

Active and passive syntax of Czech deverbal and deadjectival nouns

Veronika Kolářová¹

Institute of Formal and Applied Linguistics, Faculty of Mathematics and Physics, Charles University, Czech Republic

Received 28 August 2023; revised 22 January 2024; accepted in revised form 22 January 2024; Available online 8 June 2024



Abstract

Both Czech deverbal and deadjectival nouns are often endowed with valency, but they differ significantly in how they reflect active and passive constructions of their motivating predicates: while deverbal nouns derived from transitive verbs may display both active and passive syntax, deadjectival nouns (even those indirectly motivated by a transitive verb) typically only allow either the active or the passive syntax, not both. This notable difference results from the syntactic behavior of the verbs and adjectives from which the nouns are directly derived, and from the way the nouns reflect the syntactic behavior. Unlike verbal constructions, adjectival syntactic structures are predetermined to arrange arguments of the adjectives by adopting either the active or the passive syntax of their base predicates, not both. Typically, this depends on the derivational type the adjectives represent. Valency structures of nouns directly derived from adjectives adhere to morphosyntactic rules that determine the syntactic representation and forms of the adnominal arguments, which results in preserving either the active or the passive syntax of the base adjective. Following the classification of adjectival derivational types, Czech deadjectival nouns are categorized according to the typical syntax (active or passive) used.

© 2024 The Author(s). Published by Elsevier B.V. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Keywords: Active syntax; Passive syntax; Deverbal nouns; Deadjectival nouns; Valency; Derivational type

1. INTRODUCTION

Many abstract deverbal nouns (e.g., *destruction*, *perception*, *knowledge*, *arrangement*) and deadjectival nouns (e.g., *kindness*, *ability*, *freedom*) represent non-verbal predicates, and as such they can be seen as displaying argument structure, i.e., as endowed with valency (e.g., Borer, 2003, Grimshaw, 1990, Herbst, 1988, Roy, 2010, Spevak, 2014). Both deverbal and deadjectival nouns reflect – to some extent – the valency of their base verbs and adjectives (Booij, 2007:

Abbreviations: 1, first person; 3, third person; A, adjective; ACC, accusative; ACT, actor, agent; ADDR, addressee; APP, appurtenance; ARA, Araneum Bohemicum Maximum; CONT, content clause; DA, deadjectival; DAT, dative; DENOM, noun governing a noun phrase; DET, determiner; DIR, direction; DV, deverbal; EFF, effect; Exp, Experiencer; FGD, Functional Generative Description; GEN, genitive; INF, infinitive; INS, instrumental; LOC, locative; MAT, material; N, noun; NOM, nominative; ORIG, origin; PAT, patient; PL, plural; POSS, possessive; PP, prepositional phrase; PRED, predicate; PRS, present; PST, past; REFL, reflexive; SG, singular; Stim, Stimulus; SYN, corpus of present-day written Czech

¹ Contact: Malostranské náměstí 25, 118 00 Praha, Czech Republic.

E-mail address: kolarova@ufal.mff.cuni.cz

215–216), adhering to some rules that determine the syntactic realization and forms of their arguments (for a brief outline, see for example Allerton (2006: 311–312) and Rainer (2015: 1278)). In the verbal domain, the research into valency also includes the distinction between active and passive syntactic structures (e.g., Givón, 1982, Kulikov, 2010). However, the way verbal active and passive constructions are reflected in the syntactic structures of adjectives and nouns has not been described sufficiently yet. My research indicates that the type of syntax a verbal or non-verbal predicate can use (i.e., both active and passive syntax, or only one of these) represents a notable difference between verbs and deverbal nouns on the one hand and adjectives and deadjectival nouns on the other.

In this paper, I focus on the active vs. passive syntax of deverbal and deadjectival nouns in the Czech language (e.g., *vnímání* ‘perceiving / perception’ and *vnímavost* ‘perceptiveness’; see sections 3.2 and 5). I demonstrate that Czech deadjectival nouns only allow for either the active syntax or the passive syntax, not both (section 5.2); in this respect, they clearly differ from Czech deverbal nouns, which – when derived from transitive verbs – can display both active and passive syntax (sections 3.2 and 5.1).

Linguists’ interest in the syntactic behavior of deverbal nominalizations, including their active and passive syntax, dates back to the influential works by Lees (1960) and Chomsky (1972a: 40–44), and to the subsequent discussion about types of deverbal nominalizations (see e.g., Grimshaw, 1990). Within the generative grammar framework, the most common theoretical claims regarding patterns displaying active and passive syntax of deverbal nominalizations are summarized in Borer (2020: 113); the authors mentioned also address nominalizations in languages other than English, for instance Greek (Alexiadou, 2001: 89–110) or Hebrew (Borer, 2013: 81–119). With regard to Slavic languages, the syntactic behavior of deverbal nominalizations features in various theories, for example, Russian genitive adnominal complements in the Meaning-Text Theory (Mel’čuk, 2021: 205–232); Polish nominals in generative grammar (Rappaport, 2001), in the Optimality Theory (cf. Cetnarowska, 2005), or in Lexical Functional Grammar and Universal Dependencies (Patejuk and Przepiórkowski, 2018: 199).

In contrast, deadjectival nominalizations have received less attention than deverbal ones, being addressed primarily for morphological and syntactic properties related to their semantics, such as Quality vs. Stative nominals in French (Roy, 2010, 2013) or properties, tropes, and qualities in Serbo-Croatian (Arsenijević, 2011). Active vs. passive syntax of English deadjectival nominalizations has been discussed in particular by authors adopting the generative grammar approach, e.g., Alexiadou (2019), Borer (2020), Roeper (2020), and Roeper and van Hout (2009), see section 5.2.

My research into the active and passive syntax of Czech deverbal and deadjectival nouns is based on the theoretical framework of the Functional Generative Description (FGD; Sgall et al., 1986, section 3.1). Principles formulated within the FGD framework have been effectively applied to describe the syntactic properties of a large volume of language data, be it dependency treebanks (e.g., Hajič et al., 2020) or valency lexicons (e.g., Kolářová et al., 2022, Lopatková et al., 2022). I use the data of one valency lexicon from the FGD framework, namely NomVallex, which includes information on the syntactic behavior of hundreds of Czech deverbal and deadjectival nouns and reflects their derivational history (sections 4.1 and 4.2). The language material contained in the lexicon as well as examples used in the study are based on the data from Czech corpora (section 4.3).

2. PROBLEM DEFINITION AND OBJECTIVES

The difference in syntactic behavior between Czech deverbal and deadjectival nouns, consisting in whether they allow for both active and passive syntax or for only one of these, can be most clearly illustrated by patterns containing nouns that are directly or (in case of deadjectival nouns) indirectly motivated by the same verb. To give an introductory example, I use derivatives of the Czech verb *vnímat* ‘perceive’, namely the deverbal noun *vnímání* ‘perceiving / perception’ and the deadjectival nouns *vnímatelnost* ‘perceptibility’ and *vnímavost* ‘perceptiveness, sensitivity’, which are directly derived from the adjectives *vnímatelný* ‘perceptible, perceivable’ and *vnímavý* ‘perceptive, sensitive’, respectively (both derived from the verb *vnímat* ‘perceive’).

The verb *vnímat* ‘perceive’ is a verb with two semantic roles, Experiencer (Exp) and Stimulus (Stim); in order to be consistent with my data, the roles are also labeled *agent* (actor, ACT) and *patient* (PAT), respectively.² The verb *vnímat* ‘perceive’ is a transitive verb which can be used in the active (1a), with the agent expressed in Czech in the nominative case and the patient in the accusative case, or in the passive (1b), where the patient takes the nominative case and the agent the instrumental case (corresponding to the English *by*-agent). Some transitive verbs in their active usage also employ other forms of the patient, such as an embedded (content) clause with the verb *vnímat* ‘perceive’ in (1c).³

² In the FGD valency theory, the label ACT is used for the first complement of a predicate and the label PAT is used for the second one, regardless of their semantic roles (for more details see section 3.1).

³ Czech embedded sentences and the issue of their nominalization are discussed for example in Kosta and Karlík (2020).

- (1) a. *muž*_{ACT-Exp} *vnímá* *vysoký* *zvuk*_{PAT-Stim}
 man-NOM perceives high-ACC sound-ACC
 ‘a man perceives a high sound’
- b. *vysoký* *zvuk*_{PAT-Stim} *je* *vnímán* *mužem*_{ACT-Exp}
 high-NOM sound-NOM is perceived man-INS
 ‘a high sound is perceived by a man’
- c. *muž*_{ACT-Exp} *vnímá,* *že* *zvuk* *je vysoký*_{PAT-Stim}
 man-NOM perceives that sound-NOM is high
 ‘a man perceives that a sound is high’

This distinction can be made in constructions with Czech deverbal nouns, as well (section 5.1). The nominal pattern can then mirror the active syntax, with the agent expressed in Czech either in the possessive form (2a), (2b), or in the genitive case (2c), or it can mirror the passive syntax, with the agent expressed in the instrumental case (2d), (2e), which it also takes with verbal passives (as in (1b)). In active-like nominal patterns the patient employs the genitive case (2a) or the content clause (2b–c), in passive-like patterns it takes the genitive case (2d) or the possessive form (2e) (for more details see section 3.2).

- (2) a. *mužovo*_{ACT-Exp} *vnímání* *vysokého* *zvuku*_{PAT-Stim}
 man-POSS perception high-GEN sound-GEN
 ‘man’s perception of a high sound’
- b. *mužovo*_{ACT-Exp} *vnímání,* *že* *zvuk* *je vysoký*_{PAT-Stim}
 man-POSS perception that sound-NOM is high
 ‘man’s perception that the sound is high’
- c. *vnímání* *muže*_{ACT-Exp} *že* *zvuk* *je vysoký*_{PAT-Stim}
 perception man-GEN that sound-NOM is high
 ‘the perception of a man that the sound is high’
- d. *vnímání* *vysokého* *zvuku*_{PAT-Stim} *mužem*_{ACT-Exp}
 perception high-GEN sound-GEN man-INS
 ‘perception of a high sound by a man’
- e. *jeho*_{PAT-Stim} *vnímání* *mužem*_{ACT-Exp}
 it-POSS perception man-INS
 ‘its perception by a man’

However, as suggested above, Czech deadjectival nouns allow for either active or passive syntax, not both (see section 5.2). For instance, the noun *vnímatelnost* ‘perceptibility’, derived from the adjective *vnímatelný* ‘perceptible’, displays passive syntax, with the agent expressed in the instrumental case and the patient expressed either in the genitive (3a) or in the possessive form (3b).⁴ On the contrary, the active syntax, with the agent in the possessive form and the patient in the genitive case, does not fit grammatically with the noun, see (3c).⁵

⁴ However, the noun *vnímatelnost* ‘perceptibility’ deserves attention as it is relatively rare in Czech. Karlík and Ziková (2016) observe that Czech adjectives ending in *-telný*, such as *vnímatelný* ‘perceptible’, are productively derived, which appears to be related to the many hapax legomena of this adjectival type in Czech. Productive derivation related to very low usage seems to hold true at least for some nouns derived from this adjectival type, too. In particular, the noun *vnímatelnost* ‘perceptibility’, derived from the adjective *vnímatelný* ‘perceptible’ by the productive suffix *-ost*, has only 59 hits (i.e., 0,01 occurrences per million words) in the larger of the two corpora I use (see section 4.3). Nevertheless, it is listed in the standard Czech monolingual dictionary *Slovník spisovného jazyka českého* (labeled as rare, cf. Havránek et al., 1989: 123) and is attested in the corpus data even in the pattern with the passive syntax, as discussed in (3a), see (i).

(i) (SYNV11)
 [...] *meze* [...] *vnímatelnosti* *pachu*_{PAT-Stim} *sirovodíku* *člověkem*_{ACT-Exp}
 [...] limit-GEN [...] perceptibility-GEN smell-GEN hydrogen_sulphide-GEN man-INS
 ‘[...] limit of [...] perceptibility of the smell of hydrogen sulphide by a man’

⁵ Similar English examples, such as **children’s learnability of grammar*, are discussed for instance by Roeper and van Hout (2009), see section 5.2.

- (3) a. *vnímavost* *vysokého* *zvuku*_{PAT-Stim} *mužem*_{ACT-Exp}
 perceptibility high-GEN sound-GEN man-INS
 ‘perceptibility of a high sound by a man’
- b. *jeho*_{PAT-Stim} *vnímavost* *mužem*_{ACT-Exp}
 it-POSS perceptibility man-INS
 ‘its perceptibility by a man’
- c. **mužova*_{ACT-Exp} *vnímavost* *vysokého* *zvuku*_{PAT-Stim}
 man-POSS perceptibility high-GEN sound-GEN
 (‘a man’s perceptibility of a high sound’)

In contrast, the noun *vnímavost* ‘perceptiveness, sensitivity’, derived from the adjective *vnímavý* ‘perceptive, sensitive’, displays active syntax, with the agent expressed either in the genitive case (4a) or as a possessive (4b), while passive syntax, with the agent in the instrumental form, is not possible with the noun, see (4c).

- (4) a. *vnímavost* *muže*_{ACT-Exp} *k* *vysokému* *zvuku*_{PAT-Stim}
 perceptiveness man-GEN to high-DAT sound-DAT
 ‘perceptiveness / sensitivity of a man to a high sound’
- b. *mužova*_{ACT-Exp} *vnímavost* *k* *vysokému* *zvuku*_{PAT-Stim}
 man-POSS perceptiveness to high-DAT sound-DAT
 ‘man’s perceptiveness / sensitivity to a high sound’
- c. **vnímavost* *k* *vysokému* *zvuku*_{PAT-Stim} *mužem*_{ACT-Exp}
 perceptiveness to high-DAT sound-DAT man-INS
 (‘perceptiveness / sensitivity to a high sound by a man’)

The nouns *vnímavost* ‘perceptibility’ and *vnímavost* ‘perceptiveness, sensitivity’ reflect the syntax of their base adjectives, namely *vnímavý* ‘perceptible, perceivable’ and *vnímavý* ‘perceptive, sensitive’. Although both adjectives are derived from the verb *vnímat* ‘perceive’, the adjective *vnímavý* ‘perceptible, perceivable’ mirrors its passive syntax, cf. (5a) and (1b) above, and the adjective *vnímavý* ‘perceptive, sensitive’ displays the active syntax, see (5b).

- (5) a. *vysoký* *zvuk* *vnímavý* *mužem*_{ACT-Exp}
 high sound perceptible man-INS
 ‘a high sound perceptible by a man’
- b. *muž* *vnímavý* *k* *vysokému* *zvuku*_{PAT-Stim}
 man sensitive to high-DAT sound-DAT
 ‘a man sensitive to a high sound’

I conclude that the different behavior of deadjectival nouns on the one hand and deverbal nouns on the other arises from the syntactic behavior of the verbal or non-verbal predicates from which the nouns are directly derived, i.e., verbs in the case of deverbal nouns, and adjectives in the case of deadjectival nouns (section 7). Unlike with verbs, the syntactic representation of adjectival complements predetermines adjectives to reflect either the active or the passive syntax of their base verbal (or verbo-nominal) predicate, not both (sections 6). Nouns directly derived from the adjectives adhere to rules that determine the syntactic realization and forms of their arguments, which results in either the active or the passive syntax being preserved, but not both (section 6.3).

Studies dealing with the active vs. passive syntax of English deadjectival nominalizations indicate a relation between the type of syntax the nominalizations use and the properties of the adjectives they are derived from. While Borer (2020) works on the assumption that adjectives do not passivize and observes deadjectival nouns displaying active syntax (e.g., *awareness*), Roeper and van Hout (2009), Alexiadou (2019), and Roeper (2020) address deadjectival nominalizations that contain a passivizing element in their morphemic structure, such as English *-ability* and *-ed* nominals (e.g., *learnability* and *preparedness*), inferring that these cases nominalize a structure that is already passive, cf. (3a–b) and (5a) above (see also section 5.2).

In this paper, I aim to give a comprehensive account of the type of syntax Czech deadjectival nouns can display. Dealing with both nouns derived from primary adjectives and nouns derived from various derivational types of deverbal adjectives, I show that most nouns use active syntax and only two derivational types of Czech deadjectival nouns – rough equivalents of English *-ability* nouns and just one type of *-ed* nominal – display passive syntax (section 5.2). To my knowledge, such an account has not yet been provided for any other language.

3. THEORETICAL BACKGROUND

3.1. Valency of nouns in the Functional Generative Description

My approach to the issues of the active and passive syntax of nouns is based on the valency theory developed in the Functional Generative Description (FGD; Sgall et al., 1986). This was primarily designed for verbs (Panevová, 1974, 1975) and then adopted for deverbal nouns (section 5.1, Kolářová, 2014, Panevová, 2014) and adjectives (section 6, Kolářová et al., 2021, Panevová, 1998).

I find this theory useful for describing various language phenomena related to valency as it differentiates between two syntactic layers: the deep syntactic layer (called tectogrammatical in FGD), and the layer of surface syntax (section 6).⁶

In FGD, valency represents a core component of the tectogrammatical layer and is captured by valency frames, consisting of a set of slots, each standing for one valency complement.⁷ Each valency complement is assigned a functor (a label marking the relation of the valency complement to its governing word), and a list of forms determining the surface realization of the complement. Similarly to Tesnière's (1959) valency theory and his conception of actant vs. circonstant opposition, in FGD, valency complements are distinguished into actants and free modifications. Actants modify only restricted groups of predicates that can be listed and they occur in a single predicate only once. On the surface syntactic layer, they are expressed as the subject or as (direct and indirect) objects. Free modifications can modify any predicate and they can appear in a single predicate more than once. On the surface, they are expressed as adverbials. Five actants which combine with verbs, adjectives and eventive nouns (namely ACTor, PATient, ADDRessee, EFFect, ORIGIN) are determined based mainly on syntactic criteria: if a predicate only has one actant, it is called *actor* (Tesnière's 'first actant'; e.g., *ta kniha_{ACT} právě vyšla* 'the book_{ACT} has just come out'); if a predicate only has two actants, they are labeled *actor* and *patient* (Tesnière's 'first and second actants'; e.g., *muž_{ACT} vnímá vysoký zvuk_{PAT}* 'a man_{ACT} perceives a high sound_{PAT}'). Starting from three actants, the semantics of the complements is taken into account, see the following examples of nouns directly or indirectly motivated by verbs with two or three actants: *vnímání vysokého zvuku_{PAT} mužem_{ACT}* 'perception of a high sound_{PAT} by a man_{ACT}', *panovníkova_{ACT} správa nad rozlehlým územím_{PAT}* 'the ruler's_{ACT} administration / control over the vast territory_{PAT}', *politikova_{ACT} výzva voličům_{ADDR} jít_{PAT} k volbám* 'a politician's_{ACT} appeal to voters_{ADDR} to go_{PAT} to the polls', *soudcovo_{ACT} uznání Petra_{PAT} vinným_{EFF}* 'judge's_{ACT} finding (of) Peter_{PAT} guilty_{EFF}', *odvolatelnost politiků_{PAT} z funkce_{ORIG}* 'removability of the politician_{PAT} from office_{ORIG}'). Free modifications are semantically distinctive (e.g., DIR1, a free modification of direction 'where from?' in *vykládání zboží_{PAT} z kamionu_{DIR1}* 'unloading of the goods_{PAT} from the truck_{DIR1}').⁸

In contrast to eventive nouns, nouns denoting an amount or a container can be modified by the actant called MATERIAL, e.g., *jedno balení léků_{MAT}* 'one package of medicine_{MAT}'. Nouns denoting a person who is a part of family relationships or of relationships within a society require the free modification called APPurtenance, e.g., *Janina_{APP} vážná známost* 'Jane's_{APP} partner'.⁹

Both actants and free modifications can be either obligatory (mandatory) or optional on the tectogrammatical layer; with verbs, this distinction is determined by the so-called dialogue test (Panevová, 1974, 1975). Issues of complements

⁶ This concept of distinguishing two syntactic layers is similar to the deep vs. surface structure opposition used in the early stages in the development of transformational generative grammar, discussed, for example, by Chomsky (1972b). In contrast to the immediate constituent analysis used in formal generative models, FGD develops a dependency-based approach to syntactic analysis at both the level of linguistic meaning (the tectogrammatical layer) and the level of surface syntax. While the surface-syntactic analysis deals with each particular word in a sentence, following the way it is expressed in the sentence, including for example function words, the deep syntactic analysis only treats autosemantic words, and in case of a deletion of an autosemantic word on the surface, a node for this word is added to the tree structure (see for instance Fig. 1 in section 6.3 and the added node for the patient of the adjective *použitelný* 'usable', which is elided from the surface). Regarding for example active and passive verbal constructions, these have the same deep syntactic structure in FGD. The principles formulated in FGD for the deep and the surface syntactic layer were effectively applied in the annotation of the Prague Dependency Treebank (Hajič et al., 2020).

⁷ In FGD, the term complementation is used as an alternative to complement.

⁸ While the research in valency mainly concerns written language, issues of valency in spoken communication have received less attention so far; valency patterns of deverbal nouns in corpora of written vs. spoken Czech, annotated within the FGD framework, are compared in Kolářová et al. (2017). Focusing on the role of the syntax-semantic interface of adverbials in spoken Czech, a critical analysis of issues of valency and semantic roles is given in Kosta (2023: 97–179).

⁹ It follows that a complement in the pre-nominal position can be labeled by various functors, depending on what the noun denotes (it can be assigned some of the verbal actants in the case of eventive nouns, such as ACT in *Janina_{ACT} vnímavost k vysokému zvuku_{PAT}* 'Jane's_{ACT} sensitivity to a high sound_{PAT}', or appurtenance in the case of nouns denoting a person, e.g., *Janina_{APP} vážná známost* 'Jane's_{APP} partner'). In any case, in Czech this complement is expressed as a possessive adjective or pronoun, which is marked by the abbreviation POSS in valency frames and in glosses added in the paper to the Czech numbered examples (this abbreviation does not correspond to the term possessor used, for example, in generative grammar for a modifier of nouns).

that only modify nouns (i.e., MAT and APP) are discussed by Pit'ha (1984). Actants (be they obligatory or optional) and obligatory free modifications constitute a valency frame of a predicate.¹⁰

A valency frame contains lists of all possible surface forms of particular valency complements, as illustrated in the valency frames of the noun *vnímání* 'perceiving / perception', see (6), and *správa* 'administration', see (7). However, in nominal constructions, complements expressed on the surface take only one of the forms, and only some configurations of the forms of the valency complements are possible (see section 3.2 and 5.1).

(6) *vnímání* 'perceiving / perception': ACT_{GEN,INS,POSS} PAT_{GEN,POSS,CONT}

(7) *správa* 'administration': ACT_{GEN,INS,POSS} PAT_{GEN,POSS,nad} 'over'+INS

In addition to the actant vs. free modification distinction, FGD-based works dealing with the so-called lexicalized or grammaticalized alternations of verbal constructions (e.g., Kettnerová, 2014, Kettnerová et al., 2022) employ the concept of a situation (see esp. Mel'čuk, 2004). In this concept, each verb (predicate) in a given sense denotes a situation with a certain set of participants; their number and types (described in terms of semantic roles) together with relations between the participants then characterize the predicate in a unique way. Using this approach, the five actants specified above can thus be assigned various semantic roles, such as Experiencer and Stimulus in the case of the derivatives of the verb *vnímat* 'perceive' in section 2, or Speaker, Recipient and Message (Information) for most derivatives of verbs of communication, e.g., *sdělit* 'tell' or *informovat* 'inform'.¹¹ However, as the semantic roles are diverse, my description of the syntactic behavior of deverbal and deadjectival nouns benefits from the annotation of the adnominal complements in the NomVallex lexicon, which uses the labels for actants. As the complements of nouns in most of the constructions I focus on are labeled *actor* and *patient*, I can efficiently compare the active and the passive syntax of the respective nouns, independently of the various semantic classes they represent.

3.2. Prototypical configurations of forms of complements in active or passive syntax of nouns

As illustrated in section 2, deverbal nouns motivated by transitive verbs can, similarly to the verbs, display both active and passive syntax, while deadjectival nouns indirectly motivated by the verbs use just one of them, i.e., either active or passive syntax.

In this section, I deal with prototypical configurations of forms of complements used in the active-like or passive-like patterns of Czech nouns. I confine my attention to derivatives of transitive verbs though it is well known that passivization is not limited to them (for Czech verbs, see Karlík, 2004). For example, the Czech intransitive verb *nadržovat* 'to favor', with the complement in the dative case, e.g., *nadržovat děvčatům* 'to favor girls', can be used in the active (8a) as well as in the passive, see (8b). Nouns derived from such verbs can then mirror their passive syntax as shown in the corpus example of the pattern with the noun *nadržování* 'favoring' in (9), in which the forms of the adnominal complements are the same as in the verbal passive construction, cf. the dative form *pachateli* 'perpetrator-DAT' and the instrumental form *ministrem* 'minister-INS' with the forms in the verbal pattern in (8b). These cases are, however, very rare (limited to a restricted group of nouns, e.g., *napomáhání* 'aiding', *vyhrožování* 'threatening', *výpomoc* 'help', see Kolářová et al., 2020: 69) and do not represent the prototypical configurations of forms of complements in the passive-like noun patterns in Czech.¹²

(8) a. (Karlík, 2004)

<i>Učitelé</i>	<i>nadržují</i>	<i>děvčatům</i>
teachers-NOM	favor-PRS-3PL	girls-DAT
'teachers favor girls'		

b. (Karlík, 2004)

<i>Učiteli</i>	<i>bývá</i>	<i>nadržováno</i>	<i>děvčatům</i>
teachers-INS	is	favored	girls-DAT
'girls are (sometimes) favored by teachers'			

¹⁰ As my research into the active and the passive syntax of deverbal and deadjectival nouns is not affected by obligatoriness or optionality of the adnominal complements in any way, I do not discuss this opposition in the paper any further.

¹¹ An overview of theories employing the concept of semantic roles is given, for example, in Levin and Rappaport Hovav (2005).

¹² Bruening (2013) deals with by-phrases in passives and nominals and remarks that some nouns can be modified by *by*-agent complement even though they are derived from intransitive verbs that cannot be passivized, cf. (ii).

(ii) (Keenan, 1980)

Talking by undergraduates at High Table is forbidden

Isolated examples of such cases in Czech, e.g., *ujímání se* 'taking charge', are discussed, for example, by Kolářová et al. (2020: 69).

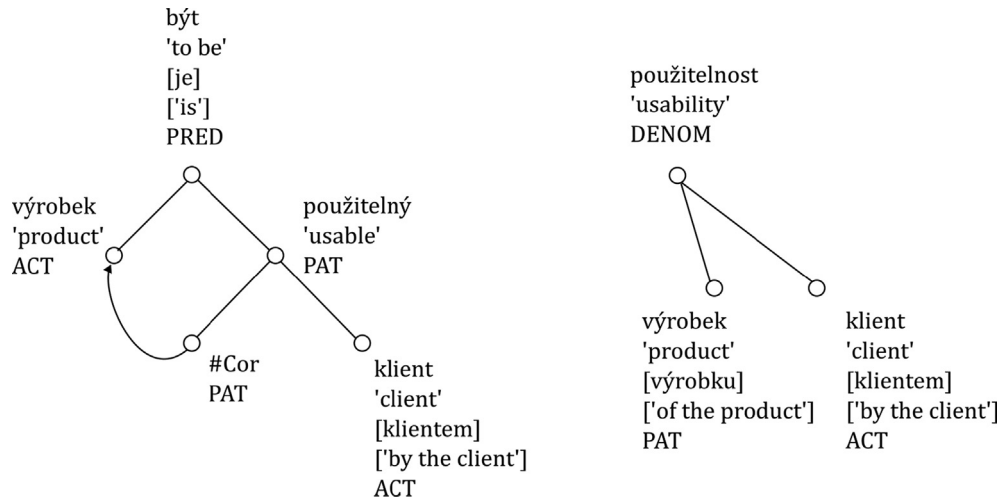


Fig. 1. Dependency trees of the constructions with the adjective *použitelný* 'usable' and the noun *použitelnost* 'usability'.

(9) (SYNv11)

<i>nadržování</i>	<i>pachateli</i>	<i>trestné</i>	<i>činnosti</i>	<i>ministrem</i>
favoring	perpetrator-DAT	criminal-GEN	activity-GEN	minister-INS
'favouring a perpetrator of a criminal activity by the minister'				

Leaving aside the rare cases of passive syntax with nouns that are not motivated by transitive verbs, I assume that if the motivating or derivationally related verbal predicate is intransitive, as in the case of the verbal predicate *spokojit se* (*s něčím*) 'content / be satisfied (with something)', both the deverbal and the deadjectival nouns only allow active syntax, just as the verbal predicate does, cf. the deverbal construction in (10) and the deadjectival pattern in (11).

(10) *Petrovo* *spokojení* *se* *s* *výsledkem*
Peter-POSS-NOM contenting-NOM REFL with result-INS
'Peter's settling for the score'

(11) *Petrova* *spokojenost* *s* *obsluhou*
Peter-POSS-NOM satisfaction-NOM with service-INS
'Peter's satisfaction with the service'

Focusing thus only on the prototypical cases of active-like vs. passive-like noun patterns in Czech, I describe here patterns of Czech nouns directly or indirectly motivated by transitive verbs; taking into account the forms of the most frequent complements in such patterns, namely ACT and PAT, the possible configurations are as follows (summarized in Table 1)¹³:

With active syntax, ACT is expressed either in the genitive case (GEN) as a post-nominal complement or in the pre-nominal position as a possessive adjective or pronoun (e.g., *mužův* 'man's' and *jeho* 'his', respectively; hereinafter referred to as a possessive (POSS)). PAT may be expressed as a post-nominal complement in the genitive case or in a form other than a possessive (mostly a prepositional phrase (PP), e.g., *správa nad územím* 'administration / control over the territory', less frequently an infinitive (INF), e.g., *návrh snížit daně* 'proposal to reduce taxes', or a content clause (CONT), e.g., *vnímání, že zvuk je vysoký* 'perception that the sound is high'). If both ACT and PAT are expressed, there are two possibilities: (i) PAT is a genitive complement, and ACT (blocked from taking the genitive form) is thus expressed as a pre-nominal possessive, as in (2a) above, or (ii) PAT takes a form other than a possessive and ACT then can be expressed either as a pre-nominal possessive, see (2b), (4b), or as a genitive complement, as in (2c), (4a) above.

¹³ Similar configurations in patterns with English deverbal and some deadjectival nominals are discussed, for example, by Borer (2020) and Roeper (2020).

Table 1
 Prototypical configurations of forms of ACT and PAT in noun patterns displaying active and / or passive syntax.

Syntax	Only ACT or PAT expressed	Both ACT and PAT expressed
Active	ACT: POSS or GEN PAT: (i) PP, INF or CONT (ii) GEN (unambiguously active only in patterns of active-syntax deadjectival nouns)	(i) ACT: POSS PAT: GEN (2a) (ii) PAT: PP, INF or CONT ACT: POSS (2b), (4b) or GEN (2c), (4a)
Passive	ACT: INS PAT: (i) POSS (ii) GEN (unambiguously passive only in patterns of passive-syntax deadjectival nouns)	ACT: INS PAT: GEN (2d), (3a) or POSS (2e), (3b)

In the case of passive syntax, ACT is expressed in the instrumental case (INS; corresponding to the English *by-agent*), and PAT is expressed either in the genitive case as a post-nominal complement (as in (2d) and (3a) above) or in the pre-nominal position as a possessive (as in (2e) and (3b) above).

If only ACT is expressed, it is clear from its form whether we are dealing with active or passive syntax; with passive syntax, ACT takes the instrumental case, while with active syntax, it can take the genitive case or a pre-nominal possessive.

If only PAT in the pre-nominal possessive form is expressed, it typically indicates passive syntax. If only PAT in the form of a prepositional phrase, an infinitive or a content clause is expressed, it usually mirrors active syntax. However, if only PAT in the genitive form is expressed, there is a substantial difference between deverbal and deadjectival patterns. With deverbal nouns (e.g., *vnímání vysokého zvuku*_{PAT} ‘perception of a high sound’) it cannot be unambiguously determined whether we are dealing with active syntax (and thus ACT could be expressed in the pre-nominal position as a possessive, as in (2a)) or with passive syntax (and thus ACT could be expressed as an instrumental postmodifier, as in (2d)). In contrast, with deadjectival nouns (e.g., *vnímatelnost vysokého zvuku*_{PAT} ‘perceptibility of a high sound’) the pattern usually only has one interpretation, a passive one, as in the case of the noun *vnímatelnost* ‘perceptibility’, or active, as for example in *chtivost peněz*_{PAT} ‘eagerness for money’ or *poslušnost zákonů*_{PAT} ‘obedience to laws’, see [section 5.2](#).

It follows that Czech nominals that allow both active and passive syntax typically have in their valency frame ACT that is assigned the combination of the three forms mentioned (genitive, possessive, and instrumental), see for instance (6–7) in [section 3.1](#).

If nominals that only allow passive syntax have ACT in their valency frame, it is then assigned the instrumental form, sometimes accompanied by a prepositional phrase ([sections 5.2.2.1 and 6.3](#)), but not the possessive or the genitive form.

On the contrary, in the valency frame of nominals that only allow active syntax, ACT is assigned the possessive or the genitive form, but not the instrumental case ([sections 5.2.2.2 and 6.3](#)).

4. SOURCES OF DATA

My research is based mostly on two sources of data, (i) the NomVallex lexicon ([sections 4.1 and 4.2](#)) and (ii) Czech corpora ([section 4.3](#)).

4.1. The NomVallex lexicon

NomVallex is a manually created valency lexicon of Czech nouns and adjectives (Kolářová and Vernerová, 2022), adopting the theoretical framework of the FGD ([section 3.1](#)) as its theoretical basis. Its newest version, NomVallex 2.0 (available in electronic form, both as publicly available web-pages and as downloadable and machine-readable data, Kolářová et al., 2022), comprises 1,027 lexical units contained in 570 lexemes. As for derivational categories, it covers deverbal and deadjectival nouns, and deverbal, denominal, deadjectival or primary (i.e., from the synchronic point of view, unmotivated) adjectives.

The lexicon entry contains a lexeme, an abstract unit associating lexical forms with their lexical units, i.e., word senses. Valency properties of a lexical unit are captured in a valency frame ([section 3.1](#)) and documented by corpus

examples (section 4.3). To enable analysis of the relationship between the valency behavior of base words and their derivatives, lexical units of nouns and adjectives in NomVallex are linked to their respective base lexical units (contained either in NomVallex itself or, in the case of verbs, in the VALLEX lexicon, Lopatková et al., 2022), linking together up to three parts of speech (i.e., noun–verb, e.g., *vnímání* ‘perception’ – *vnímat* ‘perceive’, adjective–verb, e.g., *vnímatelný* ‘perceivable’ – *vnímat* ‘perceive’, noun–adjective, e.g., *vnímavost* ‘perceptiveness’ – *vnímavý* ‘perceptive’, and noun–adjective–verb, e.g., *vnímavost* ‘perceptiveness’ – *vnímavý* ‘perceptive’ – *vnímat* ‘perceive’).

4.2. Forms of ACT in NomVallex as an indicator of active and / or passive syntax

The NomVallex data, in particular the valency frames of the nouns included, see for instance (6) and (7) in section 3.1, can be effectively exploited in order to explore the active and the passive syntax of deverbal and deadjectival nouns. I suggest that a list of forms assigned to the argument labeled *agent* (actor, ACT) indicates what type of syntax the noun can display (see also section 3.2). The detailed analysis of the NomVallex data shows that the combination of just two forms of ACT, namely the possessive and the instrumental forms, is sufficient for recognizing nouns allowing both active and passive syntax (for more details see section 5.1).

Table 2 gives an overview of nouns captured in the NomVallex lexicon, whose valency frame, at the same time, contains ACT. In total, NomVallex contains 487 deverbal lexical units with ACT, while deadjectival nouns with ACT are represented by 244 lexical units.¹⁴ Individual derivational types of deverbal nouns (i.e., stem vs. root nouns) and deadjectival nouns (i.e., the types labeled *cnost*, *lost* etc.) and their typical syntax are described in section 5.1 and section 5.2, respectively.

Table 3 refers to the same data but shows the distribution of the nouns in terms of their motivating verbs, differentiating between transitive and intransitive verbs. For motivating intransitive verbs, the table shows whether the verb can be used in the passive or not (for example, while the motivating verbs of both nouns *napomáhání* ‘aiding’ and *spokojení se* ‘settling’ are intransitive, the verb *napomáhat* ‘to aid’ can be used in both the active and the passive but the verb *spokojit se* ‘to content’ can only be used in the active, see also discussion in section 3.2). Furthermore, Table 3 shows how many nouns contain in their valency frame ACT that is assigned the combination of the instrumental and the possessive forms; NomVallex includes altogether 180 deverbal lexical units allowing these two forms of ACT, comprising thus almost 37% of all deverbal lexical units with ACT.¹⁵ Considering the diverse types of motivating verbs and also the fact that various meanings of the nouns are captured in the data, this percentage is quite high, showing that deverbal nouns commonly use both active and passive syntax. In contrast, deadjectival nominals that take the combination of instrumental and possessive forms of ACT are only represented by 2 lexical units (i.e., less than 1% of all deadjectival lexical units with ACT, indicating thus that these two nominals are exceptions rather than isolated cases of standard behavior).¹⁶

In contrast to deverbal nouns, deadjectival nouns, for reasons which I try to uncover in sections 5.2 and 6, seem to display either active or passive syntax only, not both.

4.3. Corpora

The language material provided in the NomVallex lexicon as well as examples in the present paper are based on the data from two Czech corpora, both made available under the Czech National Corpus project:

(a) SYN-series of synchronic corpora of written Czech, version 11 (SYNv11; this corpus of around 6,067,000,000 tokens is referential but not representative, with predominantly journalistic texts, Křen et al., 2022);

(b) Araneum Bohemicum Maximum (ARA; this corpus of around 3,200,000,000 tokens is a member of a family of comparable, non-referential web corpora, see Benko, 2014, 2015).

¹⁴ The numbers of lexical units given in Tables 2 and 3 correspond to the current version of the data, to be a part of the future published version; the current data can be searched by the so-called Blue Search Engine (BlueSE), see <https://quest.ms.mff.cuni.cz/vallex/>.

¹⁵ As indicated in section 3.2, deverbal nouns predisposed to allow both active and passive syntax (and thus to allow the two forms of ACT) are derived mainly from transitive verbs or from intransitive verbs that allow passivization (altogether 313 lexical units in Table 3); accounting for these nouns only, the 180 deverbal lexical units with the two forms of ACT would comprise almost 58%.

¹⁶ Accounting only for deadjectival nouns indirectly motivated by transitive verbs or by intransitive verbs that allow passivization (altogether 82 lexical units in Table 3), the 2 deadjectival lexical units would comprise 2.4%.

Table 2
Czech nouns with a valency frame containing ACT in the NomVallex lexicon.

Type		Example	Number of lexical units with ACT	
			Per type	Total
Deverbal	stem	<i>spravování</i> 'administrating'	322	487
	root	<i>správa</i> 'administration'	165	
Deadjectival	cnost	<i>vědoucnost</i> 'ability to know'	4	244
	lost	<i>rozmrzelost</i> 'moroseness'	27	
	[nt]-ost-1	<i>žádánost</i> 'demand'	29	
	[nt]-ost-2	<i>odhodlanost</i> 'resolution'	13	
	telnost	<i>použitelnost</i> 'usability'	25	
	[vn]ost	<i>vnímavost</i> 'sensitivity'	65	
	other	<i>schopnost</i> 'ability'	81	

Table 3
Nouns with ACT in NomVallex and types of their motivating verbs.

Noun type	Motivating verb	Noun example	Number of noun lexical units with ACT			
			Per type	Total	ACT: combination of INS and POSS	
Deverbal	transitive	<i>vnímání</i> 'perceiving'	310	487	180 (37%)	
		<i>poslouchání</i> 'obeying'				
		<i>snášení</i> 'tolerating'				
Deadjectival	intransitive & passive +	<i>napomáhání</i> 'aiding'	3	244	2 (<1%)	
		<i>spokojení se</i> 'settling'	174			
	intransitive & passive –	<i>vnímavost</i> 'sensitivity'	81			1
		<i>poslušnost</i> 'obedience'				
		<i>snášlivost</i> 'tolerance'				
intransitive & passive +	<i>nápomocnost</i> 'supportiveness'	1	162			
	<i>spokojenost</i> 'satisfaction'	162				

5. SYNTAX OF DEVERBAL NOUNS VS. SYNTAX OF DEADJECTIVAL NOUNS

As evidenced throughout the present study, deverbal and deadjectival nouns differ in the syntax they may display, namely both active and passive syntax in the case of deverbal nouns (section 5.1) vs. either active or passive syntax in the case of deadjectival nouns (section 5.2).

5.1. Deverbal nouns

Like deverbal nominalizations in various languages, e.g., English (Grimshaw, 1990), Greek (Alexiadou, 2001: 89–110), or Hebrew (Borer, 2013: 81–119, 2014), Czech eventive nominals derived from transitive and some intransitive verbs can also, to some extent, mirror the active and passive syntax of their base verbs (e.g., Karlík, 2016, Panevová, 2014).¹⁷ The prototypical configurations of forms of ACT and PAT in such constructions are summarized in section 3.2, see also the introductory examples (1) and (2) in section 2, illustrating patterns with the verb *vnímat* ‘perceive’ and the noun *vnímání* ‘perceiving / perception’. As already suggested in section 4.2, there are two types of Czech deverbal nouns allowing both active and passive syntax, namely the so-called stem nouns (ending in *-ní* / *-tí* and containing a theme suffix of the base verb, e.g., *domlouvání* – *domluvení* ‘arranging’, *obdivování* ‘admiring’) and the root nouns (derived from verbs by various suffixes, including the zero suffix, but not containing a theme suffix, e.g., *domluva* ‘arrangement’, *obdiv* ‘admiration’). From a purely generativist stance, internal structure of the first type (i.e., stem nouns) is described in Dvořák (2014). Couched within the framework of the Functional Generative Description (see section 3.1), the valency properties of both stem and root nouns, including the rules that determine the forms of their arguments, are extensively discussed by Kolářová (2014).

The properties of passive nominals in various languages (esp. English and Greek) are thoroughly examined, for example, by Alexiadou (2001), including related topics such as types of motivating verbs, semantic aspects of the nouns, or the so-called affectedness constraint which concerns verbal objects that cannot be realized in the pre-nominal position. Bruening (2013) provides a detailed analysis of *by* phrases in English nominals, addressing for example semantic (Theta) roles that the *by* phrases can receive. Dividing nominals into two groups regarding whether they allow *by* phrases or not, he shows that some nominals do allow a *by* phrase even though they are not expected to do so, at least with regard to the semantic role of the respective complement. For example, while the noun *respect* cannot be modified by the Experiencer expressed as a *by* phrase, see (12a), the noun *admiration*, with the same semantic role of the complement, does allow it, see (12b). Bruening (2013: 10–14) then examines facts that correlate with disallowing a *by* phrase, testing various forms of expression of other complements, for example “the nominals that do not allow *by* phrases also do not allow *without* clauses”, cf. (12c) and (12d). He makes two empirical generalizations, from which the one related to semantic roles claims that *by* phrases can bear all the external argument roles in nominals that they can in passives.

(12) (Bruening, 2013)

- (a) *the respect for pole dancing (*by John)*
- (b) *the admiration of beauty by the ancients*
- (c) **John’s respect for Mary without ever showing it*
- (d) *the ancients admiration of beauty without really appreciating it*

Certain other aspects of disallowing a *by* phrase, i.e., the instrumental form in Czech, can also be considered. Kolářová (2014) brings into focus special or non-systemic forms of arguments in Czech nouns (i.e., forms that cannot be inferred from the forms of arguments of the base word), such as the prepositional phrase introduced by *k* ‘to’ modifying the Czech nouns *respekt* ‘respect’ or *obdiv* ‘admiration’ in patterns *respekt k autoritám* ‘respect for authorities’ or *obdiv k památkám* ‘admiration for monuments’. Kolářová (2014) states that arguments expressed in non-systemic forms usually do not combine with the agent in the instrumental form, and thus nouns modified by arguments in non-systemic forms tend to display only active syntax.

¹⁷ Nevertheless, Karlík (2007: 111) argues that Czech nominal constructions cannot be analyzed as expressing active or passive voice; exploiting the binding theory and using tests with the possessive pronoun *svůj* ‘his own’, he demonstrates that “a nominative has the properties of a subject while a genitive does not”, cf. (iii) and (iv).

(iii)	<i>učitel_i</i>	<i>je</i>	<i>kritizován</i>	<i>svým_i</i>	<i>žákem</i>
	teacher-NOM	is	criticized	his-own-INS	student-INS
	‘the teacher is criticized by his own student’				
(iv)	<i>*kritizování</i>	<i>učitele_i</i>	<i>svým_i</i>	<i>žákem</i>	
	criticizing-NOM	teacher-GEN	his-own-INS	student-INS	
	‘(criticizing of the teacher by his own student)’				

For example, the transitive verb *obdivovat* ‘admire’ can be used in the active (13a) or in the passive (13b), and this distinction is also reflected in constructions with the stem noun derived from it, namely *obdivování* ‘admiring’, see (14a–b). As for the root noun *obdiv* ‘admiration’ derived from the same verb, the situation is more complex.¹⁸ When the noun *obdiv* ‘admiration’ is modified by the patient in the systemic genitive form, e.g., *obdiv starých památek* ‘admiration of old monuments’, it can display active syntax, with the agent in the possessive form, see (15a), or it can be found exceptionally in the pattern displaying passive syntax, with the agent in the instrumental form, see (15b) and an isolated corpus example in (15c). However, the noun *obdiv* ‘admiration’ prefers non-systemic forms of the patient to the systemic ones, using for example the previously mentioned prepositional phrase introduced by *ke* ‘to’, e.g., *obdiv ke starým památkám* ‘admiration for old monuments’. In this case, it does not combine with the agent in the instrumental form, cf. (16a), but instead uses active syntax, with the agent in the possessive form or in the post-nominal genitive, see (16b–c).

- (13) a. *návštěvník_{ACT}* *obdivuje* *staré* *památky_{PAT}*
 visitor-NOM admires old-ACC monuments-ACC
 ‘a visitor admires old monuments’
- b. *staré* *památky_{PAT}* *jsou* *obdivováni* *návštěvníkem_{ACT}*
 old-NOM monuments-NOM are admired visitor-INS
 ‘old monuments are admired by a visitor’
- (14) a. *návštěvníkovo_{ACT}* *obdivování* *starých* *památek_{PAT}*
 visitor-POSS admiring old-GEN monuments-GEN
 ‘the visitor’s admiring of the old monuments’
- b. *obdivování* *starých* *památek_{PAT}* *návštěvníkem_{ACT}*
 admiring old-GEN monuments-GEN visitor-INS
 ‘the admiring of the old monuments by the visitor’
- (15) a. *návštěvníkův_{ACT}* *obdiv* *starých* *památek_{PAT}*
 visitor-POSS admiration old-GEN monument-GEN
 ‘the visitor’s admiration of the old monuments’
- b. *?obdiv* *starých* *památek_{PAT}* *návštěvníkem_{ACT}*
 admiration old-GEN monuments-GEN visitor-INS
 GEN
 ‘the admiration of the old monuments by the visitor’
- c. (SYNv11)
zpráva *o* *obdivu* *Trajánova* *fora_{PAT}* *Konstantinovým* *následovníkem_{ACT}*
 message about admiration- Trajan- forum- Konstantin- successor-INS
 LOC GEN GEN POSS
 ‘message about admiration of the Trajan forum by Konstantin’s successor’
- (16) a. **obdiv* *ke* *starým* *památkám_{PAT}* *návštěvníkem_{ACT}*
 admiration to old-DAT monuments-DAT visitor-INS
 (‘the admiration for the old monuments by the ruler’)

¹⁸ There is a slight difference between Czech stem nouns and root nouns derived from transitive verbs; while stem nouns, e.g., *domlouvání* ‘arranging’, commonly allow ACT expressed in the instrumental, see (v), some root nouns, such as *domluva* ‘arrangement’, avoid this form of ACT: though theoretically possible, cf. (vi), this form is not documented in the corpora I use. Nevertheless, these nouns are still considered to allow passive syntax.

- (v) (SYNv11)
Mizí *domlouvání* *sňatků_{PAT}* *rodiči_{ACT}*
 disappears arranging-NOM marriages-GEN parents-INS
 ‘The arranging of marriages by parents disappears’
- (vi) *?domluva* *sňatku_{PAT}* *rodiči_{ACT}*
 arrangement-NOM marriage-GEN parents-INS
 ‘the arrangement of the marriage by parents’

- b. *návštěvníkův*_{ACT} *obdiv* *ke* *starým* *památkám*_{PAT}
 visitor-POSS admiration to old-DAT monuments-DAT
 ‘the visitor’s admiration for the old monuments’
- c. *obdiv* *návštěvníka*_{ACT} *ke* *starým* *památkám*_{PAT}
 admiration visitor-GEN to old-DAT monuments-DAT
 ‘the admiration of the visitor for the old monuments’

On the other hand, there are some Czech deverbal nominals (mostly stem nouns) whose ACT takes a combination of the possessive and the instrumental forms but does not allow the genitive form (especially because it is reserved for another complement, mostly PAT, as in the patterns with the noun *uznání* ‘finding / recognition’ in (17) and (18a)). Instead, the nominals sometimes use ACT expressed in the prepositional phrase introduced by *od* ‘from’, see (18b). As this form of ACT is used in passive verbal constructions, see (19), the corresponding noun patterns can also be regarded as displaying passive syntax.

- (17) *soudcovo*_{ACT} *uznání* *Petra*_{PAT} *vinným*_{EFF}
 judge-POSS finding Peter-GEN guilty-INS
 ‘judge’s finding Peter guilty’

- (18) a. *uznání* *Kosova*_{PAT} *jako* *státu*_{EFF} *jinými* *státy*_{ACT}
 recognition Kosovo-GEN as state-GEN other-INS states-INS
 ‘recognition of Kosovo as a state by other states’
- b. *uznání* *Kosova*_{PAT} *jako* *státu*_{EFF} *od* *jiných* *států*_{ACT}
 recognition Kosovo-GEN as state-GEN from other-GEN states-GEN
 ‘recognition of Kosovo as a state from other states’

- (19) (ARA)

Jakmile byly totiž uznány od ES jako samostatné státy Chorvatsko Slovinsko
 as-soon- were actually recognized from ES as independent- states- Croatia-NOM Slovenia-
 as NOM NOM NOM NOM
 ‘Actually, as soon as Croatia, Slovenia [...] were recognized as independent states by the European Community [...]’

The core combination of forms of the agent that indicates both the active and the passive syntax of Czech nominals is thus the pair of the instrumental and the possessive forms, which may also be combined with the genitive or a prepositional phrase (mostly introduced by *od* ‘from’).

5.2. Deadjectival nouns

Argument structure of English deadjectival nominals is addressed, for example, in the works of Borer (2003, 2013: 189–198) and Roy (2010), in the latter being investigated on the basis of French examples; deadjectival nouns, such as *kindness* (20a) and *awareness* (22a), can take on complements that occur with their base adjectives, *kind* and *aware*, respectively, see (20b) and (21a). Authors inquiring into the active or passive syntax of English deadjectival nominals suggest that the syntactic behavior of the nominalizations is closely related to the syntactic behavior of the adjectives they are derived from. Borer (2020) compares deadjectival nominals with deverbal ones and concludes that deadjectival constructions analogous to deverbal constructions displaying passive syntax are ungrammatical, cf. (22b) and (23), because adjectives do not passivize, cf. the pattern with the primary adjective *aware* in (21b). In contrast, Roeper and van Hout (2009), Alexiadou (2019), and Roeper (2020) observe two types of English deadjectival nominalizations that contain a passivizing element in their morphemic structure, such as English *-ability* and *-ed* nominals (e.g., *learnability* and *preparedness*), and show that these

nouns display passive syntax, see (24a–b) and (26a–b), while active syntax, with the argument in the possessive form interpreted – in my terms – as the agent, see (24c) and (26c), is not allowed with them.¹⁹ Alexiadou (2019: 48–49) concludes that this restriction with *–able / –ability* and *–ed* nominals relates to the intermediate point of derivation, i.e. adjective formation, which yields a theme (*patient*, in my terms) interpretation of the possessive, since the only argument that can be predicated of the adjective is the internal one (i.e., *patient*), as in (25).

- (20) a. *the kindness of Tom towards his mother*
 b. *Tom is kind towards his mother*
- (21) a. *The court is aware of the problem*
 b. **The problem is aware (of) (by the court)*
- (22) a. *The court's awareness of the problem*
 b. **The awareness of the constitutional problem (by the court)*
- (23) *the formation / forming of the committee (by the new dean)*
- (24) a. *the learnability of grammar by children*
 b. *the grammar's learnability (by children)*
 c. **children's learnability of grammar*
- (25) *The grammar is learnable by children*
- (26) a. *the well-preparedness of the lecture by the professor was evident*
 b. *the lecture's well-preparedness by the professor*
 c. **the professor's well-preparedness of the lecture*

Also Czech deadjectival nouns such as *vlídnost* 'kindness', *použitelnost* 'usability' or *připravenost* 'preparedness' apparently may be modified by valency complements, see examples in the following sections, and it is thus worth exploring the syntactic behavior of such deadjectival nouns in comparison to the previously discussed deverbal nouns. Using the most productive suffix for forming deadjectival nouns in Czech (Světlá, 2005: 63), *–ost* (more or less corresponding to the English *–ness*), the vast majority of Czech deadjectival nouns are derived either from primary adjectives (e.g., *vlídnost* 'kindness' < *vlídný* 'kind'; section 5.2.1) or from deverbal adjectives (e.g., *použitelnost* 'usability' < *použitelný* 'usable', *připravenost* 'preparedness' < *připravený* 'prepared', *vnímavost* 'perceptiveness' < *vnímavý* 'perceptive'; section 5.2.2).

In the following sections, I describe the syntactic behavior of Czech deadjectival nouns based on data from the NomVallex lexicon (see sections 4.1 and 4.2). Taking into account the valency frames of the nouns and the combinations of forms assigned to ACT (see Table 3 in section 4.2), the NomVallex data predict that the vast majority of Czech deadjectival nouns display either active or passive syntax, not both. As deadjectival nouns included in the lexicon are classified into several types according to their derivational history, the lexicon data facilitate the research into the type of syntax the individual derivational types of nouns tend to use.

Like the above-mentioned authors dealing with English deadjectival nominalizations, I also assume that the active or the passive syntax of particular types of Czech deadjectival nouns results from the syntactic behavior of their base adjectives (this relation is described in section 6). However, while the authors address only isolated types of English deadjectival nominals, leaving aside, for example, nouns derived from deverbal adjectives without passivizing element in their morphemic structure (e.g., *attractiveness*), my research is based on the substantial volume of data, covering both nouns derived from primary adjectives and nouns derived from various derivational types of deverbal adjectives, which enables me to generalize about characteristics of the syntactic behavior of Czech deadjectival nouns.

5.2.1. Czech nouns derived from primary adjectives

Czech nouns derived from primary adjectives (belonging to the group of nouns labeled as *other* in Table 2 in section 4.2), for instance *schopnost* 'ability', *vlídnost* 'kindness' or *loajalita / loajálnost* 'loyalty', are commonly modified by two complements, ACT and PAT. While ACT of these nouns is usually expressed in the genitive or possessive forms, their PAT takes various forms, for example the infinitive form, see (27), or a prepositional phrase, see (28–29). If PAT takes the genitive form, such as *schopnost soustředění* 'ability of concentration' < *schopný soustředění* 'able of concentration', ACT can only be expressed in the possessive form, see (30a), while the combination of the genitive form of PAT and the instrumental form of ACT is not possible, see (30b). The valency behavior of these nouns thus reflects active syntax only.

¹⁹ Nevertheless, *–ed* nominals like *preparedness* and *unexpectedness* are morphologically complex and notably rare (Rooper, 2020: 282). Furthermore, according to Rooper (2020: 284), examples such as (24b) and (26b) may be questionable for some speakers.

(27) (SYNv11)

Zpívání *rozvíjí* *schopnost* *žáků*_{ACT} *vyjádřit*_{PAT} *své* *citové* *prožitky*
 singing- develops ability- pupils- express- their- emotional- experiences-
 NOM ACC GEN INF ACC ACC ACC
 ‘Singing develops an ability of pupils to express their emotional experiences’

(28) (SYNv11)

Snažíme *se* *i* *o* *vlídnost* *prodavaček*_{ACT} *k* *zákazníkům*_{PAT}
 strive-PRS-1PL REFL also for kindness-ACC saleswomen-GEN to customers-DAT
 ‘We strive also for the kindness of the saleswomen to the customers’

(29) (SYNv11)

proměnné, *které nejvíce ovlivňují* *zákazníkovu*_{ACT} *loajalitu* *k* *dané* *značce*_{PAT}
 variables-NOM that most influence customer-POSS-ACC loyalty-ACC to given-DAT brand-DAT
 ‘variables that most influence the customer’s loyalty towards the given brand’

(30) a. (SYNv11)

Obdivoval *jsem* *otcovu*_{ACT} *schopnost* *soustředění*_{PAT}
 admired-PST-1SG be-PRS-1SG father-POSS-ACC ability-ACC concentration-GEN
 ‘I admired (my) father’s ability of concentration’

b. **schopnost* *soustředění*_{PAT} *otcem*_{ACT}
 ability concentration-GEN father-INS
 (‘ability of concentration by (my) father’)

5.2.2. Czech nouns derived from deverbal adjectives

In contrast, the syntactic behavior of Czech nouns derived from deverbal adjectives is more complicated; while most of them also display only active syntax, there are two derivational types that are predetermined to use passive syntax.

As discussed, for instance, by Kolářová et al. (2021), deverbal adjectives in Czech can clearly display valency properties; for instance, the verb *chtít* ‘to want’ can, in one of its meanings, take a complement in the accusative (*chtít peníze* ‘to want money’), and as its derivative, the adjective *chtivý* ‘eager / greedy’ takes an analogical complement, albeit in the genitive (*chtivý peněz* ‘eager for money’). The noun *chtivost* ‘eagerness / greediness’, derived from this adjective, can also take a complement, in this case in the genitive (*chtivost peněz* ‘eagerness for money’), in the form of a prepositional phrase introduced by *po* ‘after, for’ (*chtivost po penězích* ‘eagerness for money’) or in the infinitive (*chtivost vyhrát* ‘eagerness to win’).

On the basis of the classification of deverbal adjectives in Rusínová (2016), Kolářová and Mirovský (2024) outline six types of Czech deadjectival nouns ending in the suffix *-ost*, based mostly on their derivational history; the types are named after the segments with which the nouns belonging to them typically end, see Table 4 (A stands for *adjective*, DA stands for *deadjectival*).²⁰

Before I describe the individual derivational types of Czech deadjectival nouns with respect to the type of syntax characteristic of them, the status of Czech equivalents of English passive-syntax deadjectival nominals has to be clarified. As indicated in Table 4, English *-ability* nouns roughly correspond to Czech nouns labeled DA-*telnost* (e.g., *použitelnost* ‘usability’). However, with Czech equivalents of English *-ed* nominals, i.e., nouns derived from adjectives that are based on passive participles, the NomVallex data differentiate between two types of such nouns:

(i) DA-*[n]ost-1* ‘-ed-1 nouns’, i.e., nouns derived from adjectives that are based on the passive participle of a transitive verb, e.g., *připravenost*₁ ‘preparedness’ < *připravený*₁ ‘prepared’ < *připravit něco / někoho* ‘to prepare something / somebody’;

(ii) DA-*[n]ost-2* ‘-ed-2 nouns’, i.e., nouns derived from adjectives that are based on the passive participle of a reflexive intransitive perfective verb, e.g., *připravenost*₂ ‘preparedness’ < *připravený*₂ ‘prepared, ready’ < *připravit se na co / k čemu / udělat něco* ‘to prepare oneself / get ready for something / to do something’.

²⁰ The derivational types are also applied to the classification of deadjectival nouns in the NomVallex lexicon (see Table 2 in section 4.2).

Table 4
Derivational types of Czech nouns derived from deverbal adjectives.

Type	Typical base	Example	Typical syntax
DA- <i>cnost</i>	A < the present transgressive form of an imperfective verb	– <i>vědoucí</i> ‘knowing’ > <i>vědoucnost</i> ‘the ability to know, consciousness’	active
DA- <i>lost</i>	A < the past participle of (typically) an intransitive verb	– <i>proslulý</i> ‘famous, renowned, notorious’ > <i>proslulost</i> ‘fame, renown, notoriety’	active
DA-[<i>nt</i>]ost-1 ‘-ed-1 nouns’	A < the passive participle of a transitive verb	– <i>uznávaný</i> ‘respected, reputable’ > <i>uznávanost</i> ‘repute’ – <i>používaný / použitý</i> ‘used’ > <i>používanost / použitost</i> ‘state of usage’	passive
DA-[<i>nt</i>]ost-2 ‘-ed-2 nouns’	A < the passive participle of a reflexive intransitive perfective verb	– (<i>urazit se</i> ‘take offense’ >) <i>urazený</i> ‘offended’ > <i>urazenost</i> ‘offendedness, pique’ – (<i>dojmout se</i> ‘be moved’ >) <i>dojatý</i> ‘moved’ > <i>dojatost</i> ‘emotion’	active
DA- <i>telnost</i> ‘-ability nouns’	A formed with the productive suffix –(<i>i</i>) <i>teln(y)</i> corresponding to the English – <i>able</i>	– <i>použitelný</i> ‘usable’ > <i>použitelnost</i> ‘usability’	passive
DA-[<i>vn</i>]ost	A referring to a quality relating to some type of action, e.g. referring to the proclivity for something	– <i>vnímavý</i> ‘sensitive, perceptive’ > <i>vnímavost</i> ‘sensitivity, perceptiveness’ – <i>poslušný</i> ‘obedient’ > <i>poslušnost</i> ‘obedience’	active

The two types of nouns are distinguished in the NomVallex data because they differ in their valency properties, and – with respect to the topic of this paper – in the syntax they display. Reflecting the syntax of their base adjectives, see (32), (34) and section 6, the –*ed-1* nouns are predetermined to display passive syntax, with ACT in the instrumental form, see (31), while the –*ed-2* nouns only use active syntax, with ACT in the possessive or the genitive forms, see (33).

(31) (SYNv11)

myslím, že se [...] začíná projevovat dobrá připravenost₁ týmu_{PAT} bývalým trenérem_{ACT}
 think-PRS- that REFL [...] begins show-INF good preparedness team- former- coach-INS
 1SG GEN INS
 ‘I think that [...] the well-preparedness of the team by the former coach is beginning to show’

(32) *tým dobře připravený₁ bývalým trenérem_{ACT}*
 team well prepared former-INS coach-INS
 ‘the team well-prepared by the former coach’

(33) (SYNv11)

[...] potvrdil nový kouč připravenost₂ týmu_{ACT} nastoupit_{PAT} k duelům 2. ligy
 [...] confirmed new- coach- preparedness- team- play-INF to duels- 2. league-
 NOM NOM ACC GEN DAT GEN
 ‘the new coach has confirmed the preparedness of the team to play in the 2. league duels’

(34) *tým je připravený₂ nastoupit_{PAT} k duelům 2. ligy*
 team is prepared play-INF to duels-DAT 2. league-GEN
 ‘the team is prepared / ready to play in the 2. league duels’

Therefore, out of the six types of Czech deadjectival nouns sketched out in Table 4, only two types, namely DA-[*nt*]ost-1 ‘-ed-1 nouns’ and DA-*telnost* ‘-ability nouns’, typically show passive syntax (section 5.2.2.1), while the vast majority of nouns belonging to the four other types, namely DA-*cnost*, DA-*lost*, DA-[*nt*]ost-2 ‘-ed-2 nouns’ and DA-[*vn*]ost, usually

display active syntax (section 5.2.2.2).²¹ Exceptionally, both active and passive syntax is attested even with a deadjectival noun (section 5.2.2.3). For illustration, the following sections provide examples of nouns derived from adjectives motivated by transitive verbs, with the exception of nouns of the type DA-[nt]ost-2 ‘-ed-2 nouns’ which are – in accordance with their specification (see Table 4) – indirectly motivated only by intransitive verbs.

5.2.2.1. *Deadjectival nouns with passive syntax.* In addition to the pattern with the noun *připravenost*₁ ‘preparedness’, discussed above, see (31), the passive syntax of Czech deadjectival nouns can be demonstrated on the patterns of the nouns *žádanost* ‘demand’, *informovanost* ‘knowledgeability’ (both also representing the type DA-[nt]ost-1 ‘-ed-1 nouns’), and *použitelnost* ‘usability’ (as an example of the type DA-telnost ‘-ability nouns’). It is characteristic of Czech passive-syntax nominals that they take the patient or the addressee expressed either in the genitive (*použitelnost výrobku* ‘usability of the product’) or in the possessive (*jeho použitelnost* ‘its usability’). In contrast to active-syntax nominals, their agent cannot be expressed in the genitive or the possessive forms, see (37) and (38b), but takes the instrumental form, see (35) and (38a), or exceptionally a prepositional phrase, usually *od* ‘from’+GEN with type DA-[nt]ost-1, see (36), and *pro* ‘for’+ACC with type DA-telnost, see (38c).²²

(35) (ARA)

<i>stávající</i>	<i>široké</i>	<i>portfolio</i>	<i>je</i>	<i>důsledkem</i>	<i>vysoké</i>	<i>žádanosti</i>	<i>těchto</i>	<i>přípravků</i> _{PAT}	<i>širokou</i>	<i>veřejnosti</i> _{ACT}
current-NOM	strong-NOM	portfolio-NOM	is	consequence-INS	high-GEN	demand-GEN	these-GEN	preparations-GEN	general-INS	public-INS

‘The current strong portfolio is a consequence of a high demand for these preparations by the general public’

(36) (SYNV11)

<i>Proto</i>	<i>jde</i>	<i>pravděpodobně</i>	<i>o</i>	<i>nedostatečnou</i>	<i>informovanost</i>	<i>lidí</i> _{ADDR}	<i>od</i>	<i>pracovníků</i> _{ACT}	<i>Jihočeské</i>	<i>energetiky</i>
Therefore	goes	probably		ACC	ACC	GEN		GEN	South-Bohemian-GEN	Energy-GEN

‘Therefore, it is probably about an insufficient knowledgeability of people from the workers of South Bohemian Energy’

(37)

<i>*trenérova</i> _{ACT}	<i>připravenost</i>	<i>týmu</i> _{PAT}
coach-POSS	preparedness	team-GEN

(‘the coach’s preparedness of the team’)

(38) a. (ARA)

<i>užití</i>	<i>bylo</i>	<i>na</i>	<i>újmu</i>	<i>použitelnosti</i>	<i>výrobku</i> _{PAT}	<i>klientem</i> _{ACT}
usage	was	at	ACC	usability-DAT	product-GEN	client-GEN

‘the usage harmed the usability of the product by the client’

b. **klientova*_{ACT} *použitelnost* *výrobku*_{PAT}
 client-POSS usability product-GEN
 (‘the client’s usability of the product’)

c. (SYNV11)

<i>ve</i>	<i>druhé</i>	<i>etapě</i>	<i>vyučující</i>	<i>ověřovali</i>	<i>použitelnost</i>	<i>vydaných</i>	<i>metodických</i>	<i>listů</i> _{PAT}	<i>pro</i>	<i>žáky</i> _{ACT}	<i>ve</i>	<i>výuce</i>
at	second	phase	teachers-NOM	checked	usability-ACC	issued-GEN	methodical-GEN	sheets-GEN		for pupils-ACC		in teaching

‘At the second phase, the teachers checked the usability of the issued methodical sheets for pupils during teaching’

However, constructions in which both ACT and PAT are attested tend to be rare; the NomVallex data thus also contain nouns that only occur with PAT in the form of the genitive or the possessive, with no ACT documented, though theo-

²¹ In this paper, I only focus on the syntactic behavior typical of nouns representing the individual types, leaving out various exceptions; for example, the noun *čitivost* ‘readability’ formally belongs to the active type DA-[vn]ost but its valency structure, e.g., *čitivost knihy*_{PAT} ‘readability of the book’, corresponds more closely to the motivating verbal dispositional construction (also referred to as middle or mediopassive construction), cf. (vii).

(vii) *ta* *kniha*_{PAT} *se* *čte* *dobře*
 DET book-NOM REFL read-PRS-3SG well
 ‘the book is easy to read’

²² Karlík and Ziková (2016) discuss the passive syntax of patterns with DA-telnost nouns as well but they assume that the agent is not possible at all with them.

retically possible, e.g., *poslouchanost* ‘the quantity or frequency of being listened to / listenership’. Still their syntax is regarded as passive, see (39).

- (39) (ARA)
Statistiku poslouchanosti jednotlivých stanic_{PAT} řeší firma Arbitron
 statistics-ACC listenership-GEN individual-GEN stations-GEN produces Company-NOM Arbitron-NOM
 ‘The Arbitron Company is the one to produce the statistics of how frequently the individual (radio) stations are being listened to’

5.2.2.2. *Deadjectival nouns with active syntax.* Active syntax is used mainly when nouns represent the types DA-lost (e.g., *uznalost* ‘appreciation’), DA-[nt]ost-2 (e.g., *odhodlanost* ‘resolution’) and DA-[vn]ost (e.g., *vnímavost* ‘sensitivity, perceptiveness’), as illustrated in examples (40), (41) and (42), respectively. Patterns with nouns modified by both the agent and the patient are sufficiently attested for these types; with the active-syntax nominals, the agent can be expressed either in the possessive, see (41–42), or – depending on the form of the patient – in the genitive, see (40), but not in the instrumental form. Even when a noun can be modified by the patient in the genitive corresponding to the accusative in the motivating verbal construction, such as the noun *chtivost* ‘eagerness’ mentioned above (e.g., *chtivost peněz-GEN* ‘eagerness for money’) or the noun *poslušnost* ‘obedience’ (e.g., *poslušnost zákonů-GEN* ‘obedience to laws’ < *poslušný zákonů-GEN* ‘lit. obedient of laws, i.e., law-abiding’ < *poslouchat zákony-ACC* ‘to obey / abide by laws’), this form of the patient does not combine with ACT in the instrumental, cf. (43a–b) and (44a–b). In addition to the three derivational types discussed above, active syntax is also used by nouns representing the type DA-cnost (e.g., *vědoucnost* ‘consciousness’). However, these nominals are relatively rare and it applies to their patterns containing both the agent and the patient, too (for example, in the pattern with the noun *vědoucnost* ‘consciousness’ in (45) only the patient in the genitive is documented).

- (40) (ARA)
uznalost církvě_{ACT} k duchovnímu_{PAT}
 appreciation church-GEN to cleric-DAT
 ‘appreciation of the church to the cleric’
- (41) (SYNv11)
Jeho_{ACT} odhodlanost ke spolupráci_{PAT} z něj opět rychle vyprchávala.
 he-POSS-NOM resolution-NOM to cooperation-DAT from he-GEN again quickly wore-off
 ‘His resolution to cooperation again quickly wore off him’
- (42) (SYNv11)
Zmíněná tvůrčí metoda, schopnost, bezpochyby pramení z autorovy_{ACT} vnímavosti k přírodě_{PAT}
 mentioned- creative- method- ability- undoubtedly results from author- perceptiveness- to nature-
 NOM NOM NOM NOM POSS-GEN GEN DAT
 ‘The mentioned creative method, ability, undoubtedly results from the author’s perceptiveness to nature’
- (43) a. (SYNv11)
Také není důvod věřit, že se lidé a jejich_{ACT} chtivost peněz_{PAT} změnili během několika let.
 also is-not reason believe- that REFL people- and they- eagerness- money- changed during several years
 INF NOM POSS- NOM GEN
 ‘Also there is no reason to believe that people and their eagerness for money changed during several years’
- b. **chtivost peněz_{PAT} lidmi_{ACT}*
 eagerness money- people-INS
 GEN
 (‘eagerness for money by people’)
- (44) a. (SYNv11)
Vypravěč polemizuje se svým otcem [...], s nimž se rozešel v okamžiku jeho_{ACT} slepé poslušnosti stranické politiky_{PAT}
 narrator- disputes with his father [...], with whom REFL grew- in moment he- unquestioning- obedience- party- policy-
 NOM GEN GEN GEN GEN GEN
- ‘The narrator disputes with his father [...], from whom he grew apart in the moment of his unquestioning obedience of / to the party policy’

- b. **slepá* *poslušnost* *stranické* *politiky*_{PAT} *otcem*_{ACT}
 unquestioning obedience party- policy- father-INS
 GEN GEN
 ('unquestioning obedience to the party policy by (his) father')

(45) (SYNV11)

- Somr* *ho* *sleduje* *s* *hořkou* *vědouností* *všech* *chyb*_{PAT} *jež* *se* *staly*
 Somr-NOM he-ACC watches with bitter-INS consciousness-INS all-GEN mistakes-GEN that REFL happened
 'Somr watches him with a bitter consciousness of all the mistakes that happened'

5.2.2.3. *Isolated examples of deadjectival nouns with both active and passive syntax.* Exceptionally, a deadjectival noun allows both active and passive syntax, such as the noun *snášlivost* 'tolerance', formally belonging to the type DA-[*vr*] *ost* and indirectly motivated by the verb *snášet* 'tolerate'. The active syntax of the noun is exemplified in (46a) and its passive syntax in (46c). The patient of the noun *snášlivost* 'tolerance' can be expressed in several forms, namely the genitive (e.g., *snášlivost potravin* 'tolerance to food'), the possessive (e.g., *jejich snášlivost* 'their / its tolerance') or a prepositional phrase (e.g., *snášlivost k / vůči potravinám* 'tolerance to / for food'). While the active syntax allows patient expressed in the genitive or a prepositional phrase, combined with the agent expressed in the possessive or the genitive, respectively, see (46a) and (46b), passive syntax is only possible with the patient expressed in the possessive or the genitive, combined with the agent expressed in the instrumental form, see (46c–d).

(46) a. (SYNV11)

- jejich*_{ACT} *snášlivost* *horka*_{PAT} *je* *mnohem* *horší*
 they-POSS tolerance heat- is much worse
 GEN
 'their tolerance to / for heat is much worse'

b. (SYNV11)

- Zlepšují* *snášlivost* *pleti*_{ACT} *vůči* *jiným* *látkám*_{PAT}
 improve-PRS- tolerance- skin- to other-DAT agents-DAT
 3PL ACC GEN
 'They improve the tolerance of the skin to / for other agents'

c. (SYNV11)

- záleží* *to* *na* *individuální* *snášlivosti* *různých* *potravin*_{PAT} *jednotlivými* *pacienty*_{ACT}
 depend- it-NOM on individual- tolerance- various- food-GEN particular- patients-INS
 PRS-3SG LOC LOC GEN INS
 'it depends on the individual tolerance to / for various food by particular patients'

d. (ARA)

- Častým* *důvodem* *k* *použití* *právě* *těchto* *dezinfekcí* *je* *jejich*_{PAT} *dobrá* *snášlivost* *lidmi*_{ACT} *s* *citlivou* *pokožkou*.
 common- reason- to usage- just these- disinfectants- is they- good- tolerance- people- with sensitive- skin-INS
 INS INS DAT GEN GEN POSS- NOM NOM INS INS
 NOM
 'A common reason to use these very disinfectants is their good tolerance by people with the sensitive skin'

Such a valency behavior, analogous to the valency behavior of deverbal nouns (see [section 3.2](#) and [5.1](#)), is, however, very rare with deadjectival nouns (displayed by only two lexical units in the NomVallex lexicon, see [Table 3](#) in [section 4.2](#)); this valency behavior may indicate that such nouns relate semantically to the motivating verbs rather than to their base adjectives. For example, the noun *snášlivost* 'tolerance', derived from the adjective *snášlivý* 'tolerant', has no deverbal root counterpart (there is the stem noun *snášeni* 'tolerating' derived from the verb *snášet* 'tolerate' in Czech but no root noun, such as **snes* 'tolerance'). Moreover, the genitive form of PAT of the noun *snášlivost* 'tolerance', see (46a) and (46c) above, corresponds to the accusative form of PAT of the motivating verb *snášet* 'tolerate' (i.e., *snášet potraviny* 'to tolerate food') rather than to the form of the complement of the base adjective *snášlivý* 'tolerant', which

only takes the patient expressed in the prepositional phrase introduced by *k* 'to' (*snášlivý k potravinám* 'tolerant to food'), not in the genitive (**snášlivý potravin* 'tolerant of food').

The other deadjectival noun displaying both active and passive syntax is *znalost* 'knowledge', formally belonging to the type DA-lost; I hypothesize that this noun displays valency behavior characteristic of deverbal nouns because there is no commonly used Czech deverbal noun derived from the verb *znát* 'to know' (even the regularly formed stem noun *znání* 'knowing' is only used exceptionally), and that the noun *znalost* 'knowledge' thus carries out the function of the non-existing deverbal nouns. Nevertheless, such cases are so rare in my data that no conclusions may be drawn.

6. ADJECTIVAL STRUCTURES AS A BASE FOR DEADJECTIVAL CONSTRUCTIONS

Unlike verbs, adjectives cannot be used in the active or in the passive, but the adjectival syntactic structures are pre-determined to arrange arguments of the adjectives adopting either active or passive syntax only (sections 6.1 and 6.2). I suggest that the type of syntax the adjectives use results from the derivational type they represent (section 6.2), and it is then also reflected in the syntactic behavior of nouns derived from them (sections 6.3 and 5.2 above).

6.1. Valency structures of adjectives

Adjectives typically express quality attributed to a noun as its direct modification, see (47a), (48a), and (49a), or by means of a copula verb, mostly the verb *to be*, see (47b), (48b), and (49b) (Panevová, 1998).²³ In order to determine valency characteristics of adjectives, I analyze adjectival constructions paraphrasing them with an attributive clause, see (47c), (48c), and (49c); the relative pronoun *who / that / which* that introduces the attributive clause indicates clearly which argument of the base verbal construction it represents, namely ACT in (47c), ADDR in (48c), and PAT in (49c). At the same time, the relative pronoun refers to the noun modified by the attributive clause, i.e., *autor* 'author' in (47c), *člověk* 'man' in (48c), and *výrobek* 'product' in (49c). As this noun corresponds to the noun governing the adjective in adjectival constructions, see (47a), (48a), and (49a), or to the noun subject of the predicate formed by a copula verb and the adjective, see (47b), (48b), and (49b), there is a clear association between a complement of an adjective and a noun to which quality expressed by an adjective is attributed.

- (47) a. *vnímavý autor*
sensitive author
'a sensitive author'
- b. *autor je vnímavý*
author-NOM is sensitive
'the author is sensitive'
- c. *autor, který dobře vnímá / je schopný vnímat*
author-NOM who-NOM well perceives / is able perceive-INF
'an author who perceives well / is able to perceive / sense'
- (48) a. *člověk informovaný o výpadku proudu*
man informed about failure-LOC power-GEN
'a man informed about the power failure'
- b. *člověk je informovaný o výpadku proudu*
man-NOM is informed about failure-LOC power-GEN
'a man is informed about the power failure'
- c. *člověk, kterého (někdo) informoval o výpadku proudu*
man-NOM who-ACC (somebody-NOM) informed about failure-LOC power-GEN
'a man whom (somebody) informed about the power failure'
- (49) a. *použitelný výrobek*
usable product
'a usable product'

²³ Copular sentences in various languages are extensively discussed for example by Roy (2013).

b.	<i>výrobek</i> product-NOM 'the product is usable'	<i>je</i> is	<i>použitelný</i> usable		
c.	<i>výrobek,</i> product-NOM 'the product that can be used'	<i>který</i> _{PAT} that-ACC	<i>je</i> is	<i>možné</i> possible	<i>použit</i> use-INF

Therefore, it may be assumed that, in adjectival valency structures, there is one valency complement of the adjective that is only present in its deep valency structure whereas on the surface it cannot be expressed as depending on the adjective, and thus does not represent an adjectival modification. Being systematically elided from the surface, this complement refers to its antecedent, which is expressed outside the surface adjectival structure either as the noun governing the adjective or as the subject of the copula verb with which the adjective forms a predicate (Kettnerová and Kolářová, 2023), see (47a–b), (48a–b), (49a–b) above and Fig. 1.²⁴ In the NomVallex lexicon (section 4.1), this valency complement is treated as a valency slot of adjectival valency frames, where it is marked by an upward arrow (the sign \uparrow , see (50–52)).²⁵ The sign for an upward arrow is also used in some of my examples to pinpoint antecedents of the systematically elided adjectival valency complements.

- (50) *vnímavý* 'sensitive': PAT_k 'to'+DAT ACT \uparrow
 (51) *informovaný* 'informed': ACT_{INS}, od 'from'+GEN PAT_o 'about'+LOC, že 'that', CONT ADDR \uparrow
 (52) *použitelný* 'usable': ACT_{INS}, pro 'for'+ACC PAT \uparrow

6.2. Active vs. passive syntax of adjectival structures

Syntactic representation of adjectival valency complements, described in the previous section, predetermines adjectives to reflect either the active or the passive syntax of their base verbal predicates, not both.²⁶

In active-like adjectival constructions, the adjectival complement systematically elided from the surface is *actor* (e.g., *vnímavý* 'sensitive'); in passive-like constructions it is usually *patient* (e.g., *použitelný* 'usable') or *addressee* (e.g., *informovaný* 'informed'). Most types of deverbal adjectives usually correspond to active base verbal constructions (for instance, adjectives derived from present and past transgressives, e.g., *rozhodující se* 'deciding' and *rozhodnuší se* 'having decided', respectively, adjectives derived from active participles, e.g., *uznalý* 'appreciative', and also adjectives referring to the proclivity to do something, such as *vnímavý* 'sensitive', cf. (53) and (54)). However, two adjectival types tend to reflect the passive syntax of the base verbal constructions, see (55b–c) and (57b), rather than their active syntax (illustrated in (55a) and (57a)), namely adjectives based on passive participles of transitive verbs (e.g., *informovaný* 'informed' in (56)) and Czech equivalents of English *-able* adjectives (e.g., *použitelný* 'usable' in (58); see also Table 4 in section 5.2.2 and the following discussion about the active or the passive syntax of nouns derived from the individual types of deverbal adjectives).²⁷

Typically, while in active-like adjectival constructions ACT is systematically elided from their surface valency structure, as in (54), in passive-like adjectival constructions, ACT is one of the valency complements expressed on the surface, modifying the given adjective, in which case one of the forms of ACT usually is the instrumental case (English *by-agent*), see (56a) and (58a). In some cases, ACT of passive-syntax adjectives also employs some other forms, namely the prepositional phrase introduced by *pro* 'for', characteristic of the equivalents of English *-able* adjectives, see (58b), and the prepositional phrase introduced by *od* 'from', allowed especially by adjectives derived from passive participles, cf. the passive verbal construction in (55c) and the corresponding adjectival pattern in (56b).

²⁴ According to Boguslavsky (2003, 2016), adjectives usually have one valency slot which is filled with the noun they modify (so-called passive valency; e.g., *zelený / rozpadlý plot* 'green / disintegrated fence'), or with the subject of the copula verb they form a predicate with (so-called discontinuous valency, e.g., *plot je zelený / rozpadlý* 'the fence is green / disintegrated').

²⁵ Such an annotation allows for a straightforward comparison of the valency frame of an adjective with the valency frame of its base verbal lexical unit or with the valency frame of the derived noun lexical unit because the correspondence between the valency complements that the two or even three valency frames share with each other is maintained (Kolářová and Vernerová, 2022).

²⁶ I assume that the same holds true also for primary adjectives (e.g., *vlídný* 'kind', *schopný* 'able'): their base predicates can be seen as verbo-nominal, such as *být vlídný* 'to be kind', *být schopný* 'to be able', typically only displaying the active syntax.

²⁷ The active or passive syntax of some of these adjectival types in Czech is discussed, for example, by Karlík (2016), Karlík and Ziková (2016) and Kolářová et al. (2021). Some fine morphological details of Czech participles are investigated in Karlík and Taraldsen Medová (2022). The passive syntax of English *-able* adjectives is addressed, for example, by Bierwisch (2015: 1075) and Härtl (2015).

- (53) *autor*_{ACT} *vnímá* *přírodu*_{PAT}
 author-NOM perceives nature-ACC
 'an author perceives nature'
- (54) *autor*_{ACT↑} *vnímavý* *k* *přírodě*_{PAT}
 author perceptive to nature-DAT
 'an author perceptive / sensitive to nature'
- (55) a. *pracovníci*_{ACT} *společnosti* *informují* *lidi*_{ADDR}
 workers-NOM company-GEN inform people-ACC
 'workers of the company inform people'
- b. *lidé*_{ADDR} *jsou* *informováni* *pracovníky*_{ACT} *společnosti*
 people-NOM are informed workers-INS company-GEN
 'people are informed by the workers of the company'
- c. *lidé*_{ADDR} *jsou* *informováni* *od* *pracovníků*_{ACT} *společnosti*
 people-NOM are informed from workers-GEN company-GEN
 'people are informed from the workers of the company'
- (56) a. *lidé*_{ADDR↑} *informováni* *pracovníky*_{ACT} *společnosti*
 people informed workers-INS company-GEN
 'people informed by the workers of the company'
- b. *lidé*_{ADDR↑} *informováni* *od* *pracovníků*_{ACT} *společnosti*
 people informed from workers-GEN company-GEN
 'people informed from the workers of the company'
- (57) a. *klient*_{ACT} *může* *použít* *výrobek*_{PAT}
 client-NOM can use product-ACC
 'a client can use the product'
- b. *výrobek*_{PAT} *může* *být* *použit* *klientem*_{ACT}
 product-NOM can be used client-INS
 'a product can be used by the client'
- (58) a. *výrobek*_{PAT↑} *použitelný* *klientem*_{ACT}
 product usable client-INS
 'a product usable by the client'
- b. *výrobek*_{PAT↑} *použitelný* *pro* *klienta*_{ACT}
 product usable for client-ACC
 'a product usable for the client'

6.3. Deadjectival nouns: Reactivation of the systematically elided adjectival complement

The valency complements that are systematically elided in base adjectival structures are "reactivated" in valency structures of deadjectival nouns; the complements become adnominal modifications, i.e., they depend on the nouns on the surface, and are expressed in the form of the genitive or the possessive, cf. (59a–b) and (60a–b).

- (59) a. *autor* *je* *vnímavý*
 author-NOM is sensitive
 'the author is sensitive'
- b. *vnímavost* *autora*_{ACT} / *autorova*_{ACT} *vnímavost*
 sensitivity author-GEN / author-POSS sensitivity
 'sensitivity of the author / author's sensitivity'

- (60) a. *výrobek je použitelný*
 product-NOM is usable
 'a product is usable'
- b. *použitelnost výrobku_{PAT} / jeho_{PAT} použitelnost*
 usability product-GEN / it-POSS usability
 'usability of the product / its usability'

Other valency complements, if any, usually keep the same form(s) as the corresponding adjectival valency complements take on, compare (54), (56a–b), (58a–b) with (61), (62a–b), (63a–b), respectively (see also the original corpus examples (36), (38a), (38c) and (42), given in [section 5.2.2.](#))²⁸ Depending on the active or the passive syntax of the base adjectives, the reactivated valency complement in valency structures of deadjectival nouns usually corresponds either to ACT (in nouns derived from active-syntax adjectives, e.g., *vnímavost* 'sensitivity', see (61)), or to ADDR and PAT (in nouns derived from passive-syntax adjectives, see *informovanost* 'knowledgeability' in (62a–b) and *použitelnost* 'usability' in (63a–b)).

- (61) *autorova_{ACT} vnitřnost k přírodě_{PAT}*
 author-POSS sensitivity to nature-DAT
 'author's sensitivity to nature'
- (62) a. *informovanost lidí_{ADDR} pracovníky_{ACT} společnosti*
 knowledgeability people-GEN workers-INS company-GEN
 'knowledgeability of the people by the workers of the company'
- b. *informovanost lidí_{ADDR} od pracovníků_{ACT} společnosti*
 knowledgeability people-GEN from workers-GEN company-GEN
 'knowledgeability of the people from the workers of the company'
- (63) a. *použitelnost výrobku_{PAT} klientem_{ACT}*
 usability product-GEN client-INS
 'usability of the product by the client'
- b. *použitelnost výrobku_{PAT} pro klienta_{ACT}*
 usability product-GEN for client-ACC
 'usability of the product for the client'

The correspondence between an adjectival deep syntactic structure and the structure of a noun derived from it is illustrated in [Fig. 1](#), exemplified by the dependency trees of the adjective *použitelný* 'usable' and the deadjectival noun *použitelnost* 'usability': While ACT of the adjective *použitelný* 'usable' is expressed in the instrumental case as a modification of the adjective (the surface form being put in the square brackets here), its PAT – elided from the surface – is only present in the deep syntactic structure (it is marked with the lemma #Cor, indicating here a general coreference relation, and refers to its antecedent, i.e., the subject of the copula verb *být* 'to be'). The noun *použitelnost* 'usability' is in turn modified by both ACT and PAT, the former complement being expressed in the same form as in the adjectival structure, i.e., in the instrumental case, and the latter in the genitive case.²⁹

As the result, ACT of deadjectival nouns with active syntax cannot be expressed by the instrumental case, and, on the contrary, ACT of deadjectival nouns with passive syntax does not allow the forms of the genitive and the possessive. Therefore, the combination of the instrumental and the possessive forms of ACT, characteristic of nouns displaying both

²⁸ The basic rules that determine the forms of complements of Czech deadjectival nouns are sketched out for example in [Grepil and Karlík \(1998: 181\)](#). However, the rules do not consider passive structures of the base adjectives at all; the complement in the genitive case is generally referred to as *nositel vlastnosti* 'bearer of a property / quality', but the individual semantic roles of the complement are not distinguished there. Moreover, no other forms of the agent are taken into account.

²⁹ In [Fig. 1](#), the functor PRED marks a verbal predicate and the functor DENOM is used for a noun governing a noun phrase. In FGD, the trees representing the deep syntactic structure are called tectogrammatical (see [section 3.1](#)).

Table 5
Prototypical forms of ACT of a transitive verb and of its direct and indirect derivatives.

Base and its derivatives		Example	Prototypical forms of ACT				Valency frame
			Type of syntax			Valency frame	
		Both active and passive		Only active	Only passive		
		Active	Passive				
Transitive verb		<i>vnímat</i> 'perceive'	NOM	INS / PP	–	–	NOM
Direct derivative	DV noun	<i>vnímání</i> 'perceiving, perception'	GEN / POSS	INS / PP	–	–	GEN / INS / POSS / PP
	DV adjective	active-syntax A <i>vnímavý</i> 'sensitive'	–	–	↑	–	↑
		passive-syntax A <i>vnímatelný</i> 'perceptible'	–	–	–	INS / PP	INS / PP
Indirect derivative	DA noun	active-syntax N <i>vnímavost</i> 'sensitivity'	–	–	GEN / POSS	–	GEN / POSS
		passive-syntax N <i>vnímatelnost</i> 'perceptibility'	–	–	–	INS / PP	INS / PP

active and passive syntax (see sections 3.2 and 4.2), is not possible with the vast majority of Czech deadjectival nouns. The valency frames of the nouns *vnímavost* 'sensitivity', *informovanost* 'knowledgeability' and *použitelnost* 'usability' are given in (64–66).

(64) *vnímavost* 'sensitivity, perceptiveness': ACT_{GEN,POSS} PAT_k 'to'+DAT

(65) *informovanost* 'knowledgeability': ACT_{INS,od} 'from'+GEN PAT_o 'about'+LOC, že 'that', CONT ADDR_{GEN,POSS}

(66) *použitelnost* 'usability': ACT_{INS, pro} 'for'+ACC PAT_{GEN,POSS}

7. OVERVIEW OF THE DIFFERENCE IN THE SYNTACTIC BEHAVIOR OF DEVERBAL AND DEADJECTIVAL NOUNS

I thus suggest that the difference in the syntactic behavior of deverbal and deadjectival nouns, consisting in whether or not they allow for both active and passive syntax, arises from the syntactic behavior of their base words (verbs with deverbal nouns and adjectives with deadjectival nouns) and from the rules that determine the syntactic realization and forms of the arguments of the nouns.

If the motivating verbal predicate is transitive, for example *vnímat* 'perceive' and *obdivovat* 'admire', the two types of nouns behave as follows:

(i) Like verbs, deverbal nouns with systemic (regular) forms of their arguments usually allow both active and passive syntax, such as the noun *vnímání* 'perceiving / perception' in the introductory examples (2a–e), section 2, and the noun *obdiv* 'admiration' in (15a–c), section 5.1. However, arguments expressed in non-systemic forms do not usually combine with ACT expressed in the instrumental case (e.g., **obdiv ke starým památkám návštěvníkem* 'admiration for the old monuments by the visitor', see (16a–c) in section 5.1), and patterns with such arguments then tend to only reflect active syntax;

(ii) Deadjectival nouns, such as *vnímavost* 'perceptiveness, sensitivity' and *vnímatelnost* 'perceptibility', do not reflect the syntax of the motivating verbal predicate but the syntax of the adjectives they are directly derived from, i.e., *vnímavý* 'perceptive, sensitive' and *vnímatelný* 'perceptibility', respectively. The adjectival syntactic structures are predetermined to arrange the arguments of adjectives adopting either active or passive syntax only, not both. Typically, this depends on the derivational type the adjectives represent (sections 6.1 and 6.2). Valency structures of Czech nouns derived from adjectives adhere to morphosyntactic rules that determine the syntactic realization and forms of their arguments. The rules include the reactivation of the systematically elided adjectival complement and the preservation of the form(s) of adnominal argument(s) corresponding to the other adjectival complement(s). As the result, the nouns derived from adjectives also typically display either active or passive syntax only (sections 5.2 and 6.3). However, as illustrated in section 5.2.2.3, if a noun formally derived from an adjective semantically relates to the motivating verb rather than to

the adjective, such as the nouns *snášlivost* ‘tolerance’ or *znalost* ‘knowledge’, it can thus adopt syntactic behavior characteristic of deverbal nouns, including both active and passive syntax, and the corresponding forms of the agent (in this case, GEN, INS and POSS).

In fact, the difference in the syntactic behavior of Czech deverbal and deadjectival nouns reflects an important difference in the syntactic behavior of verbs and adjectives, as recapitulated in Table 5 (*DV* stands for *deverbal*, *N* stands for *noun*). The table shows prototypical forms of ACT of a transitive verb (exemplified here by the verb *vnímat* ‘perceive’) and of its direct and indirect derivatives, together with the type of syntax the verb and the derivatives typically use.³⁰

8. CONCLUSION

In this paper, I have dealt with the active and passive syntax of two types of Czech nominals, namely deverbal and deadjectival nouns, addressing a notable difference between verbs and deverbal nouns on the one hand and adjectives and deadjectival nouns on the other. While transitive verbs and nouns directly derived from the verbs usually display both active and passive syntax, adjectives and deadjectival nouns (even those motivated by a transitive verb) use either active or passive syntax only, typically depending on the derivational type they represent. I suggest that the difference arises from the syntactic representation of adjectival valency complements and the way in which it is reflected in nouns derived from the adjectives. The research is based on the substantial volume of data from the NomVallex valency lexicon. Further research could investigate the cross-linguistic validity of the results of this analysis, carried out on the basis of Czech language material.

FUNDING

This work was supported by the Czech Science Foundation [project No. 22-20927S]. The work described herein has been using data and tools provided by the LINDAT/CLARIAH-CZ Research Infrastructure (<https://lindat.cz>), supported by the Ministry of Education, Youth and Sports of the Czech Republic [project No. LM2023062].

CREDIT AUTHORSHIP CONTRIBUTION STATEMENT

Veronika Kolářová: Writing – review & editing, Writing – original draft, Resources, Methodology, Investigation.

Data availability

The data are publicly available.

ACKNOWLEDGEMENTS

I would like to thank the two anonymous reviewers for their helpful and insightful suggestions. I am also indebted to Jarmila Panevová and Václava Kettnerová for their comments on the draft of the paper.

References

- Alexiadou, A., 2001. Functional Structure in Nominals: Nominalization and Ergativity. John Benjamins, Amsterdam. <https://doi.org/10.1075/la.42>.
- Alexiadou, A., 2019. Passives, unaccusativity, and nominalisation. In: Malicka-Kleparska, A., Bloch-Trojnar, M. (Eds.), Valency in Verbs and Verb-Related Structures. Peter Lang, pp. 33–54. <https://doi.org/10.3726/b15181>.
- Allerton, D.J., 2006. Valency grammar. In: Brown, K. (Ed.), Encyclopedia of Language & Linguistics. second ed. Elsevier, Amsterdam, pp. 301–314.
- Arsenijević, B., 2011. The semantic ontology of deadjectival nominalizations in Serbo-Croatian. Recherches Linguistiques De Vincennes 40, 53–72. <https://doi.org/10.4000/rlv.1933>.
- Benko, V., 2014. Aranea: Yet Another Family of (Comparable) Web Corpora. In: Sojka, P., Horák, A., Kopeček, I., Pala, K. (Eds.), TSD 2014, LNAI 8655. Springer International Publishing, pp. 257–264. https://doi.org/10.1007/978-3-319-10816-2_31.

³⁰ In the VALLEX lexicon (Lopatková et al., 2022), valency frames of verbs capture the forms of complements in the active verbal constructions. Thus ACT of transitive verbs is typically assigned only the nominative form. However, if relevant, the passive constructions are also specified in the lexicon entries and rules on how to use them are thoroughly described in the grammar component of the lexicon (Vernerová et al., 2014).

- Benko, V., 2015. *Araneum Bohemicum Maximum*, verze 15.04. Ústav Českého národního korpusu FF UK, Praha. Available at <https://www.korpus.cz>.
- Bierwisch, M., 2015. Word-formation and argument structure. In: Müller, P.O., Ohnheiser, I., Olsen, S., Rainer, F. (Eds.), *Word-Formation: An International Handbook of the Languages of Europe*. De Gruyter Mouton, pp. 1056–1099. <https://doi.org/10.1515/9783110246278-016>.
- Boguslavsky, I., 2003. On the passive and discontinuous valency slots. In: *Proceedings of the 1st International Conference on Meaning-Text Theory*. Ecole Normale Supérieure, pp. 129–138.
- Boguslavsky, I., 2016. On the Non-canonical Valency Filling. In: *Proceedings of the Workshop on Grammar and Lexicon: Interactions and Interfaces*. Osaka, pp. 51–60.
- Booij, G., 2007. *The Grammar of Words*. Oxford University Press, Oxford.
- Borer, H., 2003. Exo-Skeletal vs. Endo-Skeletal Explanations: Syntactic Projections and the Lexicon. In: Moore, J., Polinsky, M. (Eds.), *The Nature of Explanation in Linguistic Theory*. CSLI and University of Chicago Press, Chicago, pp. 31–67.
- Borer, H., 2013. *Structuring Sense: Volume III: Taking form*. Oxford University Press, Oxford. <https://doi.org/10.1093/acprof:oso/9780199263936.001.0001>.
- Borer, H., 2014. Derived nominals and the domain of content. *Lingua* 141, 71–96. <https://doi.org/10.1016/j.lingua.2013.10.007>.
- Borer, H., 2020. Nominalizing verbal passive: PROs and cons. In: Alexiadou, A., Borer, H. (Eds.), *Nominalization: 50 Years on from Chomsky's Remarks*. Oxford University Press, pp. 111–137. <https://doi.org/10.1093/oso/9780198865544.003.0006>.
- Bruening, B., 2013. By phrases in passives and nominals. *Syntax* 16 (1), 1–41. <https://doi.org/10.1111/j.1467-9612.2012.00171.x>.
- Cetnarowska, B., 2005. *Passive Nominals in English and Polish: An Optimality-theoretic Analysis*. Wydawnictwo Uniwersytetu Śląskiego, Katowice.
- Chomsky, N., 1972a. Remarks on nominalization. In: Chomsky, N. (Ed.), *Studies on Semantics in Generative Grammar*. De Gruyter Mouton, pp. 11–61. <https://doi.org/10.1515/9783110867589-003>.
- Chomsky, N., 1972b. Deep structure, surface structure, and semantic interpretation. In: Chomsky, N. (Ed.), *Studies on Semantics in Generative Grammar*. De Gruyter Mouton, pp. 62–119. <https://doi.org/10.1515/9783110867589-004>.
- Dvořák, V., 2014. Case assignment, aspect, and (non-)expression of patients: a study of the internal structure of Czech verbal nouns. In: Spevak, O. (Ed.), *Noun Valency*. John Benjamins Publishing Company, Amsterdam/Philadelphia, pp. 89–111. <https://doi.org/10.1075/slcs.158.04dvo>.
- Givón, T., 1982. Transitivity, Topicality, and the Ute Impersonal Passive. In: Hopper, P.J., Thompson, S.A. (Eds.), *Syntax and Semantics, 15: Studies in Transitivity*. Academic Press, New York – London, pp. 143–160. https://doi.org/10.1163/9789004368903_009.
- Grepl, M., Karlík, P., 1998. *Skladba češtiny*. Votobia, Olomouc.
- Grimshaw, J., 1990. *Argument Structure*. The MIT Press, Cambridge.
- Hajič, J., et al., 2020. Prague Dependency Treebank – Consolidated 1.0 (PDT-C 1.0). LINDAT/CLARIAH-CZ digital library. Praha: Ústav formální a aplikované lingvistiky MFF UK. Available at <http://hdl.handle.net/11234/1-3185>.
- Härtl, H., 2015. Argument-structural restrictions on word-formation patterns. In: Müller, P.O., Ohnheiser, I., Olsen, S., Rainer, F. (Eds.), *Word-Formation: An International Handbook of the Languages of Europe*. De Gruyter Mouton, pp. 876–894. <https://doi.org/10.1515/9783110246278-005>.
- Havránek, B. et al., 1989. *Slovník spisovného jazyka českého VII (V–Y)*. Academia, Praha.
- Herbst, T., 1988. A valency model for nouns in English. *J. Linguist.* 24 (2), 265–301. <https://doi.org/10.1017/S0022226700011804>.
- Karlík, P., 2004. Pasivum v češtině. *Slovo a slovesnost* 65 (2), 83–112.
- Karlík, P., 2016. Nominalizace. In: Karlík, P., Nekula, M., Pleskalová, J. (Eds.), *Nový encyklopedický slovník češtiny*. Nakladatelství Lidové noviny, Praha, pp. 1193–1197.
- Karlík, P., Taraldsen Medová, L. (Eds.), 2022. *Nominalizations and Participles in Czech and beyond*. Masaryk University, Brno.
- Karlík, P., Ziková, M., 2016. Teln-adjektivum. In: Karlík, P., Nekula, M., Pleskalová, J. (Eds.), *Nový encyklopedický slovník češtiny*. Nakladatelství Lidové noviny, Praha, pp. 1826–1829.
- Karlík, P., 2007. Mixed Nominals in Czech. In: Dočekal, M., Karlík, P. et al. (Eds.), *Czech in Generative Grammar*, pp. 105–117. Available at <https://is.muni.cz/el/phil/jaro2015/CJBB166/um/book2.pdf>.
- Keenan, E.L., 1980. Passive is phrasal (not sentential or lexical). In: Hoekstra, T. (Ed.), *Lexical Grammar*. De Gruyter Mouton, Berlin, Boston, pp. 181–214. <https://doi.org/10.1515/9783111711225-008>.
- Kettnerová, V., 2014. *Lexikálně-sémantické konverze ve valenčním slovníku*. Karolinum, Praha.
- Kettnerová, V., Kolářová, V., 2023. K reciprocitě adjektiv v češtině. *Slovo a slovesnost* 84 (3), 179–200. <https://doi.org/10.58756/s1138449>.
- Kettnerová, V., Lopatková, M., Vernerová, A., 2022. Reflexives as Part of Verb Lexemes in the VALLEX Lexicon. *Prague Bull. Math. Linguist.* 119, 37–66. <https://doi.org/10.14712/00326585.022>.
- Kolářová, V., 2014. Special valency behavior of Czech deverbal nouns. In: Spevak, O. (Ed.), *Noun Valency*. John Benjamins Publishing Company, Amsterdam/Philadelphia, pp. 19–60. <https://doi.org/10.1075/slcs.158.02kol>.
- Kolářová, V., Vernerová, A., Klímová, J., 2020. *NomVallex I. Valenční slovník substantiv*. Ústav formální a aplikované lingvistiky, Praha.
- Kolářová, V., Mírovský, J., 2024. Příbuzná deverbální a deadjektivní abstraktní substantiva ve valenčním slovníku NomVallex. In: Bozděchová, I., Niševa, B., Skwarska, K. (Eds.), *Česká slovtvorná koncepce v kontextu slovanské jazykovědy*. Monografie věnovaná 110. výročí narození a 20. výročí úmrtí Miloše Dokulila. Academia, Slovanský ústav AV ČR, Praha, pp. 263–274.

- Kolářová, V., Vernerová, A., 2022. NomVallex: A Valency Lexicon of Czech Nouns and Adjectives. In: Proceedings of the 13th Conference on Language Resources and Evaluation (LREC 2022). European Language Resources Association, Marseille, pp. 1344–1352.
- Kolářová, V., Kolář, J., Mikulová, M., 2017. Difference between Written and Spoken Czech: The Case of Verbal Nouns Denoting an Action. *Prague Bull. Math. Linguist.* 107, 19–38. <https://doi.org/10.1515/pralin-2017-0002>.
- Kolářová, V., Vernerová, A., Klímová, J., 2021. Systemic and non-systemic valency behavior of Czech deverbal adjectives. *Jazykovedný časopis* 72 (2), 371–382. <https://doi.org/10.2478/jazcas-2021-0034>.
- Kolářová, V., Vernerová, A., Klímová, J., 2022. NomVallex 2.0. LINDAT/CLARIAH-CZ digital library at the Institute of Formal and Applied Linguistics (ÚFAL). Faculty of Mathematics and Physics. Charles University. Available at <http://hdl.handle.net/11234/1-4663> and at <https://ufal.mff.cuni.cz/nomvallex>.
- Kosta, P., 2023. *Turn Initiating Elements in Everyday Conversations: Conversational Analysis and Radical Minimalism at the Syntax-Semantic Interface*. Lexington Books, Lanham, London.
- Kosta, P., Karlík, P., 2020. Die Nominalisierung von Nebensätzen im Tschechischen. *Z. Slaw.* 65 (4), 479–497. <https://doi.org/10.1515/slav-2020-0023>.
- Křen, M. et al., 2022. Korpus SYN, verze 11 ze 14. 12. 2022. Ústav Českého národního korpusu FF UK, Praha. Available at <https://www.korpus.cz>.
- Kulikov, L., 2010. Voice Typology. In: Song, J.J. (Ed.), *The Oxford Handbook of Linguistic Typology*. Oxford University Press, pp. 368–398.
- Lees, R.B., 1960. *The Grammar of English Nominalizations*. Mouton de Gruyter, The Hague.
- Levin, B.C., Rappaport Hovav, M., 2005. *Argument Realization*. Cambridge University Press, Cambridge, UK. <https://doi.org/10.1017/CBO9780511610479>.
- Lopatková, M., et al., 2022. VALLEX 4.5. LINDAT/CLARIAH-CZ digital library at the Institute of Formal and Applied Linguistics (ÚFAL). Faculty of Mathematics and Physics. Charles University. Available at <http://hdl.handle.net/11234/1-4756>.
- Mel'čuk, I., 2004. Actants in semantics and syntax I: actants in semantics. *Linguistics* 42 (1), 1–66. <https://doi.org/10.1515/ling.2004.004>.
- Mel'čuk, I., 2021. Ten Studies in Dependency Syntax. De Gruyter Mouton, Berlin, Boston. <https://doi.org/10.1515/9783110694765>.
- Panevová, J., 1974. On verbal frames in Functional Generative Description. Part I. *Prague Bull. Math. Linguist.* 22, 3–40.
- Panevová, J., 1975. On verbal frames in Functional Generative Description. Part II. *Prague Bull. Math. Linguist.* 23, 17–52.
- Panevová, J., 1998. Ještě k teorii valence. *Slovo a slovesnost* 59 (1), 1–14.
- Panevová, J., 2014. Contribution of valency to the analysis of language. In: Spevak, O. (Ed.), *Noun Valency*. John Benjamins, Amsterdam / Philadelphia, pp. 1–18. <https://doi.org/10.1075/slcs.158.01pan>.
- Patejuk, A., Przepiórkowski, A., 2018. From Lexical Functional Grammar to Enhanced Universal Dependencies. *Linguistically Informed Treebanks of Polish*. Institute of Computer Science, Polish Academy of Sciences, Warszawa.
- Piřha, P., 1984. Case Frames for Nouns. In: Sgall, P. (Ed.), *Contributions to Functional Syntax, Semantics, and Language Comprehension*. John Benjamins, Amsterdam / Philadelphia, pp. 225–238.
- Rainer, F., 2015. Quality nouns. In: Müller, P.O., Ohnheiser, I., Olsen, S., Rainer, F. (Eds.), *Word-Formation: An International Handbook of the Languages of Europe*. De Gruyter Mouton, pp. 1268–1284. <https://doi.org/10.1515/9783110246278-028>.
- Rappaport, G.C., 2001. The Geometry of the Polish Nominal Phrase: Problems, Progress, and Prospects. In: Banski, P., Przepiórkowski, A. (Eds.), *Generative Linguistics in Poland: Syntax and Morphosyntax*. Polish Academy of Sciences, Warsaw, pp. 173–189.
- Roeper, T., 2020. Where are thematic roles? Building the micro-syntax of implicit arguments in nominalizations. In: Alexiadou, A., Borer, H. (Eds.), *Nominalization: 50 Years on from Chomsky's Remarks*. Oxford University Press, pp. 277–307. <https://doi.org/10.1093/oso/9780198865544.003.0012>.
- Roeper, T., van Hout, A., 2009. The representation of movement in -ability nominalizations. Evidence for covert category movement, Edge phenomena, and local LF. In: Giannakidou, A., Rathert, M. (Eds.), *Quantification, Definiteness, and Nominalization*. Oxford University Press, New York, pp. 344–364.
- Roy, I., 2010. Deadjectival nominalizations and the structure of the adjective. In: Alexiadou, A., Rathert, M. (Eds.), *The syntax of Nominalizations across Languages and Frameworks*. Mouton, Berlin, pp. 129–158. <https://doi.org/10.1515/9783110245875.129>.
- Roy, I., 2013. Non-Verbal Predication. Copular sentences at the syntax-semantics interface. *Studies in Theoretical Linguistics*, Oxford. <https://doi.org/10.1093/acprof:oso/9780199543540.001.0001>.
- Rusinová, Z., 2016. Deverbální adjektivum. In: Karlík, P., Nekula, M., Pleskalová, J. (Eds.), *Nový encyklopedický slovník češtiny*. Nakladatelství Lidové noviny, Praha, p. 328.
- Sgall, P., Hajičová, E., Panevová, J., 1986. *The Meaning of the Sentence in its Semantic and Pragmatic Aspects*. Reidel, Dordrecht.
- Spevak, O. (Ed.), 2014. *Noun Valency*. John Benjamins Publishing Company, Amsterdam / Philadelphia. <https://doi.org/10.1075/slcs.158>.
- Světlá, J., 2005. Nová abstraktní pojmenování. In: Martincová, O. (Ed.), *Neologizmy v dnešní češtině*. Czech Language Institute of the Czech Academy of Sciences, Prague, pp. 54–68.
- Tesnière, L., 1959. *Éléments de syntaxe structurale*. Klincksieck, Paris.
- Vernerová, A., Kettnerová, V., Lopatková, M., 2014. To pay or to get paid: Enriching a Valency Lexicon with Diatheses. In: Proceedings of the 9th International Conference on Language Resources and Evaluation (LREC 2014). European Language Resources Association, pp. 2452–2459.