{nom → acc}

Jsou však i tací motýli, kterým tyto potravní požítky v jejich krátkém životě nic neříkají, protože nemají vyvinuté zažívací orgány.ACT.acc.

‘There even are butterflies who find no joy in their short lives for **they haven’t** any digestive **organs.ACT.acc evolved.**’

6.3 The possessive resultative and verbal aspect

Referring to (Načeva-Marvanová, 2010), Panevová and Ševčíková (2011, p. 178) claim that (both types of) the possessive resultative constructions of imperfective verbs are rare. They give the following example:

- (75) *chránit*^{impf} 'to protect'
ACT_{nom} **PAT**_{acc} **EFF**_{opt}^{od+gen, proti+dat, před+instr, aby, at} **MEANS**_{typ}^{instr} **BEN**_{typ}^{dat}
Toto území máme chráněno před povodněmi.
 'We **have** this area **protected** against flooding.'

In our data, there are almost 200 lexical units in about 145 lexemes (accounting for about 200 non-iterative lemmas), in which the possessive resultative diathesis is annotated for an imperfective verb. This means that imperfective verbs account for about 10% of the total number of verbs that form the possessive resultative diathesis (1828 lexical units in 964 lexemes, with a total of 1804 non-iterative lemmas).¹⁶⁹ Note that in some of these cases, the annotation is based on a made-up example; moreover, this fairly high number reflects the ratio of annotated lexical units/lemmas, but not corpus frequency.

¹⁶⁹ 136 lexical units in 93 lexemes of imperfective verbs that have no perfective counterpart can be found at

<http://hdl.handle.net/11346/quest/vallex-0FFR>

The possessive resultative is also annotated on the imperfective verb in further 58 lexical units in 52 lexemes that combine a perfective and an imperfective verb; these can be seen at

<http://hdl.handle.net/11346/quest/vallex-514C>

Recipient passive diathesis (with the auxiliary *dostat* ‘to get’)

The name of the *recipient (passive) diathesis* refers to the fact that the prominent subject position is filled by a participant with the semantic role of (broadly defined) ‘Recipient’. A shift of the ‘Recipient’ into the subject position may be realized by two kinds of formal grammatical means, both consisting of the passive participle of the lexical verb and an auxiliary, either *dostat/dostávat* ‘to get’, or *mít/mívat* ‘to have’. In this dissertation, I use the term *recipient diathesis* only for constructions with *dostat/dostávat*; for more on the analysis of constructions with *mít* as instances of the recipient diathesis, see Chapter 7.4.

This construction is not fully grammaticalized in Czech, its formation is limited to several hundred lexical units (Giger, 2012). Probably the most important treatment of the recipient diathesis in the Czech linguistic tradition so far has been provided by Daneš (1968a, reprinted in a modified version as Daneš, 1985, p. 33–51), who claims that to the best of his knowledge, the type of construction with a passive participle and the verb *dostat* has first been mentioned by Hausenblas (1963). In this dissertation, I follow the classification of these constructions as a diathesis, as has been done in the work of Panevová et al. (2014) and Urešová (2011a).

7.1 The recipient diathesis in *VALLEX*

The possibility to form the recipient passive diathesis is marked in the Data Component of the lexicon by the value *diat: recipient*.

In the unmarked member of the diathesis, the ‘Recipient’ is realized as a dative complementation; similarly to the conversive type of possessive resultative, we have formulated two rules that respectively cover the cases that this dative

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complementation is present in the frame (as **X** in Rule G16 *recipient*), or is realized by an unlisted benefactor (**BEN** added in Rule G17 *recipient_addBEN*).

Recipient passive diathesis		Rule G16
Common rule		<i>recipient</i>
Conditions	diat: <i>recipient</i> ACT _{nom} & X _{dat} [PAT ADDR BEN] ¬ <i>se/si</i>	
Verbal form	→ <i>dostat</i> 'to get' + passive participle in accusative ¹⁷⁰	
Agreement	passive participle: number+gender, Y _{acc} [PAT EFF] <i>dostat</i> : number+gender+person: X	
ACT	* → <i>od</i> +gen, (instr)	
X	* → nom	
Obligatory	X ¹⁷¹	

Recipient passive diathesis		Rule G17
Common rule		<i>recipient_addBEN</i>
Conditions	diat: <i>recipient</i> ACT _{nom} & ¬ X _{dat} [PAT ADDR BEN] ¬ <i>se/si</i>	
Verbal form	→ <i>dostat</i> 'to get' + passive participle in accusative ¹⁷⁰	
Agreement	passive participle: number+gender, Y _{acc} [PAT EFF] <i>dostat</i> : number+gender+person, BEN	
ACT	* → <i>od</i> +gen, (instr)	
Obligatory	BEN _{nom}	

Conditions for the valency frame:

In *VALLEX*, the recipient passive diathesis has only been annotated systematically in the case of verbs that have a dative **PAT**, **ADDR** or **BEN**, so the vast majority of verbs with the attribute value *diat: recipient* fall under Rule G16 *recipient*, cf. (76a–76c). However, a few verbs that form the recipient diathesis but neither have a dative **ADDR** or **PAT**, nor have a **BEN** listed as a typical complementation,

¹⁷⁰ Czech passive participles take two forms, namely the nominative and the accusative, see Footnote 120.

¹⁷¹ See Footnote 164 for the interpretation of the claim that **X** in this rule and the **BEN** in the next rule are obligatory.

have been encountered during the annotation; these are covered by Rule G17 *recipient_addBEN*, cf. (77a–77b).

Reflexive verbs:

None of the reflexive verbs with a dative complementation found in *VALLEX* forms the recipient passive diathesis, therefore I expect that in general, reflexive verbs do not form this diathesis.

The ‘Recipient’ (variable **X** / added **BEN**), variable **Y**, agreement:

The auxiliary verb *dostat/dostávat* agrees in gender, number and person with the complementation expressing the semantic participant ‘Recipient’; in the unmarked structure, this complementation is expressed by a dative or one of its alternative forms as allowed by the frame, and in the marked structure, it changes its form to a nominative. In Rule G16 *recipient*, the corresponding complementation is marked **X** (a **PAT**,¹⁷² **ADDR** or **BEN**), while in Rule G17 *recipient_addBEN*, it is a **BEN** that is added into the frame during the application of the rule.

A typical feature of the recipient passive diathesis is the agreement between the passive participle and an accusative complementation (variable **Y**); when there is no accusative complementation in the frame or when it is not present in the surface-syntactic structure, the participle has the form of neuter singular.¹⁷³ In the corpus evidence gathered in *VALLEX*, **Y** is often a numerical expression (76c–77b).¹⁷⁴

According to Daneš (1985, p. 38), **X** always has the feature [+person] (including groups of people, institutions, and personified animals), i.e., it is an answer to the question *who?* rather than *what?*, while **Y** has the feature [-person].¹⁷⁵

- (76) a. *vyčinit_I^{pf}* ‘to chastise’
ACT_{nom} **PAT**_{dat} **CAUS**_{typ}
X=**PAT**_{dat → nom}, **Y** is not identified

¹⁷² Note that **X** may be a **PAT** only due to actant shifting.

¹⁷³ Daneš (1985, p. 38) makes the interesting observation that in spoken and substandard written Czech, speakers use the “long form of the participle” (actually a deverbal adjective) when **Y** is present in the particular utterance, but always use the “short form”, i.e. an actual participle, with the default agreement features of neuter singular. Needless to say, developments in linguistic methodology as well as language change itself call for confirming these claims on material in speech corpora.

¹⁷⁴ For the specific treatment of agreement in the case of numerical expressions, see p. 107.

¹⁷⁵ If I were to faithfully mirror the categorization provided by Daneš, **Y** would include complementations that can be expressed by infinitives or subordinate clauses introduced by the conjunctions *aby* ‘in order to’ and *že* ‘that’ (cf. Chapter 7.2). However, such an extension would not have any consequences for the application of Rule G16 *recipient* and Rule G17

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ODS._{X= PAT.fem.nom.sg} *dostala*._{fem.sg.3rd} *vyčíněno*._{passpart.neut.acc.sg} *za nerespekto-*
vání vůle voličů.

‘ODS (a political party) was scolded for not respecting the will of the voters.’

lit. ‘ODS._{X= PAT.fem.nom.sg} *got*._{fem.sg.3rd} *scolded*._{passpart.neut.acc.sg} for not respecting the will of the voters.’

- b. *rozdělovat*^{impf1} – *rozdílet*^{impf2} – *rozdělit*^{pf} ‘to divide’

ACT_{nom} **ADDR**_{dat, mezi+acc} **PAT**_{acc} **MEANS**_{typ instr} **LOC**_{typ} **BEN**_{typ dat, pro+acc}
X=ADDR_{dat, mezi+acc → nom}, **Y=PAT**

Vaši rádcové._{X= ADDR.anim.nom.pl} *už dostali*._{anim.pl.3rd} *rozděleny*._{passpart.inanim.acc.pl}
úkoly._{Y.inanim.acc.pl}, *co je potřeba zařídit, takže vás brzy pořádně zaměstnají.*

‘Your mentors were already given the tasks that need to be finished, so they will soon keep you busy.’

lit. ‘Your *mentors*._{X= ADDR.anim.nom.pl} already *got*._{anim.pl.3rd} *divided*._{passpart.inanim.acc.pl}
tasks._{Y.inanim.acc.pl}, ...’

- c. *vyhrazovat*_I^{impf} – *vyhradit*_I^{pf} ‘to assign’

ACT_{nom} **PAT**_{acc} **BEN**_{typ dat, pro+acc} **AIM**_{typ k+dat, na+acc, pro+acc}
X=BEN_{dat, pro+acc → nom}, **Y=PAT**

Jeho vláda prosadila, aby ženy._{X= BEN.fem.nom.pl} *v parlamentu dostaly*._{fem.pl.3rd}
vyhrazenu._{passpart.fem.acc.sg} *nejméně třetinu*._{Y.fem.acc.sg} *křesel.*

‘His government has pushed through that women get at least a third of the parliamentary seats.’

lit. ‘His government pushed through that *women*._{X= BEN.fem.nom.pl} *get*._{fem.pl.3rd} *assigned*._{passpart.fem.acc.sg} at least a *third*._{Y.fem.acc.sg} of the parliamentary seats.’

- (77) a. *uvolňovat*^{impf} – *uvolnit*^{pf} ‘to release, free, loosen’

ACT_{nom} **PAT**_{acc} **AIM**_{typ na+acc, pro+acc}

BEN_{→ nom}, **Y=PAT** is a numeral with neuter singular agreement features
Každý občan._{X= BEN.nom} *však dostal*._{anim.sg.3rd} *uvolněno*._{passpart.neut.acc.sg} *500*._{Y.num}
korun nového oběživa.

‘Every *citizen*._{X= BEN.anim.nom.sg} *got*._{anim.sg.3rd} *supplied*._{passpart.neut.acc.sg} [with] *500*._{Y.numeral} crowns of the new currency.’

- b. *zapisovat*^{impf} – *zapsat*^{pf} ‘to register, record’

ACT_{nom} **PAT**_{acc} **DIR3** **COMPL**_{typ jako+acc, jako+adj+acc}

BEN_{→ nom}, **Y=PAT** is a numeral with neuter singular agreement features
Předeek rodu Jan._{X= BEN.anim.nom.sg} [...] *od krále dostal*._{anim.sg.3rd} *zapsáno*._{passpart.neut.acc.sg}
sedm._{Y.numeral} *vsí v okolí Prahy.*

recipient_addBEN, since these additional surface-syntactic forms have the same agreement features as when no **Y** can be identified in the particular sentence, namely neuter singular.

‘Jan, an ancestor of the family, [...] got seven villages in the vicinity of Prague as fief from the king.’

lit. ‘A family ancestor **Jan**._{X=BEN.anim.nom.sg} [...] **got**._{anim.sg.3rd} **seven**._{Y.numeral} villages in the vicinity of Prague **registered**._{passpart.neut.acc.sg} from the king.’

Expressing the ACT:

The Actor (ACT) may be expressed in the marked structure of the recipient passive diathesis by the prepositional phrase *od+gen* ‘by, from’, exceptionally also by a noun in the instrumental case; often it remains unexpressed.¹⁷⁶

- (78) a. *doplácet^{impf} – doplatit^{pf}* ‘to pay the rest’

ACT_{nom} **ADDR**_{dat}^{opt} **PAT**_{acc} **EFF**_{k+dat}^{opt} **RCMP**_{za+acc}^{typ} **AIM**_{na+acc}^{typ}
ACT_{nom} → *od+gen*

*Lidé s nízkými příjmy by tak podobně jako u daňového bonusu dostali od státu.*_{ACT.od+gen} *doplaceno.*

‘People with low income would similarly as in the case of tax bonus get money back from the state.’

lit. ‘People with low income would similarly as in the case of tax bonus get **from the state**._{ACT.od+gen} paid-back._{passpart}.’

- b. *nařizovat^{impf}_{II} – nařídít^{pf}_{II}* ‘to order, command’

ACT_{nom} **ADDR**_{dat} **PAT**_{acc, inf, aby, ať, že}
ACT_{nom} → *instr*

*Co by mělo zůstat v pravomoci nemocnic a co by dostaly nařízeno vedením.*_{ACT.instr} *není zatím určeno.*

‘What would remain in the competence of hospitals and what would they get ordered **by the administration**._{ACT.instr} remains open.’

- c. *předepisovat / předpisovat^{impf} – předepsat^{pf}* ‘to prescribe’

ACT_{nom} **ADDR**_{dat} **PAT**_{acc, inf, aby, ať, zda, že, cont}
ACT_{nom} → *instr*

*TV Nova [...] nedostala předepsáno zákonem.*_{ACT.instr} *jak má vypadat zpravodajství a jaké publicistické pořady má vysílat...*

‘The law does not prescribe to TV Nova what the news should look like and what journalistic programmes it should broadcast...’

lit. ‘TV Nova [...] did not get prescribed **by law**._{ACT.instr}, what the news should look like and what journalistic programmes it should broadcast...’

¹⁷⁶ Note that the form *od+gen* appears in the prototypical frame of the full verb *dostávat^{impf} – dostat^{pf}* **ACT**_{nom} **PAT**_{acc} **ORIG**_{od+gen, z+gen}^{opt}, while the form *instr* does not.

7.2 Verbs entering the recipient diathesis

Our findings confirm the analysis of Dvořák (2017a) that the recipient diathesis is allowed by a much more restricted set of verbs than the conversive possessive resultative. She divides the verbs that enter this diathesis into two broad groups:

- verbs with a recipient in narrow sense, i.e. a situational participant that receives something as a result of the process/event referred to by the verb (cf. groups 1, 3 and 4 below)
- verbs that express some negative effect on the recipient (cf. group 2 below)

On the other hand, the recipient diathesis is generally impossible with verbs that have a dative complementation expressing the entity towards which the process is oriented (79a) or even someone from whom another entity is taken away (79b).

- (79) a. Karel závidí Petrovi jeho úspěchy. × *Petr dostal úspěchy (od Karla) záviděny.
 b. Policajti sebrali Karlovi řidičák × *Karel dostal sebrán řidičák.

I found one exception to this general rule: it is possible to use the recipient passive diathesis to explicitly contrast two events, one in which the ‘recipient’ is receiving something and another one in which they have it taken away:

- (80) a. *ubírat*^{impf} – *ubrat*^{pf} ‘to cut (sb’s pay)’
ACT_{nom} **ADDR**_{dat} **PAT**_{acc}
*Autokrošař, který se stane mistrem Evropy, by měl **dostat** přidáno a ne **ubráno**.*
 ‘An autocross racer who becomes European champion should get a pay rise and not a pay decrease.’
 lit. ‘... should get added and not get [his wages] cut.’
- b. *ubírat*^{impf} – *ubrat*^{pf} ‘to decrease’
ACT_{nom} **PAT**_{na+loc, z+gen} **BEN**_{typ dat}
*Naši hoši mají vynikající formu, po výprasku od sekaček **dostali** přidáno na tréninku a **ubráno** na stravě a s vidinou znojenských kvalitních nakládáných okurků sa do protivníka zakousli silou nevídanou.* (WWW)
 ‘Our boys are in perfect shape, after losing against grass-cutters they **got** added some training units and **cut down** on meals so they snatched at the opponent with unseen force powered by the vision of Znojmo’s high-end pickled gherkins.’

Daneš (1985, p. 41–44) provides a more detailed division of the verbs that form the recipient diathesis into six groups, each comprising a group of semantically related verbs and characterized by their common syntactic behaviour. Here I translate the characteristics given by Daneš into our notation; however, bear in mind that he is concerned with *surface-syntactic* obligatoriness, so the labels “obligatory” and “optional”¹⁷⁷ do not directly translate into FGD.¹⁷⁸

With a sense of humility, I base my list of verbs that form the marked structures of the recipient diathesis on the lists provided by Daneš. Similarly to the original lists, I only list the perfective members of aspectual pairs.¹⁷⁹ In the lists, I use the following typeface conventions:

- verbs listed by Daneš for which our annotation confirms the formation of the recipient diathesis are unmarked,
- verbs additionally revealed during the annotation of the recipient diathesis in the *VALLEX* lexicon¹⁸⁰ are in bold,
- verbs from the original list for which *VALLEX* does not confirm usage in the recipient diathesis are marked with a bold question mark ? (when the verb is not present in *VALLEX* and therefore was not investigated) or a bold exclamation mark ! (when the verb is covered by *VALLEX* but the annotation does not mention the recipient diathesis on any lexical unit in the corresponding lexeme(s));
- a normal-weight (non bold) question mark means that the verb is mentioned by Daneš or included in *VALLEX* only tentatively.

The groups are labelled with a frame-like heading that captures the typical forms of complementations that characterize them and their surface-syntactic obligatoriness; this heading serves as a rough guide only and does not directly correspond

¹⁷⁷ Daneš would use the term “potential”.

¹⁷⁸ A complementation that is obligatory on the level of surface syntax is also obligatory according to the dialogue test; the reverse is not true. In the list below, I treat groups 1.1 and 1.2 that differ only in obligatoriness of the complementations together.

¹⁷⁹ More on the recipient diathesis of imperfective verbs in Chapter 7.5.

¹⁸⁰ Note that the original lists were published in 1985, 10 years before the Institute of the Czech National Corpus was founded in 1994, at a time when the largest available corpus of the Czech language was the so-called *Corpus of the Pragmatic Style* of 600 000 words manually annotated for morphology and syntax. The *Corpus of the Pragmatic Style* project was led by Marie Těšitelová and ran between 1971 and 1985; nowadays, the underlying texts can be explored in the Czech Academic Corpus (Hladká, 2008), <http://hdl.handle.net/11372/LRT-1061>.

On the other hand, the annotation of the recipient diathesis in *VALLEX* is based on the SYN3 corpus, which contains 2,685,127,310 positions; some partial queries were also run on SYN7, of 5,100,437,261 positions.

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to the valency frame in *VALLEX*. I divide the groups proposed by Daneš into loosely defined subgroups of semantically related verbs.¹⁸¹

1	ACT _{nom} X _{dat} ^{opt} Y _{acc} ACT _{nom} X _{dat} Y _{acc} ^{opt}	<i>přidělit</i> 'to assign, to allot, to allocate (sth)' <i>přidat</i> 'to add (sth) to give a pay rise'
2.1	ACT _{nom} X _{dat}	<i>nabít</i> 'to give a beating'
2.2	ACT _{nom} X _{dat}	<i>vynadat</i> 'to scold'
3	ACT _{nom} X _{dat} ^{opt} Y _{acc,aby,že,inf}	<i>nařídít</i> 'to command, to order (sth/that/to-inf)'
4	ACT _{nom} X _{dat} ^{opt} Y _{acc,že,cont}	<i>oznámít</i> 'announce (that)'

1 **ACT**_{nom} **X**_{dat} **Y**_{acc}¹⁸²

VERBS OF EXCHANGE: *darovat* 'give (as a present)', *dodat* 'deliver', *doručit* 'deliver', *?nadělit* 'give (as a present)', *?nandat* (*plnou místu knedlíků*) 'serve (a full plate of dumplings)'; *?!odevzdat* 'consign, surrender'; *!poskytnout* 'provide', *!postoupit* 'forward (sth to sb)', *pronajmout* 'lease', *?předat* 'hand over', *!přenechat* 'yield (sth to sb)', *??přepustit* 'concede', *přidělit/přiřadit* 'assign, allot', *přípravit* 'prepare', (*?pro-/za-*)*půjčit* 'lend', *rozdat* 'give out', *rozdělit* 'divide, give out', *svěřit* 'entrust', *udělit* 'grant', *uvolnit* (*částku*) 'release (money), provide, appropriate sth', *!věnovat* 'give (as a present)', (*na-*)*vrátit* 'return', *?!vydat* 'hand over', *vyměnit* 'exchange', *!zaslat* 'send';

VERBS RELATED TO FINANCIAL TRANSACTIONS: *doplatit* 'pay (the rest of sth)', (*u-*)*hradit* 'cover the costs (of sth)', *nahradiť* 'compensate', *poukázat* 'remit, transfer', *?proplatit* 'reimburse', *přidat* (*někomu o 5 tisíc; domu na hodnotě; na tréninku*) 'raise (sb's wages by 5 thousand; the price of a house; the amount of training)', *přípsat* (*na účet*) 'credit (sth to sb's account)', *splatit* (*dluh*) 'pay back (debt)', *ubrat* (*někomu na platu; na stravě*) 'cut (sb's pay); lower (the amount of food)', *vyčlenit/vyhradit* 'put aside (money for a purpose)', *vyplatit* 'disburse (sth to sb)', *vyrovnat* 'settle, pay off', *vystavit* 'issue, write out', (*za-*)*platit* 'pay'; *přičíst* (*někomu body*) 'assign, grant (sb points)', *srazit* (*někomu body*) 'take down (points from sb)';

VERBS RELATED TO SERVING FOOD: *nabrat* 'scoop (up), ladle (and pour into someone's plate)', *naložit* (*někomu jídlo/mnoho úkolů*) 'assign (many tasks to sb)', *nalít/natočit* 'pour (sb a drink)', *založit* (*zvěři*) 'place fodder (in a crib)',

VERBS WITH THE SAME MEANING AS THOSE IN GROUP 2.1: *?nandal mu jich jak se patří* 'he gave him a good beating' (a phraseologism); *??oplatit* 'retaliate', *?uštědřit* 'inflict (sth on sb)', *!vrazit/?vysolit* (*ránu/peníze*) 'give harshly (a blow/money)';

OTHER VERBS: *nahrát* (*ve fotbale*) 'pass (the ball)'; *nařídít* (*hodinky*) 'set (the clock)', *nasadit* (*antibiotika, psí hlavu*) 'prescribe (antibiotics), put on (a dog's head)

¹⁸¹ These subgroups are not based on the semantic class annotation found in *VALLEX*.

¹⁸² Daneš mentions that a number of the verbs in this group are defined in *SSJČ* (a monolingual dictionary of Czech, Havránek et al., 1971) with the aid of either the verb *dát* 'to give' or another verb in this group.

(idiomatic: make sb look evil)', *odložit (trest)* 'postpone (a punishment)', *opravit* 'repair (sth for sb)', *označit* 'mark', *prodloužit (smlouvu)* 'extend (a contract)', *?předložit* 'put forth, submit', *přiznat (nárok na důchod)* 'acknowledge (sb's entitlement for a pension)', *uložit (něco někam)* 'place (sth somewhere)', *?vstříknout (někomu injekci)* 'inject (medicine)', *vyměřit (pokutu)* 'gauge (a fine)', *!vyřídit (někomu žádost)* 'execute (sth for sb)', *zamítnout* 'deny';

2.1 ACT_{nom} X_{dat}¹⁸³

VERBS MEANING 'GIVE SB A BEATING' AND DIFFERING IN EXPRESSIVENESS AND THE KIND AND SEVERITY OF THE BEATING:¹⁸⁴ *?nabít*, *?nafackovat*, *?namlátit*, *?namlít*, *?naplácat*, *?napohlavkovat*, *?napolíčkovat*, *?nařezat*, *?nasekat*, *?natlouct*, *?natřískat*; *?dostali to nandáno* 'they lost the match', lit. 'they got it beaten';

2.2. ACT_{nom} X_{dat}

VERBS MEANING 'SCOLD, REBUKE, REPRIMAND', OFTEN EXPRESSIVE: *?vycínkat*, *vyčinit*, *?vyhubovat*, *?vylát*, (*?vy*)*nadat*, *?vyspílat*, *?vypeskovat*, *?vyplásnit*;

3 ACT_{nom} X_{dat}^{opt} Y_{acc,aby,že,inf}

GIVE A COMMAND, PERMISSION, ADVICE, ...: *nakázat/nařídít/poručit/ příkázat/?rozkázat/uložit* 'command', *domluvit (někomu aby)* 'reprimand, persuade (sb to do sth)', *?nadiktovat* 'dictate', *určit* 'appoint (sb a task)'; *zakázat/?zapovědět* 'forbid', *dovolit/povolit* 'allow, let, permit'; *!umožnit* 'allow, enable', *doporučit* 'recommend', *nabídnout* 'offer', *navrhnout* 'suggest', *?!poradit* 'advise', *předepsat* 'prescribe', *stanovit* 'prescribe, fix, ordain', *zadat* 'give a task, order',

4 ACT_{nom} X_{dat}^{opt} Z_{acc,že,cont}

GIVE INFORMATION: *nahlásit* 'announce (to an institution)', *naznačit* 'implicate, intimate, indicate', *napsat* 'write', *odhalit* 'reveal (sth to sb), find out', *!odpovědět* 'reply', *oznámít* 'announce', *pochválit* 'praise', *potvrdit* 'confirm', *?sdělit* 'inform', *signalizovat* 'signal', *upřesnit* 'specify, particularize', *?vysvětlit* 'explain', *vykázat (zisky; ?někomu místo)* 'make (profit), demonstrate, prove; assign, allocate', *zapsat* 'write down, register', *?dálnopisovat* 'teletype', *?kabelovat* 'cable', *!telefonovat* 'phone', *?telegrafovat* 'telegraph, send a wire';

Verbs that do not belong to groups 1–4

garantovat 'guarantee', *?natočit* 'record, videotape'; *odpustit* 'forgive', *poděkovat za+acc* 'thank (for)', *!pohrozit instr,že* 'threaten (with/that)', *popřát* 'wish', *se-*

¹⁸³ Another interesting observation of Daneš: one of the meanings of the verb *dostat* 'to get' covers the recipient usage of all verbs in groups 2.1 and 2.2: *Ten dostal!* 'He was chided so heavily! / He got such a beating!', lit. 'He got!'

¹⁸⁴ Unlike their English counterparts such as *beat*, *slap*, or *kick*, these verbs cannot be used for action that is half-hearted or unfinished; the prefix *na-* conveys a sense of repetitiveness and well-roundedness present in the English verbs *spank*, *thrash*, *trounce*.

číst/spočítat (to někomu) ‘get even with sb, get back at sb’, *schválit* ‘approve’, *slíbit/přislíbit* acc,že ‘promise’, *zajistit/zaručit* ‘ensure, secure, provide’.

A study of 640 concordances from SYN2005 and SYN2006 corpora reported by Panevová et al. (2014, p. 110) provides important frequency information that provides some perspective onto the list given above: the verb *zaplatit* ‘to pay’ covers about half of the instances of the recipient diathesis in the data sample:

- 1 *zaplatit* ‘pay’ (310 occurrences in the sample), *přidat* ‘raise the wages’ (132), *přidělit* ‘assign, allot’ (22), *vyplatit* ‘disburse (sth to sb)’ (18), *uhradit* ‘cover the costs (of sth)’ (3), *proplatit* ‘reimburse’ (2), *příplatit* ‘pay in addition, cover the extras’ (2), *nahradit* ‘settle’ (1),
- 2.1 *nařezat* ‘give a thrashing/caning’ (21), *napráskat* ‘give a thrashing/caning’ (7), *nabančit* ‘beat up’ (3), *nakopat* ‘kick’ (2),
- 2.2 *vynadat* ‘dress sb down’ (49), *vyhubovat* ‘tell sb off’ (10), *vyčinit* ‘chastise’ (1),
- 3 *nařídít* ‘order, command’ (11), *uložit* ‘assign (a task)’ (3), *příkázat* ‘order, command’ (3), *nakázat* ‘order, command’ (1), *doporučit* ‘recommend’ (1),
- 4 not found in the sample
- other *nabít* ‘charge’ (1), *načepovat* ‘pour, tap’ (1), *naordinovat* ‘prescribe’ (1), *napsat* ‘write’ (1), *odpustit* ‘forgive’ (1).

7.3 Recipient diathesis in the Prague Dependency Treebank

Although the rules for deriving the marked frames of the recipient diathesis are described in the text devoted to consistency checks of PDT data with the valency lexicon (Uřešová, 2011a, p. 150–153) and Panevová et al. (2014, p. 111) introduce a grammateme for marking the occurrences of the recipient diathesis on the tectogrammatical layer (as postulated in the general theory of FGD), the grammateme value *gram/diatgram=recipient*, nor any other equivalent gram-

¹⁸⁵ The search for the recipient diathesis was performed by the following query:

```
a-node $Vs := [
  m/tag ~ "Vs.*",
  parent a-node $dostat := [ m/lemma ~ "^(dostat|dostávat)($|_.*)" ]
]
```

<http://hdl.handle.net/11346/PMLTQ-8KH9>

¹⁸⁶ On PCEDT 2.0, I used this query:

```
a-node $Vs := [
  tag ~ "Vs.*",
  parent a-node $dostat := [ lemma ~ "^(dostat|dostávat)($|_.*)" ]
]
```

<http://hdl.handle.net/11346/PMLTQ-FNGN>

7.4 RECIPIENT DIATHESIS WITH THE AUXILIARY *MÍT/MÍVAT* ‘TO HAVE’?

mateme/value, cannot be found in the data of PDT 3.0. This is because all four occurrences of the recipient diathesis¹⁸⁵ appear in the portion of the data that has only been analysed up to a-layer. All four are instances of *dostat zaplaceno* ‘get paid’.

In the Czech portion of the data of the Prague Czech-English Dependency Treebank 2.0,¹⁸⁶ where all sentences are analysed up to the t-layer, the t-layer contains a single node for the complex verb form consisting of the passive participle and the auxiliary *dostat/dostávat*; however, no special grammateme is assigned to the node. There are eight occurrences of *dostat zaplaceno* ‘get paid’ and additionally the following two instances:

- (81) a. *Tento **most**, který si za průjezd v obou směrech účtuje mýtné 1 dolar, je však pojištěn pro případ “ztráty zisku”, aby **dostal uhrazen únik příjmů v případě přerušování provozu mostu na déle než sedm dní.***
‘However, the bridge, which charges a \$1 toll each way, does have “loss of income” insurance in order to replace lost revenue if the operation of the bridge is interrupted for more than seven days.’
lit. ‘**The bridge** ... is insured ... so that [it] **gets lost income reimbursed** if ...’
- b. *Toto ustanovení bylo součástí dohody, ve které piloti souhlasili se značným snížením své mzdy, pokud **nedostane přidáno** ani žádná jiná pracovní **skupina.***
‘The clause was part of an agreement in which pilots accepted a substantial pay cut as long as no other labour group got a raise.’
lit. ‘... no other labour **group** got [any money] added.’

7.4 Recipient diathesis with the auxiliary *mít/mívat* ‘to have’?

A shift of a recipient into the subject position may be realized by two kinds of formal grammatical means, both consisting of the passive participle of the lexical verb and an auxiliary, either *dostat/dostávat* ‘to get’ or *mít/mívat* ‘to have’. While Panevová et al. (2014, p. 107) interpret the structures with auxiliary *mít/mívat* as instances of the recipient diathesis if and only if the auxiliary can be substituted with *dostat/dostávat* (p. 107), I believe that the labelling of the type of diathesis can proceed strictly according to the auxiliary used; in other words, constructions with a passive participle and the auxiliary *mít/mívat* should always be analysed as instances of the possessive resultative diathesis, and only

constructions with a passive participle and the auxiliary *dostat/dostávat* should be analysed as instances of the recipient diathesis.¹⁸⁷ Let me justify this claim.

The choice of the auxiliary has strong implications for the hierarchization and/or nuanced semantic interpretation of the proposition; while the auxiliary *mít/mívat* ‘to have’ gives more emphasis to the possessive interpretation of the whole construction (placing the recipient in the centre of attention and assigning him the ability to make use of the resulting state of the action portrayed by the verb), the auxiliary *dostat/dostávat* ‘to get’ emphasizes the passive role of the recipient.

Moreover, although the Actor can be expressed in the marked member of both diatheses by the form *od+gen*, I claim that it has a hierarchically higher position when the auxiliary *dostat* is used than when the auxiliary *mít* is used. Even though as auxiliaries the verbs *dostat* and *mít* do not invoke their own valency frames, they can still be associated (in a very general psychological/cognitive sense) with the prototypical frames and the core meaning of their full-verb counterparts. In the prototypical frame of *dostat*, **ACT**_{nom} **PAT**_{acc} **ORIG**_{od+gen, z+gen}^{opt}, a complementation with the form *od+gen* fills a valency position (as the optional actant Origin), while it has to be analysed as a free modification if it is used with the prototypical frame of the verb *mít* ‘to have’, **ACT**_{nom} **PAT**_{acc}. I claim that the cognitive association of the auxiliary with the prototypical frame (and the associated meaning) of the full verb is still strongly present in the possessive resultative and recipient diatheses; thus, the complementation with the form *od+gen* is more centrally present in a construction with *dostat* than in a similar construction with *mít*.

7.5 The recipient diathesis and verbal aspect

Daneš (1985, p. 33 and 35) claims that the recipient diathesis is limited to perfective verbs, but on p. 49, he admits the possibility to form the recipient diathesis of imperfective verbs when the imperfective auxiliary *dostávat* is used.

During the annotation of *VALLEX*, evidence of the recipient diathesis of the following imperfective verbs was found.¹⁸⁸ Note that instances with the perfective

¹⁸⁷ Note that the rules for the derivation of the marked member of the recipient diathesis have the same structure as the rules for the conversive type of the possessive resultative diathesis.

¹⁸⁸ A dedicated corpus search (<https://kontext.korpus.cz/view?q=-MiVpup3fFRfo>) has revealed several imperfective lemmas not present in *VALLEX* that also form the recipient diathesis:

– *hubovat* ‘scold’ *Když je totiž někdo v lajně se mnou, dostávám hubováno jen já.* ‘But when someone is in line with me, it’s [usually/regularly] only me who gets.impf scolded.impf.passpart.’

auxiliary *dostat* ‘to get’ were also found; I find (82f and 82k), in which the verb has a perfective counterpart, to be stylistically rather questionable, but (82i and 82c), in which the verb has no imperfective counterpart, much less so.

- (82) a. *přidělovat*^{impf} – *přidělit*^{pf} ‘to allocate’
ACT_{nom} **ADDR**_{dat} **PAT**_{acc} **AIM**_{typ}
 k+dat, na+acc
... na činnosti s tímto spojené dostáváme přidělovány pro-
středky ze státního rozpočtu...
 ‘... for the related operations, we’re allocated means from the state budget...’
 lit. ‘... for the related operations, we **are getting**_{impf} **allocated**_{impf.passpart} means
 from the state budget...’
- b. *vyplácet*^{impf} – *vyplatit*^{pf} ‘to pay out, disburse’
ACT_{nom} **ADDR**_{dat} **PAT**_{acc} **EFF**_{opt}
 za+acc
Jako hlavní hvězdy dostávali vždy vypláceno předem.
 ‘As the main stars, they **were** always **getting**_{impf} **paid**_{impf} in advance.’
- c. *hradit*_{II}^{impf} ‘to pay for, cover’
ACT_{nom} **ADDR**_{dat} **PAT**_{acc} **ORIG**_{opt}
 Z+gen **MEANS**_{typ}
 instr
Každý začínající hokejista, jenž do klubu přijde a bude hrát sezonu nebo
dvě, dostane od klubu hrazenu hokejovou výstroj a výzbroj
včetně bruslí.
 ‘Every beginning hockey player that joins the club and plays for a season or two
will get_{pf} his hockey gear and armoury including skates **covered**_{impf.passpart} [by the
 club].’
- d. *platit*^{impf} ‘to pay’
ACT_{nom} **ADDR**_{dat} **PAT**_{acc} **RCMP**_{typ}
 od+gen, za+acc **AIM**_{typ}
 na+acc **SUBS**_{typ}
 za+acc **BEN**_{typ}
 dat, pro+acc
Tento sport se hraje pro radost, hráči jej hrají ve svém volném čase a
nedostávají za to placeno.
 ‘This sport is played for fun, the players play it in their free time and do not **get**_{impf}
paid_{impf.passpart} in return.’

- *omílat* ‘keep repeating’ *Ale teď neustále dostávám kolem pusy omíláno něco, co jsem řekl dříve.* ‘But now I’m constantly reminded of something that I’ve said in the past.’, lit. ‘And now I constantly **get**_{impf} **harped on**_{impf.passpart} about something that I’ve said in the past.’ (Although found in the written corpus, this sentence contains a mixed up usage of several idioms that makes a strong impression of free speech.)
- *proplácet* ‘retroactively cover the costs’ *Seznam, na jehož základě dostávají zdravotnická zařízení proplácenu péči, obsahuje popis výkonu, čas, který lékař potřebuje, materiál a léky.* ‘Reimbursement of medical care provided by medical facilities is based on a list that contains a description of the procedure, time needed for its performance, material and medicine used.’, lit. ‘The list, based on which medical facilities **get**_{impf} **reimbursed**_{impf.passpart} the provided care, contains ...’

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- e. *nakládat*^{impf} – *naložit*^{pf} 'to (over)load (with work)'
ACT_{nom} **ADDR**_{dat} **PAT**_{acc}
Běla dostává nakládáno zprava zleva, ze všech stran. Je toho na ni opravdu moc.
 'Běla is loaded with work from right and left, from everyone. It's really too much for her.'
 lit. 'Běla **gets**.impf **loaded**.impf.passpart from right and left, ...'
- f. *předkládat*^{impf} – *předložit*^{pf} 'to present'
ACT_{nom} **ADDR**_{dat} **PAT**_{acc} **AIM**_{typ}^{k+dat, na+acc, aby} **COMPL**_{typ}^{jako+acc, jako+adj-acc}
Při další zkoušce dostali účastníci rysy daného člověka předkládány jeden po druhém v nahodilém pořadí.
 'In another test, the test subjects were presented with the characteristics of the same person one after another in random order.'
 lit. '...the subjects **got**.pf the characteristics of the given person **presented**.impf.passpart one after another in random order.'
- g. *vázat*^{impf} 'to bind'
ACT_{nom} **ADDR**_{opt}^{k+dat, s+instr} **PAT**_{acc} **MEANS**_{typ}
Krajský radní Michal Hanačík nesouhlasí, aby školy dostávaly peníze z ministerstva účelově vázány.
 'Regional councillor Michal Hanačík is against [the possibility] that schools would get the money from ministry bound to particular purpose.'
- h. *třídit*^{impf} 'to sort'
ACT_{nom} **PAT**_{acc} **EFF**_{opt}^{do+gen, na+acc, v+acc} **CRIT**_{typ}
Databáze zahraničních poptávek a tendrů, které každý klient může dostávat tříděny podle jeho oborového a teritoriálního zájmu.
 'A database of international debts and tenders which every client can get sorted based on his professional and territorial interests.'
- i. *signalizovat*^{impf} 'to signal'
ACT_{nom} **ADDR**_{opt}^{dat} **PAT**_{acc, aby, ať, zda, že, cont} **MEANS**_{typ}^{instr}
Všechny [bankovky] mají sérii 27451. To číslo jsme už dostali signalizováno z Chebu.
 'All of the banknotes are have series 27451. We've already been notified about that number from Cheb.'
 lit. '...We **have** already **got**.pf that number **signalled**.impf.passpart from Cheb.'¹⁸⁹
- j. *zadávat*^{impf} – *zadat*^{pf} 'to assign'
ACT_{nom} **ADDR**_{dat} **PAT**_{acc, inf, aby, že, cont}

¹⁸⁹ This example, taken from the work of the Czech writer Karel Čapek, is also quoted by Daneš (1985, p. 45).

*Velitelé britské policie si pravidelně stěžují, že od ministerstva vnitra **dostávají**_{impf} **zadáváno**_{impf,passpart} tolik byrokratického papírování, ...*

‘The officers of the British police regularly complain that they **get** so much paper-work **assigned** by the ministry, ...’

- k. *přidávat*^{impf} – *přidat*^{pf} ‘to get a pay rise’

ACT_{nom} **ADDR**_{dat} **PAT**_{acc, o+acc} **REG**_{typ}
k+dat, na+loc

*Odbory vědí, že nikdy **nedostaly**_{pf} tolik **přidáváno**_{impf,passpart} jako za této vlády.*

‘The unions are aware that the wages had never been increased as much as during this government’s term in office.’

lit. ‘The unions know that they **had** never **gotten** so much [money] **added**_{impf,passpart} as during this government[’s term in office].’

- l. *Nyní je růst poslanceckých platů pozastaven, ale úředníci **dostávají**_{impf} potichu **přidáváno**_{impf,passpart}.*

‘The rise of ministers’ wages has stopped, but white collars are quietly getting pay rises.’

lit. ‘...but white collars **are getting**_{impf} quietly **added**_{impf,passpart}.’

7.5.1 The recipient passive diathesis on the event–state continuum

In terms of the position of the recipient passive diathesis in the event–state dichotomy, authors seem to differ. Čaha (2017, note 14) and Dvořák (2017a) claim that the passive participles in the recipient passive constructions express a resultant state (a state as a result of a process/event): if it is true that *Petr dostal zapláceno* ‘Peter got paid’, he is in a state of having been paid and this state even cannot be later undone. Both authors further argue that the reading of the recipient passive as an expression of state is supported by the fact that it is impossible to use the instrumental case for the expression of Actor.¹⁹⁰ On the other hand, Dvořák also notes that in contrast to the possessive resultative, the durative phrase *stále ještě* ‘still’ (which indicates a static interpretation) cannot be inserted into sentences with the recipient passive:

- (83) a. *Honzík **má** stále ještě (od tatínka/?tatínkem) **slíbenu** sladkou odměnu.*
‘Johny still **has** some sweets **promised** (from/?by dad).’

¹⁹⁰ They do take into account cases like 78b, where the typical form *od+gen* alternates with an instrumental, and even 78c, where the instrumental seems to be idiomatic and the form *od+gen* is impossible.

- b. *Honzík (*stále ještě) dostal (od tatínka/*tatínkem) slíbenu sladkou odměnu.* ‘Johny (*still) got promised some sweets (from dad/*by dad).’

In contrast, Daneš (1985, p. 45–50) argues for a passive reading of the recipient constructions, i.e. as a process. He uses Hausenblas’s (1963) term *vznikový* ‘inceptive, constituting’, referring to the fact that in the case of verbs that enter both the recipient and the possessive resultative diathesis, the recipient diathesis captures the process through which the state expressed by the possessive resultative comes into being (*dostal nakázáno a tedy má nakázáno* ‘he got ordered so he has orders’, lit. ‘he got ordered so he has ordered’). In contrast to the argument about the impossibility to express the Actor by an instrumental case mentioned above, Daneš explicitly mentions the possibility to express the Actor at all as an argument for the processual interpretation.

A table of combinations of the various values of the tectogrammatical grammemes of diathesis and aspect given by Panevová et al. (2014, Table 3.1 on p. 116) explicitly excludes the possibility to interpret the recipient passive constructions as expressing the perfective (resultative) aspect (~ a state), and instead assigns it to the processual (imperfective) and complex (perfective) aspect depending on the choice of imperfective vs. perfective auxiliary *dostávat/dostat*.¹⁹¹ Here I support this treatment of the recipient passive with a few examples from the SYN7 corpus; thanks to the use of the imperfective auxiliary *dostávat* as well as adverbials denoting a time span (*právě* ‘right now, just’, *dlouho* ‘for a long time’, *postupně* ‘gradually’), these examples can only be analysed as instances of a process rather than a state:

- (84) a. *[...] působí spíše jako stárnoucí mužík “z podpantofle”, jenž právě dostává od různé manželky vyhubováno.* ‘[...] makes the impression of a ageing hen-pecked chap that at the moment of getting scolded by his energetic wife.’
- b. *Moravanský hrající trenér Milan Bakeš právě dostává naloženo od holického protihráče.* ‘The Moravian playing coach Milan Bakeš is right now getting beaten by his opponent from Holic.’
- c. *Jiné knihy jsou sice prodané, ale nakladatelé za ně nedostávají dlouho zapláceno, takže je těžké je registrovat – pouze vydané, nebo i prodané?* ‘Other books are sold already, yet the publisher is not getting paid for a long time, so it is difficult to make records—just published, or also sold?’

¹⁹¹ Note, however, that the same table appeared earlier in (Panevová, 2011), where the cell for the combination *diatgram=recipient* with *aspect=perfective* was filled with the same example as the neighbouring cell for *aspect=complex*: *Bratr dostal (od otce) vynadáno.* ‘A/the brother got scolded (from the father).’

- d. *Ti, jejichž plat je nižší, dostávají postupně přidáváno tak dlouho, až se jejich plat s průměrem srovná.* ‘Those with lower wages are gradually getting raised until their wages reach the average values.’

7.6 Recipient-like structures derived from *dát + inf* ‘let/give sb inf’

During the annotation of the recipient passive diathesis, I encountered several verbs that form constructions with the passive participle of the main verb combined with the auxiliary *dostat/dostávat* however, these constructions are not instances of the recipient diathesis: instead, they can be interpreted as derived from sentences with the verb *dát + inf* ‘let/give sb inf’.

- (85) a. *vybírat^{impf} – vybrat^{pf}* ‘to choose’
ACT_{nom} **PAT**_{acc} **ORIG**_{opt od+gen} **BEN**_{typ dat, pro+acc} **RCMP**_{typ za+acc}
V lepších špitálech, pokud tedy nemáte speciální dietu, dostanete vybráno z několika druhů jídel, přičemž jedno z nich je automaticky vegetariánské. ‘In above-average hospitals, you get to choose from several meal options (at least unless you are subject to a special dietary regimen), one of which is automatically vegetarian.’, lit. ‘In above-average hospitals, you get chosen from several meal options [...]’ ← *V lepších špitálech Vám dají vybrat ...* ‘In above-average hospitals they let you choose ...’
- b. *vydělavat^{impf} – vydělat^{pf}* ‘to make (money)’
ACT_{nom} **PAT**_{acc} **AIM**_{typ k+dat, na+acc, pro+acc} **MEANS**_{typ instr} **BEN**_{typ dat}
Podnikatelé dostanou vyděláno a státní úředníci zasednou v jejich správních či dozorčích radách. ‘Entrepreneurs will make money and state officers will get places on their boards of directors or supervisory boards.’, lit. ‘Entrepreneurs will get [money] made [...]’ ← *Dají podnikatelům vydělat ...* ‘They let entrepreneurs make money ...’
- c. *dát někomu něco sežrat^{pf}* ‘give sb a hard time about sth’, lit. ‘shove sth down sb’s throat’¹⁹²
“Nechci trenéra chválit, abych to nedostal v šatně sežráno od kluků, ale určil velmi dobrou taktiku,” culil se po utkání David Limberský.
 ‘I can’t praise our coach as the others would give me a hard time in the changing

¹⁹² This idiom is not covered by VALLEX.

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room, but he chose a very good tactics,” smiled David Limberský after the match.’, lit. ‘[...] not to **get it forced** [down my throat] [...]’ (SYN7) ← *Kdybych chválil trenéra, dali by mi to kluci sežrat*. ‘If I praised the coach, the guys would shove it down my throat.’

Conclusion

8.1 Summary

After several excursions into the history of valency thinking and a survey of the valency theory of the Functional Generative Description in the first part of this dissertation, I have devoted the second part to a detailed description of the rules for forming the passive, (objective, subjective and possessive) resultative and recipient diatheses and related verbonominal constructions. The semantic conditions for the use of the individual kinds of diatheses have been extensively described in the works of Daneš (1968a, 1985), Štícha (1979; 1980; 1981; 1984; 1986; 2004; 2011; Štícha et al., 2013), Grepl and Karlík (1983, 1986, 1998), Giger (2003a,b, 2011, 2012, 2015) and others. The exact form of the marked structures is usually only touched upon. Detailed syntactic description of selected diatheses in Czech has been carried out within generative frameworks, e.g. by Veselovská (2003), by Karlík (2004, 2019) and by his pupil Krchňavá (2010).

This dissertation is based on a different approach which has been, in the scope of the Functional Generative Description, pioneered by Králíková (1980) (who reported the need to mark the applicability of passive and deagentive diatheses in the lexicon) and later applied by Urešová (2011a) (who captured the syntactic rules in a tabular form similar to that found in this dissertation). In this approach, we mitigate the need for a specification of semantic conditions for the application of diatheses by explicit annotation of lexical units in the lexicon; on the other hand, the exact syntactic form of the marked structures is specified at a level of detail suitable for automated processing.

All of the rules discussed in this dissertation are also listed in Appendix C; the number of rules for each type of diathesis and for verbonominal constructions is summed up in Figure 8.1.

8 CONCLUSION

type of construction	rules	
	basic	supplementary
passive and objective resultative	1	4
objective resultative only ¹⁹⁴	1	—
subjective resultative	1	—
possessive resultative: non-conversive	1	—
possessive resultative: conversive	2	2
recipient	2	—
verbonominal ¹⁹⁵	3	—
deagentive ¹⁹⁶	1	4
dispositional ¹⁹⁶	1	—

Figure 8.1: Number of rules for each type of construction

Throughout this dissertation, I have paid special attention to phenomena traditionally considered impossible or stylistically problematic, such as the formation of the passive diathesis of reflexive verbs (Štícha et al., 2013, p. 620 claim that this is possible only for verbs *obávat se* ‘fear’ and *dotázat se* ‘ask’; my annotation has revealed around 40 lexical units in over 30 reflexive lexemes for which the passive/resultative can be documented, although I confirm that the absolute frequency of such instances is very low).¹⁹³

¹⁹³ Štícha (2011, p. 814, original highlighting): **Negramatičnost** pasiva reflexivních sloves je dána pouze **absolutní absencí jejich úzu**. Tato absence může být ovšem podmíněna tím, že kombinace polyfunkčního volného morfému *se* s analytickým tvarem pasiva v konstrukcích typu **Tímto problémem se je zabýváno odnepaměti* je pocítována jako jistý nepatřičný “střet funkcí”.

¹⁹⁴ Although the roles of **ACT** and **PAT** are swapped in Rule G7 **res_exper**, the described construction can still be classified as an instance of the objective resultative—the object of the unmarked construction becomes the subject of the marked construction.

¹⁹⁵ The three rules for verbonominal constructions are G6 **verbonom_trans**, G8 **verbonom_exper**, and G10 **verbonom_subjective**. The latter two are only mentioned in the text but not discussed in any detail.

¹⁹⁶ The deagentive and dispositional diatheses are not discussed in this dissertation because they are not formed from the passive participle and I am not the author of their annotation in the valency lexicon *VALLEX*; the rules can be found in (Lopatková et al., 2016a). The rules for the deagentive diathesis are largely analogous to the rules for the passive/objective resultative diathesis.

8.2 Future work

8.2.1 The boundary between resultative and verbonominal readings

In the research reported in this dissertation, I assumed that “long” deverbal *-n/t-* forms (e.g. *udělaný* ‘done’) should always be analysed as adjectives and when they combine with the verb *být* ‘to be’, *být* is a copula and the whole construction has the status of a verbonominal construction (it is not an instance of a diathesis). This assumption is based on the findings in the literature (e.g. Štícha, 1980; Krchňavá, 2010 and the authors quoted below) and has not been questioned during the work on this dissertation. However, it is known that while this assumption reflects the unmarked usage in written texts, it is not fully valid for all linguistic situations. Štícha (1980, p. 7) points out that the long forms are preferred for the resultative meaning of certain verbs that denote agent-less actions, e.g. *vlasy se slepily* → *vlasy byly slepené*.^{adjective} ‘(someone’s) hair stuck together → (someone’s) hair was matted.^{adjective}’. Grepl and Karlík (1983, p. 43–45) (edited version appeared in Daneš et al., 1987a, p. 241–242) also give examples of the resultative meaning expressed by the long participle, e.g. *kniha byla položena na stole* ‘the book was lying on the table’, lit. ‘the book was laid on the table’. Štícha (1990, p. 71) lists a number of sentences with passive meaning that contain the long form of a participle of imperfective verbs, e.g. *severní část ostrova je méně navštěvovaná turisty* ‘the northern part of the island is visited by fewer tourists’. Mrázková et al. (2007) devotes part of her discussion to the choice of short and long participle forms in speech contexts.

It therefore seems meaningful to either reconsider the classification of all long participle forms as adjectives, or to admit that the line between the resultative and non-resultative meaning does not coincide with the line between a diathesis and a verbonominal construction. The choice should be reflected in the fine-grained annotation of grammemes on the tectogrammatical layer. This topic has been extensively discussed in the literature quoted above but has not been adequately reflected in FGD yet.

8.2.2 The passive participle in spoken data

The research reported in this thesis and captured in the valency lexicon *VAL-LEX* is based on exclusively written data. The validity of the assumption that a long form of the participle implies verbonominal (or at least resultative) meaning is particularly problematic in the case of spoken data; especially in informal situations, the “short” participle forms (e.g. *udělán* ‘done’) may be perceived as

bookish and therefore replaced with the adjectival forms even in contexts where the semantics of the passive/resultative diathesis is clearly involved. If future research confirms that the long forms are used interchangeably with the short participles in casual speech, such use is likely to be also found in written data, especially in less formal contexts such as personal communication or blogs.

The frequency of use of the passive constructions is highly dependent on the style of text or situational context of speech production. For example, Těšitelová (1985) found that one in five verbal forms in administrative texts is part of a passive construction, confirming the hypothesis that passive constructions are used especially frequently in formal contexts. Because of this observation, it is frequently claimed that passives are a specific feature of (a certain type of) written texts. In this short Section, I sum up Mrázková's research (2017) showing that this is not quite the case.

Interestingly, while Mrázková (2017) confirms that passive participles are much less frequent in a corpus of informal speech (Oral_v4) than in a representative written corpus (SYN2015), she also found that they are even more common in a small speech corpus of local council meetings (with percentual frequencies of passive participles respectively equal to 0.03% in Oral_v4, 0.44% in SYN2015, and 0.76% in the corpus of council meetings). Not all of these participles are part of verbal constructions, e.g., the participle *řčeno* 'said' most commonly appears in emphasizing phrases such as *stručně řčeno* 'in a nutshell', lit. 'briefly said', and *upřímně řčeno* 'to be honest', lit. 'honestly said'; such parenthetical phrases account for 8% of neuter singular participles found in Oral_v4. Another part of participles in the speech corpus are found in constructions that we would analyse as verbonominal (a short form of an adjective and the copula *být* 'to be'), or as subjective resultative, e.g. *je zataženo* 'it's cloudy', lit. 'it is cast-over'; Mrázková does not quantify this subset separately. In informal speech (corpus Oral_v4), participles appear most frequently in combination with the auxiliary/copula *být* (neuter singular participles combined with *být* account for 45% of all passive participles in the corpus, and other passive participles combined with *být* account for 29% of all passive participles), e.g. *usnesení bylo přijato* 'a resolution was accepted', *byl vyfocen* 'was photographed', *jsou najímány* 'are rented'; next in order of frequency, possessive-resultative constructions with the auxiliary *mít* 'to have' (cf. Chapter 6) account for a full 25% of all participles in the corpus, e.g. *mám uvařeno* 'I have [enough food] cooked', *[auto] má najeto [X km]* '[the car] has mileage [X km]', lit. '[the car] has ridden [X km]'.

In contrast to the informal speech, possessive resultative constructions with auxiliary *mít* 'to have' account for just 3% of participles in the council meetings, and there are no subject-less sentences expressing a state such as *je zataženo* 'it's cloudy'. On the other hand, passive constructions are used much more commonly

during council meetings, especially when describing the procedure of the meeting itself (*usnesení bylo přijato* ‘a resolution was accepted’, [...] *již nebude v hlasování pokračováno* ‘voting will no longer be continued’), and when the user particularly wants to avoid mentioning the Actor of the action (*rok nebylo s panem X komunikováno* ‘for a year, MrX did not obtain any communication’, lit. ‘for a year it was not communicated with Mr. X’).

My annotation of diatheses in *VALLEX* occasionally contains examples found on the Web, as a first step towards inclusion of information coming from language use in informal contexts; Mrázková et al.’s research suggests that the use of speech corpora could further enrich our understanding of diatheses.

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¹⁹⁷ My own contribution is specified in the Preface (p. xiii).

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Types of complementations

A TYPES OF COMPLEMENTATIONS

Actants, i.e. **ACT** (Actor), **PAT** (Patient), **ADDR** (Addressee), **EFF** (Effect), **ORIG** (Origin), **MAT** (Material; only with nouns)

- (i) occur with a single headword only once;
- (ii) appear only with a limited group of headwords which can be listed;
- (iii) are always characteristic of the meaning of the verb with which they combine and therefore are listed in the valency frames of all such verbs;
- (iv) their morphemic form is determined by the headword;
- (v) are often expressed by the subject or direct object;
- (vi) do not form semantically homogeneous groups: a single actant functor covers a semantically diverse group of complementations;
- (vii) are subject to cognitive shifting, i.e., there is a tendency to express the first actant by a nominative and the second actant by an accusative irrespective of their semantic content, see Section 3.3.3.1;
- (viii) are typically obligatory, see Section 3.4;

Free modifications, e.g. **LOC** (where?), **DIR1** (where from?), **TWHEN** (when?), **MANN** (how?), **MEANS** (with what?), **BEN** (for whose benefit?), ...

- (i) may occur multiple times with a single headword;
- (ii) appear with most headwords except for a few semantically motivated exceptions;
- (iii) are characteristic of the meaning of the verb (and therefore listed in the valency frame) only if they are obligatory, see Section 3.4;
- (iv) the list of the possible morphemic realizations of a free modification is determined by the functor, not by the headword;
- (v) are often expressed by adverbial phrases;
- (vi) form semantically homogeneous groups of complementations, each characterized by the corresponding functor;
- (vii) are not subject to cognitive shifting, i.e., their form is not influenced by the headword's tendency to have a complementation of certain form;
- (viii) are typically optional;

Figure A.1: Characteristics of actants and free modifications complementations. The first two characteristics are used as defining/operational criteria for distinguishing between actants and free modifications.

Quasivalency complementations, i.e. **DIFF** (Difference: by how much?), **INTT** (Intent: for what purpose?), **OBST** (Obstacle), **MED** (Mediator)

- (i) occur with a single headword at most once;
- (ii) appear only with a limited group of headwords;
- (iii) are always characteristic of the meaning of the verb with which they combine and therefore are listed in the valency frames of all such verbs;
- (iv) their form is determined by the headword (but is less varied than the form of actants: **DIFF** only ever takes the form o+loc, for **INTT** it is always a subset of k+dat,na+acc,inf with the full set being the norm (one exception: *zastavit – zastavovat* ‘stop’ also allows aby ‘in order to’), for **OBST** it is typically o+acc ‘against sth’ with exceptions for *píchat se – píchnout se* ‘prick’ instr ‘with sth’, *zachytit – zachytnout* ‘catch, snag’ za+acc ‘on sth’, *zachytit se – zachytnout se* ‘get caught, snag’ za+acc ‘on sth’);
- (v) are typically expressed by prepositional phrases;
- (vi) belong to semantically homogeneous groups;
- (vii) are not subject to cognitive shifting, i.e., their form is not influenced by the headword’s tendency to have a complementation of certain form;
- (viii) are typically optional;

Figure A.2: Characteristics of quasi-valency complementations. Note that characteristics (i–iv) are shared with actants and characteristics (v–viii) are shared with free modifications.

A TYPES OF COMPLEMENTATIONS

ACT (Actor):

the first actant of any verb

PAT (Patient):

the second actant of any verb

ADDR (Addressee):

the beneficiary or recipient of a process or state, typically animate, often expressed as an indirect object or by an equivalent prepositional phrase

EFF (Effect):

corresponds to the effected object, expresses a result of action/process or a property or state that the Patient has or is assigned as a result of a process/state

ORIG (Origin):

the origin/source of a process or state, either local or conceptual, realized as a “right valency” complementation

DIFF (Difference):

inflace se zvýšila o 5 %.DIFF ‘the inflation has risen by 5 %.DIFF’

INTT (Intent):

jít do lesa na jahody.INTT, jít nakoupit.INTT ‘go picking.INTT berries, go shopping.INTT’

OBST (Obstacle):

poranit se o střep.OBST ‘hurt oneself on a shard.OBST of glass’

MED (Mediator):

zatahat někoho za rukáv.MED ‘pull at someone’s sleeve.MED’

Figure A.3: Actants and quasivalency complementations

MAT (Material):

balík papíru, polovina dortu ‘a wad of paper, a half of the cake’

AUTH (Author):

Nezvalovy verše ‘Nezval’s poems’

APP (Appurtenance):

organizace neslyšících, můj klobouk ‘organization of the deaf, my hat’

ID (Identity):

hrad Karlštejn; trest smrti ‘the castle Karlštejn; death penalty’

RSTR (Restrictive attribute):

velký dům ‘a big house’

SELECT (Selection):

99 ze 102 přítomných hlasovalo pro. ‘99 out of 102 present voted in favour.’

Figure A.4: Exclusively nominal complementations (an actant and five free modifications). Panevová et al. (2014, p. 95) subsumes examples labelled in PDT with the functor **AUTH** under **APP**, and in her recent work on deverbal nouns (Panevová and Kolářová, 2018) she labels them as **ACT**; on the other hand, she proposes to use **SELECT** (which does not exist in PDT, cf. Mikulová et al., 2006, p. 449).

A TYPES OF COMPLEMENTATIONS

ACMP (Accompaniment):

*Ocitl se **bez prostředků**.* ‘He found himself penniless (lit. **without the means**).’

AIM (Aim):

*Jan šel do pekárny **pro chléb**.* ‘John went to the bakery **for some bread**.’

(obligatory only with nouns: *lék **na bolení hlavy*** ‘medicine **for headache**’)

BEN (Benefactor):

*Radí nám.^{ADDR} **v náš prospěch**.* ‘She gives us advice **to our advantage**.’

CAUS (Cause):

*Petr **pro nemoc** končí s prací.* ‘Peter will quit work **due to illness**.’

CNCS (Concession):

*Navzdory studijním **úspěchům** se v praxi neuplatnil.* ‘**Despite his success** as a student, he wasn’t successful in practice.’

COMPL (Complement):

*M. A. se projevuje **jako nejvýraznější postava** týmu.* ‘M. A. comes through **as the most distinctive character** of the team.’

COND (Condition):

***Když spí**, nezlobí.* ‘He’s not naughty **when he sleeps**.’

CONTRD (Contradictions):

***Zatímco mzdy klesají**, ceny rostou.* ‘**While wages are going down**, prices are going up.’

CPR (Comparison):

*vypadal **otcovsky*** ‘he looked **fatherly**’

CRIT (Criterion):

*Disponoval s materiálem **podle pravidel**.* ‘He handled the material **according to the rules**.’

DIR1 (Direction from):

*Vězeň foukl **z vězení**.* ‘The prisoner escaped **from the prison**.’

DIR2 (Direction through):

***Tělem mu projelo zamrazení**.* ‘A chill ran **through his body**.’

DIR3 (Direction to):

*Dostavte se **na policii**.* ‘(Obey the summons and) report **to the police**.’

EXT (Extent):

*Tatínek vážil **140 kilo**.* ‘Father weighed **140 kilograms**.’

HER (Heritage):

*Pojmenovali syna **po otci**.* ‘They named the son **after his father**.’

LOC (Location):

***V ceně paliv** se promítá i cena nákladů.* ‘The expenses are reflected **in the price of the fuel**.’

Figure A.5: Verbal free modifications (continues on the next page).

MANN (Manner):

*Choval se k ní **laskavě**.* ‘He treated her **kindly**.’

MEANS (Means):

*Cassius se neprezentuje jen **naučenými zvyky**.* ‘Cassius does not present himself only **through acquired habits**.’

RCMP (Recompense):

*Koupila si nové tričko **za 350 Kč**.* ‘She bought herself a T-shirt **for 350 Kč**.’

REG (Regard):

*Dovedou tak rychle postupovat **růstem**, že už mi začal skákat do postele.* ‘They can speed **through growth** so quickly that he already started jumping into my bed.’

RESL (Result):

*Maturita dopadla **na jedničku**.* ‘The graduation exam ended up **with flying colours**.’

RESTR (Restriction):

Kromě tebe tam byli všichni. ‘**Except for you** everyone was present’

SUBS (Substitution):

*Startoval **za Slávií**.* ‘He played **for Slavia**.’

TFHL (Time – for how long):

*Rozfázoval plán **do 10 týdnů**.* ‘He broke down the plan into phases **for 10 weeks**.’

TFRWH (Time – from when):

*Jeho špatné vzpomínky pocházejí právě **z tohoto období**.* ‘His bad memories come exactly **from that time**.’

THL (Time – how long):

*Tento stav trvá už **od února**.* ‘This situation already lasts **since February**.’

THO (Time – how often):

*Pracuji na tom **každý den**.* ‘I work on it **every day**.’

TOWH (Time – to when):

*Odložili zkoušku z pondělka **na úterý**.* ‘They postponed the exam from Monday **until (lit. to) Tuesday**.’

TPAR (Time – in parallel):

***Během naší dovolené** pořád pršelo.* ‘It rained all the time **during our holiday**.’

TSIN (Time – since when):

*Lhůtu počítáme **od okamžiku dodání**.* ‘The term of warranty runs **from the moment of delivery**.’

TTILL (Time – till when):

*Potrvá to **do večera**.* ‘It will go on **until the evening**.’

TWHEN (Time – when):

*Bylo **po žních**.* ‘It was **after the harvest**.’

Figure (continued): Verbal free modifications.

A TYPES OF COMPLEMENTATIONS

VALLEX		PDT-Vallex			VALLEX		PDT-Vallex	
obligatory	typical	obligatory	part of an obligatory group		obligatory	typical	obligatory	part of an obligatory group
	✓	✓	✓	ACMP (Accompaniment)		31	2	94
	✓	✓	✓	AIM (Aim)		125	8	1
✓	✓		✓	BEN (Benefactor)	1	684		42
	✓			CAUS (Cause)		113		
				CNCS (Concession)				
	✓		✓	COMPL (Complement)		50		7
				COND (Condition)				
				CONTRD (Contradiction)				
			✓	CPR (Comparison)				68
	✓		✓	CRIT (Criterion)		24		73
	✓			DIR (DIR1, DIR2 or DIR3)		518		
✓	✓	✓	✓	DIR1 (Direction – from)	215	85	549	3
✓	✓	✓		DIR2 (Direction – through)	40	5	73	
✓	✓	✓	✓	DIR3 (Direction – to)	421	230	1294	1
✓	✓	✓	✓	EXT (Extent)	12	16	42	2
	✓			HER (Heritage)		10		
✓	✓	✓	✓	LOC (Location)	139	529	351	25
✓	✓	✓	✓	MANN (Manner)	82	288	40	107
	✓	✓	✓	MEANS (Means)		824	1	33
	✓			RCMP (Recompense)		51		
	✓		✓	REG (Regard)		158		1
			✓	RESL (Result)				3
	✓			SUBS (Substitution)		9		
	✓	✓	✓	TFHL (Time – for how long)		6	4	1
✓	✓	✓		TFRWH (Time – from when)	7	1	12	
✓	✓	✓		THL (Time – how long)	3	14	3	
				THO (Time – how often)				
✓	✓	✓		TOWH (Time – to when)	7	5	14	
				TPAR (Time – in parallel)				
✓				TSIN (Time – since when)	1			
	✓			TTILL (Time – till when)		8		
✓	✓	✓		TWHEN (Time – when)	1	52	2	

Figure A.6: Use of free modifications in the valency lexicons *VALLEX* 3.0 and *PDT-Vallex* 3.0.

Most common free modifications in both lexicons are **DIR3**, **DIR1** and **LOC**. Instances of optional free modifications listed in the lexicon *PDT-Vallex* are considered annotation errors and are not included in the table (10***DIR3**, 4***DIR1**, 1***BEN**, 1***REG**, 1***LOC**).

Alternations and diatheses: terminology and examples

Figure B.1: Types of alternations in FGD; terminological differences between Lopatková et al. (2016a) and Panevová et al. (2014). In this dissertation, I follow the former usage.

Lopatková et al., 2016a		Panevová et al., 2014																				
alternation	change/relationship between two structures with the same lemma	diathesis																				
lexicalized alternation	relationship between lexical units within the same lexeme	lexicalized diathesis = alternation (of ver- bal frames)																				
grammaticalized alternation	relationship between structures featuring the same lexical unit																					
diathesis	<table border="0"> <tr> <td rowspan="2" style="font-size: 3em; vertical-align: middle;">{</td> <td>passive diathesis</td> <td rowspan="2" style="font-size: 3em; vertical-align: middle;">}</td> <td rowspan="2">grammatical diathesis</td> </tr> <tr> <td>resultative diathesis</td> </tr> <tr> <td rowspan="2" style="font-size: 3em; vertical-align: middle;">{</td> <td>recipient diathesis</td> <td rowspan="2" style="font-size: 3em; vertical-align: middle;">}</td> <td rowspan="2">syntactic diathesis</td> </tr> <tr> <td>deagentive diathesis</td> </tr> <tr> <td rowspan="2" style="font-size: 3em; vertical-align: middle;">{</td> <td>dispositional diathesis</td> <td rowspan="2" style="font-size: 3em; vertical-align: middle;">}</td> <td rowspan="2">—</td> </tr> <tr> <td>reciprocity</td> </tr> <tr> <td rowspan="2" style="font-size: 3em; vertical-align: middle;">{</td> <td>reciprocity</td> <td rowspan="2" style="font-size: 3em; vertical-align: middle;">}</td> <td rowspan="2">—</td> </tr> <tr> <td>syntactic reflexivity</td> </tr> </table>	{	passive diathesis	}	grammatical diathesis	resultative diathesis	{	recipient diathesis	}	syntactic diathesis	deagentive diathesis	{	dispositional diathesis	}	—	reciprocity	{	reciprocity	}	—	syntactic reflexivity	
{	passive diathesis		}			grammatical diathesis																
	resultative diathesis																					
{	recipient diathesis	}	syntactic diathesis																			
	deagentive diathesis																					
{	dispositional diathesis	}	—																			
	reciprocity																					
{	reciprocity	}	—																			
	syntactic reflexivity																					
reciprocity																						
reflexivity																						

Figure B.2: Types of alternations exemplified

lexicalized alternations

- lexical-semantic conversion

balit^{impf} ‘to pack’

ACT_{nom} **PAT**_{acc} **DIR3**^{typ} **MEANS**^{typ}_{instr, do+gen}

balit prádlo.PAT do kufru.DIR3 ‘pack clothes.PAT into the suitcase.DIR3’

↔ **ACT**_{nom} **PAT**_{acc}

balit kufr.PAT ‘pack the suitcase.PAT’

- structural splitting of a situational participant

ohlášovat^{impf} – ohlásit^{pf} ‘to report, notify, announce’

ACT_{nom} **ADDR**_{dat} **PAT**_{acc, aby, af, zda, že, cont} **COMPL**^{typ}_{jako+acc, jako+adj-acc} **LOC**^{typ}

ohlásil případ.PAT policii ‘he reported the case.PAT to the police’

↔ **ACT**_{nom} **ADDR**_{dat} **PAT**_{o+loc} **EFF**_{acc, že, cont} **LOC**^{typ}

ohlásil policii vše.EFF o případu.PAT ‘he reported to the police everything.EFF about the case.PAT’

- multiple structural expression of a situational participant

nahlížet^{impf} – nahlédnout^{pf} ‘to view, look upon’

ACT_{nom} **PAT**_{acc, na+acc} **EFF**_{jako+acc, jako na+acc, jako+adj-acc}

nahlížíme to jako střet.EFF zájmu ‘we view it as a conflict.EFF of interest’

↔ **ACT**_{nom} **PAT**_{acc, na+acc} **MANN**

nahlížíme to nyní jinak.MANN ‘now we view it differently.MANN’

grammaticalized alternations

určovat^{impf} – určit^{pf} ‘to appoint, nominate, assign, determine, establish’

ACT_{nom} **ADDR**_{dat, pro+acc} **PAT**_{acc, inf, aby, af, zda, že} **EFF**^{opt}_{za+acc}

určoval jim úkoly ‘he.ACT assigned them.ADDR tasks.PAT’

- reciprocity ACT-PAT

svobody.ACT-PAT současníků se vzájemně určují ‘the freedoms.ACT-PAT of contemporaries determine each other’

- reciprocity ACT-ADDR

záleží jen na nich, jak si navzájem určí podíl vlastnictví na nemovitosti ‘it’s up to them to determine each other’s part of the inheritance’, lit. ‘it’s only their business how they.ACT-ADDR determine the inheritance fraction for each other’

- reflexivity coref3

postupuju přesně podle pravidel, která jsem si.ADDR určila ‘I am strictly following rules that I.ACT have determined for myself.ADDR’

- reflexivity coref4

umístění.ACT kamery se.PAT už určí samo ‘the position.ACT of the camera will then determine itself.PAT’

B ALTERNATIONS AND DIATHESES: TERMINOLOGY AND EXAMPLES

Figure B.3: Types and subtypes of diatheses as they are distinguished in FGD and discussed in this dissertation, exemplified on the lexical unit *nahrazovat^{impf} – nahradit^{pf}* ‘to replace, reimburse’ **ACT_{nom}** **PAT_{acc}** **EFF_{instr, za+acc}**
BEN_{typ dat} .

- **passive diathesis (with verb *být* ‘to be’; *periphrastic passive*)**
Jiní nahradili ty, co odcházeli. ‘Others **have replaced** those who left.’
 \leftrightarrow *Ti, co odcházeli, byli nahrazováni jinými.* ‘Those who left **were replaced** by others.’
- **resultative diathesis (with verb *být* ‘to be’)**
Už žádné klíče, ty jsme nahradili jediným přívěškem. ‘No more keys, we **have replaced them** with a single pendant.’
 \leftrightarrow *Už žádné klíče, ty jsou nahrazeny jediným přívěškem.* ‘No more keys, **they have been replaced** with a single pendant.’
- **possessive resultative (with verb *mít* ‘to have’)**
(non-conversive/conversive) *Dříve zde přímo hlídali vojáci, dnes jsme to nahradili / nám to nahradili elektronikou.* ‘This place used to be directly guarded by soldiers, today **we have replaced them / they have replaced them for us** with electronics.’
 \leftrightarrow *Dříve zde přímo hlídali vojáci, dnes to máme nahrazeno elektronikou.* ‘This place used to be directly guarded by soldiers, today **we have them replaced** with electronics.’
- **recipient passive diathesis (with verb *dostat* ‘to get’)**
Rybáři však dosud nevědí, kolik z jejich ztrát jim ministerstvo nahradí. ‘But the fishermen still do not know how much of their losses **will the ministry reimburse them.**’
 \leftrightarrow *Rybáři však dosud nevědí, kolik ze svých ztrát dostanou nahrazeno.* ‘But fishermen still do not know how much of their losses **they get reimbursed.**’
- **deagentive diathesis (with the reflexive *se*; *reflexive passive*)**
Roztrhané části oděvu jsme nahrazovali nejjednodušším způsobem. ‘We **replaced** torn parts of clothing in the crudest manner.’
 \leftrightarrow *Roztrhané části oděvu se nahrazovaly nejjednodušším způsobem.* ‘Torn parts of clothing **were replaced** in the crudest manner.’
- **dispositional diathesis (with the reflexive *se*); *mediopassive***
V zimě odešel z Olomouce i Hubník [...] Olomouc to těžko nahradí, nemyslíte? ‘Hubník also left the Olomouc team in winter [...] Olomouc will hardly **replace that, don’t you think?**’
 \leftrightarrow *V zimě odešel z Olomouce i Hubník [...] To se jí bude těžko nahrazovat, nemyslíte?* ‘Hubník also left the Olomouc team in winter [...] That **will be hard for her to replace, don’t you think?**’

Diatheses and deverbal adjectives in the Grammatical Component

Type of diathesis		Name of the rule
Description		
Conditions	diat: Corresponding value of attribute <i>diat</i> Conditions for the valency frame Conditions on the reflexivity of the verb	
Verbal form	Specification of the verbal form in the marked structure	
Agreement	Specification of the verbal form based on agreement	
FUNCTOR	Changes of morphemic forms of valency complementations with the given functor	
Obligatory	Valency complementations that are changed to obligatory in the marked member, or that added to the valency frame	

Passive and resultative		Rule G1
Basic rule (verbal form, agreement, form of Actor)		pass_basic
Conditions	diat: <i>pass</i> ACT _{nom}	
Verbal form	→ <i>být</i> 'to be' + passive participle in nominative	
Agreement	passive participle: number+gender, X <i>být</i> : number+gender+person, X	
ACT	* → instr, (<i>od</i> +gen, <i>z</i> +gen, <i>ze strany</i> +gen)	

C THE GRAMMATICAL COMPONENT

Passive and resultative diathesis		Rule G2
Supplementary rule for transitive verbs (with change acc → nom) pass_trans_acc		
Conditions	diat: pass X_{acc}	
Verbal form X Y	$se, si \rightarrow \emptyset$ acc → nom $jako+acc \rightarrow jako+nom$ $jako+adj-acc \rightarrow jako+adj-nom$ adj-acc → adj-nom	

Passive and resultative diathesis		Rule G3
Supplementary rule for frames where gen → nom pass_trans_gen		
Conditions	diat: pass $X_{gen} \& \neg Y_{acc}$	
Verbal form X	$se, si \rightarrow \emptyset$ gen → nom	

Passive and resultative diathesis		Rule G4
Supplementary rule for frames with genitive (without a change in the form of the genitive complementation) pass_intrans_gen		
Conditions	diat: pass $Y_{gen} \& \neg X_{acc}$	
<i>only actions in Rule G1 pass_basic</i>		

Passive and resultative diathesis		Rule G5
Supplementary rule for frames without accusative/genitive pass_intrans_no		
Conditions	diat: pass $\neg X_{gen, acc}$	
Verbal form	$se \rightarrow \emptyset$	

C THE GRAMMATICAL COMPONENT

Adjectives derived from participles		Rule G6
Adjectives derived from passive participles of transitive verbs		verbonom_trans
Conditions	ACT _{nom} & X _{acc,gen}	
Lemma	<i>se, si</i> → ∅	
Agreement	derived adjective: case+number+gender, X	
ACT	* → instr, (<i>od</i> +gen)	
X	* → ↑	
Y	<i>jako</i> +acc → <i>jako</i> +nom	
	<i>jako</i> +adj-acc → <i>jako</i> +adj-nom	
	adj-acc → adj-nom	

Resultative diathesis		Rule G7
Passive-like constructions of verbs with accusative Experiencer		res_exper
Conditions	ACT _{acc,gen} & PAT _{nom}	
Lemma	<i>se</i> → ∅	
Verbal form	→ <i>být</i> 'to be' + passive participle in nominative	
Agreement	passive participle: number+gender, ACT	
	<i>být</i> : number+gender+person, ACT	
ACT	* → nom	
PAT	nom → instr, <i>z/ze</i> +gen	
	inf → ∅	

Verbonominal constructions		Rule G8
Passive-like constructions of verbs with accusative Experiencer		verbonom_exper
Conditions	ACT _{acc,gen} & PAT _{nom}	
Lemma	<i>se</i> → ∅	
Agreement	derived adjective: case+number+gender, ACT	
ACT	* → ↑	
PAT	nom → instr, <i>z/ze</i> +gen	
	inf → ∅	

C THE GRAMMATICAL COMPONENT

Subjective resultative		Rule G9
Subjective resultatives derived from reflexive verbs with <i>se</i>		res_subjective
Conditions	ACT _{nom} & ¬ Y _{gen,acc} & SE_derived	
Lemma	<i>se</i> → ∅	
Verbal form	→ <i>být</i> ‘to be’ + passive participle in nominative	
Agreement	passive participle: number+gender, ACT <i>být</i> : number+gender+person, ACT	
ACT	* → nom	

Verbonominal constructions		Rule G10
Subjective resultative with the “long form” of the participle		verbonom_subjective
Conditions	ACT _{nom} & ¬ Y _{gen,acc} & SE_derived	
Lemma	<i>se</i> → ∅	
Agreement	adjective: case+number+gender, ACT	
ACT	* → ↑	

Nonconversive possessive resultative		Rule G11
Actor is the subject of the marked member of the diathesis		poss_nconv
Conditions	diat: poss ACT _{nom}	
Verbal form	→ <i>mít</i> ‘to have’ + passive participle in accusative <i>se, si</i> → ∅	
Agreement	passive participle: number+gender, Y _{acc} [PAT EFF] <i>mít</i> : number+gender+person, ACT _{nom}	
ACT	* → nom	

Conversive possessive resultative		Rule G12
Basic rule, ‘Recipient’ is present in the frame		poss_conv_basic1
Conditions	diat: poss ACT _{nom} & X _{dat} [PAT ADDR BEN]	
Verbal form	→ <i>mít</i> ‘to have’ + passive participle in accusative <i>se, si</i> → ∅	
Agreement	passive participle: number+gender, Y _{acc} <i>mít</i> : number+gender+person, X	
X	* → nom	
Obligatory	X	

C THE GRAMMATICAL COMPONENT

Conversive possessive resultative		Rule G13
Basic rule, 'Recipient' is not present in the frame		poss_conv_basic2
Conditions	diat: poss ACT _{nom} & ¬ X _{dat} [PAT ADDR BEN]	
Verbal form	→ <i>mít</i> 'to have' + passive participle, accusative <i>se, si</i> → ∅	
Agreement	passive participle, number+gender, Y _{acc} <i>mít</i> , number+gender+person, BEN	
Obligatory	BEN _{nom}	

Conversive possessive resultative		Rule G14
Supplementary rule (central type)		poss_conv_act1
Conditions	diat: poss	
ACT	nom → instr, <i>od</i> +gen	

Conversive possessive resultative		Rule G15
Supplementary rule (most reflexive verbs)		poss_conv_act2
Conditions	diat: poss	
ACT	nom → acc	

Recipient passive diathesis		Rule G16
Common rule		recipient
Conditions	diat: recipient ACT _{nom} & X _{dat} [PAT ADDR BEN] ¬ <i>se/si</i>	
Verbal form	→ <i>dostat</i> 'to get' + passive participle in accusative	
Agreement	passive participle: number+gender, Y _{acc} [PAT EFF] <i>dostat</i> : number+gender+person: X	
ACT	* → <i>od</i> +gen, (instr)	
X	* → nom	
Obligatory	X	

C THE GRAMMATICAL COMPONENT

Recipient passive diathesis		Rule G17
Common rule		recipient_addBEN
Conditions	diat: recipient $ACT_{nom} \& \neg X_{dat}[PAT ADDR BEN]$ $\neg se/si$	
Verbal form	→ <i>dostat</i> 'to get' + passive participle in accusative	
Agreement	passive participle: number+gender, $Y_{acc}[PAT EFF]$ <i>dostat</i> : number+gender+person, BEN	
ACT	* → <i>od</i> +gen, (instr)	
Obligatory	BEN _{nom}	

List of publications

Publications on the topic of the dissertation

1. Lopatková, M., Kettnerová, V., Bejček, E., Vernerová, A., and Žabokrtský, Z. (2016a). *VALLEX 3.0 - Valenční slovník českých sloves*. Karolinum, Praha. <http://ufal.mff.cuni.cz/vallex/3.0/>.
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