

- a) postup prací při řešení grantového projektu/ rozbor řešení grantového projektu na pracovišti řešitele a spoluřešitelů včetně zdůvodnění případného odklonu řešení projektu proti schválenému návrhu projektu, dosažené dílčí výsledky v daném kalendářním roce (u mezinárodních projektů včetně mezinárodní spolupráce):

In the second year of the project, our research focused on all areas identified in the proposal. The results of this research were reported in several proceedings [1], [2], [3], [9], and [10] (the numbers refer to the table with project outputs) and were presented at thematically related conferences and workshops (Depling 2013; Slovko 2013; seminar in Petrozavodsk 2013). Moreover, our achievements were described in two journal articles [4], [8]. Our research served also as a basis for the book chapter [6]. A book manuscript focusing on one of the central topics of the grant project, lexicalized alternations in Czech, was submitted for publication [7]. Three papers were submitted to thematically related international conferences [11], [12], and [13].

The research teams of the two collaborating institutions (the Institute of Formal and Applied Linguistics (MFF UK) and the Slavonic Institute (SI AV ČR)) closely collaborate: two internal seminars were organized (April and October) attended by all team members as well as by other researchers; further, research plans, partial results as well as open problems and possible solutions are intensively discussed via e-mail.

1 Lexicographic representation of various changes in valency structure of verbs

1.1 Theoretical research; design of a formal model of lexicographic description.

MFF UK: In accordance with the proposed plan for the second year of the project, the lexicographic representation of changes in valency structure of verbs was further discussed esp. with respect to (i) lexicalized types of changes: either conversive, or non-conversive, see 1.3 and 1.4, and (ii) light verb constructions (usually referred to as analytical predicates in the Czech linguistics), see [1], [2], [4] and [6].

Further, reflexivity and its adequate lexicographic description were studied. As different language phenomena expressed by the reflexives 'se' and 'si' are accompanied by specific valency changes, the reflexives require different representation in a valency lexicon, see [12].

SI AV ČR: The formal model of a trilingual valency lexicon was further discussed and refined. Main problems were defined and their solutions were proposed in [9]:

A) Russian and Polish counterparts of Czech verbs: A pilot study has revealed that it is sometimes complicated to determine the most relevant counterpart(s) as the meaning may be structured in different ways in VALLEX and in the Polish and Russian dictionaries, respectively; all relevant counterparts are described.

B) Aspect of Russian and Polish verbs: Using similar prefixes in a different way, Czech, Russian and Polish verbs have in some cases different aspectual counterparts and they must be described in different lexemes (thus the number of covered lexemes grows).

The relevant system of Polish reflexive constructions was elaborated (with significant differences to Czech language).

1.2 Grammatical and syntactic diatheses: theoretical and practical aspects.

MFF UK: In the first half of the second year of the project, we advanced esp. to practical aspects of grammatical diatheses. The work on the adaptation of syntactic rules has started at the beginning of this year. The main goal of this task is to enrich the grammar component of the lexicon with checked and modified syntactic rules (their description being the part of the grammar component). A system for the automatic identification of lexical units of Czech verbs that may enter a particular type of diathesis was elaborated and tested on the recipient passive diathesis, see [3], [11].

SI AV ČR: The annotation of Russian lexical units continued in accordance with the original plan.

A basic group of Polish verbs (that enter lexicalized alternations, see 1.3 and 1.4) were selected for the annotation of grammatical diatheses (passive, deagentive, resultative). From the theoretical point of view, we focused on deagentive and special reflexive constructions in Polish which could be examined as another type of a grammatical diathesis.

1.3 Semantic diatheses: theoretical and practical aspects,

MFF UK: We carried out a detailed analysis of three basic types of lexicalized alternations. (i) Lexical semantic conversions represent the central lexicalized alternations in the language system. (ii) The different structural expressions of a single situational participant, and (iii) the structural splitting of a situational participant are of a non-conversive character and rather peripheral. Both conversive and non-conversive lexicalized changes were extensively documented by corpus evidence and their inventory was completed. This inventory is at present prepared to be integrated in the data component of the lexicon. Moreover, a formal framework that allows us to represent different types of lexicalized alternations in the valency lexicon was proposed. The results of this work were described in the journal article [4]. This work is also included in the book chapter [6]. Moreover, the book on conversive lexicalized alternations has been submitted for publication [7].

SI AV ČR: Polish verbs which enter lexical-semantic conversions (Locatum – Location, Material – Product) were annotated in the Polish part of VALLEX. From a comparative point of view, the most difficult annotation concerned the lexical realization of some complements.

The annotation of Russian verbs also continued. The relevant type of lexical-semantic conversion was assigned to

Russian and Polish counterparts of Czech lexical units entering the conversions.

The original classification of Czech lexical-semantic conversions was used as we found that it is relevant also for Polish and Russian verbs.

1.4 Other types of changes in valency structure of verbs.

MFF UK: See also non-convertive lexicalized alternations above (types (ii) and (iii)).

In the first year of the project, we identified several other types of changes in valency structure of verbs related to the so-called light verbs. In the second year of the project, we introduce an initial step to a new formal lexicographic representation of Czech light verbs based on the decomposition of the valency information between (i) the verbal valency frame and (ii) the nominal valency frame. According to our proposal, both deep and surface syntactic structures of light verb constructions can be easily derived from the information given in the verbal and nominal frames by application of formal rules [1]. Further, corpus analysis of these phenomena was carried out with two main aims: (i) to establish the inventory of Czech light verbs entering into combinations with predicative nouns, and (ii) to verify the adopted criteria for distinguishing light usages from full usages of the given verbs, see [2].

SI AV ČR: We focused on Russian and Polish verbs with non-convertive lexicalized alternations. 'Dynamic and static expressions of location' were analyzed in Russian and Czech in detail. In [8] we described the conditions that must be satisfied by 'location' verbs so that their semantic participant 'location' can be expressed both as the valency complementation of LOC(ation) and as the complementation of DIR(ection). Other types of multiple structural expressions of a situational participant were also analyzed: a possible realization of a situational participant (goal, basis) as a PAT(ient) or a DIR(ection).

As for the practical aspect, Russian and Polish verbs with different types of multiple structural expressions of situational participants were annotated.

The list of verbs with structural splitting of a situational participant (another type of non-conversion lexical-semantic alternation) in Czech and their Russian counterparts was compiled.

1.5 Comparative aspects of diatheses.

MFF UK: A case study of several Slovenian verbs was conducted: Grégoire Labbé (external team member) has defended a thesis focused on a comparison of valency behavior of several Czech and Slovenian verbs of motion derived by selected prefixes [5].

SI AV ČR: A. The annotation of a group of Russian verbs was carried out by means of the electronic tool prepared at MFF UK (attributes: 'synon', 'example', 'control', 'aspect', 'diat'). The evidence from the Russian National Corpus (www.ruscorpora.ru), and from Internet texts was used and partly corrected by a native speaker.

B. The annotation of a group of Polish verbs was made with the evidence from the Polish National Corpus (www.nkjp.pl).

C. Common and contrasting tendencies in the three languages could be identified (e.g., 'goal' and 'basis' can only be realized as a DIR(ection) complementation in Russian and Polish, but also as the PAT(ient) in Czech).

1.6 Application in an electronic lexical resource.

MFF UK: A semi-automatic method allowing to decide whether a certain diathesis is applicable to individual lexical units of verbs stored in the data component of the lexicon was formulated (see sect. 1.2). On the case of the recipient passive diathesis, we have shown that the method yields satisfactory results even with certain simplifications of the original proposal, see [3] and [11]. Further, the inventory of semantic diatheses was compiled (see sect. 1.3, 1.4); it will be integrated in the data component of the lexicon. A user-friendly annotation tool has been developed for this task.

SI AV ČR: In close cooperation with E. Bejček (MFF UK), the electronic annotation tool for Russian and Polish verbs were refined and implemented (new attributes, linking of Czech-Russian-Polish counterparts etc.).

2 Mapping lexical resources: an effective way of enriching lexical information

2.1 Enhancing Czech valency lexicon with semantic classes and semantic roles.

In this task, we originally planned to experiment with other groups of verbs and to increase the coverage of semantic information following the progress made in FrameNet. As no new version of FrameNet was released, adding the extracted semantic information to the HTML version of the lexicon was postponed till more data are available. Based on the results of the manual experiment (conducted in 2012), we have started to work on a semi-automatic method of mapping the information from FrameNet onto VALLEX. The method makes extensively use of the hierarchical relations built between frames and their participants in FrameNet.

2.2 Strengthening the lexical resource with corpus evidence.

An experiment with the automatic merging of VALLEX and PDT-VALLEX was carried out in order to support VALLEX with missing corpus evidence provided by the Prague Dependency Treebank via PDT-VALLEX. The relatively low inter-annotator agreement revealed that the linking is hard even for human annotators. With regard to this fact, the

achieved results of this automatic method – precision 74% and recall 73% – are relatively satisfactory; moreover, they correspond to reported results of similar experiments with fully automatic linking of lexical resources, see e.g. (Tonelli, Pighin, 2009). The experiment led to the identification of main mismatches and to proposals of strategies to overcome these difficulties: namely, to provide additional specific information on lexical units and to harmonize regular differences in their annotations [13].

The original plan to start with interlinking VALLEX and Eng-Vallex (Šindlerová, 2010) was postponed to the next year as a new source of data (Urešová et al, 2013) was foreseen, which will make the task more efficient.

The amount of research conducted by the MFF UK as well as SI research teams fully corresponds to the percentage proportion of the partners on the project.

b) využití technického a přístrojového vybavení pořízeného z grantových prostředků:

MFF UK: The costs on computer equipment renewal (new PC and other PC components) were partially covered by the grant budget in accordance with the original project proposal.

SI AV ČR: No computer equipment was covered by the grant budget in 2013.

c) stručná zpráva o průběhu a výsledcích zahraničních cest:

- ITAT, Donovaly, Slovak Republic, Sept. 11-16, 2013; paper presentation [3] (Vernerová)

- Slovko, Bratislava, Slovak Republic, Nov. 13-15, 2013; paper presentation [2] (Kettnerová)

As one of the most relevant conference on dependency/valency syntax DepLing 2013 took place in Prague, we managed to save on traveling abroad – instead, we covered three DepLing conference fees for the team members; paper presentation [1] (Bejček, Lopatková, Vernerová).

- International Seminar: Voprosy russoj instoricheskoj grammatiki i slavjanovedenija: k 90-letiju so dnja smerti I. V. Jagiča, Petrozavodsk, Russia, Sept. 19-20, 2013; paper presentation [9] (Skwarska)

- Università degli studi di Bergamo: Invited talk for students 'Issledovanije valentnosti v slavjanskix jazykax. Novyje perspektivy.' Bergamo, Italy, December 4-6, 2013 (Skwarska)

d) plán práce na další rok řešení (u mezinárodních projektů včetně mezinárodní spolupráce):

In the third year of the project, we plan to continue in research of the identified areas in accordance with the original proposal. Both theoretical and practical aspects of changes in valency structure of verbs will be further investigated with the aim to apply results of the theoretical research to the data of the valency lexicon of Czech verbs, VALLEX. An important part of the working capacity will be used for publishing results at specialized conferences and in journals.

1 The lexicographic representation of various changes in valency structure of verbs

1.1 Theoretical research; design of a formal model for lexicographic description.

The formal model of lexicographic representation of changes in valency structure of Czech verbs (both data and grammar component) proposed in two previous years of the project will be further refined on the basis of the annotation of the VALLEX data.

1.2 Grammatical and syntactic diatheses: theoretical and practical aspects.

MFF UK: In the third year of the project, detailed syntactic rules describing individual diatheses (as described in 2013) will be further tested, refined, and evaluated. We will focus esp. on the refinement of general rules describing different types of reciprocity.

For this purpose, methods developed for the automatic identification of diatheses applicable for individual lexical units will be used and further improved (see also tasks in sect. 1.6). As a result of this work, both data and grammar components will be enriched with the information on the applicability of diatheses and with syntactic rules, respectively.

SI AV ČR: The theoretical comparative research on grammatical diatheses (Czech-Russian-Polish) will continue, especially the application of the Polish set of reflexive values on the Russian verb system. Reciprocity in Russian and Polish will be in the center of our interest with respect to the research in reciprocity in Czech (conducted by the team from MFF UK).

1.3 Semantic diatheses: theoretical and practical aspects.

MFF UK: The inventory of semantic diatheses (i.e., conversive lexicalized alternations) and verbs allowing these diatheses (compiled in the second year of the project) will be exploited as the lexical stock of the data component of the lexicon. The proposed formal model of their representation will be further refined (if it is necessary) in accordance with the findings resulting from the annotation.

SI AV ČR: The emphasis will be put on the lexical-semantic 'subject – object' conversions in Russian and Polish.

1.4 Other types of changes in valency structure of verbs.

MFF UK: The inventory of non-conversive lexicalized alternations (compiled in the second year of the project) will be propagated to the lexicon.

Based on our recent results [1], we plan to conduct a preliminary investigation into changes in valency structure of verbal multiword expressions (MWE).

SI AV ČR: Constructions with structural splitting of a situational participant in Russian and Polish will be studied.

Relevant Polish verbs will be selected for annotation, the Russian verbs from the already prepared list will be used.

1.5 Comparative aspects of diatheses.

MFF UK: In accordance with the original project description, only marginal research tasks will be addressed at MFF UK. A case study of a group of Czech and Slovenian verbs with the prefix 'vy-' and 'iz-', respectively, will be further elaborated.

SI AV ČR: All the above mentioned types of alternations (diatheses, reciprocity, lexicalized alternations) will be discussed. We will concentrate our attention especially on the 'subject – object' lexical-semantic conversions in Russian and Polish and their comparison with Czech.

1.6 Application in an electronic language resource.

The method of the automatic identification of diatheses applicable for a given valency frame will be applied and evaluated on the possessive resultative and passive diatheses. The yielded information on the applicability will be specified in the lexicon in a special attribute of each frame.

The inventory of semantic diatheses compiled in 2013 will be integrated in the lexicon using the user-friendly annotation tool developed in 2013.

At the end of the third year of the project, new version of the VALLEX lexicon enhanced (i) with the grammar component specifying individual alternations and (ii) with the information on applicability of individual alternations for individual lexical units in the data component will be prepared. This version will be intensively tested and refined during the final year of the project.

Further, the structure of electronic (partially) trilingual valency lexicon will be improved with respect to elaborated data

(SI AV ČR).

2 Mapping lexical resources: an effective way of enriching lexical information

2.1 Enhancing Czech valency lexicon with semantic classes and semantic roles.

We will continue in the effort of linking the VALLEX lexicon with FrameNet with the aim to enrich VALLEX with missing semantic information. Both Semantic Frames (semantic classes) and Frame Elements (semantic roles) will be connected to the appropriate equivalent in VALLEX, the semantic relation of 'Inheritance' encoded in FrameNet will be used. Moreover, this mapped semantic information will be added to the HTML version of the lexicon.

2.2 Strengthening the lexical resource with corpus evidence.

In the third year of the project, the linking of the valency lexicons VALLEX and PDT-VALLEX will be further refined on the basis of the identified sources of mismatches between these lexicons; as a result, VALLEX will be enriched with missing corpus evidence from the Prague Dependency Treebank.

We also plan to make use of the automatic alignment between PDT-Vallex and Engvallex (Urešová et al, 2013). As both of these lexicons are linked to sentences from corpora (PDT and PEDT, respectively), the interlinking will provide corpus evidence for the VALLEX data as well.

e) přehled dílčích výsledků řešení grantového projektu v daném kalendářním roce

e1) Celkové počty výsledků:

1a. článek v odborném periodiku impaktovaném (druh výsledku Jimp)	0
1b. článek v databázi Scopus (druh výsledku Jsc)	0
1c. článek v odborném periodiku neimpaktovaném (druh výsledku Jneimp)	0
1d. článek v českém odborném recenzovaném časopise (druh výsledku Jrec)	0
2a. odborná kniha (druh výsledku B)	0
2b. kapitola v odborné knize (druh výsledku C)	0
3. článek ve sborníku (druh výsledku D)	2
4. patent (druh výsledku D)	0

e2) Uplatněné výsledky řešení projektu v klasifikaci odpovídající platné Metodice hodnocení výsledků výzkumu a vývoje

A1a. Jimp (článek v odborném periodiku, který je obsažen v databázi Web of Science společností Thomson Reuters)

Nic nezadáno

A1b. Jsc (článek v odborném periodiku, který je obsažen ve světově uznávané databázi Scopus)

Nic nezadáno

A1c. Jneimp (článek v odborném periodiku, který je obsažen ve světově uznávané databázi ERIH nebo Scopus)

Nic nezadáno

A1d. Jrec (článek v odborném periodiku, které je zařazeno na Seznamu neimpaktovaných recenzovaných periodik vydávaných v České republice)

Nic nezadáno

A2. Výsledek D - Článek ve sborníku konference (pouze autorské, nikoliv editorské příspěvky ve sbornících evidovaných v Conference Proceedings Citation Index, Thomson Reuters)

Autor, autoři: [1] Václava Kettnerová, Markéta Lopatková
Název: The Representation of Czech Light Verb Constructions in a Valency Lexicon
Název časopisu, rok, volume, stránka od - do: Proceedings of the Second International Conference on Dependency Linguistics, Depling 2013, 2013, p. 147-156. Hajičová, E., Gerdes, K., Wanner, L. (eds.) Matfyzpress, Charles University in Prague, Prague, Czech Republic.
Dedikace na projekt: Ano
Vícenásobná dedikace: LM2010013 (The work has been using language resources developed and/or stored and/or distributed by the LINDAT-Clarin project.)

Autor, autoři: [2] Václava Kettnerová, Markéta Lopatková, Eduard Bejček, Anna Vernerová, Marie Podobová
Název: Corpus Based Identification of Czech Light Verbs
Název časopisu, rok, volume, stránka od - do: Proceedings of the Seventh International Conference Slovko 2013; Natural Language Processing, Corpus Linguistics, E-learning, 2013, p. 118-128. Gajdošová, K., Žáková, A. (eds.) RAM-Verlag, Lüdenscheid, Germany
Dedikace na projekt: Ano
Vícenásobná dedikace: LM2010013 (The work has been using language resources developed and/or stored and/or distributed by the LINDAT-Clarin project.)
GA ČR No. P406/10/0875 (The contribution of the mentioned project focuses on grammatical aspects of the research problem and also on a corpus implementation of the results; thus it complements our lexicographical focus.)

A3. Výsledek B - Odborná kniha

Nic nezadáno

A4. Výsledek C - Kapitola v odborné knize

Nic nezadáno

A5. Výsledek P - Patent

Nic nezadáno

B. Výsledek nevstupující do RIV

Popis výsledku:	contribution in Proceedings of the international conference
Autor, autoři:	[3] Anna Vernerová, Markéta Lopatková
Název výsledku:	Towards Automatic Detection of Applicable Diatheses
Bibliografické údaje:	Vinař, T. (ed.) ITAT 2013: Information Technologies – Applications and Theory (Proceedings), p. 10-17, 2013. . Slovenská spoločnosť pre umelú inteligenciu. CreateSpace Independent Publishing Platform. ISBN 978-1490952000, ISSN 1613-0073
Dedikace na projekt:	Ano
Vícenásobná dedikace:	LM2010013 (The work has been using language resources developed and/or stored and/or distributed by the LINDAT-Clarin project.)
Popis výsledku:	journal article
Autor, autoři:	[4] Václava Kettnerová, Markéta Lopatková
Název výsledku:	Lexikalizované alternace v češtině
Bibliografické údaje:	Linguistica Copernicana, Vol. 9, p. 1-30, Dec 2013. Wydawnictwo naukowe Uniwersytetu Mikołaja Kopernika, Toruń, Polska. ISSN 2080-1068
Dedikace na projekt:	Ano
Vícenásobná dedikace:	LM2010013 (The work has been using language resources developed and/or stored and/or distributed by the LINDAT-Clarin project.)
Popis výsledku:	master thesis
Autor, autoři:	[5] Grégoire Labbé
Název výsledku:	Traitement de la valence de verbes de mouvement slovènes sur la base de la valence de verbes tchèques
Bibliografické údaje:	Mémoire de master 1. Institut National des Langues et Civilisations Orientales / Univerzita Karlova v Praze, p. 64 2013
Dedikace na projekt:	Ano
Vícenásobná dedikace:	

e3) Dosud neuplatněné výsledky řešení projektu v klasifikaci odpovídající platné Metodice hodnocení výsledků výzkumu a vývoje

A1. Článek v odborném časopise

Nic nezadáno

A2. Článek ve sborníku konference (pouze autorské, nikoliv editorské příspěvky ve sbornících v Conference Proceedings Citation Index, Thomson Reuters)

Autor, autoři: [10] Karolína Skwarska

Název: Rol' leksicheskogo napolnenia v konstrukcijach s otnosheniem semanticheskoi diatezy v cheshskom, russkom i pol'skom jazykach. [The Role of Lexical Realization in the Constructions Related through Semantic Diathesis]

Název konference, rok: Grammaticalization and Lexicalization in Slavic Languages; proceedings of the conference Die Welt der Slaven. Sammelbände, 2013

Dedikace na projekt: Ano

Vícenásobná dedikace:

Stav uplatnění - zasláno do redakce: 2012-08-31

Stav uplatnění - přijato dne: 2012-12-31

Autor, autoři: [11] Anna Vernerová, Václava Kettnerová, Markéta Lopatková

Název: To pay or to get paid: Enriching a Valency Lexicon with Diatheses

Název konference, rok: LREC 2014

Dedikace na projekt: Ano

Vícenásobná dedikace: LM2010013 (The work has been using language resources developed and/or stored and/or distributed by the LINDAT-Clarin project.)

Stav uplatnění - zasláno do redakce: 2013-10-24

Stav uplatnění - přijato dne: 5000-01-01

Autor, autoři: [13] Eduard Bejček, Václava Kettnerová, Markéta Lopatková

Název: Automatic Mapping Lexical Resources: A Lexical Unit as the Keystone.

Název konference, rok: LREC 2014

Dedikace na projekt: Ano

Vícenásobná dedikace: LM2010013 (The work has been using language resources developed and/or stored and/or distributed by the LINDAT-Clarin project.)

Stav uplatnění - zasláno do redakce: 2013-10-24

Stav uplatnění - přijato dne: 5000-01-01

Autor, autoři: [12] Václava Kettnerová, Markéta Lopatková

Název: Reflexive Verbs in a Valency Lexicon: The Case of Czech Reflexive Morphemes

Název konference, rok: EURALEX 2014

Dedikace na projekt: Ano

Vícenásobná dedikace: LM2010013 (The work has been using language resources developed and/or stored and/or distributed by the LINDAT-Clarin project.)

Stav uplatnění - zasláno do redakce: 2013-11-10

Stav uplatnění - přijato 5000-01-01
dne:

A3. Odborná kniha

Autor, autoři: [7] Václava Kettnerová
Název knihy: Lexikálně-sémantické konverze ve valenčním slovníku
Vydavatel: Karolinum Press
Dedikace na projekt: Ano
Vícenásobná dedikace: LM2010013 (The work has been using language resources developed and/or stored and/or distributed by the LINDAT-Clarin project.)
GA ČR No. P406/10/0875 (The contribution of the mentioned project focuses on grammatical aspects of the research problem and also on a corpus implementation of the results; thus it complements our lexicographical focus.)
Stav uplatnění - zasláno do redakce: 2013-10-15
Stav uplatnění - přijato 5000-01-01
dne:

A4. Kapitola v odborné knize

Autor, autoři, kapitoly: [6] Václava Kettnerová, Markéta Lopatková
Editoři a název knihy: Jarmila Panevová a kol. Mluvnice současné češtiny 2 / Syntax češtiny na základě anotovaného korpusu.
Název kapitoly: Alternace slovesných rámců
Vydavatel: Karolinum Press
Dedikace na projekt: Ano
Vícenásobná dedikace:
Stav uplatnění - zasláno do redakce: 2013-10-01
Stav uplatnění - přijato 5000-01-01
dne:

A5. Přihláška patentu

Nic nezadáno

B. Výsledky nevstupující do RIV

Popis: journal article

Autor, autoři: [8] Marie Podobová

Název výsledku: Dynamické a statické vyjádření "lokace" v češtině a v ruštině (Dynamic and Static Expressions of „Location“ in Czech and Russian)

Bibliografické údaje: Nová čeština doma a ve světě . In print. (see the confirmation of acceptance)

Dedikace na projekt: Ano

Vícenásobná dedikace: LM2010013 (The work has been using language resources developed and/or stored and/or distributed by the LINDAT-Clarin project.)
GA ČR No. P406/10/0875 (The contribution of the mentioned project focuses on grammatical aspects of the research problem and also on a corpus implementation of the results; thus it complements our lexicographical focus.)

Stav uplatnění - zasláno do redakce: 5000-01-01

Stav uplatnění - přijato dne: 2013-12-31

Popis: journal article

Autor, autoři: [9] Karolína Skwarska

Název výsledku: Sintaksicheskiye i semanticheskije xarakteristiki russkix, polskix i cheshskix glagolov v slovare sochetajemostej VALLEX. (Syntactic and semantic properties of Russian, Polish and Czech verbs in valency lexicon VALLEX)

Bibliografické údaje: Uchenyje zapiski Petrozavodskogo gosudarstvennogo universiteta. (see the confirmation of acceptance)

Dedikace na projekt: Ano

Vícenásobná dedikace:

Stav uplatnění - zasláno do redakce: 5000-01-01

Stav uplatnění - přijato dne: 2013-11-22
