SERBIAN LANGUAGE INSTITUTE OF SASA

LEXICOLOGY AND LEXICOGRAPHY IN THE LIGHT OF CONTEMPORARY APPROACHES

A collection of papers

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ИНСТИТУТ ЗА СРПСКИ ЈЕЗИК САНУ

ЛЕКСИКОЛОГИЈА И ЛЕКСИКОГРАФИЈА У СВЕТЛУ САВРЕМЕНИХ ПРИСТУПА

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THE STATUS OF THE SERBIAN TERMINOLOGY DEFINED BY THE SERBIAN LANGUAGE POLICY THROUGHOUT ITS CONTEMPORARY AND FUTURE PLANS. AN OUTLINE OF ONE TERMINOLOGICAL ALGORITHM¹

The paper aims to point out the necessity of creating a digital terminology database of the Serbian professional terminology which would provide systematically collecting, inventory making, precise identifying, defining, linguistic analyzing and interpreting terminologies of different professions for making a stable ground for the codification and standardization of professional terminology of the Serbian language. It also implicitly points to a need to organize terminology workshops through which the experts that "build" vocabularies of their profession would become familiar with the basic principles of creating or designing terminology expressed in the work with the database via the network interface and thus become abler to work on different professional terminologies. In addition, the paper suggests the most common mistakes in contemporary terminographic work as a result of lack of understanding of the meaning of inter- and multi-disciplinary approach to the study of terminology as a special branch of linguistic research.

Key words: terminology, terminography, term standardization and codification, TermBase eXchange (TBX).

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Linguistic aspect of terms formation and the basic principles and methods of terminology configuration understood as an unique language conception within a language itself, are of major interest not only to terminologists, terminographers and subject field specialists, but also to translators – especially those who deal with not widely used languages, where the lack of adequately developed reference tools almost forces translators to become neologists – as well as to interpreters and technical writers; in other words, when it happens to be that a linguist has to "step in" terminology, whether intentionally or not, then, as the most of linguistic results obtained from the research in this domain shows, it is not only about some specific set of terms belonging to the special language of an individual subject field which should have to be dealing with, but it is also about being able competently to handle with the puzzles of one specific linguistic discipline involved with the principles and methods that are predisposed to the study of *concepts* and their *designations* in any subject field, which also includes a good acquaintance with main issues concerning collecting, processing, and managing relevant data. The very fusis of terminological units which are at the same time linguistic items, conceptual elements (e.g. of logic, ontology, cognitive sciences) and vehicles of communication (cf. Sager 1990: 13), is sufficiently suggestive of interdisciplinary approach to terminology research. However, the main issues concerning the structure of terminology per se ipsum are still not discussed enough in linguistic literature and subsequently are still considered inactive research topics, although without any acceptable scientific explanation.

The most of contemporary distinguished historians and economists confirmed that globalization has become the buzzword of the last two decades (Hopkins (ed.) 2002, Norton et al. 1999, O'Rourke-Williamson 2002: 6(1), 23-50). The sudden increase in the exchange of knowledge, trade and capital around the world, driven by technological innovations, from the internet to shipping containers, thrust terminologies into the limelight. Such circumstances affect the mother tongue of the majority EU and non-EU citizens, which increasingly started being flooded with foreign language words left without direct equivalent in referred language recipient; namely, according to investigation conducted in 2005 by Eurobarometer 63.4 (www), English keeps on growing its share as the most widely spoken foreign language in Europe. Meantime, it happened the space in which we live had become the space of diverting digital-to-virtual reality, and it becomes finally clear that the question of setting up of terminology (in general) should have to be one of the common scientific topic that deserves to be in the very focus of the entire scientific community. The former contributes of some European countries in the field of terminology standardization, although separately valuable and signifi-

cant, they are mainly related to very up-to-date scientific areas and disciplines, so as the work on terminology standardization was required primarily because of extra-linguistic reasons. On the other side, there is a number of European countries whose citizens demonstrate in their communication the true chaos and confusion which usually disables technical and semantical interoperability between different systems used in different projects and environments, or complete internationalization of the native terminology. We are of the opinion that there is no need for special outlining of the importance of having a systematically arranged terminology primarily in the domain of teaching and education: in the most European countries, children will already be in primary school in a position to acquaint themselves with a number of terms and it is absolutely important that all those terms are strictly stable and clearly defined, no matter whether they are expressed by the words of mother tongue or by foreign lexemes; the situation that could be found in elementary school textbooks is already worrisome - and at universities, we dare to say, it is more than frightening. Hence naturally raises the question whether the young academics in Europe are educated in their own native language – or perhaps in another – foreign or even a meta-language. This certainly would not be surprising, nor it should assume any eventual negative connotation if all contemporary European languages have already established a terminological lexicon, which is an inseparable part of their basic lexicon, and on the other hand, which could be accurately updated at any time in respect to the conditions imposed by modern way of life. A great deal of scientific works on these topics has been already written (cf. Ledinek-Humar (ed.) 2009), so as they will not be the topics of this study. However, the most of them present application-oriented studies of the computational treatment of terms, but without satisfactory theoretical and/ or descriptive foundation. In other words, theories of terms are still missing in academic studies of terminology. Regarding this, there is a lack of solid descriptive studies/analysis based on the explicitly stated theoretical position. Subsequently, as the standardization of terms is by its very nature prescriptive, it cannot be a part of what we currently understand by theory; so, this phaenomenon, which we could consider a kind of term processing, could only be studied as an external terminological phaenomenon, e.g. as a kind of terminological socio-politics. Anyway, from the nineties onwards, we are witnesses of the fact that the research(ers) in terminology, externally forced or not – tend to expand its scope, from phonetic through formal to conceptual aspects2, so as the limitation of the traditional theories of terminology seem to be overcame by taking two primary steps: firstly, by detail examining theoretical position

² See Sager 1990, Zawada – Svanepoel 1994, Temmerman (www), Cabré (www), Budin (www), Pearson 1998, Meyer – Mackintosh 2000, etc.

of *concept* and formal relationship between *concept* and *term*, and then, by detail description of how dynamic system of terminology is working out (cf. Kageura 2002).

As for lexicologists and lexicographers who necessarily have to have direct or indirect contact with term units, we must observe that they are primarily attracted with so-called ontological questions concerning terminology as a specific layer of the human lexicon: e.g. to which extent terms differ from lexemes that belong to general lexical fund, are they "trying" to adapt themselves to the laws and relationships inherent to the general lexicon and if so, whether these relationships are established by interfering with general vocabulary or are confined to their "closed" systems, what is about their derivation ability, are they characterized by polysemantsm, by creativeness to establish antonymic relationships, etc.

The famous Serbian linguist D. Šipka sees the features of an ideal term in its transparency, internationality, stability, brevity, definiteness, precision and non-synonymity (Šipka 1998: 128). This could easily remind us on an effort of the Swedish botanist, physician, and zoologist – Carl von Linné, to lay the foundation for the modern biological naming scheme, which is, of course, nowadays more and more obsolete by discovering or acquiring artificial upto-day unknown plant species, as well as by better understanding taxonomic features of the "older" ones; all of that results naturally in appearance of the new botanical classification systems of the plant species and thus, in tendency to find the way to create better structuralized botanical terms. According to N. Vajs, regarding these facts, the following key issues are imposed:

a. synchronous aspects must not be considered by terminologists and terminographers as the only one in studying either traditional or scientific terminology, which *in ultima analysi* presents folk or traditional terminology (for more details about this topic, see Vajs 2003: 24); namely, the first step in the effort to achieve more complete systematic description of the structure of previously determined term inventory as well as of its origin, is work on establishing the historico-terminological components of a language's *thesaurariorum inventariorum* of lexemes, without which there could not be fully reasoned answers on the above mentioned linguistico-ontological questions, and

b. among the terms which presents a distinctive part of human lexicon, coexist different lexical layers: *doctus* and *semi-doctus* (scientific terms, adapted scientific terms, customized classics textbook terms, terms created by the so-called vulgar etymology) and the extremely popular layer of terminological lexemes. Because of the last-mentioned feature, a terminological lexi-

con raises its marginality in relation to the whole lexicon that caused its fragile integration into linguistic system which resulted in consistency lacking and heterogeneity of this lexical segment, in which, therefore, coexist parallel and intertwine different lexemes structures and types. Even the linguists who are primarily concerned with diachronic perspective of words, such as etymologists, comparativists et al., are not willing to engage in studying this lexical segment explaining that its place is primarily in specialized studies and/or vocabularies for the reason that proportionately large phonetic variance of these lexemes often "build" unsafe "bridge" toward realia to which they refer (thus in: OS 1998: xvi). On the other hand, standard vocabularies author(s), usually consciously ignored this part of the lexicon, not willing to engage in taxonomy, id est not willing to get acquainted with the categorization of organisms and with different nomenclature s for naming them, etc. Finally, regardless the above mention reasons, as a reflection of such language policies there appear terminological dictionaries which stand, regarding their conception, not far from professional encyclopedias, since under referred lemma it is usually only a definition that could be found and nothing more than that. On the other side, as a reflection of linguistic reality – it is just a reader or a speaker of the language that could be found, often deprived of information about denomination motif conceptualized through different images reflexed in different lexical realizations "known" for the referred realia.

From the synchronic point of view, there are a number of terms, regardless the layer to which they belong within a terminological lexicon scope of the refereed language – with transparent morphonological and semasioonomasiological structure, while the rest of the terms remain unmotivated in the conscience of native speakers. If we are going to study for example only iconymically clear structured terms belonging to the traditional/folk layer of such a lexicon, one of the linguist's task is to examine eventual existence of the "binding" phaenomenon that occurs between signifier (e.g. between phytonym/zoonym, etc.) and signified. But if we start from the generally accepted linguonomastical assumption that once every word was motivated, there are some questions to be asked: a. is it possible to identify and make inventory of "diagnostic" features that referred to the identified features of denoted realia, which could have served as a motivational base in the process of denomination, b. if so, what were the ways of their conceptualization and what were the paths that led from conceptualization to the creation of naming units, and finally, c. if so, is it possible to reconstruct any particular system or systems that predetermine(s) process of denomination. These questions cannot be answered by denomination process decoding just in respect to individual case, but only if each layer of a terminological lexicon are going to be analyzed as a unique (sub)system in whole.

So what would this really mean for lexicographers and for their praxis? One example: The first structural description of a botanical nomenclature – or more precisely, of one part of it – gave the prominent French linguist P. Guiraud. He succeeded to show that there are more than a thousand phytonyms in French which present one particular type of denomination: this is the type which presumes the way of denomination by metaphorical transfer of the term which denotes (certain specific part of the body of an) animal to signified, on account of their close similarity. What P. Guiraud is well noticed for is that '(certain specific part of the body of an) animal' in this type of designation ceases to be a simple metaphor and becomes a code (/ concept) of the classification system (Guiraud 1969: 155-171). This denomination type shows us its systematic nature, the same one which could be compared with that of *labels* found in a scientific botanical nomenclature created deliberately in order to establish a pertinent system in which names are used as labels -id est as cataloged referrals that enable managing the inventory which contains descriptions of all pertinent plant features that are "covered" by a particular name or a label. Well, by studying one specific type of denominations, P. Guiraud succeeds to obtain a pertinent structuralistic description. This and only this kind of description can be compared with the reference group names in other languages closely or remotely related, or even unrelated languages, which would then result in establishing those types of terms for which can be said with high degree of certainty that "discover" us what is called semic unity/coherence of the physical referent. Similar observation has N. Vajs: 'Many particular names and more general principals of denominations and some characteristic conceptualizations are already present in classical languages, which makes us draw a conclusion that there are universal valid types of denominative motives in phytonymy' (Vajs 2003: 541). It is generally known that the concept/code coincidence could be interpreted by the same semic impulses sent to denominators, which may be the result of the same pensée sauvage. However, "the same role" could have had: a. the process of replacing an older "opaque" name by "transparent" one, b. translation of the naming unit, c. calque creation, etc. Our story could be continued here e.g. by an anthropologist or psychologist, but, in a paper which we started to write having in our mind the idea of proposing and briefly explaining the idea of the possibilities and methods of making a conceptual historico-terminological dictionaries of different subject fields, quite unique because of their inner structure of lemmas (see below) – that would be too pretentious. So, if we would have the ideal vocabulary in which the definition would not only be intuitive established meaning "equation", but would include unique semic analysis of each determinant, it would be easy to determine in which lexemes are implemented particular sems. Than if we would separate from such a "body" all those units with abbrev. 'term.', we would also be able to determine sems diapason in the referred terminological lexicon as well as to establish through which images of content and lexicogenic matrix defined sems repertoire were conceptualized. As such vocabulary does not exist, there is nothing we can do but to collect as many units' sub sig. 'term.' and then to start to seek for sems references by applying both of the relevant linguistic methods – semasiological and onomasiological one. This brings us back to the beginning of our paper.

"Taking care" of terminological/technical or specialize naming units as an integral part of the standard language has become definitely one of the main task of national scientific institutes/centers/ associations and other institutions of the highest level of studying, who are involved with linguistic studies, and particularly with maternal language issues. Today terminology can be considered a key of sui generis for professional, academic and scientific communication. Scientific research on terminology is therefore extremely important and very demanding job that has until recently been neglected in many European countries. The establishment of national programs for "building" a complete terminology infrastructure (primarily digital terminology database of maternal language in which would be systematically collected, processed, generated and interpreted terminologies of different professions which will provide unifying, standardization and coordination with other languages) in European countries where such a project does not exist – presents in the world of terminology, condition sine qua non for further scholarly treatments. When designing the scheme and determining the categories of relational database, current projects run mainly instructions for the exchange of terminological databases of the TermBase eXchange – an international standard (ISO 30042:2008) adopted by ISO in 2008 for the representation of structured concept-oriented terminological data - which should provide easier data exchange with all world digital terminology collections.3 However, being aware that we are dealing with concept-oriented words, without establishing national projects concerning conceptual historico-terminological digital relational database, all efforts to satisfy the professional requirements that are currently being placed for terminographical

³ E.g. STRUNA is a database of Croatian Special Field Terminology. It was officially inaugurated on the web in February 2012. Its aim is to gradually make available to the public the standardized Croatian terminology for all professional domains. Available at: http://struna.ihjj.hr/en/#.

works – continue to be only disillusion. Actually we believe that suggested type of a project represents éclat of the necessity of the synthesis of knowledge not only of the so-called linguists-synchronists, linguists-diachronists and linguists-theorists on one hand, but also of linguists-lexicologists and lexicographers and especially linguists-terminologists and terminographers - on the other, although it is usually not the case seen in linguistics. Such kind of digital database could also be "a part of an answer" a. to the question on norm choosing to use for standardize the existing terms and in the same time for introducing new ones, which is according to Radovanović (1979: 86) 'the most responsible, the most delicate and the most difficult part of the job', b. to the question whether to insist on the internationalization of our terminology or on the creation of the Serbian equivalents, c. to the question how to present the principles of formation of the term at all language levels and describe in detail standardized form in order to be eliminated all redundant synonyms in terminology, to remove terms that are the result of bad translation of the foreign term, which would provide at the same time right interpretation of the original term.

"End notes to beta testers":

In respect to the methodology of writing scientific papers, it is quite uncommon or better to say totally unacceptable to open discussion on any of the main topics usually defined or "covered" by the title of the study itself – at a very the end of it. Therefore, what follows is not exactly that what we are going to do, because we have rather intention to present only paradigmatically titled terminological algorithm. Although we are specially engaged in the study of phytonymy – which is one of the so-called closed lexical classes being also in the state of relative terminological chaos, no meter whether a phytonomastician is trying to deal with the identification and linguistic analysis of scientific botanical designations or with the one that belongs to folk or traditional nomenclature(s), "designation" chosen for our terminological algorithm was anticipated by the question of the possibility and the ways of standardization of political terms, that are even harder to identify and to define. Drawing from the knowledge and the experiences acquired from the work on the etymological lexicography, we actually came to the idea of making a historical dictionary of the European political thought presented throughout its term tools, which entries should have to be such structuralized to contribute to comprehensive linguistic study of this part of the human lexicon and thus to find its way on the road that leads to the creation of a digital platform with precisely designed interface for the so-called relational database formation, necessary in the process of the term standardization work. On the other hand, drawing from the experience during working with phytonymy, we predicted that the entries of such a dictionary should have to be more alike small biography of referred word arranged by the principle of conceptual "binding" of lexemes within atypical structuralized *terminological* derivative nests; as for determining the concepts themselves⁴, we have found that it would have to be naturally to *bind* them into the group of seven *zero* phisico-linguistical concepts together with subconcepts subordinated to each of them, designed and scientifically justified in historical and philosophical framework of the study of the relations between *nature* and *society*, starting from F. Bacon to J. Rifkin's *biotech century*. Here they are:

- A. the concept of time and B. space,
- C. the concept of object,
- D. the concept of the physical status of the object,
- E. the concept of interaction and communication,
- F. the concept of the number, and
- G. the concept of color.

Each of the cited concepts that actually present seven SI units basically used to describe all *bodies* and all *phaenomena* in physic world could easily be transposed into *language code*. Results of some previous linguistic research have suggested that the highest ability for being semantically varied and for being good base for numerous derivative formations, have simple, basic lexemes in their realizations of denominative functions, especially those ones that belong to very much restrictive part of the general lexicon fund; at the same time, all the basic lexemes develop the range of secondary meaning by various metaphorical *sems transformations*. Therefore, we have decided firstly to *input* in our test algorithm a lexeme which nominates the part of the human body (JOINT), since it belongs to above-mentioned part of the general lexicon fund. Finally, as a result⁵ we got the following algorithm "steps":

⁴ Cf. Kageura 2002.

⁵ (actually) **of** our consideration about some questions concerning terminology that we had the opportunity to discuss with our dear friend and one of the most distinguished Italian linguist – professor F. Bruni – in short episodes of conversation during "working" breaks while maintaining international meeting in honor to late professor N. Stipčević, which was held in Belgrade, in November 2014. We are very grateful to professor Bruni as he insisted some of our ideas we put on a paper one day. By this paper, we think we did it.

KONCEPT: LJUDSKO TELO [CONCEPT: HUMAN BODY]	Potkoncept [Subconcept]: ZGLOB (PCAHY) [JOINT]
	Osnovno značenje [Basic meaning]: Term. anat. pokretni sastavak dveju ili više kostiju.
	Etimologija [Etymology]: Postverbal glagola <i>glabati</i> 'glodati'. Sveslovenska i praslovenska reč, up. lit. <i>glebti</i> 'obuhvatiti', <i>globti</i> 'umotati u kakvo sukno' i <i>glaboti</i> 'očuvati'. Prema Skoku (3: 563) značenje u litvanskom ide u pravcu sastavljanja pojedinih delova, dok u slovenskim jezicima – obratno, u pravcu rastavljanja. Od ie. korena * <i>gelebh</i> - 'schaben'.
	Terminološko-derivaciono gnezdo [Terminological derivative nest]:
	1. Term. bot. Člankovito zadebljanje na stablu biljke -> (kolen)ce.
	2. Term. prav. Prekretnica, zaokret -> Koncept : Prostor i vreme.
	3. Term. prav. Bračni par, supružnik -> Koncept : Interakcija i komunikacija -> Potkoncept: Čovek u okruženju -> Kolska terminologija: jaram .
	4. Term. prav. zglobiti 'sklopiti, sastaviti'.
	(Lingvistički) Komentar ¹ [Linguistic comment]
	Eksterne (vanlingvističke) reference² [Extra-linguistic references]:

Questions arose out from this study and the proposed solutions certainly require further confirmation at various levels of linguistic and extralinguistic analysis, but afterwards, we hope that they will provide a solid ground for new research on the old problems that are constantly imposed. *Me ipsam*, the well-know opinion of the famous Italian linguist A. Zamboni regarding the fact that it is not yet possible precisely to describe e. g. the structure of the traditional botanical terminology of any European language, encouraged us to think in the completely new direction about terminology in general. That is exactly what we wanted to show in this study.

Literatura [Literature]: Skok, PCAHY

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Maja Kalezić

STATUS SRPSKE TERMINOLOŠKE LEKSIKOGRAFIJE U OKVIRIMA AKTUALNE JEZIČKE POLITIKE I JEZIČKOG PLANIRANJA U PERSPEKTIVI. PRIKAZ JEDNOG TERMONOLOŠKOG "ALGORITMA"

Rezime

'Izgrađena' na rezultatima savremenih naučnih studija na polju digitalnih pristupa lingvističkim istraživanjima i odatle na pojedinačnim postulatima moderne specijalizovane digitalne leksikografije ova studija donosi predlog nacrta za elektronsko dizajniranje tzv. portreta odnosno svojevrsnih 'biografija' termina – ne samo onih koji pripadaju jezicima struka nego i onih iz okvira tzv. specijalističke narodne leksike – kroz novi terminološki algoritam, putem kojeg bi se u aplikacijama digitalnih nacionalnih terminoloških relacionih baza podataka u velikoj meri

izbegle predvidive ali i one, u dosadašnjoj referentnoj literature, još uvek neprepoznate jezičke 'zamke', koje često stoje na putu savremenim terminolozima i terminografima, u procesu adaptacije nacionalnog sa internacionalnim digitalnim terminografskim opisom poštujući preporučeni ISO standarada (/TK 37).