



ISSN: 0975-766X

CODEN: IJPTFI

Research Article

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## SOCIAL CAUSALITY OF THE ACTUALIZATION OF THE BORROWED ELEMENTS OF THE FRENCH MEDICAL TERMINOLOGY

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Received on 03-06-2016

Accepted on 27-06-2016

### Abstract

The use of the modern French medical terminology goes beyond the professional communication. French medical terms penetrate in different social varieties of the language comprising the young people speech. The article deals with the intralinguistic reasons of this process. The main ways of enrichment of the French medical terminology's vocabulary and the major ways of new terms' formation in the terminology under study are revealed in this paper. The attention is focused on the fact that Latin and Greek word-forming patterns are the primary materials for the formation of the majority of French medical terms. The elements of the Latin and Greek languages, interacting and engaging in different combinations, form the basis of the medical terminology. They organize new models, form new rows and other complex word-associations that characterize the terminological system. A special attention is paid to the role of anglicisms in the French medical terminology.

**Key-words:** sociolect, slang, French medical terminology, Latin term, Greek term, terminological system, borrowed word, sociolinguistics.

**Introduction:** Our daily life, work, learning skills, communication between people occur through words, which form a unique world with its own characteristics and laws, unsolved mysteries, its history. In some cases, you can easily determine the meaning and origin of the word, while others have difficulties. Most often this is for the words and phrases that express certain scientific concepts, i.e. terms, the use of which by representatives of the same profession provides the communication in the course of joint activities and influences the degree of its effectiveness. European languages may use similar word-formation processes in search of new terminology. The international standardization of the new scientific language is within the working methods and principles of terminology science [1]. For medical science the terminology is a reflection of the cognitive process results in the field of the knowledge. The term is an

instrument of the knowledge, which enriches with scientific facts and transfers them to the next generation of scientists. As for the medical term system of the French language, it is versatile in its semantic and morphological characteristics. The investigation of the medical terminology's vocabulary, its features and sources, the enrichment of the most important ways of new terms formation is one of the priorities in modern linguistics, especially in 'medical linguistics', a new term which is offered to be introduced [2]. It also helps to reveal the intralinguistic reasons of the penetration of the French medical terms in different sociolects.

Medical terminology is a system that expresses the exceptional variety of almost all classes of concepts: general, specific, abstract, generic and specific.

**Methods:** The complex method based on the unity of systems and functional analyses and procedures of argument analysis is used in the article. Also the method of linguistic observation takes place here. The basic methods of research are classification and systematization.

**Main part:** Categorical apparatus of medical terminology includes the names of things, events, nature, quality, quantity, process, features, relationships, interaction, causality and several other categories. A list of names, designating a single set of objects belonging to the same science, such as anatomy, histology, embryology, microbiology, etc., classified according to certain rules, is called 'the nomenclature'. Medical terminology is traditionally divided into three major sections: the anatomical and histological, clinical and pharmaceutical. Taking into account the differences in the etymology, in the writing forms and functions at the national or international levels, the following main groups of terms are determined:

1) **Internationalisms of Greek or Latin origin**, some of which were adopted in the final form ("ready-word") of the classical languages, and other (scientific neologisms) were created artificially from the lexical and word-forming material of these languages in their structural models, such as '*stethoscope*', '*phagocyte*', '*cirrhosis*', '*leukemia*', '*allergy*', etc.;

2) **Western Europeisms** i.e. words, formed on the basis of Western European languages from their vocabulary and word-forming material. Today, with English becoming the language of international medical conferences, medical terms are often composed of words borrowed from English, e.g.: '*bypass*' or '*screening*' [3]. There remains a question if it is more important to standardize the medical terminology of national languages or if it is more important to be more understandable to the international medical community, the voice of which is English and as such it has "growing intranational and international currency in medical communication" [4];

3) **Latin terms** ('termini technici'). These are special standard scientific notations, which are graphically and grammatically decorated by the rules of the Latin language. They provide an understanding of international experts.

'Termini technici' are international nomenclatures, which have the approved status. 'Termini technici', which indicate diseases, pathological states, symptoms and syndromes, are not united in the nomenclatures, because they are not collected in the approved classification lists.

Modern medical terminology is the fruit of centuries of improving of the art of healing and medical science throughout the world. In spite of the language, which provides medical terminology, its terminological apparatus can always find a large proportion of the total, not only on linguistic origin, but also by the similarity of structural models of vocabulary and word-building units. This is easily explained by the influence of two great ancient classical languages – Greek and Latin.

The medical terminology is based on the classical languages of antiquity and this is a unique phenomenon: Latin and Greek languages aren't living languages now, but they found their artificial life in a new field of the knowledge.

Latin and Greek word-forming patterns are the primary materials for the formation of many terminologies and medical language isn't an exception here. Among these word-building structures, the series of word-forming units and even word-models can be distinguished. The elements of the Latin and Greek languages, interacting and engaging in different combinations, form the bulk of the medical terminology. They organize new models, form new rows and other complex word-associations that characterize the terminological system. The terms formed of the Latin-Greek elements can't be traditionally divided into the root, suffix and prefix. They consist of the semantic elements called 'terminoelements' [5]. Different parts of speech of classical languages are involved in the formation of modern French medical terminoelements. They are as follows:

- 1) nouns: Greek '*logos*' – 'speech';
- 2) adjectives: Lat. '*albus*' – 'white';
- 3) names of numerals: Lat. '*tres*' – 'three';
- 4) verbs: Lat. '*misce*' – 'mix';
- 5) prepositions: Lat. '*inter*' – 'between'.

Being terms elements they lose their status of index parts of speech, becoming elements of artificial constructions.

Service terms elements can't preserve their original status, because there is a set of service elements in Latin. Only part of them is used in the artificial terminology, and they change their original value and find a new one. Taken from

their usual environment, they get a different organization, combine with elements of other languages. For example, in

the medical terminology the final element:

'-inum' designates the substances, mostly drugs or emissions taken from the tissues of living organisms, such as, '*insulinum*' (French '*insuline*'), '*albuminum*' (French '*albumine*');

'-oma' is used to denote a variety of tumors, for example: '*carcinoma*', '*granuloma*';

'-itis' designates different inflammations: '*gastritis*', '*cystitis*'.

In order to trace the main stages of the evolution of the French medical terminology it is necessary to pay attention to the written records, in particular, to the works of medical topics, which were written in the popular French language.

One of the most ancient works is "Surgery" by Roger of Salerno, written at the end of the XVIII century. In many cases the terms in this work are taken from the national language. For example: '*blessure*', '*fièvre*', '*pourriture*', '*cervelle*'. Actually they have the minor changes in the spelling.

At that period the medical terms had the general meaning, not specific one. It should be noted that at those times the terms of Latin model were used in French medical terminology. For example: '*dure-mère*' – 'hard medullary tunic' (lat.: *dura mater*); '*pie-mère*' – 'soft medullary tunic' (lat.: *pia mater*). They are formed on the model of "adjective + noun". This is not a characteristic of the modern French language.

The XIV century has not brought considerable progress into the terminology systematization. The manuscripts were translated from the Latin. The Latin, Greek, Arabic and vulgar Latin terms, sometimes accompanied by explanations, dominated. The first scientific work in French is considered to be "Chirurgie" (1314) ("Surgery") by Henri de Mondeville. In this work, many terms have been preserved with Latin spelling. Some of them came from French having the French ending '-ion': '*incision*' – 'the cutting'. The words of everyday speech were used in the terminology at that period. For example: '*couture*' – 'seam, scar'; '*couturier*' – 'tailoring (muscle)'. The applying of the common vocabulary for inventing medical terms is one of the ways actually used for inventing the new terms.

Ambroise Pare was a great representative of the Renaissance in the field of the surgery. Not knowing Latin, he wrote his works in French, introducing many Greek origin terms, at the same time replacing the Latin ones by the French equivalents. By the XVI century the French language has accumulated a sufficient amount of borrowed material. The word-formation links were made among certain elements of these terms, due to the specifics of the process of borrowing from the Latin language. At the same time the formation of terms on a book basis began. This process has led to the emergence of a large number of mono-Latin terms, for example, borrowed nouns with the ending '-ation', in-

dicating the action, began to correspond regularly with the verb. Verb itself could be borrowed before a noun, or simultaneously with it, but it had the same meaning as a noun. Sometimes the verb having a certain meaning, could change it according to the influence of a borrowed noun. For example, the verb '*amputer*', borrowed in the XV century, had the meaning 'to cut'. In the XVI century the French language borrows the noun 'amputation' (from the Latin '*amputatio*'), which took the terminological meaning 'amputer' = 'amputated' with the meaning 'to cut a peripheral portion of an organ or limb'. Therefore, changing of the meaning of the verb in this case is in the direction of specification. Medical Dictionary are refilled with neologisms based on Greek language. Nevertheless, the Latin terms were used along with their synonyms of Greek origin: '*bronchite*' – '*inflammation des bronches*', '*pneumonie*' – '*inflammation des poumons*'.

At the period of formation of the French terminology a rival tendency between the representatives of different medical branches to give to the same organ or disease its own name took place, which in no way could help to streamline the terminology. For example, the term '*spinal cord*' was substituted a few times before there appeared a scientific term '*medulla spinalis*'. The term '*placenta*', introduced by obstetricians, long time wasn't recognized by the midwives, calling it '*délivre secondine*' – 'the expulsion of the fetus'. The specificity of the scientific terminology is to perform mainly the nominative function. That's why the basic word-formation model can be regarded as a compound noun or a verb's stem combined with the official suffix. The most productive suffixes are as follows: '-*ation*', '-*ition*'. They have the meaning of the action and the result and are involved mainly in the formation of verb's derivatives. The productivity of these suffixes and word-formation models in medical terminology is explained by the influence of a large number of derivatives with the suffix '-*tio*' existed in medieval medical Latin. The Latin model is involved in the derivation of the nouns with the meaning 'action' from the borrowed verbs. For example: '*transplantation*' from '*transplanter*', '*aromatisation*' from '*aromatiser*', '*implantation*' from '*implanter*'.

### **Conclusion:**

By the end of the XVIII century, which is considered as the golden age of the surgery, the basic vocabulary of the medical terms are defined clearly enough. Terms borrowed from Greek and Latin languages come into common use of surgeons: '*ankylose*' – '*bending*', '*luxation*' – '*dislocation*', '*hemorrhagie*' – '*bleeding*'. Many terms formed by means of word-formation elements appear: '-*pexie*' – '*fixation*', '-*ectomie*' – '*removal, extraction*', '-*stomie*' – '*imposition of fistula*', '-*rraphie*' – '*suture*' and others. Tracing the genetic connection of French suffixes with Latin ones in the context of medical terms, we may state that all Latin suffixes are included in the French medical

terminology. The process of borrowing took place in various ways: some suffixes were left in their Latin form, others received the form inherent to the French national language: '*infarctus*' – '*infarctus*', '*infectio*' – '*infection*', '*clavicula*' – '*clavicule*'. In the meantime the meaning of suffixes remained unchanged. In some cases, there is an orthographic change and of the root of the word, and of the suffix. For example, in the word '*donneur*' from Latin '*donator*' one can observe the omission of the part of the word and the doubling of the consonant 'n', and the suffix '-tor' transformed into '-eur'. This process, typical for the period of the formation of the French national language, can be observed in the medical terminology too: '*receptum*' – '*recette*'.

While studying the French terms the most productive suffixes of Latin origin were determined: '-tion', '-ose', '-te', '-ome', '-ite', '-isme'.

At the same time many of the terms penetrated into the French language almost without any change: '*ganglion*' – '*nerve node*', '*femur*' – '*hip*', '*tibia*' – '*tibia*', '*os*' – '*bone*', '*sternum*' – '*sternum*', '*acromion*' – '*acromion*', '*apex*' – '*tip*', '*thalamus*' – '*thalamus*'. Many of them are used in mass media:

"Résultat: les scientifiques ont constaté que les patients souffrant d'insomnie chronique présentaient une matière blanche cérébrale moins dense que la moyenne, en particulier dans certaines régions de l'hémisphère droit et au niveau du thalamus" ([www.topsante.com/medecine/troubles-du-sommeil/insomnie/soigner/on-connait-maintenant-l-impact-de-l-insomnie-chronique-sur-le-cerveau-610780#xtor=RSS-38](http://www.topsante.com/medecine/troubles-du-sommeil/insomnie/soigner/on-connait-maintenant-l-impact-de-l-insomnie-chronique-sur-le-cerveau-610780#xtor=RSS-38))

Thus, in the XVI century borrowed words from the Latin language formed the basis of a French dictionary of medical terminology and had a significant influence on its further development, the intense penetration of Greek elements into the French medical terminology facilitated considerably the unification of many of the terms at the international level. In the professional language of physicians in any country of the world, some special expressions are used only in Latin: '*in vivo*' – '*in the living body*', '*in vitro*' – '*in glass*', '*per os*' – '*by mouth*', and many others. Greek borrowed words via Latin also enriched the French terminology: *hygiène*, *larynx*, *pharynx*, *technique*, *artère (arteria)*, *aorte*, etc. Nowadays, such medical expressions and terms are also used in different sociolects, in our everyday life. According to the principle of economy of efforts there is a tendency to use the medical terms in their compressed forms [6]. E.g.: '*ORL*' instead of '*oto-rhino-laryngée*', etc.

"Les maux de gorge persistants peuvent avoir des origines très diverses qui ne concernent pas forcément la sphère ORL (oto-rhino-laryngée). [...] Deuxième cause commune de mal de gorge chronique, le reflux gastro-oesophagien (RGO)" (<https://fr.news.yahoo.com/mal-gorge-chronique-220000881.html?nhp=1>)

**Results:**

However, the researchers note the reduction of performance of the Latin language in the medical science and practice of medicine. They note that today all the most influential medical journals are written in English, and English has become the language of choice at international conferences. We have entered the era of medical English, which resembles the era of medical Latin in that, once again, medical doctors have chosen a single language for international communication [2]. So, according to our observations, in the French medical records Latin terms (except for generally accepted shortenings) are now widely used only for the designation of the microorganisms. In the Russian-speaking medical records microorganisms are commonly designated by Russian names. In rare cases, the Latin names of diseases and syndromes are used, for example, '*coronaphlebectica*'. In the Russian medical records this phenomenon from the field of phlebology, subdivision of angiology, studying the veins, is also designated by the Latin expression; in bilingual dictionaries the indicated above a relatively new term is absent. The question of anglicisms, constantly concerned in works devoted to the medical translation is one of the most vital and controversial for Translation and Terminology [7]. Despite the fact that the official authorities of France and Quebec, which determine the language policy, continue to resist the penetration of anglicisms into the French language, anglicisms are firmly entrenched in the areas related to the advanced medical technologies, particularly in imaging technology: '*T-score*' – '*index T*' (in densitometry, the French equivalent doesn't exist), '*booster*', '*T-helpers*', (*appareilde*) '*peak-flow*' (the offered equivalents '*renforçateur*', '*lymphocytes T auxiliaires*', '*débimètre de pointe*' are rarely used) [8]. The term of English origin is often used along with common French equivalent: '*check-up*' – '*bilan de santé*', '*lentilles one day*' – '*lentilles journalières (jetables)*'. Medical anglicisms are widely used in the speech of young people, even of those who don't have any relation to medicine. In the French medical terminology we also find different borrowed phraseological constructions, such as: '*cor bovinum*', *lat.* – '*corbovinum*'; '*cutis marmorata vascularis*', *lat.* – '*cutis marmorata*'; '*délirium mussitans*', *lat.* – '*delirium mussitans*'; semi linguistic calques, for example: '*acuité visuelle*', *lat.* – '*visus*'; '*gangrène gazeuse*', *lat.* – '*infectio gazosa*'; '*muscle biceps*', *lat.* – '*biceps*'; '*muscle scalène*', *lat.* – '*scalenus*'; '*nubecule de la cornée*', *lat.* – '*nuclearis*'.

The meaning of many medical terms is not always easy to understand for the people outside the medical profession. G. Mayer and M. Villaire recommend the use of popular terms as an alternative to specialized terminology: "Use medical terms only if a substitute phrase is either not available, or is more difficult to understand than the term itself, or if the patient will understand the word because of previous experiences" [9]. M.B. Montero-Fleta remarks that the

use of popular terms can make the information clearer to the people outside the medical profession and, thus, promote more effective doctor-patient interactions which can ensure the correct transmission of information in specialized contexts [10]. The present research confirms that the development of medical terminological system is influenced not only by linguistic factors, but also by extralinguistic factors. Term-formation means have in their development several stages: the dominating use of semantic tools – intralanguage borrowing; morphological tools – mainly suffixation and prefixation, and syntactic tools – the formation of terminological expressions. Borrowed elements of the French medical terminology penetrate in different social varieties of the language comprising the young people speech. This process takes place also under the influence of mass media.

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