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## **An Interplay between Valency Information and Reflexivity**

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### **A Response to R. Wagner's Contribution: A Case of Collision in Principles of Language Description?**

#### **Abstract**

A language description based on a formally defined framework has many advantages: The possibility to check the inner consistency of the model as well as the possibility of comparison with other models or with pure descriptive approaches belong to its main priorities.

Roland Wagner's contribution published in the last issue of this journal – focusing (among other ideas) on the role of Czech reflexives – presents several critical remarks concerning the Functional Generative Description. These remarks represent a good challenge for the authors developing this model to fill empirical gaps and to make clear some theoretical presuppositions concerning valency frames of verbs and their respective reflexive counterparts that are primarily addressed by Roland Wagner's critical survey.

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#### **1. Introduction**

Roland Wagner's (RW in sequel) account how the Czech reflexives *se/si* are analyzed within the theoretical framework of the Functional Generative Description (FGD in sequel) – summarized in his article (Wagner, 2014) as Principle 2 – is correct: (i) Those reflexives that are either parts of a lexical entry of a verb lemma, see examples (1) and (2), or those that are grammatical markers of generalized Actors, see (3), are considered reflexive particles, while (ii) the reflexives *se/si* representing the valency complementation coreferential with the subject of the sentence (or with

another embedded subject), see examples (4) and (5), are interpreted in FGD as reflexive pronouns expressing the respective syntactic function in the sentence.

- (1) *Jan se smál.*  
John refl laughed  
En. John was laughing.
- (2) *Dny se v létě prodloužují.*  
daytime refl in summer prolong  
En. Daytime is becoming longer in summer.
- (3) *Termín odeslání článku se prodloužil.*  
the deadline for submitting a paper refl extended  
En. The deadline for submitting a paper was extended.
- (4) *Petr se každé ráno myl studenou vodou.*  
Peter refl every morning washed with cold water  
En. Peter washed himself with cold water every morning.
- (5) *Matka nařídila Petrovi umýt se.*  
mother ordered Peter wash refl  
En. The mother ordered Peter to wash himself.

Further, the overall claim that according to FGD “differences in valency frames correlate with differences in lexical meaning [...]” (Principle 1 in RW’s text) reflects one of the main ideas of the valency theory of verbs in FGD and its consequence (postulated by the author) that a single lexical unit of a verb cannot be assigned with more than one valency frame is entirely acceptable. However, the notion of (grammatical) meaning and its reflection in valency frames of verbs require clarification.

In valency lexicons elaborated within FGD – henceforth we (similarly as RW) refer to the valency lexicon of Czech verbs, VALLEX<sup>1</sup> – valency frames are modeled as a sequence of valency slots; each slot stands for one complementation and consists of:

- the semantic relation to its governing verb (labeled by a functor),
- the information on the type of valency complementation with respect to its obligatoriness, and
- possible morphemic forms which are specified for the complementations whose form is prescribed by the verb.

However, in the strict sense, only the information on the number and the type of valency complementations is relevant for grammatically structured meaning (the tectogrammatical layer of FGD) of the verb; the information on possible morphemic form(s) of a valency complementation characterizes its surface syntactic expression. As it is the correlation between functors and morphemic forms that determines the

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<sup>1</sup>The Valency Lexicon of Czech Verbs, VALLEX, is available at <http://ufal.mff.cuni.cz/vallex/2.5>, or in the published version (Lopatková et al., 2008).

meaning of a lexical unit, both types of information are encoded in valency frames.<sup>2</sup> Let us stress that in the FGD based valency lexicons, the morphemic expressions of valency complementations are limited to the usage of a lexical unit of a verb in *active*, *nonreflexive*, *nonreciprocal* constructions, see esp. (Lopatková et al., 2008).

Let us now repeat the case of seeming collision of Principles 1 and 2 as it was exemplified by RW in his article by the verb *vnímat* ‘to see, to perceive’, see examples (6)–(8) ((2)–(4) in his paper). RW demonstrates the change of the morphological form of the participant EFFect from *jako+Acc* (in (6)) into *jako+Nom* when PATient is lexically expressed by the clitic form of the reflexive pronoun (in (7)) (while the morphemic form *jako+Acc* of EFF is indicated in the VALLEX lexicon, the morphemic expression *jako+Nom* is missing there, see (20)). Then he infers that – on the basis of Principle 1 – the change in morphosyntactic form of EFFect implies the necessity of two different lexical units for the two usages of the verb *vnímat* ‘to see, to perceive’ in examples (6) and (7). However, in accordance with Principle 2, the usages of the verb *vnímat* ‘to see, to perceive’ in sentences (7) and (8) represent the same lexical unit since the non-clitic reflexive together with the clitic reflexive forms a single morphological paradigm of the pronoun.

- (6) *Vnímá syna jako soka.* (RW (2))  
 (he) sees son<sub>Acc</sub> as a rival<sub>jako+Acc</sub>

En. He sees his son as a rival.

- (7) *Sám se vnímá*  
 himself<sub>Nom</sub> refl<sub>clitic</sub><sub>Acc</sub> (he) sees  
*jako síla „ochraňující divadlo“.* (RW (3), SYN2005)  
 as a force<sub>jako+Nom</sub> “sheltering theatre”

En. He sees himself as a force “sheltering theatre”.

<sup>2</sup> Another possibility is to accept the concept of structural and lexical cases, as it is proposed by Karlík (2000), and limit the information on possible morphemic expression(s) only to valency complementations expressed by lexical cases. However, there are several issues undermining such solution.

(i) From a theoretical point of view, non-prototypical changes of structural cases should be described and taken into account when operating with this dichotomy (compare the prototypical change of Acc into Nom in the passive construction with the non-prototypical change of the Acc into Dat in the nominalization: *Prezident vyzval<sub>active</sub> premiéra<sub>acc</sub> k rezignaci* → *Premiér<sub>nom</sub> byl vyzván<sub>passive</sub> k rezignaci prezidentem*, however, *Prezident vyzval<sub>active</sub> premiéra<sub>acc</sub> k rezignaci* → *výzva (prezidenta) premiérovi<sub>dat</sub>*) (Kolářová, 2010).

(ii) From a lexicographic point of view, structural cases can be omitted on condition that there exists an elaborated classification of verbs allowing for the prediction of changes of structural cases in different syntactic contexts. For the time being, we are not aware of a sophisticated reliable classification of Czech verbs that could be adopted for the lexicon.

Technically, as the information on the (in)transitivity (and maybe other features) of individual lexical units should be recorded for each lexical unit, we opt for the equivalent information on the nominative and accusative complementation.

- (8) *Karel IV. vnímá sebe jako vyvoleného třetího krále.* (RW (4), SYN2005)  
 Charles IV sees refl<sup>non-clitic</sup><sub>Acc</sub> as chosen third king<sub>jako+Acc</sub>  
 En. Charles IV sees himself as the chosen third king.

Let us point out that – with respect to the clarified interpretation of Principle 1 (see above) – we do not face in fact a collision of the two principles (as the morphemic changes related to reflexivity are not considered relevant for delimiting a new lexical unit of a verb). What we must in fact cope with is a gap in the description of changes in valency structures of Czech verbs as described for VALLEX, see esp. (Kettnerová and Lopatková, 2009), (Kettnerová et al., 2012a).<sup>3</sup>

Though the number of the verbs concerned is very limited<sup>4</sup> (despite the fact that this change is exhibited by relatively frequent verbs, it is very rare in corpus data, see the Appendix for the statistics), RW's remarks remind the authors of the VALLEX lexicon that the changes in morphosyntactic expressions of valency complementations conditioned by a broader syntactic context have not yet been described exhaustively enough.

In the next sections, we demonstrate that the linguistic phenomenon addressed by RW can be easily integrated in the descriptive apparatus of FGD. In the following section, an enhanced version of FGD that takes a close interplay of lexical and grammar information into account is introduced (Section 2). Further, the application of the principles of the enhanced version of FGD on the analysis of the addressed phenomena is presented in Section 3. Finally, theoretical considerations concerning reflexivity are addressed in Section 4.

## 2. Enhanced FGD: grammar and lexical components

Contemporary linguistic frameworks are based on the division of labor between lexical and grammar components; each of which gives greater or lesser prominence either to a lexical, or to a grammar part of the linguistic description. Let us point to Chomskyan generative grammar and the Meaning Text Theory as two illustrative examples of almost opposing tendencies: in the former, the key role is performed by

<sup>3</sup>We would like to express our gratitude to Richard Wagner for pointing out this specific change in valency structure of verbs related to reflexivity.

<sup>4</sup>RW found 21 lexical units of verbs contained in VALLEX in total leading to the seeming conflict between Principle 1 and Principle 2. We agree with his findings (with the exception of verbs *angažovat*<sub>1</sub>, *brát*<sub>7</sub>, *udržovat/udržet*<sub>3</sub> and *fotografovat*<sub>1</sub>, which do not meet the required pattern; on the other hand, we can add other verbs as *stanovit*<sub>2</sub>, *přijímat/přijmout*<sub>5</sub>, and *přijímat/přijmout*<sub>9</sub>; see the Appendix for the full list of affected verbs in VALLEX). We can realize that the analyzed phenomenon is quite rare – for most verbs it concerns less than 1% of their occurrences in CNC (only for the verbs *prezentovat* 'to present' and *označovat*<sup>impf</sup> 'to declare, to call' the rough estimation exceeds 3.2% and 2.4%, respectively; for three other verbs the estimation reaches 1–2% (for one of their aspectual counterparts)).

a grammar component, while the latter relies esp. on a thoroughly elaborated lexical component.

Since the original proposal of FGD (Sgall, 1967), both grammar and lexical modules have been taken into account; however, the main focus has been laid on grammar, esp. syntactic description of a language (Sgall et al., 1986). The importance of a lexical module has been growing since the extensive application of the theoretical results on corpus data during the work on the Prague Dependency Treebank (Hajič et al., 2006). At present, there are several lexicons elaborated within the theoretical framework of FGD: PDT-VALLEX (Urešová, 2011), VALLEX (Lopatková et al., 2008), EngVALLEX (Cinková, 2006; Šindlerová and Bojar, 2009).

Recently, a special attention has been devoted to linguistic phenomena on the lexicon-grammar interface, requiring a close interplay between grammar and lexical modules: e.g., grammatical diatheses, reflexivity and reciprocity. They represent more or less productive syntactic operations that are regular enough to be described by formal syntactic rules. Although general semantic and syntactic observations can be usually made about these phenomena, their applicability is still lexically conditioned and as such has to be recorded in lexical entries of relevant verbs in a lexicon, see esp. (Kettnerová and Lopatková, 2009, 2011; Kettnerová et al., 2012a,b) and (Panevová and Ševčíková, 2013).

As a result, the valency characteristics of lexical units are partially stored in a valency lexicon, partially they are derived by grammatical rules (closely cooperating with the lexicon). Let us exemplify this cooperation on the example of the passive diathesis:

- (9) *Stát zvýhodní podnikatelské záměry v hospodářsky problémových oblastech vyššími podporami a speciálními programy.* (PDT, modified)  
En. The government makes business plans in business problem regions favorable by higher grants and special programs.
- (10) *Podnikatelské záměry v hospodářsky problémových oblastech jsou zvýhodněny vyššími podporami a speciálními programy.* (PDT)  
En. Business plans in business problem regions are made favorable by higher grants and special programs.
- (11) *zvýhodnit*<sub>1</sub> 'to make favorable' ... ACT<sub>1</sub> PAT<sub>4</sub> MEANS<sub>7</sub><sup>tyP</sup>  
-diat: pass, deagent, res-být, res-mít

First, the valency frame of the verb *zvýhodnit*<sub>1</sub> 'to make favorable' consists of two valency complementations, ACTor and PATient. The VALLEX lexicon contains information on possible morphemic forms of valency complementations for the active usage of the verb, as in (9) – namely ACTor in nominative and PATient in accusative,

see (11);<sup>5</sup> moreover, the lexicon entry should include the information that the lexical unit allows for passivization (attribute -diat, value pass).<sup>6</sup> Second, the grammatical rule (12) is formulated that makes it possible to derive the valency frame for passive usages of the verb, see (Kettnerová and Lopatková, 2009). On the basis of this rule, a derived valency frame for the verb *zvýhodnit*<sub>1</sub> ‘to give an advantage’ is generated<sup>7</sup> (see also Uřešová and Pajas, 2009; Uřešová, 2011):

$$(12) \quad \boxed{\text{ACT}_1 \text{ PAT}_4 \text{ MEANS}_7^{\text{typ}} \Rightarrow \text{ACT}_{7,\text{od}+2} \text{ PAT}_1 \text{ MEANS}_7^{\text{typ}}}$$

Let us focus on the examples introduced by Roland Wagner now. In general, the forms introduced by *jako* ‘as’ represent (as RW pointed) a tricky question in the description of the Czech language: *jako* – which can introduce both prepositionless nouns and prepositional noun groups (and clauses as well) – has an unclear morphological status and the case of the nominal varies depending on the syntactic context, as examples (6)–(8) demonstrate. The following example sheds more light on the problem of valency complementations that are introduced with the expression *jako* and the way it can be treated within the descriptive apparatus of FGD (and VALLEX in particular).

- (13) *Občanský princip lidských práv chápal jako její základní prvek/hodnotu, nikoli vyčerpávající cíl a smysl.* (PDT, the word *hodnotu* ‘value’ added due to the morphological ambiguity of *prvek* ‘component’)  
En. He viewed the civil principle of human rights as her substantial component/value, not as an overall aim and sense.
- (14) *Občanský princip lidských práv byl chápán jako její základní prvek/hodnota, nikoli vyčerpávající cíl a smysl.* (PDT, modified)  
En. The civil principle of human rights was viewed as its substantial component/value, not as an overall aim and sense.
- (15) *chápat*<sub>2</sub> ‘to interpret’ ... ACT<sub>1</sub> PAT<sub>4</sub> EFF<sub>jako+4</sub>  
-diat: pass, deagent, res-být

<sup>5</sup>The abbreviation ‘typ’ denotes so called ‘typical’ free modifications as they were introduced in VALLEX; they are typically related to some verbs (or even to whole classes of them) but they do not enter the core valency frame.

<sup>6</sup>Whereas the proposal of the structure of the VALLEX lexicon has been already published and discussed in the linguistic forum, an on-line version of the lexicon with explicit information on possible diatheses (and lexicalized alternations) is under development (a new lexicon release is planned at the end of 2015).

<sup>7</sup>Note that the instrumental form of the ACTor in a passive sentence is possible but it cannot be combined with an instrumental MEANS.

Further, the prepositional group *od*+Gen of ACT is rare in the corpus data but it is not excluded as the following example illustrates: *Obce, ve kterých se bude důsledně třídit sklo, jsou zvýhodněny při platbě odměn od společnosti EKO-KOM.* (from the Czech National Corpus (CNC), SYN series, <https://kontext.korpus.cz/>).

The verb *chápat*<sub>2</sub> ‘to interpret’ is characterized by the valency frame given in (15) for an unmarked active usage (as in (13)). The verb can be definitely used also in a passive construction, see (14). Then the passivization affects not only the form of the ACTor and PATient complementations, but also the form of the EFFect complementation (*jako*+Acc → *jako*+Nom) – all these changes are treated by the respective grammatical rule (16), which derives the valency frame for marked passive usages from the frame corresponding to the unmarked active ones provided in (15), see (Kettnerová and Lopatková, 2009):

$$(16) \quad \boxed{\text{ACT}_1 \text{ PAT}_4 \text{ EFF}_{\text{jako}+4} \Rightarrow \text{ACT}_{7,\text{od}+2} \text{ PAT}_1 \text{ EFF}_{\text{jako}+1}}$$

### 3. FGD solution of the seeming collision

RW’s examples represent a prototypical case of such syntactic operation as mentioned above. Let us illustrate the proposed cooperation of the grammar and lexical components of FGD in the description of this phenomenon.

In the VALLEX lexicon, possible reflexivization of the verbal participant coreferential with the subject is indicated by the presence of the value  $\text{cor}_k$  in the attribute reflexivity (-rfl; the index  $k$  encodes the morphemic case, i.e., 4 for accusative and 3 for dative). This value – identifying unambiguously the complementation that can be reflexivized<sup>8</sup> – is introduced for each lexical unit of a verb allowing for reflexivization of a particular member of a core valency frame (i.e., inner participants either obligatory or optional, and obligatory free modifications). For instance, in the lexical entry of the verb *obdivovat*<sub>1</sub> ‘to admire’, the attribute reflexivity records the information on the possibility of the accusative PATient to be reflexivized, see (17), and the verb usages in examples (18)–(19); whereas in (18) the slot for PATient is filled by *žáci* ‘pupils’, in (19) the reflexive *se* fills this slot (the coreferential items are marked by the index  $i$  in the examples).

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<sup>8</sup>From the theoretical point of view, it would be more appropriate to specify reflexivity in terms of functors of valency complementations (not in terms of morphemic forms). However, the information on reflexivity is not complete in the VALLEX lexicon at present, see below. Thus we prefer to use special values ( $\text{cor}_3$ ,  $\text{cor}_4$ ) not to make an impression that all instances of possible reflexivization of individual valency members are recorded.

In the current version, reflexivity is captured only in such cases when a participant can be lexically expressed by the clitic forms of the reflexive pronoun *se/si* (certainly, also the non-clitic forms *sebe/sobě* may be used here due to the substitutability criterion (according to which the clitic forms can be substitute by the non-clitic forms if the occurrence of the reflexive stands for the pronoun)). However, VALLEX does not encode cases where the non-clitic variant of the reflexive pronoun is grammaticalized (i.e., prepositional groups, the instrumental and genitive case). The clitic variant has been given preference in the description of reflexivity due to the ambiguity of the clitic reflexives *se/si*, which produces severe problems for both human users and NLP tools.

- (17) *obdivovat*<sub>1</sub> 'to admire' ... ACT<sub>1</sub> PAT<sub>4,že,cont</sub>  
-rfl: cor<sub>4</sub>
- (18) *Učitel obdivoval žáky, jak dobře zvládli výuku.* (= *žáci zvládli*)  
En. The teacher admired pupils how well they managed the lessons.
- (19) *Učitel se obdivoval, jak dobře zvládl neposlušné děti.* (= *sám sebe*)  
the teacher<sub>i</sub> refl<sub>i</sub><sup>clitic</sup> admired how well (he<sub>i</sub>) managed disobedient children  
En. The teacher admired himself how well he managed disobedient children.

Let us return to RW's example of the verb *vnímat*<sub>3</sub> 'to see, to perceive'. Its valency frame in the meaning discussed here should have the following form in VALLEX:

- (20) *vnímat*<sub>3</sub> 'to see, to perceive' ... ACT<sub>1</sub> PAT<sub>4,že</sub> EFF<sub>jako+4</sub>  
-rfl: cor<sub>4</sub>

As the verb definitely allows for reflexivization of PATient, the attribute -rfl should provide the value cor<sub>4</sub>, see (20). As the morphemic form of EFFECT is sensitive to syntactic context in which it is used – namely its form changes from *jako+Acc* into *jako+Nom* when the lexical unit is used in a reflexive construction with PATient lexically realized by the clitic form of the reflexive pronoun *se*, see (21) (RW correctly pointed out that the non-clitic long form of the reflexive pronoun *sebe* does not bring about such change, see (22)). The grammar component of FGD provides a formal syntactic rule capturing this change. This rule (as other rules describing changes in valency structure of verbs) allows for the derivation of the valency frame of the marked reflexive usage of the verb *vnímat*<sub>3</sub> 'to see, to perceive' (23) from the valency frame corresponding to an unmarked usage given in (20):

- (21) *Otec se vnímá jako sok/jako génius.*  
father<sub>i</sub> refl<sub>i</sub><sup>clitic</sup> sees as a rival/as a genius<sub>i,Nom</sub>  
(= *otec se cítí někomu sokem/otec se pokládá za génia*)  
En. The father sees himself as a rival/as a genius.
- (22) *Otec sebe (na rozdíl od matky) vnímá jako soka / \* jako sok*  
father<sub>i</sub> refl<sub>i</sub><sup>non-clitic</sup> (in contrast to the mother) sees as a rival<sub>i,Acc</sub> \* as a rival<sub>i,Nom</sub>  
(*svého syna*).  
(of his son)  
En. (Contrary to the mother), the father sees himself as a rival (of his son).

- (23) 

ACT <sub>1</sub> PAT <sub>4,že</sub> EFF <sub>jako+4</sub> ⇒ ACT <sub>1</sub> PAT <sub>4,že</sub> EFF <sub>jako+1</sub>
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The rule allowing for the generating the valency frame underlying the usage of a verb in reflexive constructions consists of a single change in the morphemic form of the EFFECT complementation and its application is conditioned by the choice of the

*clitic reflexive pronoun*. The grammar module of FGD cooperates with the data stored in the lexical module where the possibility of the verb *vnímat*<sub>3</sub> ‘to see, to perceive’ to occur in reflexive constructions is specified in its lexical entry. On the same basis, the other verbs with EFFECT changing its morphemic expression depending on the reflexive context (e.g., *deklarovat*<sub>2</sub> ‘to declare’, *hodnotit*<sub>1</sub> ‘to evaluate’, *chápat*<sub>2</sub> ‘to perceive, to take as’, *interpretovat*<sub>1</sub> ‘to interpret’, *nazývat/nazvat*<sub>1</sub> ‘to call’, *ohodnocovat/ohodnotit*<sub>1</sub> ‘to rate’, *označovat/označit*<sub>2</sub> ‘to declare, to call’, *pojímat/pojmout*<sub>3</sub> ‘to comprehend, to conceive’, *prezentovat*<sub>2</sub> ‘to present’, *přijímat/přijmout*<sub>5,9</sub> ‘to accept’, *stanovit*<sub>2</sub> ‘to appoint’, *určovat/určit*<sub>3</sub> ‘to appoint, to designate’, *ustavovat/ustavit*<sub>2</sub> ‘to establish’, *usvědčovat/usvědčit*<sub>2</sub> ‘to convict’, *uznávat/uznat*<sub>2</sub> ‘to recognize’, *vidat/vidět*<sub>5</sub> ‘to see’, *vnímat*<sub>3</sub> ‘to see, to perceive’, *vyhlašovat/vyhlásit*<sub>2</sub> ‘to proclaim’, *znát*<sub>1</sub> ‘to know’) indicated by RW as the source of “collision between two descriptive Principles of FGD” can be analyzed.<sup>9</sup>

#### 4. Further grammatical aspects of the issue

We accept two issues from RW’s study as most urgent for a further analysis: (i) The integration of the morphosyntactic change from *jako*+Acc into *jako*+Nom associated with the EFFECT complementation into the descriptive apparatus of FGD (which we have addressed in Sections 2 and 3) and (ii) the explanation of the congruence: possible alternative *jako*+Nom within the verbal reflexivity with the form *jako*+Acc for the EFFECT complementation (as an obligatory or optional valency member) is discussed in this Section.

##### 4.1. EFFECT and COMPLEMENT verbal complementations

In addition to the valency complementation EFFECT, the forms introduced by *jako* ‘as’ (either with the accusative case or with the nominative case) can function also as a free modification COMPLEMENT. We can notice that the change of the morphemic expression from *jako*+Acc into *jako*+Nom may in fact reflect a change in the dependency structure (namely the type of the complementation and the target of a coreferential link) of the sentence, which brings about a semantic shift, see examples (24)–(26) and their dependency trees in Figures 1–4 (in the examples, subscripts display coreferences captured by arrows in the trees).

(24) Klaus      *vnímá své soky*      *jako hráč*. (RW 25a)

Klaus<sub>*i,Nom*</sub> takes his<sub>*i*</sub> rivals<sub>*j,Acc*</sub> as a sportsman<sub>*i,Nom*</sub>

En. Klaus takes his rivals as a sportsman. (= Klaus is a sportsman)

<sup>9</sup>Note that this type of constructions concerns not only the above mentioned verbs with the EFFECT but we can observe the same change in the morphemic form of the optional COMPLEMENT free modification with, e.g., the verbs *definovat* ‘to define’, *charakterizovat* ‘to characterize’, *identifikovat* ‘to identify’, *kvalifikovat* ‘to qualify’, *poznávat/poznat* ‘to get to know’, *předkládat/předložit* ‘to introduce, to propose’, *představovat/představit* ‘to introduce’, *vyfotografovat* ‘to take a photo’, *zachovávat/zachovat* ‘to keep’, *zapisovat/zapsat* ‘to record, to register’.

- (25) *Jak vnímáte Prahu jako architekt?* (RW 25b)  
 how (you<sub>i,Nom</sub>) take Prague<sub>j,Acc</sub> as an architect<sub>i,Nom</sub>  
 En. What do you as an architect think of Prague? (= you are an architect)
- (26) *Klaus vnímá své soky jako hráče.*  
 Klaus<sub>i,Nom</sub> takes his<sub>i</sub> rivals<sub>j,Acc</sub> as sportsmen<sub>j,Acc</sub>  
 En. Klaus takes his rivals as sportsmen. (= Klaus's rivals are sportsmen)
- (27) *Jako křesťan vnímám lidský život jako dar Boží,*  
 (I<sub>i,Nom</sub>) as a Christian<sub>i,Nom</sub> take a human life<sub>j,Acc</sub> as God's gift<sub>j,Acc</sub>  
*s nímž nemám právo nakládat.*  
 which I have no right to treat  
 En. I as a Christian see a human life as a God's gift which I have no right to treat.
- (28) *R. Steiner se jako tvůrce teosofie vždy chápal*  
 R. Steiner<sub>i,Nom</sub> refl<sub>i,Acc</sub><sup>clitic</sup> as an author<sub>i,Nom</sub> of theosophy always perceived  
*především jako okultista.*  
 primarily as an occultist<sub>i,Nom</sub>  
 En. R. Steiner, as an author of the theosophy, always perceived himself primarily as an occultist. (CNC, modified (*jako tvůrce teosofie* 'as an author of theosophy' added))
- (29) *vnímat*<sub>4</sub> 'to see, to perceive' ... ACT<sub>1</sub> PAT<sub>4,že</sub> MANN  
 -rfi: cor<sub>4</sub>

The verb *vnímat* 'to see, to perceive' in (24) is described as the lexical unit *vnímat*<sub>4</sub> in VALLEX with obligatory MANNer, see (29) (as RW also suggests). Then the complementation expressed as *jako*+Nom has the function of an optional COMPLEMENT (*Klaus, jsa hráč(em)* 'Klaus being a sportsman'), see Figure 1; the obligatory MANN is not present in the surface structure (it can be understood as *Klaus vnímá své soky způsobem, jak to dělají hráči* 'Klaus takes his rivals in the same manner as sportsmen do'). In sentence (25), the form *jako*+Nom clearly documents the function of COMPLEMENT (*jakožto architekt* 'as being an architect'), with the pronominal adverb *jak* 'how' filling the MANNer valency position of *vnímat*<sub>4</sub>, see Figure 2.

On the other hand, in example (26), *vnímat*<sub>3</sub> is used and the regular form for EFFECT (*jako*+Acc) is used, see its valency frame (20); Figure 3 displays the dependency structure of the sentence.

An interesting example (27) with the verb *vnímat*<sub>3</sub> illustrates that the forms with *jako* 'as' can be used in both meanings in a single sentence: *jako*+Nom in *jako křesťan* 'as a Christian' has a function of COMPLEMENT, whereas *jako*+Acc in *jako dar Boží* 'as God's gift' is EFFECT (the substitution *jako nadílku Boží* 'as God's gift' – documenting the case form more transparently – may be used here), see Figure 4.

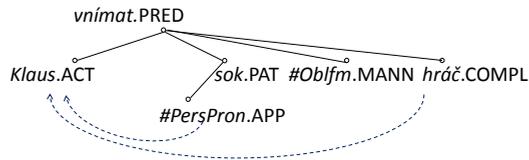


Figure 1. Dependency structure of sentence (24) *Klaus vnímá své soky jako hráč.*

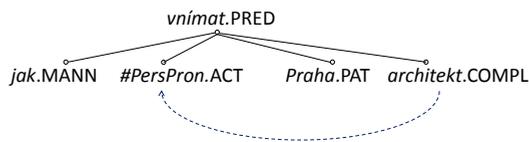


Figure 2. Dependency structure of sentence (25) *Jak vnímáte Prahu jako architekt?*

Moreover, example (28) (though rare in the corpus data) demonstrates that in case of the reflexive construction with the clitic variant of the reflexive pronoun both COMPLEMENT and EFFECT (if they are present) are expressed in nominative.

#### 4.2. Agreement for EFFECT and COMPLEMENT complementations

Let us return to the issue of agreement for EFFECT and COMPLEMENT complementations in general. Based on the discussion presented below, we would like to clarify an appropriateness of different cases agreement in sentences (30)–(34).

- (30) *Otec vnímá (svěho) syna jako soka.*  
 the father<sub>j</sub> perceives (his<sub>j</sub>) son<sub>i,Acc</sub> as a rival<sub>i,Acc</sub>  
 En. The father perceives his son as a rival. (= son is a rival)

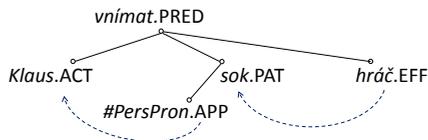


Figure 3. Dependency structure of sentence (26) *Klaus vnímá své soky jako hráče.*

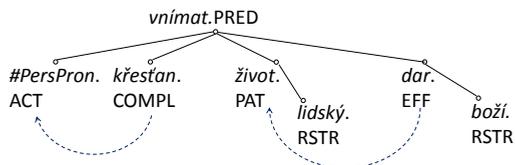


Figure 4. Dependency structure of sentence (27) *Jako křesťan vnímám lidský život jako dar Boží, ...*

- (31) *Otec se vnímá jako sok / jako génius.*  
 the father<sub>*i,Nom*</sub> reflclitic perceives as a rival<sub>*i,Nom*</sub> / as a genius<sub>*i,Nom*</sub>  
 (= *otec se cítí někomu sokem/otec se pokládá za génia*)  
 En. The father perceives himself as a rival / as a genius.  
 (= father is a rival/genius)
- (32) \* *Otec se vnímá jako soka (svého syna).*  
 the father<sub>*i,Nom*</sub> refl<sub>*i*</sub><sup>clitic</sup> perceives \* as a rival<sub>*i,Acc*</sub> (of his<sub>*i*</sub> son)
- (33) *Otec sebe (na rozdíl od matky) vnímá jako soka (svého syna).*  
 the father<sub>*i,Nom*</sub> refl<sub>*i*</sub><sup>non-clitic</sup> (unlike the mother) perceives  
 as a rival<sub>*i,Acc*</sub> (of his<sub>*i*</sub> son)  
 En. (Unlike the mother,) the father perceives himself as a rival (of his son).
- (34) \* *Otec sebe (na rozdíl od potomků) vnímá jako génius.*  
 the father<sub>*i,Nom*</sub> refl<sub>*i*</sub><sup>non-clitic</sup> (unlike children) perceives \* as a genius<sub>*i,Nom*</sub>

Both RW as well as the authors of this response do not accept the proposal given by Oliva (2000, 2001) according to which the form *se* plays the role of particle without its sentence function in all occurrences.<sup>10</sup> Then other arguments for the distinction between the pairs of examples (31)–(32) and (33)–(34) have to be found. Looking for such arguments, it turns up to be an analogy of the “mysterious” complement agree-

<sup>10</sup>According to Oliva’s proposal, the following sentences (a)–(c) have (i) different lemmas (*vidět* for (a), (c) and *vidět se* for (b)) and (ii) different syntactic structures (transitive verb in (a), (c) and intransitive verb in (b)).

(a) *Vidím tě.* vs. (b) *Vidím se.* vs. (c) *Vidím sebe.*

Such analysis neglects parallelism in morphological paradigms of the non-reflexive and reflexive pronouns (as pointed out by Wagner, 2014) and suppresses syntactic parallelism of the structures with (almost) identical meaning structure. Moreover, Oliva’s interpretation of all clitic reflexives as particles impedes the explanation of reciprocity. See esp. (Panevová, 2001; Komárek, 2001; Wagner, 2014).

As a result, the treatment of the reflexives proposed by Oliva would lead to large (and theoretically inadequate) expansion of the lexical data.

ment pointed out in the arguments of Oliva (2000) in favor of his proposal. The same arguments appeared also in the old observation made by Havránek (1928), see below.

The alternative description given by Panevová (2001, 2008) is based on the difference between possible antecedents (sources) for agreement in the case and number of an analyzed complementation. Her analysis can be exemplified on examples (35)–(38): In (37) and (38) there is only one source<sup>11</sup> of agreement, i.e. *chlapec* ‘boy’, while in (35) and (36) two possible sources of agreement (*matka* ‘mother’ and *chlapec* ‘boy’) are present. The choice of the source of agreement is semantically motivated: whereas in (35), it is *chlapec, který je umyt celý* ‘the boy who is entire washed’, and thus, it is *chlapece* ‘boy<sub>Acc</sub>’ that is chosen as the source of agreement; in (36), it is *matka, která je celá uplakaná* ‘mother who is entirely tearful’ that represents this source. To summarize, examples (35) and (36) differ with respect to the sources for agreement and this difference is reflected in the change of the form of the target of agreement (Acc in (35), Nom in (36)).

The structure of sentence (37) is parallel to (35), the source of agreement remains the same, i.e., the reflexive pronominal complementation in accusative. The only change consists in the additional coreferential link between the reflexive pronoun *sebe* and the ACTor *chlapec* ‘boy’. Although in example (38), the structure analogical to examples (35) and (37) is theoretically expected, the source of agreement differs – here it is not the complementation in the accusative case, but the nominative complementation.

- (35) *Matka umyla chlapce celého.*  
 mother washed the boy<sub>i,Acc</sub> whole<sub>i,Acc</sub>  
 En. The mother washed the entire boy. (= the boy was entirely washed)
- (36) *Matka umyla chlapce celá uplakaná.*  
 mother<sub>i,Nom</sub> washed the boy whole<sub>i,Nom</sub> tearful<sub>i,Nom</sub>  
 En. Being entirely tearful, the mother washed the boy. (= the mother was tearful)
- (37) *Sebe chlapec umyl celého (ale sestru ne).*  
 refl<sub>i,Acc</sub><sup>non-clitic</sup> the boy<sub>i,Nom</sub> washed whole<sub>i,Acc</sub> (but not his<sub>i</sub> sister)  
 En. The boy washed himself entirely (but not his sister).
- (38) *Chlapec se umyl celý.*  
 the boy<sub>i,Nom</sub> refl<sub>i,Acc</sub><sup>clitic</sup> washed whole<sub>i,Nom</sub>  
 En. The boy washed himself entirely.

The tendency of the complement to agree as to the congruence with the subject in nominative when the clitic variant of the reflexive pronoun is present has been

<sup>11</sup>The terminology controller and target in the domain of congruence is used by Corbett (2006); he admits also the terms source or trigger (see Corbett, 2000, 2006). We prefer the term source here instead of the term controller (used within FGD for coreferential relations).

already reflected by Havránek (1928), see (39). According to the author, the accusative congruence – being rare already in the Old Czech – is limited to cases when the clitic reflexive pronoun does not in fact refer to the ACT or himself but to his (future or past) vision (thus a speaker sees himself as someone else). See Havránek’s examples (40) and (41) interpreted by the author as acceptable in the context of memories (40) or in the situation when a speaker was making a double of himself (41).

- (39) *cítí se zdráv* (Havránek)  
 (he<sub>i,Nom</sub>) feels refl<sub>i,Acc</sub><sup>clitic</sup> fit<sub>i,Nom</sub>  
 En. he feels fit
- (40) *viděl se ležícího u řeky* (Havránek)  
 (he<sub>i,Nom</sub>) saw refl<sub>i,Acc</sub><sup>clitic</sup> lying<sub>i,Acc</sub> by the river  
 En. he saw himself lying by the river
- (41) *udělal se tlustýho* (Havránek)  
 (he<sub>i,Nom</sub>) made refl<sub>i,Acc</sub><sup>clitic</sup> fat<sub>i,Acc</sub>  
 En. he made himself fat

The corpus data support Havránek’s interpretation also in the contemporary Czech, see examples (42) and (45) and their paraphrases (43) and (46), respectively, substantiating the semantic shift brought about by the accusative and nominative congruence. In (42) the speaker describes himself in the future: the speaker is not actually the man who has a house, a family and children at present but it is his future vision of himself. The paraphrase with the nominative congruence is much more suitable in the present context: in the situation when the speaker actually has a house, a family and children, see (43). In (45), the speaker disapprovingly characterizes the president of the Czech Republic Miloš Zeman; the accusative congruence emphasizes the speaker’s disapproval: the president sees himself as a wise man but he is not actually wise.

According to our introspective, although the nominative congruence for expressing the same meanings as in (42) and (45), respectively, is not entirely excluded, the accusative agreement sounds more suitable for expressing that the PATient – despite being lexically realized by the reflexive pronoun – is not in fact referentially identical with the ACTor but it is rather a vision of himself, see (44) and (46). However, sparse corpus data do not allow us to make any definitive conclusions about the semantic shift between accusative and nominative congruence.

- (42) „Kdybych si měl představit sám sebe za deset let, *vidím se jako člověka,*  
 “if I should imagine myself in ten years, (I<sub>i</sub>) see refl<sub>i,Acc</sub><sup>clitic</sup> as a man<sub>i,Acc</sub> ,  
*který má dům, rodinu a děti,*“ *dodává.* (CNC)  
 who has a house, a family and children,” he is adding  
 En. “If I should imagine myself in ten years, **I will see myself as a man** who  
 has a house, a family and children,” he is adding.

- (43) *Vidím se jako člověk, který má dům, rodinu a děti,*  
 (I<sub>i</sub>) see refl<sup>clitic</sup><sub>i,Acc</sub> as a man<sub>i,Nom</sub> 'who has a house, a family and children,'  
*dodává. (CNC, modified)*  
 he is adding.  
 En. "I see myself as a man who has a house, a family and children," he is adding.
- (44) ? „Kdybych si měl představit sám sebe za deset let, *vidím se jako člověk,*  
 "if I should imagine myself in ten years, (I<sub>i</sub>) see refl<sup>clitic</sup><sub>i,Acc</sub> as a man<sub>i,Nom</sub> '  
*který má dům, rodinu a děti,*" *dodává. (CNC, modified)*  
 who has a house, a family and children," he is adding.  
 En. "If I should imagine myself in ten years, I will see myself as a man who has a house, a family and children," he is adding.
- (45) *Ale zároveň je miluje, protože zvětšují jeho důležitost,*  
 However, he<sub>i</sub> loves them magnifying his importance,  
*dávají mu gloriolu významné osobnosti, poskytují mu možnost v narcistním opojení*  
 giving him VIP's glory, giving him the opportunity in a narcissistic intoxication  
*slyšet sama sebe, vidět se jako moudrého člověka,*  
 to hear himself, to see refl<sup>clitic</sup><sub>i,Acc</sub> as a wise man<sub>i,Acc</sub> '  
*který nemá na politické scéně, ne-li mnohem dál,*  
 who has not a rival on the political scene, if not even much further,  
*ani po tolika letech valnou konkurenci. (CNC)*  
 after so many years  
 En. However, he loves them magnifying his importance, giving him VIP's glory and opportunity, in a narcissistic intoxication, to hear and see himself as a wise man who has not a rival on the political scene, if not even much further, after so many years.
- (46) *Ale zároveň je miluje, protože zvětšují jeho důležitost,*  
 However, he<sub>i</sub> loves them magnifying his importance,  
*dávají mu gloriolu významné osobnosti, poskytují mu možnost v narcistním opojení*  
 giving him VIP's glory, giving him the opportunity in a narcissistic intoxication  
*slyšet sama sebe, vidět se jako moudrý člověk, [...]*  
 to hear himself, to see refl<sup>clitic</sup><sub>i,Acc</sub> as a wise man<sub>i,Nom</sub> ' [...]  
 En. However, he loves them magnifying his importance, giving him VIP's glory and opportunity, in a narcissistic intoxication, to hear and see himself as a wise man [...].

The nominative congruence – which is predominant in the reflexive constructions with the clitic form of the reflexive pronoun – has not yet been satisfactorily accounted for in the Czech linguistics. Karlík (1999) pointed out that the clitic variants of the

Czech personal pronouns generally exhibit morphosyntactic properties similar to affixes to a greater (the reflexive pronoun) or lesser (the non-reflexive pronoun) extent, see examples given by Karlík (2000). On the other hand, he avoids Oliva's extreme viewpoint of all clitic reflexives as particles stressing that the non-clitic and clitic forms of the reflexives should be interpreted not dichotomously (i.e., either as pronouns, or as particles), but gradually. Among other morphosyntactic properties attesting that the clitic variants of the reflexive pronoun behave similarly to affixes, see the coordination test (47)–(48) and impossibility of separate usages in (49); Karlík introduces the nominative congruence addressed in this paper as well, see (50)–(51).

- (47) \* *Holí se a Pavla.* (Karlík)  
 (he<sub>i</sub>) shaves \* refl<sup>clitic</sup><sub>i,Acc</sub> and Paul
- (48) *Holí sebe a Pavla.* (Karlík)  
 (he<sub>i</sub>) shaves refl<sup>non-clitic</sup><sub>i,Acc</sub> and Paul  
 En. He shaves himself as well as Paul.
- (49) *Kohos holil? \* Se. / Sebe.* (Karlík)  
 who<sub>Acc</sub> (you) shaved \* refl<sup>clitic</sup><sub>i,Acc</sub> refl<sup>non-clitic</sup><sub>i,Acc</sub>  
 En. Who did you shave? Myself.
- (50) *Petr se umyl celý.* (Karlík)  
 Peter<sub>i</sub> refl<sup>clitic</sup><sub>i,Acc</sub> washed whole<sub>i,Nom</sub>  
 En. Peter washed himself entirely.
- (51) *Petr umyl sebe celého.* (Karlík)  
 Peter<sub>i</sub> washed refl<sup>non-clitic</sup><sub>i,Acc</sub> whole<sub>i,Acc</sub>  
 En. Peter washed himself entirely.

We propose a hypothesis that the changes in the case forms of EFFECT introduced by *jako 'as'* – combined (i) either with the accusative case in constructions with PATIENT lexically expressed by the non-clitic, see (33), or (ii) with the nominative case with the clitic variant of the reflexive pronoun, see (31) – may have the same basis as the changes in the complement congruence lying in specific morphosyntactic properties of the clitic forms of the reflexive pronoun, as illustrated by Havránek's and Karlík's examples. However, we leave this question open as confirming this hypothesis represents a tricky task as the available corpus data<sup>12</sup> are too sparse to study the distribution of *se* vs. *sebe* in the nominative and accusative form with the funcEFF or COMPL functions. The ideas proposed by RW about the role of these forms in the functional sentence perspective and the contrasts among the sentence members are promising for the future research.

<sup>12</sup>Syntactically annotated PDT is too small for such phenomena. Morphologically annotated CNC is large enough; however, it is not easy to formulate corpus queries identifying relevant concordances necessary for our research.

In conclusion, let us remark that in addition to the “mysterious” agreement of the complement expressing the EFFECT/COMPLEMENT members in constructions with the reflexive pronoun *se/sebe* in accusative, similar changes in the source of agreement appear in constructions with the dative case of the reflexive pronouns *si/sobě*. As it goes beyond the scope of this paper, we only note that studying the congruence changes in constructions with the dative reflexive pronoun *si/sobě* would be fruitful too.

- (52) *Jan sobě jako vítězi koupil nové kolo.*  
 John<sub>i</sub> refl<sub>i,Dat</sub><sup>non-clitic</sup> as a winner<sub>i,Dat</sub> bought a new bike  
 En. John bought a new bike to himself as to the winner.
- (53) *Sobě Jan jako vítěz koupil nové kolo.*  
 (to) refl<sub>i,Dat</sub><sup>non-clitic</sup> John<sub>i</sub> as a winner<sub>i,Nom</sub> bought a new bike  
 En. John as a winner bought a new bike to himself.
- (54) *Jan si jako vítěz koupil nové kolo.*  
 John<sub>i</sub> (to) refl<sub>i,Dat</sub><sup>clitic</sup> as a winner<sub>i,Nom</sub> bought a new bike  
 En. John as a winner bought a new bike to himself.
- (55) \* *Jan si jako vítězi koupil nové kolo.*  
 John<sub>i</sub> \* (to) refl<sub>i,Dat</sub><sup>clitic</sup> as a winner<sub>i,Dat</sub> bought a new bike

## 5. Conclusion

Ronald Wagner’s critical remarks stimulated our deeper analysis of the marginal (see the Appendix) but theoretically important aspects of the operation of reflexivization and its requirements on modification of verbal valency frames undergoing this syntactic operation.

We have clarified here the criterion for delimitation of different lexical units within FGD (Principle 1) – when using the test of differences in valency frames, we restrict ourselves only to those changes that appear in active, nonreflexive, nonreciprocal constructions.

We have focused especially on the apparatus proposed in FGD (and the valency lexicons PDT-VALLEX and VALLEX elaborated within this theoretical framework) that allows for the effective description of paradigmatic changes in valency frames of Czech verbs related not only to grammatical diatheses but also to reciprocity; we have shown that it can be easily adopted for the description of reflexivity (as addressed by Ronald Wagner) as well.

Further, we propose a preliminary hypothesis on the alternation between *jako*+Acc and *jako*+Nom: some of them are semantically conditioned (EFFECT vs. COMPLEMENT), the other reflect the grammatical requirements (reflexivity). Since this analysis could not be based on extensive corpus data (due to the low frequency of the studied constructions in corpora, see also the Appendix), our conclusion is only preliminary and requires further research.

We have demonstrated that there can be observed a strong parallelism between accusative and nominative congruence of complements and the constructions with the reflexive pronoun, which indicates that the focused changes in congruence in reflexive constructions might have the same basis given by specific morphosyntactic status of the clitic forms of the reflexive pronoun. We have pointed out that it would be beneficial to extend the analysis to the dative reflexive pronoun *si* vs. *sobě*, which has not been focused in the syntactic description so far.

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## Appendix

The following Table 1 summarizes rough estimations of the frequency of the studied phenomenon in CNC – the entire SYN (Synchronic written corpora) series was used.

**Comment.** The columns in Table 1 store the following information:

**lemma** ...verb lemma (the slash mark separates imperfective and perfective lemmas (if applicable))

**SYN** ...number of occurrences of the specified verb in the entire SYN series

(i) sample query ... [lemma="vnímat"]

**no VS** ...number of occurrences of the specified verb excluding the past participle/passive forms

(ii) sample query ... [lemma="vnímat" & tag="V[<sup>^</sup>s].\*"]

**jako+Acc** ...number of occurrences of the specified verb excluding the past participle/passive forms that co-occur with the word *jako* immediately followed by a wordform in accusative

(iii) positive filter on the results of query (ii):

– interval [–5;5] including KWIC

– positive filter [word="jako"] [tag="...4.\*"]

**jako+Nom** ...number of occurrences of the specified verb excluding the past participle/passive forms that co-occur with the word *jako* immediately followed by a wordform in nominative

(iv) positive filter on the results of query (ii):

– interval [–5;5] including KWIC

– positive filter [word="jako"] [tag="...1.\*"]

**jako+Nom with se** ...number of occurrences of the specified verb excluding the past participle/passive forms that co-occur with the word *jako* immediately followed by a wordform in nominative and combined with the word *se*

(v) positive filter on the results of query (iv):

– interval [–5;5] including KWIC

– positive filter [word="se"]

**ratio (%)** ...ratio of the result from (v) (i.e., occurrences of the specified verb excluding the past participle/passive forms that co-occur with the word *jako* immediately followed by a wordform in nominative and combined with the word *se*) related to the number of occurrences of the specified verb in the entire SYN series (column SYN)

lemma	SYN	no Vs	jako+Acc	jako+Nom <sup>1</sup>	jako+Nom with se <sup>1</sup>	ratio (%)
<i>deklarovat</i>	16 763	15 192	360	547	307	<b>1,83</b>
<i>hodnotit</i>	199 363	180 225	9 587	4 523	596	0,30
<i>chápat</i>	194 218	184 175	23 792	4 100	985	0,51
<i>interpretovat</i>	16 409	13 604	1 528	822	195	<b>1,19</b>
<i>nazývat / / nazvat</i>	66 095 63 299	56 572 58 744	214 347	328 496	110 146	0,17 0,23
<i>ohodnocovat / / ohodnotit</i>	461 17 445	389 12 764	2 774	2 364	0 20	0,00 0,11
<i>označovat / / označit</i>	88 882 218 550	68 399 186 784	3 263 7 050	3 872 3 159	2 171 606	<b>2,45</b> 0,28
<i>pojímat / / pojmout</i>	4 802 39 781	3 780 35 577	1 074 4 946	477 1 647	67 116	<b>1,39</b> 0,29
<i>prezentovat</i>	105 628	92 518	3 169	4 755	3 405	<b>3,22</b>
<i>přijímat / / přijmout</i>	111 143 351 964	101 152 298 849	1 542 4 684	962 2 668	130 182	0,12 0,05
<i>stanovovat / / stanovit</i>	21 323 184 129	20 840 118 425	160 2 342	139 853	47 182	0,22 0,10
<i>určovat / / určit</i>	55 632 272 499	53 135 112 202	216 2 536	332 429	44 57	0,08 0,02
<i>ustavovat / / ustavit</i>	685 14 868	643 8 647	21 90	7 168	1 100	0,15 0,67
<i>usvědčovat / / usvědčit</i>	3 799 14 064	3 697 10 564	18 54	12 33	2 3	0,05 0,02
<i>uznávat / / uznat</i>	48 989 123 000	45 816 108 597	1 512 1 904	891 1 099	132 70	0,27 0,06
<i>vidat / / vidět</i>	17 304 1 249 642	16 624 1 240 557	146 19 058	130 10 349	38 1 054	0,22 0,08
<i>vnímat</i>	148 961	131 121	26 378	8 932	982	0,66
<i>vyhlašovat / / vyhlásit</i>	31 042 213 251	29 224 137 996	115 756	162 597	42 43	0,14 0,02
<i>znát</i>	606 505	606 505	9 026	5 074	528	0,09

<sup>1</sup>Including occurrences with errors in disambiguation, complements, deagentive constructions etc.

Table 1. Rough estimations of the frequency of the studied phenomenon in CNC

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