



Term Formation via Secondary Nomination: English Terms Derived from General Lexis Denoting Parts of the Body

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Running title: **Terminological Metaphor**

Abstract

The paper discusses term formation via secondary nomination as exemplified by English terms derived from the general lexis denoting parts of the body. The terminology under study has been excerpted from terminological dictionaries. The aim of the paper is to illustrate how general lexis undergoes terminologisation with the help of metaphor. It also discusses the motivating features which terminological metaphor is based upon as well as some English-Bulgarian correspondences between the terms.

Practical applications

The practical applications of the study of term formation via secondary nomination have to do with the teaching of English for Specific Purposes courses as well as with terminography, which is concerned with the compilation and editing of terminological dictionaries, and specialized translation studies, which focus on the unambiguous rendering of terminology from one language into another.

Key words: term formation, terminological metaphor, secondary nomination, motivating features, parts of the body



Introduction

It is common knowledge that every natural language uses its general lexis to fill in the gaps in terminological fields belonging to various scientific spheres. Typical examples are some units of measurement in English which stem from words denoting parts of the body. For instance, we come across *foot*, *fathom*, *digit* and *cubit* with the following meanings: *foot* („the lowest part of the leg“; Bulg. фут) equals 12 inches; *fathom* (Old English *faethm*; Bulg. фатом) denotes the length of an outstretched hand; *digit* (Latin „finger“) – is an Ancient Roman unit of measurement equal to the width of a human finger; *cubit* (Latin „elbow“; Bulg. кубит) stands for the distance between the elbow and the end of a human finger. In Bulgarian, we find quite interesting the outdated popular lexis for units of measurement, e.g.: *клéкавец* (the length of a thumb nail), *пръст* (the width of an index finger), *чéперек* (the distance between a thumb and an index finger in an outstretched palm), *педя*, *лакът*, *човешки бой*.

The Terminological Metaphor

In both English and Bulgarian, many other terms also come from general lexis for parts of the body, which is not surprising since people understand the world around them through the prism of their own subjective perceptions and the way in which their bodies function. Human knowledge and natural languages are experiential in character and the general lexis whose primary nominative function is to designate parts of the body evolves semantically to generate new, terminological, meanings.

In the present paper, we will analyse some examples of term formation in English attributable to secondary nomination, i.e. terminologization, of general lexis denoting parts of the body. As M. Popova points out, in this case „one is obliged to accept as a historically ascertainable fact that the terminological meaning is new and figurative and the words themselves are used with their secondary nominative function, which makes them secondary names“ (Popova 2012: 316; translation mine). The examples in the paper have been excerpted from two English-Bulgarian and one English-Russian terminological dictionaries.

It is worth noting that such secondary names are often produced via metaphorization of general language, as a result of which they turn into semantic neologisms. As Danilenko points out, these terms are homonymous with the primary words because they have the same phonetic makeup and the similarity in appearance between

the referents of the general word and the term usually motivates the production of the latter (Danilenko 1977: 118).

The information in the dictionaries excerpted by us demonstrates that in English secondary nomination brings about the existence of terms in the form of simple or complex words or phrases where the entire term or one of its terminological elements is based on the metaphorical usage of the words *hair*, *face*, *head*, *mouth*, *tongue*, *tooth*, *eye*, *nose*, *cheek*, *beard*, *whisker*, *ear*, *neck*, *shoulder*, *arm*, *palm*, *finger*, *elbow*, *leg*, *knee*, *foot*, *toe*, *heel*, *skeleton*, *tail*, *rib*, *waist*, *wrist*, *kidney*. M. Popova makes it clear that when the term consists of several terminological elements one of its constituent parts may be indirectly named („косвено название“), e.g.: *ръка* in *подкопна ръка*, where the other element is its nominative context („номинационен контекст“), or both elements are indirectly named. If the terminological elements are indirectly named, they can be semantically unified („семантично неразчленени“), e.g.: *котешки очи*, or semantically separated („семантично разчленени“) when they denote independently existing features of the object, e.g.: *зъбен барабан* (Popova 2012: 313).

At first glance, we are left with the impression that in English, as regards the terms based on general lexis for parts of the body, homonymy is quite common, especially concerning one-word terms because they often belong to different terminological systems. For instance, in the language of mining *eye* (Bulg. „око“) means „mouth of a mining shaft“ (Bulg. „устие на шахта“), in the Technology of Milk and Dairy Products – „hollows in cheese“ (Bulg. „шупли на сирене“) and in the textile industry – „needle hole“ (Bulg. „ухо на игла“). When the term is used as part of a phrase, its meaning is clarified owing to the nominative context, e.g.: *eyes of cheese* (Bulg. шупли/ очи на сирене), *pit's eye* (Bulg. околошахтов двор), *thread eye* (Bulg. окце за нишки).

We also find polysemy with some terms because the same term is used in a different meaning in the same terminological system, e.g. in mathematics, *foot* may mean „perpendicular foot/ foot of an altitude“ or „the point at which a line intersects with a plane“ (Bulg. „основа на перпендикуляр“, „точка на пресичане“, „проекция на точка“). In Electrical Engineering, *leg* is used as „leg of a three-phase system“, „magnetic core of a transformer“, „leg of circuit“ (Bulg. „фаза/ рамо на трифазна система“, „сърцевина на



магнитопровод на трансформатор“, „рамо на електрическа верига“).

The terminologization of general lexis denoting parts of the body is based on several motivating features (“мотивиращи признаци”) which can exist separately or collectively in the meaning of the term. We have discovered three major motivating features characterizing terminological metaphor when the primary word denotes part of the body. There is always transition from the source object, understood as “part of a living organism”, to the target object, understood as “part of a non-living thing” (see Popova 2012).

One of the major motivating features bringing about terminological metaphor in our corpus of examples is the feature “Appearance” („Външен вид“) which can be further subdivided. Here are some examples:

A) *aspiration leg* (*leg* – Bulg. „крак“) – aspiration canal in a grain-cleaning machine; *kidney* (Bulg. „бъбрек“) – secondary accumulation of ore („Appearance - Shape“);

B) *whisker* (Bulg. „мустак“) – type of socket (Bulg. “точков контакт”; “нишкообразен извод за контакт”); *waist* (Bulg. „талия, кръст“) – the narrow part of a canal/ channel/ passage (Bulg. “стеснение на канал”) („Appearance – General“).

The terminological metaphor may also be grounded on similarity of function or activity, which becomes obvious from the following examples whose meanings rest on this motivating feature: *homogenizing head* (Bulg. “хомогенизираща глава”); *die head* (Bulg. “винтонарезна глава”); *spray head* (Bulg. “разпръскваща глава”); *printing head* (Bulg. “печатаща глава”), etc.

The third major motivating feature producing secondary nomination with English general lexis denoting parts of the body is “Location” (“Местоположение”), e.g.: *cheek* (Bulg. „буза“) – common wall of semi-detached houses (Bulg. „калкан“); *bare foot* (compare with *barefoot* – „with no shoes on“) – load-bearing beam/ column in an unstable wall (Bulg. “подпора в паянтова стена”); *face* (*face* – Bulg. „лице“) – (mining) end wall at the working extremity of any excavation in a mine; *spectral shoulder* (*shoulder* – Bulg. „рамо“) – a peak in the spectrum, etc.

Terminologization is often due to the combination of two or more motivating features, e.g.: „Appearance“ and „Function/ Activity“: *balancing arm* of a machine – Bulg. балансир; *index finger* (Bulg. „показалец“) in the textile industry, the study of polymers, automation, and robotics – Bulg. фиксиращ/ показателен щифт, фиксатор;

load-bearing skeleton of a building – Bulg. носещ скелет (на сграда). The motivating features “Appearance” and “Location” occur together in the terminologization via metaphorization of *spindle nose* of a lathe – Bulg. преден край на вретено (на струг), *rib* (Bulg. „ребро“) of a boat/ ship– Bulg. шпангоут (на кораб), etc.

Some general words denoting parts of the body become terms with the help of the motivating feature “Quantity” and are used only in the plural in combination with the *-s* morpheme, e.g.: *heads* in the language of mining and geology – Bulg. изходен материал при обогатяване, *tails* meaning “radioactive, toxic or other waste” – Bulg. хвост, *arms* meaning “weapons” – Bulg. оръжия, etc. (compare with *fine* (adj.) Bulg. „фин“ and *fin* (n.) Bulg. „отсевки, ситни фракции“; *bottom* Bulg. „дъно“ and *bottoms* Bulg. „утайка“). In other cases, the motivating feature “Quantity” is not obligatory for the terminologization of the general word, e.g.: *hair/ hairs* of grain or an optical device – Bulg. брадичка на зърно; нишка/ нишки на оптичен уред.

In our corpus, there are also examples of terms derived from a general word denoting part of the body with the help of suffixation, e.g.: *tooth* of a machine – Bulg. (зъбно) зацепване, *fac* meaning “cutting a face onto a workpiece in machining” – Bulg. челно струговане, *arming* of a U-shaped magnet – Bulg. котва на подковообразен магнит. Here the *-ing* suffix can be combined with the plural morpheme *-s* to semantically modify the term on the basis of the motivating feature “Quantity”, as in *facings* in machining – Bulg. стружки от челно струговане, *headings* in the fractional distillation of petrol – Bulg. главна фракция при дестилиране на нефт. The English *-ing* suffix is very productive and makes it possible to form deverbal nouns (Molhova 1992: 156). This means that the source word which is combined with this suffix is a verb and in our examples the verb is produced via conversion from the noun, e.g.: *tooth* (n.; Bulg. „зъб“) > *to* *tooth* (v.) > *tooth*ing (deverbal noun).

It is interesting to see what the Bulgarian analogues of the English terms are in the dictionaries we have excerpted, which can be the subject of a more detailed study since metaphor in different languages testifies to the way in which people think about the world around them: the conceptual systems which people develop are metaphorical in nature and metaphor is not restricted to the words we use because it expresses the concepts we work with (Lakoff and Johnson 1980). With the



following examples, we find a correspondence between the Bulgarian term and The English one because the former is the product of metaphorization of a general word denoting the same part of the body as the English term: *rivet head*/ Bulg. *глава на нит, drilling head*/ Bulg. *пробивна глава, magnetic head*/ Bulg. *магнитна глава, heater head*/ Bulg. *нагревателна глава*. In other cases, one of the terminological elements of the Bulgarian term is also derived from a general word for a body part but it highlights another part of the body, e.g.: *gully head*/ Bulg. *чело* (i.e. “forehead”) *на ерозионен овраг*. Sometimes the source word in Bulgarian does not denote part of the body, e.g.: *tree head*/ Bulg. *корона на дърво* (i.e. “crown” of a tree), *pressure head*/ Bulg. *хидростатично налягане* (i.e. hydrostatic pressure), *stock head* of a lathe/ Bulg. *предно седло на струг*, although the Bulgarian term may be the result of metaphorization as well (see *корона на дърво*). We may also discover that one of the terminological elements of the Bulgarian term has the opposite meaning as compared to its English counterpart, e.g.: *drum head*/ Bulg. *дъно на барабан, boiler head*/ Bulg. *дъно на котел* („bottom part of something“ instead of „top part of something“).

Conclusion

To sum up, we can say that terminology, like general lexis, demonstrates how cognitive processes are to a large extent founded on anthropocentrism. Terminological metaphors, directed from a source object towards a target object, also prove this. To be more specific, the source object is in this case an individual, a human being who tries to understand the “objective reality” dealt with by science with the help of the knowledge of one’s own body. As M. Pencheva points out, „[u]ndoubtedly, knowledge is always directed from the Subject to the Object: it is constructed egocentrically because people perceive those aspects of reality which are important to them as people and personalities” (Pencheva 2001: 24; translation mine).

References

- Danilenko 1977: Danilenko V. P., *Russkaya terminologiya: opit lingvisticheskogo opisaniya*, Izdatelstvo “Nauka”, Moscow, 1977
- Lakoff and Johnson 1980: Lakoff G., M. Johnson, *Metaphors We Live By*, The University of Chicago Press, 1980
- Molhova 1992: Molhova J., *The Noun. A Contrastive English-Bulgarian Study*, „Kliment Ohridski” University Press, Sofia, 1992
- Pencheva 2001: Mencheva M., *Chovekat v ezika. Ezikat v choveka*, UI „Sv. Kliment Ohridski”, Sofia, 2001
- Popova 2012: Popova M., *Teoriya na terminologiyata*, IK „Znak’94”, Veliko Tarnovo, 2012

Excerpted Sources:

- Benson et al. 1963: Benson M. I., N. T. Berezin, V. P. Gourny, G. A. Lubovsky, E. M. Martirosian, A. L. Progorovitch, I. M. Simonova, *English-Russian Dictionary of Food Industry*, Fizmatgiz, Moscow, 1963
- Semerdzhiiev et al. 1985: Semerdzhiiev St. i kol., *English-Bulgarian Technical Dictionary*, Izdatelstvo Tehnika, Sofia, 1985
- Vrabchev 2001: Vrabchev N., *English-Bulgarian Technical Dictionary: Informatics, Telecommunications, Radioelectronics*, Izdatelstvo Tehnika, Sofia, 2001