Shumylo M.Y. Etymological and semantic changes of the English medical terms

Shumylo Myroslava Yuriivna, Senior Lecturer Danylo Halytsky Lviv National Medical University, Lviv, Ukraine

Abstract. The article highlights the semantic changes of the English vocabulary, in particular, medical terminology and causes by which these modifications occur. Any language is constantly changing under the influence of borrowings, dialects, due to cultural, historical and social development. Thus, lexemes change their meaning in different ways: specialization, generalization, pejoration or amelioration. The meaning of words can be completely modified throughout the history. Semantic changes can be also based on metaphor and metonymy. Word meanings may become more positive or negative, broader or narrower, and may be caused by factors within or outside languages.

Keywords: amelioration, generalization, lexeme, pejoration, semantic changes, specialization

Introduction. Constitutive parts of each language are continuously modifying, since the world is constantly changing due to historical and cultural progress and appearance of new notions and phenomena. Languages inevitably undergo changes in the meaning of lexemes and increase in vocabulary along with the advancement of humanity. Thus, semantics deals with the investigation of the modifications of meaning, the change in the concepts of the word but not phonetic form of the word. Etymology is the study of the origin of words and the way in which their meanings have changed throughout history. As the researcher proves "it investigates the origins of individual lexemes, the affinities they have had to each other, and how they have changed in meaning and in form to reach their present state" [7; p. 138]. The word "etymology" is derived from the Greek word "etymon", meaning "the true sense of a word" [12]. The meanings of many words have changed over time, and older senses of a word may become uncommon or even disappear completely from everyday use. Since English first appeared from its base language of Anglo-Saxon, the meanings of words and terminology have undergone changes. These changes include a broadening of meaning, a narrowing of meaning or a complete shift in meaning altogether. Another semantic change in English would be a change in connotations, referred to as either elevation or deterioration.

Literature review. Semantic changes and etymology have been the object of research of many scholars. Bloomfield and Campbell defined semantic change as a change in the concepts that were associated with a term and the innovations changing the meaning of words [2; 4]. David Stehling studied Latin influences on the English language and semantic changes. New words are steadily pouring in from other languages, they are formed out of existing words, they may simply be newly invented or they change their actual meaning. These processes are very common in language change [13]. The scientist thoroughly investigated and described the phenomenon of language change, evoked by a change in the world or in the linguistic concept. Willem B. Hollmann investigated semantic changes in the English language both on lexical and grammatical level, pointing out traditional types of shift in the meaning of words. The scientist suggests that the traditional classifications cannot be applied to all changes. We agree with the statement that "the classifications are not mutually exclusive: sometimes we can apply two or even more labels to a single change, depending on which aspect of the change we choose to use as the basis of our classification" [8, p. 527]. In M. Carpenter's opinion a *semantic change* occurs when one of the peripheral meanings becomes the prototypical meaning of the word [5], which is an interesting and perspective area of investigation. We share the opinion of linguists Crystal, Stehling, Carpenter that the phenomenon of metaphors and metonymy may also result in semantic changes and may completely replace the original meaning [5; 7; 13].

Throughout the history, the English language, including medical terminology, was steadily changing. In medicine new diseases, symptoms, medications appeared necessitating the development or adaptation of the appropriate terms. The **aim** of the article is to investigate and track the semantic changes in medical terminology and influence of Latin, Arabic and French languages on the development and establishment of English medical terms.

Materials and methods. Analysis of the semantic changes in the English language on the basis of literature review and demonstration of the changes in meaning of medical terms relying on an etymological dictionary of modern English by Ernest Weekley M.A.

Results and discussion. Lexical and semantic changes are the most obvious changes of a language. Semantic change can be due to linguistic causes, historical or social causes. According to Lehmann, there are three different causes of semantic changes: modifications in meaning can be caused by a change in the context in which certain lexemes are used, a result of "change in the object referred to or in the speaker's view of such an object" [10, p. 260]. Finally, semantic change may be due to the influence of other languages or dialects. Thus, borrowing, in Lehmann's opinion, affects the lexicon of the language and is the process of semantic change with the greatest influence. Linguists distinguish several types of semantic changes. David Crystal, Campbell and Crowley as well as other scientists point out the most important ones:

Extension or generalization is the process by which the meaning of a word becomes broader or more inclusive than its earlier meaning and a lexeme widens its meaning. It is also known as generalization or broadening. Broadening occurs when over time the meaning of a word has grown to be applicable in contexts that it previously wasn't, and to mean things it previously didn't – it's meaning has simply expanded, for example: to bifurcate – was derived from Latin furca, fork [1, p.150], now is used in the meaning to branch, resembling fork; canine from Latin caninus, of the dog [1, p. 243], now refers also to human tooth, resembling a dog's one; hysteria (modern formation from hysteric) – womb, mother, in same sense [1, p. 743], at first was related only to women, now also to

men. The origin of the term hysteria is commonly attributed to Hippocrates. The Hippocratic corpus refers to a variety of illness symptoms, such as suffocation and Heracles' disease, that were supposedly caused by the movement of a woman's uterus to various locations within her body as it became light and dry due to a lack of bodily fluids. One passage recommends pregnancy to cure such symptoms, ostensibly because intercourse will "moisten" the womb and facilitate blood circulation within the body. The "wandering womb" theory persisted in European medicine for centuries [King]; testicle from Latin *testiculus* meaning *witness* (to virility) [1, p. 1491]; testimony from evidence of witness, testis, testimonial, bearing witness to status of the bearer. The NED does not record sense of subscribed gift, etc. till 19 century, but quotation below has a suggestion of it. Item, the XV day of Jamiary [1, p. 1543], to a woman of Lycetershire that whent wyth a testymoniall for burnyng of hyr howsse [Wollaton MSS.) [1491]; virgin – in early use chiefly of the Holy Virgin, and in ME also used (as was maid) of males. Hence unsullied, untouched, as in virgin forest (gold, soil) [1, p. 1599]; waist from Latin waxen to grow, originally of a man's, rather than woman's waist, and regarded as the region of greatest circumference. The waist of a ship (v.i.) is still its widest part [1, p. 1608]; apothecary meant store-house. Originally keeper of a shop for what we should now call "colonial produce". Then especially druggist. The London Apothecaries' Company was not separated from the Grocers' till 1617 [1, p. 60]; female (woman) meant female of animals, literally little woman [1, p. 556]; doctor meant teacher, from Latin docere "to teach", and in that meaning it survives as an occasional title for professors. The medical sense, now the norm, was acquired gradually from the association with higher education that was characteristic of physicians.

Narrowing (specialization) – a lexeme gains a specialized meaning. Narrowing refers to the opposite of broadening, and is defined as a reduction in the contexts in which a word can appear. In other words, the meaning of the word has gotten more specific, examples are: abdomen is derived from Latin abdere to hide away [1, p. 4]; acne meant a small particle, e.g. froth, chaff, down on fruit [1, p. 11]; amaurosis meaning disease of eye meant dark in the past [1, p. 38]; animal meaning beast meant having breath of life, anima [1, p. 51]; autopsy meant seeing for oneself [1, p. 92]; clitoris is derived from to sheathe [1, p. 314]; coccyx (bone ending spine) – from cuckoo, because supposed to resemble cuckoo's bill [1, p. 321]; delirium – from to run off the rails, was introduced as medical term by Dr. Sutton (1813): Latin delirare: to go out of the right way, to make a balke in earing (i.e. ploughing); not to go straight [1, p. 428]; embolism - (stoppage of artery); formerly also, day intercalated in calendar, to throw in [1, p. 505]; euthanasia (gentle and easy death) meant death [1, p. 529]; jejune from fasting, transerred to unsatisfying nourishment or pabulum [1, p. 781]; mandible (lower jaw) from mandere, to chew [1, p. 888]; to masticate from masticare, to chew mastic [1, p. 904], nausea – sea-sickness [1, p. 975], pylorus (lower orifice of stomach) meant gate-keeper, watcher [1, p. 1177], stomach originally - throat, gullet. In Latin also figurative for pride, indignation, inclination, etc. as in archaic stomachful, spirited, etc., Bibl. proud stomach [1, p. 1421]; thalamus meant inner chamber [1, p. 1492]; uvula from uva, bunch of grapes [1, p. 1576]; ambulance from Latin ambulare, to travel. Introduced into E. during Crimean War (1854-5) [1, p. 39]. The connection between amble and ambulance is an accident of war: ambulance comes from a longer phrase, hospital ambulant, a 'moveable hospital', one which could be present on the battlefield to tend to the wounded. It was merely shortened to the second part of the phrase, giving us ambulance; diet (rations) meant system of life [1, p. 446]; syringe was applied to various tubular objects [1, p. 1462]; alcohol meant the fine metallic powder used to darken the eyelids. Later applied to fine chemical powders and then to subtle essences and quintessences. Current sense occurs first in alcool of wine [1, p. 28].

Amelioration (elevation) – a lexeme develops a positive sense of approval. Elevation refers to a change in the connotations of a word, occurring in one of two ways. A word that loses its negative connotations is an example of elevation, but elevation can also occur when, rather than losing bad connotations, a word gains positive ones, for example: *carotid* meant to stupefy, because compression of the artery has this effect (Galen) [1, p. 255], *dizzy* meant foolish [1, p. 461], *stimulus* – goad, originally medical stimulate, to spur on, stimulant, excitant, with alcoholic sense from 19 cent [1, p. 1419], *orgasm* meant "an extreme fit, or expression of anger" [1, p. 1014].

Pejoration (deterioration) – a lexeme gets a negative sense of disapproval. Deterioration occurs when a word gains association with a negative stimulus, then holds negative connotations. Deterioration is shown clearly in the word accident. Once simply meaning "a chance event" the word now has associations with misfortune and injury, so we assume that when someone has "had an accident" it was not a positive experience. Other examples are: cancer meant crab [1, p. 242]; to choke was associated with cheek (throat, throttle) [1, p. 297]; to constipate – to press together [1, p. 352]; diarrhoea - meant to flow through [444]; lupus (skin disease) derived from wolf [1, p. 870]; poison meant drink. Modern sense arises from that of magic potion, philtre, etc. [1, p. 1116]; polypus meant octopus, cuttlefish; for application (14 century) to growth in nose (canker), lupus [1, p. 1120], diaper from Byzantine white. Used in OF. of a precious flowered fabric. The sense development has been influenced by jasper, with which it is confused [1, p. 443].

Sometimes a series of semantic shifts occurs over an extended period of time, resulting in a meaning that is completely unrelated to the original sense of a word. A shift in meaning differs completely from broadening and narrowing in that the word now retains none of its original definition and has come to mean something else entirely, for example anus meant finger-ring [1, p. 56]; artery was used in the sense of windpipe [1, p. 75]; asylum – inviolable, right of seizure [1, p. 85]; benign - generous [1, p. 141]; capillary – From Latin capillaris, from capillus, hair, cogn. with caput, head. Capillary attraction dates from Laplace [1, p. 247]; malignant from Latin malignus. Current sense of to malign is for ME. to malign against. Application of Malignant to royalists (1641-60) is from earlier theological sense as in church malignant, i.e. of Anti-Christ. Odivi ecclesiam malignantium [A V. of evil doers] [Vulg. PS. XXV. 5) [1, p. 884]; *nyctalopia* – Late L., used by Galen for blind by night. Misunderstood as seeing best by night [1, p. 998]; *pancreas* – sweetbread. G., lit. all flesh, [1, p. 1033]; *quinsy* OF. *quinancie* (12 century), MedL. literally *dog-throttling, to strangle* [1, p. 1187].

From a slightly different perspective, semantic change also occurs when a centralized meaning is eliminated from the prototype structure. The application of Prototype Theory has increased the understanding of semantic change by highlighting the types of external concepts that are regularly linked together in the brain, and thus helped to explain why similar changes are found across languages [5], for example, the word *heart* not only means the organ, but is also used with the verbs to render *to learn*, *to remember* in the English languages, as well as in some other languages.

Other principles based on which semantic changes can be classified are metaphor and metonymy. Metaphor is a type of semantic change that involves one kind of thing in relation to another kind of thing that is somehow similar to the previous thing [4]. In metaphorical changes of meaning, language speakers perceive certain sort of similarity between one connotation and another connotation. The association within the notion of metaphor can be referred to as analogy. Analogy can be defined as the perception of similarity between certain concrete process and object and certain abstract process or concept. The underlying meaning of a word is related to another meaning in such a way that by analogy there can be a transfer or extension of meaning from one to another. For instance, if someone is the head of a department, the relation of the head to the body in its literal sense is used in an extended or figurative sense, where there is an analogical correlation, seen as an equation: *head* is to body as *head* (leader) *is to department*. The same concern the verb *to see*, which denotes not only natural physical ability, but can also be used in the sense *to understand* as well as the verb *to hear* can also mean *to obey, to understand*, the word *body* can also denote *a person*.

Metonymy, like metaphor, involves some sort of connection between concepts, but in this case there is no similarity between them, but they are closely linked in some other way, for example, because one is part of, or contains, the other [8, p. 529]. Metonymy is an association of a certain type, usually random association in time or space. Metonymy can be extended to cover changes resulting from other associations such as part and whole – to give a hand, meaning to help; head – mind and mental abilities, also means part of the body, life (it cost him his head), something resembling the head of the body (of cabbage, of nail), culmination, the top or the beginning of a page or letter, front or prominent part.

Conclusion. Language is a living organism which is exposed to constant changes. The meaning of linguistic items may develop in either direction. Meanings may become more positive or negative, broader or narrower, and may be caused by factors within or outside languages. Having analyzed medical terms in English, it is possible to state that narrowing or specialization is more common than widening, and accordingly pejoration is more usual than amelioration. Thus, words more often develop a negative meaning than a positive one. Meanings of words can change completely throughout history due to cultural, social, and historical factors. The perspectives of further research may be investigation of incidence and use of medical terms in mass media, connotations of their meanings in certain contexts.

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Шумило М.Ю. Этимологические и семантические изменения английских медицинских терминов

Аннотация. В статье рассматриваются семантические изменения английского вокабуляра, особенно медицинской терминологии, а также причины, по которым эти модификации имеют место. Любой язык постоянно изменяется под воздействием заимствований, диалектов, а также культурного, исторического и социального развития. Таким образом, лексемы могут менять свое значение разными способами: специализация, обобщение, ухудшение, улучшение. Значения слов могут измениться полностью в ходе истории. Семантические изменения также могут базироваться на метафоре и метонимии. Значения слов могут меняться как в позитивном, так и в негативном направлении, расширять или суживать значения, а также могут быть вызванны факторами в пределах языка или извне.

Ключевые слова: лексема, обобщение, семантические изменения, специализация, улучшение, ухудшение