

A study into the Croatian language of medicine

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Abstract

The language of medicine is the language for special purposes, aimed at communication among physicians and /or other health professionals and patients. It serves different purposes. Accordingly, it uses specific syntactic structures and specialized terminology. The Croatian medical language is not an exception.

The study investigates the Croatian language of medicine. It has been changed throughout the history under the influence of different socio-political conditions. The Croatian language of medicine is mostly based on classical languages and they are still present in writing diagnoses. Except for minor influence of European languages in the past, nowadays English affects the national languages of medicine. It has become lingua franca of all scientific disciplines and its presence is inevitable in all languages. Only the languages with a strong purist tradition are deprived of its influence to some extent. The changes are not evident only on the lexical level, but the syntax is affected as well.

Keywords

language of medicine, standardization, medical terminology.

1. Introduction

The language of medicine or medical language is the language for special purposes (LSP), aimed at communication among physicians and/or other health professionals and patients (Friščić, 1967). It serves a variety of different purposes, e.g. to describe a study in a journal article, textbooks, doctoral theses, popular science article or to communicate with patients and professionals. The communicative purpose of medical language can be difficult to pinpoint as there are many target groups. They can have a significant impact on the linguistic structures and use of terminology. A division of medical language based on the communicative purpose can be made as well as a subcategorization of medical language with a scientific approach which is strictly aimed at experts. The characteristics of medical language with a scientific approach are a very formal language usage, many complex syntactic structures and extensive use of highly specialized terminology (Halliday, 1993).

As 95 per cent of medical papers come from English speaking countries, English has become the *lingua franca* of medicine and of most scientific fields. For the most part, journal articles are written in a uniform manner based on *Uniform requirements*, the so-called Vancouver style, set out by the International Committee of Medical Journal Editors. These requirements lead to the uniformity which serves as a means of achieving clarity. It is the most important element in medical writing (Pilegaard, 2006). Together with clarity, precision and economy of language are also characteristic of medical language. In general, medical texts are characterized by a specific style such as specialized terminology, professional jargon and focus on the topic rather than the objects (Pilegaard, 2000), which is why specialized terminology and specific syntactic structures are preferred. Namely, characteristics of LSP in general include economical and precise means of communicating topics, specialized terminology and use of certain linguistic structures (Høy, 1999).

Medical language, as any other LSP, has its own rules and features. Croatian medical language is not an exception. It is based on Latin and Greek, but during the last decades an influx of English terms has been noticed.

2. Background

The language of medicine has a long nearly 2500-year-old history. It stems from the times of ancient Greece, which played an important role in the development of medicine. From a number of preserved medical terms of Greek origin in Croatian several can be mentioned as *diarea*, *emfizem*, *myopia*, *pneumonija*, *trauma* etc.

During the era of medical Latin, the Greek terms were imported directly or they were latinized and written with Latin letters replacing Greek endings by Latin ones, as in *bronchus* (Gr.bronchos), *colon* (Gr. kolon), *pericardium* (Gr. *pericardion*) or Greek terms were translated into Latin such as *dentes canini* (from Greek *kynodontes* (dog teeth) or *caecum* from Greek *typhlon* (the blind gut).

Except for these dead languages, other living languages influenced medical terminology. Terms of French origin like *migrena* (Fr. *migraigne*), *drenaža* (Fr. *drenage*), *serklaža* (Fr. *serclage*); of Italian origin like *skarlatina* (It. *scarlatina*), *pelagra* (It. *pellagra*); of Arabic influence like *alkohol* (Ar. *al-kuhl*), *alkemija* (Ar. *al-kemi*) or Turkish like *bubreg* (Tr. *böbrek*) are widely used.

The interest for Croatian medical language appeared in the 19th century when I. Dežman published his first medical dictionary *Riečnik liečničkoga nazivlja* in 1868. His proposed terms as *žlijezda* (Engl. *gland*), *žučni kamenci* (Engl. *gall blader stones*), *poplućnica* (Engl.*pericardium*) are still used, while others as *mokraćni žlibak* for *mokraćni mjehur* (Engl.*urinary bladder*) were never accepted. He was followed by A. Kuzmanić who published *Ričnik likarskog nazivlja* in 1875, while Peričić's dictionary *Medicinski rječnik njemačkoga i hrvatskoga jezika* was published in 1906. We should also mention Arambašin and his *Liječnički rječnik* published in 1912 while Nemčić published *Medicinski rječnik* in 1913.

The care for Croatian medical language intensified in the late 60-ies of the previous century when Croatian physicians tried to standardize Croatian medical terminology and remove all the negative features, particularly loans, abbreviations, polysemy etc. We should mention Friščić, Antonin and Loknar who published numerous articles on medical language paving the road to present medical language researches and compilation of up-to-date medical dictionaries.

3. Purist attitudes in Croatian (medical) language

Croatian has always been a purist language (Turk, 1996). The attitudes towards purism differed according to social and political situation in which the language was exposed to foreign influences. The purist reactions mostly aimed at substituting foreign words with the Croatian ones.

Generally, lexical system is the most liable to changes, so purists dealt most with loans trying to find an adequate loan translation. Still, Jonke (1953) considers that it is not possible to remove all foreign words from one language due to cultural connections with other nations.

After social and political changes which led to Croatian independence in 1991, a new tendency in Croatian vocabulary was noticed. There was a revival of Croatian vocabulary which was undesirable after World War II. Internationalisms, widely used in the previous social system, were substituted with neologisms or archaisms, eg. *centar* → *središte*, *sistem* → *sustav*. The same tendency is noticed in medical terminology, e.g.

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before 1991	after 1991
<i>centralni nervni system</i> (Engl. <i>central nervous system</i>)	središnji živčani sustav
<i>kardiovaskularni</i> (Engl. <i>cardiovascular</i>)	krvožilni
<i>cirkulacija</i> (Engl. <i>circulation</i>)	optok
<i>mikroskop</i> (Engl. <i>microscope</i>)	sitnozor
<i>modificiran</i> (Engl. <i>modified</i>)	preinačen
<i>dijagnoza</i> (Engl. <i>diagnosis</i>)	raspoznaja

Following their purist attitudes, the authors even exaggerated, e.g. *šok* → *krvotočni urušaj* as in the following example:

— *Krvotočni urušaj* može nastati kao posljedica tri patogenetski raznorodne skupine poremećaja. (Gamulin, 2002)

(Engl. Shock can develop as a consequence of three pathogenetically different groups of disorders.)

The term *šok* (Engl. *shock*) is completely integrated in the Croatian language system, so there was no need for its substitution. A similar example is the term *mejoza* (Engl. *meiosis*) → *zoridbena dioba*.

— *Zoridbena dioba* je mnogo složenija od mitoze i sastoji se od dviju uzastopnih dioba. (Švajger, 1998)

(Engl. Meiosis is more complicated than mitosis and consist of two successive divisions).

The term *mejoza* is used in other languages: English *meiosis*, French *mèiosis*, German *Meiose*.

4. Croatian vs. Latin

As we already mentioned, Croatian medical terminology is mostly based on Latin. Diagnoses are written in Latin as well because Latin terms are shorter and monoreferential, as illustrated in the following table:

Latin	Croatian
<i>hemiplegia</i>	oduzetost desne strane tijela uz povišeni tlak krvi
<i>incontientio</i> (Engl. <i>incontinence</i>)	nesposobnost zadržavanja urina
<i>uroinfectio</i> (Engl. <i>uroinfection</i>)	infekcija mokraćnih puteva

However, writing diagnoses in Latin and using Latin in Croatian medical terminology have aroused numerous discussions (Petriček, 2006). Some physicians insisted on Latin terminology, others advocated the use of Croatian and the third proposed the Croatization of Latin diagnoses. In practice it could be illustrated the following way:

Latin: *sinuitis acuta*

Croatian: *upala sluznice pobočnih nosnih šupljina*

Croatianized Latin: *akutni sinuitis*

English: *acute sinusitis*

Followers to each of the above trends tend to substantiate their opinions by a variety of arguments. Most come down to the tradition, convenience and patriotism and more recently to preventing invasion of medicine by the Anglo-Saxon terminology (Poljak, 2007).

The dilemma was solved by the Croatian Standard Language Council (2006) which decided that diagnoses should be written both in Latin (due to its internationalization) and Croatian (to preserve the national language in medicine). However, according to the latest decision of Croatian Ministry of Health (2011), Latin should be used in writing diagnoses due to the internationalization of medical language as Latin is the standard in medicine, along with English which is widely used in medical literature. Diagnoses in Croatian would create problems in Croatian medical terminology and Croatian medical documentation would be completely unintelligible.

5. Croatian medical language and functional styles (FS)

It would be impossible to talk about any LSP without mentioning functional styles of language. Language is an abstract system and it is realized in its functional styles. They are the subsystems of language, each subsystem having its own peculiar features concerning vocabulary means, syntactical constructions and even phonetics. According to I. Galperin a functional style of language is a system of interrelated language means which serves a definite aim in communication (Galperin, 2010).

The appearance and existence of functional styles is connected with the specific conditions of communication in different spheres of human life. Functional styles differ not only by the possibility or impossibility of using some elements but also due to the frequency of their usage.

The classification of functional styles is complicated. Some authors treat FS as patterns of written variety of language thus excluding colloquial FS. However, all the authors agree that each functional style can be recognized by one or more leading features. Each FS is a relatively stable system, but it changes from one period to another. It is also greatly influenced by changing social conditions, the progress of science and the development of cultural life.

Each functional style of language is marked by a specific use of language means, thus establishing its own norms which are subordinated to the norm-invariant and which do not violate the general norm.

The language of medicine is realized in scientific prose style and newspaper style. Scientific prose style is objective, precise and mostly unemotional language means. It is characterized by the use of terms, impersonality and generalized form of expression reflected in the choice of grammar and syntactic constructions, logical sequence of utterances, use of quotations, references and footnotes. (Silić, 1997)

Newspaper style basically serves the purpose of informing and instructing the reader. It is characterized by neutral and literary vocabulary, newspaper cliches, abbreviations and neologisms which make their way into the everyday language use and will certainly find their way to the public (Silić, 1997).

6. Medical terminology

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While speaking about the language of medicine, we immediately think of medical terminology. Terminology is a set of terms which represent a system of concepts within a certain field. Terminology is the first step to access medical language. Medical terminology is a specific terminology used to achieve the purpose of communication in the healthcare field efficiently and precisely.

Basically, medical terminology has two characteristics. First, except for one-syllable words, most medical words are made of roots and affixes. Any single medical term has at least one root determining its meaning and one or more prefixes or suffixes to change the part of speech or change the meaning of the word. Second, medical vocabulary is an open system with a large number of low-frequency words and newly created words (neologisms).

Although medical terms are monoreferential, i.e. words have specific meanings, medical terms are borrowed in other sciences or in common language. For example, *face lifting* in medicine denotes "a plastic surgery to remove facial wrinkles, sagging skin, fat deposits or other visible signs of aging" (Mihaljević, 1998). Today the term is used in common language in the general

meaning of "renovation" and in the corpus we recorded the following example: "*face lifting zgrade Hrvatskog narodnog kazališta.*" (Engl. face lifting of the Croatian National Theatre)

The term *clone* in medicine denotes "*a cell or a group of cells that is descended from a single parent cell*" (Webster's Medical Dictionary, 1997). In informatics this term obtained a new meaning by the process of metaphorization and denotes "*a computer or a device which copies the existing one and has the same or almost the same possibilities as the original one*" (Longman Dictionary of Contemporary English, 1995). In the common language this term has a pejorative meaning and denotes "*a person who is chosen to do a job in the way the employer wants, without any reasoning*" (Longman Dictionary of Contemporary English, 1995).

7. Anglicanization of Croatian medical language

Except for Latin which was the official language of medicine until 1847 and left its traces in Croatian medical vocabulary, English has had a strong influence on Croatian medical language on all language levels. Medicine is one of the professions which develop rapidly. New diseases, technologies, diagnostic methods appear and the English terms are widely accepted first by the physicians and, after being spread by media, they are accepted by Croatian speakers as well. However, English medical terms remain nontransparent and unintelligible. A study carried out in Croatia among laymen showed that people used loans, but they did not know their meaning. Terms like *mobbing*, *bullying*, *burn out syndrome* remain unclear to most of the respondents, regardless their education.

The process of borrowing is very simple. The terms are first orthographically non adapted (regarded as foreign words), then they adapt phonologically and morphologically to Croatian language system (loans). After some time Croatian words (loan translations) are proposed. If it is done on time, there is a great probability that loan translations will be accepted and widely used by Croatian speakers, e.g. *screening*→*probir*, *bypass*→*premosnica*, *pacemaker*→*elektrostimulator*. The term *kopnica* (Engl. AIDS) has never been widely accepted, although it is used in medical textbooks. The terms *ritmodajnik* (Engl. *pace-maker*) and *potpornica* or *žilni potporanj* (Engl. *stent*) have not been accepted yet.

8. The problem of synonymy

The simultaneous usage of foreign adopted and domestic words leads to synonymy. Synonyms in terminology denote words or word combinations which differ phonetically but express equal scientific concepts within certain microsystem (Mihaljević,1998). It is the result of multi language influence on the Croatian medical language:

screening – skring – profilaktičko ispitivanje – probir,

bypass – bajpas – premosnica,

pace maker – pejs mejker – elektrostimulator srca – srčani elektrostimulator.

Synonymy is sometimes the result of eponymy, i.e. the name derived from a person, such as

Down's syndrom – mongolizam – trisomija,

Gravesova bolest – Bazedovljeva bolest – hipertireoza (Engl. Grave's disease).

In order to avoid synonymy it is necessary to follow the criteria which determine the usage preference of a certain term over the other expressions which belong to the same synonymous groups. There are criteria which correspond to the essential qualities of a term: motivation, stability, unambiguity and accuracy, derivativeness, shortness and translatability.

Motivation is a feature of a term that refers to the motive (stimulation) and to the path of its formation (Masar, 1989) which leads to understand the semantic connection between the derived, the special and the primary meaning of a given word. It is widely present in medical terminology as Greek tradition was linking the shape of anatomical structures to different things, for example to *musical instruments* (e.g. *tuba=trumpet*, *tibia=flute*), *tools* (*fibula=needle*), *plants* (*uvea=grape*) and animals (*helix=snail*).

In Croatian there are also highly motivated medical terms:

kopnica (a Croatian term for AIDS) – the Croatian equivalent is based on the symptoms and course of the disease,

ritmodajnik (a Croatian term for pace maker) – a device which provides the regular rhythm to the heart.

Stability refers to the ability of a term not to change in time and place.

Unambiguity refers to the principle "one term-one meaning" in order to avoid misunderstanding and to achieve clarity.

Derivativeness refers to the ability of a word to form another word class:

bajpas — *premosnica* (Engl. *bypass*)

bajpasni — *premosni*

— *premoštenje*

— *premostiti*

pacemaker — *elektrostimulator*

pacemakerski — *elektrostimulacijski*

— *elektrostimulacija*

— *elektrostimulirati*

It is evident from the following examples that other word classes are more easily made from loan-translations than from the English loans.

Shortness is the tendency to express several concepts in the shortest lexical and syntactic forms. Generally, English terms are usually shorter than their Croatian equivalents, as illustrated in the following table:

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Short form	Long term	English term
<i>dijalizator</i>	<i>aparatus za dijalizu bubrega</i>	<i>dialyser</i>
<i>korijensko punilo</i>	<i>uređaj za punjenje korijenskog kanala</i>	<i>root filler</i>
<i>spekulum</i>	<i>ogledalo za promatranje</i>	<i>speculum</i>

There is also another criterion to be fulfilled – the adaptation to orthographic, morphologic and syntactic system of the Croatian language.

Orthographically English terms are not adapted, e.g. *bajpas* (Engl. *bypass*), *pejs mejker* (Engl. *pace maker*) as consonant groups *-jp*, *-js*, *-jk* do not exist in the Croatian language system.

Morphologically they fit in the system, e.g.

terapija za sprječavanje *clustera*...

(Engl. therapy for cluster prevention)

kućni *pilinzi* slabije su koncentracije...

(Engl. home used peeling has lower concentration)

svaka četvrta osoba žrtva je *mobbinga*...

(Engl. every fourth person is the victim of mobbing)

There are some deviations from the norm on the syntactic level that will be mentioned later.

9. Polysemy in terminology

Polysemy refers to the phenomenon by which a term may have multiple meanings. It is widespread in verbal communication. The main reason is that linguistic items are used economically. Humans try to use already known terms instead of creating complex sentences for each intended meaning they want to express. Terminological economy is diffused in specialized languages and medicine makes no exception. For example by *inflammation* one could mean a physiological function, a condition or the area of an organ that bears an inflammation process. Polysemy should be avoided as it leads to misunderstanding and wrong interpretation.

For example the term *infiltracija* (Engl. *infiltration*) has the following meanings:

Nenormalno prožimanje tkiva stanicama/tvarima (upalnim, tumorskim, masnim);

(Engl. *abnormal infiltration of cells/substances into the tissue*)

Injekcija lokalnog anestetika u tkivo.

(Engl. *injection of local anaesthetic into the tissue*)

English term *splicing*, which still does not have an adequate loan translation, records the following meanings:

spajanje (Engl. *linkage*)

izrezivanje (Engl. *cutting out*)

prekrajanje (Engl. *tailoring*)

as in the following examples:

Ovakvi sustavi za ekspresiju mogu se koristiti samo za DNA, jer se ni u sustavima za transkripciju i translaciju in vitro, ni u bakterijama, ne mogu reakcije istjecanja i *spajanja* RNA ... (engl. *splicing*) (Cox, 2000)

(Engl. Such systems for expression can be used only for the DNA, as the reactions of *splicing* cannot be used in the systems for translation and transcription in vitro)

...egzoni se spajaju nakon *izrezivanja* RNA (engl. *RNA splicing*) (Cox, 2000)

(Engl. *exons are linked after RNA splicing*)

...prekrajanje (engl. *splicing*) - povezivanje egzona u molekuli pre-RNA. (Cooper, 2004)

(Engl. splicing- linking of exons in the pre-RNA molecule)

In this case only specialists of a field could choose the most appropriate term.

10. The use of abbreviations

Abbreviations and acronyms are one of the most doubtful lexical groups, as their meaning always remains unclear to laymen. In order to avoid misunderstanding it is necessary to define the terms.

Abbreviation is a shortened form of a word or phrase, spelled variously according to the rules of a particular language and pronounced as separate sounds, e.g.

ITM → indeks tjelesne mase, (Engl. body mass index)

DNK → deoksiribonukleinska kiselina

(Engl. deoxyribonucleic acid)

Acronym is a word formed from one to several capital initial letters or syllables. In most cases they form a new word, e.g. *AIDS*, *ELISA* ...

Both are means of condensing medical terminology. They appear in written and oral medical communication. The reasons for their extensive use is the economy in space and time. However, their meaning is known only to a limited number of professionals. They remain incomprehensible and obscure to laymen and often leave them out of communication.

In 1965 Glesinger wrote that the widespread use of abbreviations was another negative feature of medical language that should be eradicated. Today, abbreviations are used more than ever to save time. However, according to *Code of Medical Ethics and Deontology* (Hrvatska liječnička komora, 2002) the patient has right to be completely informed (*informed consent*) about his condition. On the basis of the information received he has the right to accept or refuse a recommended medical procedure. It can be realized only if the language used by doctors is understandable and clear to the patient. Therefore, in the communication with their patients doctors should use a simple language with common terminology.

Except for being formed by the initial letters, abbreviations in Croatian medical terminology are also formed by *clipping*, i.e. by shortening (Muhvić-Dimanovski, 2001) as illustrated below:

patofiza → *patofiziologija*, (Engl. *pathophysiology*),
otorina → *otorinologija*, (Engl. *otolaryngology*),
kemo → *kemoterapija* etc. (Engl. *chemotherapy*),
 This type is common in colloquial style.

Blending consists of the initial or final syllables of the words, e.g.:

KAPRA → *kapacitet polja razumljivosti*,
 DITEPER cjepivo → *difterija, tetanus, pertusis*.
 (Engl. *diteper vaccine-diphtheria, tetanus, pertusis*)

The use of abbreviations raises several problems (XXX). Polysemy, the phenomenon by which a term may have multiple meanings is unwanted in terminology. As mentioned before, medical terminology is characterized by monoreferentiality – one term for one meaning. However, there are abbreviations with several meanings:

Abbreviation	English	Croatian
ABC	<i>airway, breathing, circulation</i> <i>aspiration biopsy cytology</i> <i>antigen binding capacity</i>	<i>dišni put, disanje, cirkulacija</i> <i>citologija iz uzorka</i> <i>spособnost vezanja antigena</i>
CSF	<i>cerebrospinal fluid</i> <i>colony stimulating factor</i>	<i>cerebrospinalni likvor</i> <i>činitelj stimulacije kolonija</i>
PMS	<i>premenstrual syndrome</i> <i>perfect moment syndrome</i>	<i>predmenstrualni sindrom</i> <i>sindrom savršenog trenutka</i> <i>prirodene mane srca</i>

Another problem is the pronunciation of abbreviations and acronyms. It is well defined in the Croatian language. Acronyms are read as a complete word, e.g. LASER (laser) and abbreviations are read by initial alphabet letters, e.g. CT (ce te). However, there are deviations from the norm. In some cases the English pronunciation is followed in Croatian, e.g. PTSP (post traumatski stresni poremećaj) pronounced as pi-ti-es-pi instead of pe-te-es-pe or in the case of DDT pronounced as di-di-ti instead of de-de-te.

Pleonastic constructions, i.e. the use of more words or word parts than necessary present another problem regarding the abbreviations as in following examples:

Abbreviation	English term	Croatian full term
PMS sindrom	<i>premenstrual syndrome</i>	<i>predmenstrualni sindrom sindrom</i>
OGTT test	<i>oral glucose tolerance test</i>	<i>test opterećenja glukozom test</i>

The noun is contained in the abbreviation so it should not be mentioned.

Other pleonastic constructions are recorded, such as *liječenje radioterapijom* (*terapija* meaning *liječenje*) (Engl. treatment with the radio therapy, treatment meaning therapy), *laserske zrake* (Engl. laser rays), *fokalno žarište* (Engl. focal center), etc.

11. Nominalization

As already mentioned not only the lexical system is under the foreign influence, but there are also some deviations on the syntactic level.

Nominalization is a syntactic phenomenon used in specialized texts. This process consists of using a noun instead of a verb. The frequent use of nominalization in medical texts implies as a consequence a loss of value of a verb. It loses its role and acts as a copula linking more and more complex noun phrases. Consequently, the text becomes denser at the lexical level as shown in the following example:

The complete development of the fracture model requires an understanding of the bone-rupture reaction.

In Croatian the same phenomenon is noticed. It does not conform to the norm and jeopardizes the syntactic system of the Croatian language. The following examples are not acceptable as the noun is never used in an adjective form:

— ...određivanje *prostata specifičnog antigena* u krvi (...) u široj je primjeni tek 15-ak godina (Engl. *prostate antigen*) (Vita, 2005)

(Engl. determination of the prostate specific antigen in the blood (...) has been applied for 15 years.)

We should be careful and use an adjective instead of a noun: *prostatični antigen* or *antigen prostate*.

In the example *stres fraktura* (Engl. *stress fracture*) the acceptable Croatian term would be *prijelom prouzročen stresom* as the loan translation *stresna fraktura* does not convey the English meaning. The phenomenon is illustrated in the following table:

English term	Croatian incorrect terms	Croatian correct term
<i>prostate antigen</i>	<i>prostata antigen</i>	<i>prostatični antigen or antigen prostate</i>
<i>stress fracture</i>	<i>stres fraktura</i>	<i>prijelom prouzročen stresom</i>
<i>baloon catheter</i>	<i>balon kateter</i>	<i>balonski kateter</i>
<i>color Doppler</i>	<i>kolor dopler</i>	<i>obojeni dopler</i>

As seen from the examples, syntactic qualques are formed under the English influence. However, they do not conform to the rule and should be avoided.

12. Conclusion

In the paper the Croatian language of medicine was analyzed. It is based mostly on Greek and Latin, however other foreign influences are recorded (French, Italian, Spanish, Turkish). During the last three decades an influx of English medical terms has been noticed. English has become *lingua franca* of medicine and of all scientific fields, so its influence is inevitable in all languages.

Such a multilingual influence leads to synonymy, which is unwanted in terminology. Abbreviations are widely used in everyday communication and in terminology as well due to its economy in time and space. However, their use is doubtful from different points of view - linguistic and ethical. Polysemy is also present in terminology, but it should be avoided as it leads to misunderstanding and wrong interpretation. The changes are evident not only on the lexical level, but the syntax is affected by the English influence as well.

It is evident that there are some dilemmas that cannot be solved only by linguists. A cooperation between linguists and specialists of a field is necessary in order to unify terminology according to terminology criteria. For that purpose the National Foundation for Science, Higher Education and Technological Development of the Republic of Croatia developed a Croatian Special Field Terminology Program. Its objective is to lay foundation for the development of national

terminology policy. In the first phase of the project the principles for terminology selection and standardization as well as basic methods of terminology management have been devised. Through establishing standardized terminology for various subject fields and professional domains the program will gradually improve the circulation of knowledge and information in the Croatian language as well as in the broader multilingual environment.

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