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English for Academic Purposes: Theoretical Aspects of Professional Communication in Medical Studies

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Abstract

The article is devoted to the theoretical aspects of Languages for Specific Purposes (LSP). The author proceeds from the assumption that the interaction of people with their environment can be understood as receiving and decoding certain information. Certain types of information can be stored and be transferred only with the help of specially organized systems – languages, which are specially adapted to the given type of modelling and communication. Such a type of occupational verbal communicative system is identified as language for specific purposes. The article presents a survey of the corresponding scholarly literature, which reveals the views, opinions and approaches to the problems of professional communication. The author gives evidence that LSP is not fundamentally different from LGP in terms of linguistic usage but differs rather in terms of particular modes of language that are common in different professional settings. LSP is defined as a conventionalized semiotic system based on a natural language and characterized by a cognitive function, which indicates the development of civilization and serves as an instrument of professional work and training. Particular emphasis in the article is laid on English for Medical Studies (EMS). Subjected to analysis is the vocabulary of that professional domain.

Keywords: *Writing, Dictionary, lexical density*

Introduction

In the last decades of the 20th century some additional areas streamed into linguistics. The definition of language has acquired a fresh wording and is identified as a symbolic system with a certain purpose or purposes, mainly communication, although there are other possibilities too,

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such as an instrument of thought (Strazny, 2005). This definition has much in common with the one given by F. Grucza who defines language as an instrument serving not only human communication, but first and above all, it is a peculiar instrument of human labour (Grucza, 1991). In accord with new theories, language units are recognized as symbols, i.e. signs whose relation with their meanings is established through a conventional rule (Strazny, 2005).

Identifying language as a semiotic system with certain purpose or purposes, we will have to define it more carefully according to its purposes. The purpose of communication depends upon the circumstances attending the process of speech in each particular case. It relates to the appropriate choice of language with regard to domain, i.e. ‘a cluster of social situations constrained by a common set of behavioural rules’ (Strazny, 2005, p. 898, v. 2). The word *domain* has acquired another meaning: an area of activity, interest, or knowledge (Webster, 1993). The purposes of communication within those areas were recognized by T. Hutchinson and A. Waters as special (T. Hutchinson, A. Waters, 1987) as specific. The language, which serves these purposes, is identified as language for specific purposes (LSP). In European linguistic tradition, the term LSP is applied to language means used by experts communicating within their areas of expertise.

The concept of Language for Specific Purposes arose in the early 1960s in response to the recognized need for improved communication between the developed and developing countries of the world. The developing countries were hungry for “the explosion of technical information in this century which caused English to become the *lingua franca* of the international community” (Hitchcock, 1978), and the developed nations were anxious to provide appropriate aid. With the status of *lingua franca* came the self-conscious realization on the part of the English teaching profession that the English language was desired “not for the purpose of spreading British or American link within multi-cultural, multi-lingual societies as a vehicle for international communication, entertainment and administration, but as the language in which the genesis of the second industrial and scientific revolution has taken place (Stevens, 1977). This global state of affairs in conjunction with the increasing recognition of the need for relevance in English teaching – all came together under the rubric ESP, English for Special (now Specific) Purposes.

The first focus of ESP was on the lexis. The idea was that normal ESL materials would be used but that subject-specific lexical items would be substituted for terms that are more general. This was originally labelled ‘register’ for want of a better term, and it led to a useful analysis of several sub-branches of science and technology in terms not only of lexis but also of grammatical structure (Barber, 1962). For science, the grammatical differences from ‘general English’ were fewer than imagined. However, what was clear was that simple lexical substitution would be insufficient.

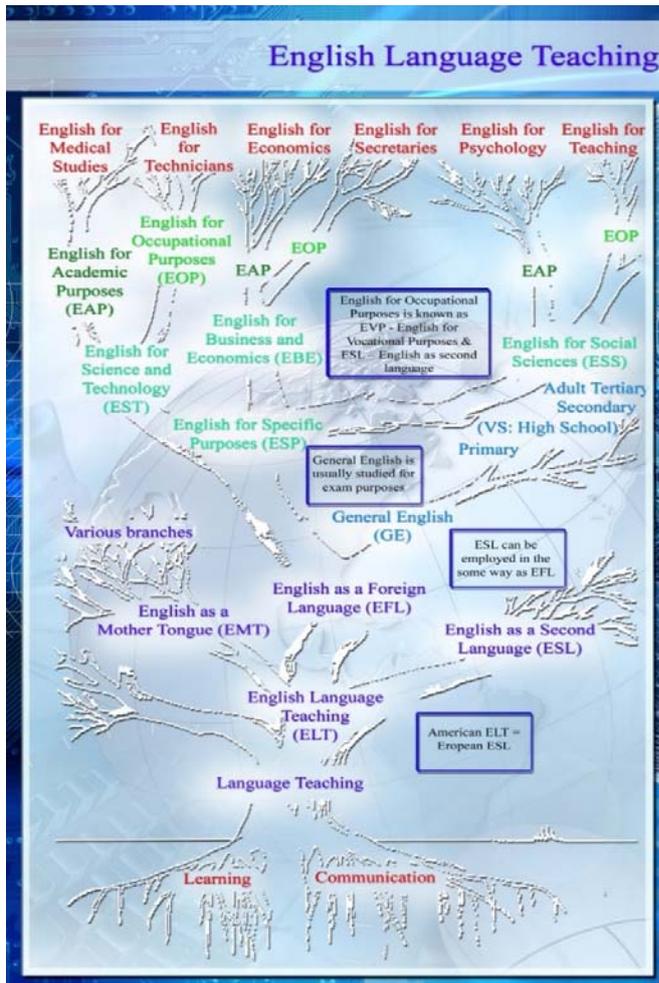
Literature review

With the shift away from linguistics the view of language as communication opened the way for a more global approach to scientific language, including investigations of the reasoning and

conceptual processes scientists applied. Thus, a new motivation was described, not just to learn English but also *to learn English in order to manipulate difficult intellectual material in it*. The focus on the needs of the learner as opposed to the inculcation of linguistic facts led to a general shift away from teacher-centeredness to learner-centeredness. This same de-emphasis on the traditional authoritative teacher role was enjoying resurgence in general ESL, but ESP really offered the most practical means of identifying learner needs and meeting them directly.

ESP is largely addressed to adult learners who require English to further their education or to perform a social or working role, without which their development would be restricted or adversely affected in some way (G. Gumovskaya, 2017, p. 12). The learner-centered, needs-based, and cognitively cognizant features that ESP has seen as necessary developments should be applied to all aspects of ESL. Mackay and Mountford (1978) recommended gathering a representative selection of uses of language in particular circumstances. The instructions based on those modes of language must be process-oriented, not goal-oriented (Widdowson, 1981). The process-oriented approach recognizes the two basic learning styles known as ‘convergent’ and ‘divergent’ (Hudson, 1967). The former is associated with the students of *the exact sciences*, the latter – with students of *the arts and social sciences*.

Language for Specific Purposes is probably the most challenging branch in linguistics. The term LSP has been in use nearly half a century now, and its definition can be found in many issues on the subject that followed the first, classical edition by T. Hutchinson and A. Waters (1987). The authors illustrated their idea by a picture of a tree.



Picture 1. *English Language Teaching*

In the picture, ESP is opposed to General English, usually taught for exam purposes. The conclusion we can draw is that ESP is teaching English for other purposes, e.g. work or study. These two are usually called professional / occupational purposes and academic purposes. Climbing further up Hutchinson's tree, we can find the division into three branches of relatively general specification: English for Science and Technology, English for Business and Economics, and English for Social Sciences. Each of them is further split into English for Occupational Purposes and English for Academic Purposes, respectively, and, finally, at the top, we can see particular outcomes: English for Medical Studies, English for Technicians, English for Economics, English for Secretaries, English for Psychology and English for Teaching.

Further development of the basic principles of LSP found its realization and understanding in great diversity of definitions and in a considerable difference of opinion as to its nature, status and subject matter. A definition that seems to be closest to the original idea of T. Hutchinson is offered by J. Lukszyn who states that LSP is a conventionalized semiotic system based on a natural language and characterized by a cognitive function, which indicates the development of

civilization and serves as an instrument of professional work and training (Lukszyn, 2002). The most general properties of LSP are monosemy on a semantic level, hypotaxis on a syntactic level, emotional neutrality on a stylistic level and simplification on a morphological level. Additional characteristics can be found in the work of A. Szulc who defines LSP as a particular form of general language, adjusted in such a way as to describe a given area of knowledge or technology as precisely as possible. It is conspicuous by special lexis (including international terms), syntax and a frequent usage of certain grammatical forms (Szulc, 1984).

LSP products are of one-dimensional structure of logical syntax, which means a lack of any implications as opposed to functional units of general language that are equivocal in their nature. Another LSP universal is hypotaxis. This phenomenon of a syntactic level consists in joining separate syntactic structures in accord with coordination principle or logical subordination principle within the frame of complex syntactic structures. LSP can also be characterized by means of simplification on morphological level. It indicates simplifying to a greater or lesser extent of the grammatical system in relation to the initial general language. On the stylistic level, functional LSP units are deprived of expressive connotations, which results in their neutrality.

Differences between LGP and LSP manifest themselves on many levels, but mainly on the functional one. In LSP, there is a lack of functions so much characteristic to LGP, namely:

- An appellative function which means a possibility to influence a receiver's behavior during and through a communicative act;
- An expressive function enabling transmission of a receiver's emotional states;
- A poetic function – a linguistic ability to denote elements that belong to extra linguistic reality through creating or evoking a certain image in a receiver's mind.

Another feature, which distinguishes LSP from LGP, is terminological openness of lexicons towards borrowings, especially the ones belonging to highly developed countries. Each LSP possesses its own autonomous terminological lexicon and own logical syntax rules of introducing terminological units into the text. The lexicon of an LSP is based on lexical accomplishments of LGP; however, it is not limited solely to it as it also uses the vocabulary of a foreign language. The attitude to borrowings is diametrically opposite in relation to LSP and LGP. The former prefer borrowings of foreign words in the capacity of doublets of already existing native words, which is unacceptable as far as natural languages are concerned.

We can also point out a tendency to internationalize terminological systems to LSP characteristics, as well as a predisposition to conceptual transformations resulting from interdisciplinary relations and taking advantage from lexical achievements of classical languages while creating new terminological units.

We make no apology for the age of many of references in this research; most of them refer to the introduction of the idea of Languages for Special (Specific) Purposes, rather than the latest glosses on it. The phenomenon and the term do exist nowadays being applied to any verbal system of professional communication; moreover, they are of current topical interest to science and society immediately touching upon the urgent linguistic problem of sharing and exchanging ideas in professional domains. But the problem which remains refers to its being identified as a language, for in accord with dictionaries, language is defined as “the system of communication

in speech and writing that is used by people of a particular country or area” (Oxford Advanced Learner’s Dictionary, 7th edition, p. 862).

In order to be consistent in exposition of the material related to LSP the widely accepted opinions, ideas and approaches to languages for specific purposes put forward by T. Hutchinson & A. Waters, Ph. Strazny, J. Lukszyn, A. Casselman, F. Grucza, J. Hitchcock, P. Strevens and J.C. Sager have been elaborated to meet the goals of this work. It was stated that LSP is intended for a particular profession or a range of similar occupations and is targeted on particular vocabulary and phrasing, grammar rules and stylistic patterns, prosodic contours and models of discourse conspicuous for certain professional speech varieties.

The controversial problems of LSP

Within the frames of our wide-ranging discussion about languages for specific purposes as verbal systems of professional communication being the most challenging area of linguistic research, we shall face a question whether it is entirely reasonable to associate this professional communicative system with the notion “language” as a class of symbolic system, or a concrete living ethnic language used in some society, on some territory and in some time. How adequately does any verbal system of professional communication represent the properties and features of language? Observing fidelity to traditional terminology, we reformulate the essence of the problem in the following way: where does the difference between language for general purposes and language for specific purposes lie? To get a reasonable answer we shall subject to analysis the key linguistic parameters of the language for specific purposes in the area of medicine – English for Medical Studies. As it is known that the lexical system of professional communication forms the basis for LSP identification, we shall also subject the lexicon of English for Medical Studies to thorough analysis.

The aim of this research is to present theoretical as well as practical aspects of linguistic identification of Languages for Specific Purposes and to describe linguistic relations between terms and the general vocabulary.

We proceed from the assumption that the most effective way of studying the formation and development of the vocabulary of a language for specific purposes is its representation as a lexico-semantic field. Proceeding from some experience with the students studying English for Medical Studies, we have chosen this sphere of professional activity as a source of empirical material and the object of scientific research.

The theoretical approach to the EMS vocabulary used in the article is based on the principles of Descriptive Linguistics, which studies the functions of words and their specific structure in the system and provides a clear understanding of the laws of vocabulary development. Of pivotal importance in descriptive linguistics is the theory of semantic field introduced by J. Trier. The conception of linguistic fields is based on Saussure’s theory of language as a synchronous system of networks held together by differences, oppositions and distinctive value. The theory recognizes the existence of several ‘conceptual fields’ or ‘lexical fields’, intermediate between the individual lexical items and the totality of the vocabulary. It is this which constitutes the most

original and fertile aspect of Trier's theory of semantics: 'Felder sind die zwischen den Einzelworten und dem Wortganzen lebendigen Wirklichkeiten, die als Teilganzes mit dem Wort das Merkmal gemeinsam haben, dass sie sich gliedern, mit dem Wortschatz hängen, dass sie sich ausgliedern' (Trier, 1934, p. 430).

Discussion

The central object of linguistic discussions in the area of LSP research is term. We shall omit a detailed review of this fundamental notion and state that a term is traditionally understood as a word or a word-group, which is specially employed, by a particular branch of science, technology or the arts to convey a concept peculiar to this particular activity. Terms constitute the bulk of special lexis and can be described in terms of semantic uniqueness, systemic nature, conceptual cohesion, heterogeneity of constituents and thematic divisibility.

There are several controversial problems in the field of terminology. The first is the puzzling question of whether a term loses its terminological status when it comes into common usage. Today the media of mass communication often ply people with scraps of knowledge from different scientific fields. Under these circumstances, numerous terms pass into general use without losing connection with their specific fields.

There are linguists in whose opinion terms are those words, which have retained their exclusiveness and are not known or recognized outside their specific sphere. From this point of view, words associated with the medical sphere, such as *unit* (a measured amount of a medicine), *theatre* (a special room in a hospital where medical operations are done), *contact* (a germ-carrier) are no longer medical terms as they are in more or less common usage. The same is certainly true about names of diseases or medicines, with the exception of some rare or recent ones known only to medical men.

According to another point of view, any terminological system is supposed to include all the words and word-groups conveying concept peculiar to a particular branch of knowledge, regardless of their exclusiveness.

Two other controversial problems arise from polysemy and synonymy. According to some linguists, an ideal term should be monosemantic, i.e. it should have only one meaning. Polysemantic terms lead to misunderstanding, and it is a serious shortcoming in professional communication. This requirement seems quite reasonable, yet facts of the language do not meet it. There are, in fact, numerous polysemantic terms. In medical vocabulary, the word *vector* [Latin, *carrier*] has two meanings. On the one hand, it means 'an agent that transmits a disease, such as a flea or a louse'. On the other hand, it is 'a quantity having direction and magnitude'. Heart electrical activity is traced and made visible on an oscilloscope with the help of vector cardiogram (Casselman, 2005).

The same is true about *synonymy* in terminological systems. There are scholars who insist that terms should not have synonyms because, consequently, scientists and other specialists would name the same objects and phenomena in their field by different terms and would not be able to come to any agreement. This may be true. However, in fact, terms do possess synonyms.

Two medical terms *rachitis* and *ricketts* denote a deficiency disease of children. And the number of synonyms to denominate a disease of malignant swelling is really fantastic and includes words of different origin – *oncos* (Greek), *cancer* (Latin), *tumor* (Latin), *carcinoma* (Greek), *neoplasm* (Greek), etc. (Casselmann, 2005).

In the field of LSP, the studies of lexicon should not be confined to the issues of terminology alone. According to J. Sager, the lexicons of languages for specific purposes contain mainly, not only, special reference units, whose totality is called terminology. They also include a considerable number of words, i.e. items, which do seem to be specific and their referential qualities rather ambiguous or across-the-board. The totality of words is referred to as vocabulary (Sager, 1990).

J. Lukszyn also states that a term is only part of a conceptual system, which is generally considered to be temporary, and its meaning can be described as systemic and, inevitably, changeable. Specialist lexicons comprise professional and conventional terminology. The former is used by professionals and activity groups, whereas the latter is created by artificial means in order to consolidate professional, intellectual and practical procedures. Conventional terminology contains terms of scientific and technical nomenclature. Scientific nomenclature includes categorical, procedural and relation terms as well as quasi-terms typical of that area, pre-terms and individual terms. Technical nomenclature comprises terms of objects, actions and qualities (Lukszyn, 2002).

Besides the vast area of terms – units of specialist lexicon, the vocabulary of a LSP treated as a system of expressive means peculiar to a specific sphere of communication comprises several more strata of words. First, it inevitably employs stylistically neutral words. Their stylistic neutrality makes it possible to use them in all kinds of situations, both formal and informal, in verbal and written communication. These are words without which no human communication would be possible as they denote objects and phenomena of everyday importance: *child*, *mother*, *red*, *difficult*, *to go*, *to stand*, etc. Neutral words are also called the basic vocabulary and constitute the central group of any natural language, its historical foundation and living core. That is why words of this stratum show a considerably greater stability in comparison with words of the other strata. Basic vocabulary words can be recognized not only by their stylistic neutrality but also by entire lack of other connotations, i.e. attendant meanings. Their meanings are broad, general and directly convey the concept, without supplying any additional information. The basic vocabulary and the stylistically marked strata of the vocabulary do not exist independently but are closely interrelated.

Another stratum includes a less exclusive group of bookish words, which comprises several heterogeneous subdivisions of words. We find here numerous words that are used in scientific prose and can be identified by their dry, matter-of-fact flavour: *comprise*, *compile*, *experimental*, *homogeneous*, and *divergent*. To this group, also belong the words often called ‘officialese’. These are the words of the official, bureaucratic language, e.g. *assist* (for *help*), *endeavor* (for *try*), *proceed* (for *go*), *approximately* (for *about*), *sufficient* (for *enough*), *inquire* (for *ask*). These words are mainly associated with the printed page.

Findings

To achieve the goals of a comprehensive description of lexicon within a certain domain, we should combine the two approaches to the word-stock – that of terminology and that of descriptive linguistics that aims at the studies of semantic and etymological aspects, as well as at the processes of vocabulary development.

In terms of descriptive lexicology, the total of the vocabulary of any LSP constitutes a semantic field. Semantic fields are formed on the basis of the concepts underlying the meanings of words. By the term ‘semantic field’, we understand closely-knit sectors of vocabulary, each characterized by a common concept. The members of the semantic field are not synonyms, but all of them are linked together by a common semantic component (e.g. the concept of colour, or of law, or of medicine). The semantic component common to all the members of the field is identified as the *common denominator* of the meaning. All the members of the field are semantically interdependent as each member helps to delimit and determine the meaning of its neighbours and it is semantically delimited and determined by them. Any extension in the meaning of one form involves a corresponding reduction in the meaning of the forms of its nearest environment. It follows that the word meaning is determined by the place it occupies in its semantic field.

The classes and subclasses of words within the specialist lexicon should not be regarded as boxes with clear-cut boundaries, but as formations with a compact core (center) and a gradual periphery. This idea was put forward on the assumption that not all lexical units of a class can be characterized to the same extent by the essential features of the class. Those words that comprise all the characteristic features constitute the center of the class. The peripheral phenomena are those, which are less characterized. This theory seems convincing because it leaves room for numerous boundary cases and represents a language not as something stable but as a living organism.

The units of a semantic field form smaller classes and subclasses of words called lexico-semantic groups united by their individual concept, e.g. in the semantic field of medicine we can outline a lexico-semantic group of *Adjectives denoting mental and physical states*, its members being *healthy / unhealthy, exhausted, very tired, unconscious, mentally alert / disturbed, feeble-minded, mad, etc.*; *Verbs for psychotherapy*; *Terms relating to drug abuse*, or *Pathological terms*. Such small lexical groups play a very important role in determining individual meanings of words in lexical contexts.

The idea of a lesser or greater extent of the conceptual features in the meaning of lexical units of a certain semantic field lies in the fact that in the process of term-generation, words of general language go through the stage of quasi-terms to become terms. A word may function as a quasi-term or a pseudo-term in its own right, and as such be defined as a word representing a concept but not defined explicitly, or a word characterized like a term but without a terminological meaning. Both types of lexical units, i.e. words converted into terms and actual terms designate concepts that form a given subject area. To trace the application of the above described principles and approaches to the problems of both languages for specific purposes and the theory

of lexico-semantic fields we have subjected to analysis the lexicon of the domain ‘Medicine’, a sphere of knowledge which is of current interest to science and society.

In accord with the above-mentioned classification of LSP, English for Medical Studies (EMS), being an outcome of English for Science and Technology, pursues academic purposes. It means that academic skills should be taught for the purpose of professional development, because most students will need English not only for work, but also for developing their careers, which, in turn, implies academic development. EMS is aimed at developing academic skills to future or real professionals – skills that are essential for them in understanding, using or presenting authentic information in their profession.

In order to meet the requirements of EMS, we should identify the communicative purpose in the domain of medicine. It is governed by the main aim of medicine – to treat and to study illnesses and injuries.

EMS is not limited solely to terminology. It is also characterized by functional aspects (activities and processes) and specific syntax. EMS as a lingual code is not only a language of specialized texts but also a language of oral communication between specialists.

As a specific language system in use within its institutional context, EMS has concentrated on two forms of verbal communication: written and oral. Oral communication can be represented by discussions, lectures or reports, but most of all – by conversations between a doctor and a patient in medical encounters, and here it has some features of colloquial speech.

The description of language in *medical encounters* is one of the oldest and most prominent topics in discourse analysis – the study of the sequences and organization of language in context. The topic is interesting for theoretical and applied reasons: theoretically, the description of language in medical encounters contributes to our understanding of institutional interaction, symmetrical and asymmetrical roles and relationships as created and reflected by discourse, and specialized sequences within the interaction of medical encounters. Practically, the description of language in medical encounters allows linguists to help medical professionals improve communication and to help patients and families work effectively with medical professionals. In linguistic literature, six typical parts of medical encounters are identified:

- relating to the patient – greetings and small talks;
- discovering the reason of the encounter – the patient’s complaint;
- conducting a verbal or physical examination, or both – the history and physical examination;
- consideration of the patient’s conditions – delivery of diagnostic opinion and information;
- detailing treatment or further investigation – treatment and advice;
- termination – small talk and closing.

The discourse of the medical encounter is highly asymmetrical: it is the physician who interactionally controls most of the discourse. The physician asks the questions, controls the topics and their development, deflects or ignores patient topics or contributions that he or she deems irrelevant. The physician also provides the amount of medical information that he or she deems appropriate, and determines the amount of social talk in openings and closings. The

institutional power and authority of the physician, as well as the relatively powerless institutional position of the patient are created, reflected and maintained by asymmetrical discourse practices of the encounter. The asymmetry of a medical encounter – the control of the physician over the discourse is a topic of much investigation in research on language in medicine.

Written communication in the domain of medicine takes the form of an article, monograph or textbook. Medicine as a branch of science is aimed at disclosing the internal laws of existence and evolution of human beings, creating new concepts and proving hypotheses, enabling people to predict, control and direct their future development.

Medical terminology brings an image of a very complicated and mysterious system to which the uninitiated have but limited access. Most words of the medical vocabulary are foreign. There is little doubt that language is deeply embedded in the culture of medicine. The advancement of medical knowledge has affected and illuminated history, culture and literature. An insight into the history and origin of medical terms would demystify the linguistic jargon, which is so important in specialist communication. In medical English, 98% of all technical terms have Latin and Greek roots. New medical words, which arise every month, are created using these same roots.

In origin, English is a Germanic language based on the Germanic dialects of the Angles, Saxons and Jutes who conquered Britain. However, further invasions, and migrations to the British Isles of people speaking other languages, such as Latin, Old Norse and French, added foreign terms to the basic Anglo-Saxon vocabulary.

Borrowing languages are faced with the problem of how to fit the borrowed words into their own linguistic systems. Two basic strategies are found: adaptation and adoption. Different speakers of the same language choose different strategies. Adaptation can be either phonological or grammatical. Whether a language chooses to adapt or adopt often depends on the degree of familiarity its speakers have with the donor language. That is why the pronunciation, for example, of medical terms varies from country to country, and from region to region within a country. In the USA, Harvard medical English does not sound at all like Louisiana medical English (Casselman, 2005).

Borrowings are often thought to occur for either reasons for necessity or reasons for prestige. Prestige is often involved in situations where one language is thought by its speakers to have more prestige than the other is. This motivation explains all the French words that came into English after the Norman Conquest.

Necessity can explain that English has borrowed countless medical terms. Western medicine was taught in Latin and, to a lesser extent, Greek, for 2000 years. Several Greek words are about 3000 years old, for example, *asphyxia*, *thorax* and *labyrinth*. Hippocrates used the word *asphyxia* to refer to the *dura mater* in the 5th century BC. The meanings of the most ancient terms have slightly changed, but they are used in English and in most European languages. The first American medical textbooks used at Harvard were written in Latin.

Latin and Classical Greek however are used in medical English not only due to certain tradition. Those so-called 'dead' languages form the basis for scientific and technical terms for the following reasons:

1. In 'dead' languages, the meaning of a word does not change: it is consistent. *Hydros* will always mean 'water' in Classical Greek. For example, 'acid' originated from Latin *acidus* – 'tart' meant a chemical such as the acetic acid in vinegar. In modern English, there are thousands of named acids, among the more familiar being *amino acids*, *folic*, *nitric*, *sulfuric*, *tannic* and *ribonucleic acids*. In a living language, words acquire new meanings. Nowadays *acid* has acquired another meaning and is used in English slang for LSD, *lysergic acid diethylamide*, a dangerous hallucinogenic drug.
2. The precise meaning and precise use of words is of crucial importance in all forms of medical communication. The essential property of precision in the words of 'dead' languages helps to make new medical terms from Latin and Greek roots whose meanings do not alter with time. The Greek *homologue* will always mean 'similar, the same'; *analog* will always mean 'proportion, relation, resemblance'. Additionally, knowing the roots such as *homo-* helps to understand the origins and meanings of many other commonly used English words – *homogeneous*, *homonym*, *to homogenize*, *homophobia*.
3. One more reason Latin and Greek roots are used to form medical words, is that they result in terms that are shorter and more convenient than long descriptions in English. They provide a method of shorthand for the description of complex objects and procedures in medicine. Knowledge of the simple Greek roots can help in spelling a word more easily. Consider the English definition of *mononucleosis* [= *monos* one + *nucleus* center of a cell + *osis* diseased condition]: an acute infectious disease triggered by the Epstein-Barr virus. Hematic symptoms include excess of monocytes with one nucleus.

Among the loan words of the medical vocabulary, there are few of other than Latin and Greek origin. One of the most productive stems is *mamma* [breast]. The term is a reduplication of the Proto-Indo-European root *ma*, breast or mother. This is not only the first sound uttered by many human infants; it may also be the most widespread root in the world: Latin *mater*, Greek *meter*, German *Mutter*, Russian *мама*, French *mere*, Polish *matka*. It also appears in many language families of the world seemingly unrelated to Indo-European. The Chinese word for mother is *ma*; the Arabic is *oum*; the Hebrew is *em*. Nowadays the word *mamma* lays the foundation for many terms. It is applied not only to concepts of traditional medicine (*mammary gland*), but to the recently set medical fields: *mammogram* (an X-ray film record of the soft tissue of the breast) and *mammoplasty* (cosmetic surgery to improve the lift or size of breast or to reconstruct breasts reduced by surgery to remove cancerous tissue).

The emergence of synonyms in medical lexicon is stimulated by ethical reasons. The blunt words *cancer* (Latin, crab, a disease of malignant tumors) and *tumor* (Latin, swelling, neoplasm, and cancer) have always been considered by physicians to be too unbearable to be pronounced in front of their patients. There are compassionate reasons for employing euphemisms in the practice of medicine. In addition, medical language provides a long list of euphemistic alternatives. Doctors can and do refer to cancer as 'the mitotic figure', 'a neoplasm', or 'a neoplastic figure'. The obscure technical jargon is sometimes necessary during doctor-patient interchanges.

Alternative forms of medical nomenclature exist. Instead of Latin and Greek roots, which actually denote something about a medical procedure, *medical eponyms* are sometimes used. An eponym is a name for a structure, disease or syndrome based on the surname of a physician or medical researcher, often associated with the discovery or first clinical description of the object or disorder. The expressions like *Parkinsonian syndrome*, *Parkinson's disease* which stand for *paralysis agitans*, or some other meaningless honorific terms – *the foramen of Winslow*, *Scarpa's fascia*, *Hunter's canal*, *Fallopian tube* – only add to confusion, but in fact do not honor to the pioneering physicians and researchers. The most salient criticism of eponyms is that research into their origins leads to the discovery that in anatomy at least, many of the surnames attached to structures are false or incorrect. The people honored by having their names attached to some anatomical part were in fact not the first to describe them or discover them. Eponyms are not practical, not efficient and not scientific labels; they should be discouraged.

As long as in 1955, at a conference in Paris, the International Congress of Anatomy adopted a new official list of anatomical names, the *Nomina Anatomica*, abbreviated NA in many medical dictionaries. All eponyms and proper names were eliminated. The NA list is updated and revised regularly.

The new terms speed the learning of medical nomenclature, improve the clarity of journal research articles and medical literature in general, and make easier international and interlingual medical communication. This is also important in today's world with increasing specialization, accompanied by a greater and greater diversity among the subsets of fields of medicine.

Conclusion

The lexical units used in medical communication can be viewed as a vast semantic field, i.e. a closely-knit sector of vocabulary united by the concept of curing illness or disease. It may be further subdivided into smaller semantic areas corresponding to diverse subsets of fields of medicine with ever increasing specialization. The structure of these macro- and microsystems proves to be identical and comprises a compact core and a gradual periphery. The periphery consists of several strata of general lexis – neutral words, bookish words and 'officialese'. The core incorporates specialist lexis, i.e. terms proper – professional terminology (words used by professionals) and conventional terminology (words aimed at consolidating intellectual and practical procedures). The intermediate position between the core and the periphery is occupied by quasi-terms or pseudo-terms. The latter are the components of the process of term-derivation during which the words of general language go through the stage of pre-term to become terms. These are words representing the common concept, but not defined explicitly, or words characterized like a term but without terminological meaning.

The bulk of the constituents of specialist lexicon in medical English (98%) are of foreign origin, borrowed directly or indirectly from Greek or Latin, mostly through French during the three historically and linguistically established periods. The smaller part of them has been assimilated by English, i.e. they came to take part in the word-making process of English, forming clusters of new words; the vast majority of borrowed words have never been completely

adapted and their foreign origin is felt in their non-English pronunciation, spelling, morphological structure and grammatical forms. Recent newly born terms are most frequently coined with the roots, affixes and combining forms of the 'dead' languages on the traditional syntactical patterns of English.

Our research has shown that there is no wall between terminology (in our case medical terminology) and the general language system (language units expressing medical concepts). To the contrary, terminologies seem to obey the same rules and laws as other vocabulary strata. Exchange between terminological systems and the common vocabulary is quite normal and it would be wrong to regard a term as something standing apart. LSP is not fundamentally different in terms of linguistic usage but differs rather in terms of particular modes of language that are common in scientific, business, educational and vocational settings.

There are several controversial problems in the field of LSP identification. It appears that the term 'Language for Specific Purposes' is characterized by ambiguity: on the one hand, this expression represents some generalized models; on the other hand, some types of real languages, i.e. languages of concrete people or groups of people. LSPs comprise sets of expressive forms (language units of different strata), and their meanings are correlated with a certain type of activity or occupation undertaken by people who specialize within the same area. That is the reason for LSP being sometimes identified as a kind of sociolect, a particular variety of LGP, and as such, LSP implies neither any specialized grammar, nor phonemics and phonetics. Both phonemics and phonetics correspond to their respective elements in LGP, while LSP grammar is included into the grammar of basic languages (with regular frequency of certain forms).

Next, discriminated within the concept 'language for specific purposes' may be specific idiolect and specific polilect. The former stands for LSP of a given person as it corresponds to a real human language; the latter is a logical sum of idiolects of people belonging to any community. It is a polilect of all people taken into consideration. If this phenomenon is understood as a logical category, it represents common parts of languages of collective subjects taken into account. That is why LSP cannot be applied to describe the linguistic reality precisely.

In fact, languages for specific purposes are not full languages in the linguistic meaning of the term 'language'. None of them is complete or independent; each of them is firmly connected with some general or basic language. LSPs play a complementary role towards general languages, supplementing them. The difference between LSP and LGP lies in a higher level of semantic accuracy of LSP units of terminological systems than in LGP units actualizing the corresponding concept when both have the same referents. Thus, the level of semantic accuracy of LSP expressive forms may be seen as a type of specification measure.

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