

A Modern View on the Bulgarian Anatomical Terminology

P. Kancheva

Medical University – Sofia, Department of Language Training and Students' Sport

The modern Bulgarian anatomical terms are formed in conformity with the basic term formation methods in Bulgarian literary language: lexico-morphological, lexico-syntactical and lexico-semantic. Alongside them, word-borrowing in its two varieties – borrowing through translation (literal and free) and borrowing existing foreign terminological items – has had an impact on the terminological norm and is currently an active modern process lending itself to control.

Key words: Bulgarian anatomical terminology, Term formation methods, Linguistic borrowing.

Introduction

The modern Bulgarian anatomical terminology has been established and developed in strict conformity with the Latin anatomical nomenclature.

The Latin anatomical nomenclature is an orderly, standardized, internationally unified system of names of anatomical entities presented as a list, reflecting the inherent consistency of anatomical terminology. An expression of that consistency is the generic relationships and those of the part-whole, which are the foundation of the nomenclature structuring and classification in anatomy.

By Bulgarian anatomical terms we mean the names established by scientific tradition, duplicating the Latin anatomical terms and coined with the means of the Bulgarian language or loan-words which are grammatically integrated (assimilated) into the Bulgarian anatomical text and are written in the Cyrillic alphabet. In their integrity and systemic relationships, the Bulgarian anatomical terms make up the Bulgarian anatomical terminology (3).

The modern Bulgarian anatomical terms are formed in conformity with the basic term formation methods in Bulgarian literary language: lexico-morphological, lexico-syntactical and lexico-semantic (5: p.6). Alongside them, word-borrowing in its two varieties – borrowing through translation (literal and free) and borrowing existing foreign terminological items – has had an impact on the terminological norm and is currently an active modern process lending itself to control.

1. Lexico-Semantic Term Formation Method

The lexico-semantic term formation is the creation of terms by changing the meaning of words from the general language (4: p.220). In anatomical terminology, two lexico-semantic term formation processes can be distinguished: specialization of commonly used vocabulary and transfer of meaning (metaphorisation) of commonly used vocabulary. These include commonly used nouns of Bulgarian origin.

1.1. Specialization

Commonly used words start being used in a special context, the relationship with their denotations preserved. Complete or partial coincidence of the general and the terminological denominations is achieved and this phenomenon can be defined as weak terminologisation of the commonly used vocabulary (2: p.280). Although the commonly used word and the term both preserve identical denotative reference, it is possible for changes in the meaning of the newly coined term to take place in a functional aspect – it can be narrowed, extended or differentiated (specified).

Most numerous are the cases of specialization of the nouns from the ‘Parts of the body’ class. Examples: *зъби* ‘teeth’, *език* ‘tongue’, *бузи* ‘chicks’, *нос* ‘nose’ etc.

1.2. Metaphorisation

Of the various divisions of the metaphor, of importance to the anatomical terminology is the one into identifying (objective, substantive) and attributive (predicative) metaphor (1: p.159-169).

The identifying metaphor serves as a means for autonomous (indirect) secondary nomination, i.e. for independent denotation (8: p.19). This phenomenon can be defined as strong terminologisation of the commonly used vocabulary (2: p.286). Using it, metaphorical terms are coined in anatomy, for instance the names of the hearing ossicles – *чукче* ‘hammer’(malleus.), *наковалня* ‘anvil’ (incus) and *стреме* ‘stirrup’(stapes).

Quite common are the cases when, in addition to the identifying metaphor, also another term is incorporated which becomes a microcontext for the metaphor, i.e. into the content of the term both the name-metaphor and the smallest nominative context explaining the reference of the metaphorical name are included (7: p.29). Example: *покрив на тъпанчевата кухина* ‘roof of the tympanic cavity’ (tegmen tympany) etc.

The attributive metaphor is a means of a non-autonomous (indirect) secondary nomination (8: p. 19), i.e. not of independent naming but rather together with another name to which it plays a characterizing role. The name created through an attributive metaphor is a term-element of a term combination. The examples for metaphorical adjectives representing term-elements are numerous: *охлювно каналче* ‘snail shell’ (cochlea), *скалиста част* ‘rock-like part’ (pars petrosa), *люспеста част* ‘scale-like part’ (pars squamosa) etc. In contrast to them, the ones for metaphorical participles representing term-element are few in number: *блуждаещ нерв* ‘vagus nerve’ (nervus vagus), *пробиващи артерии* ‘perforant arteries’(arteriae perforantes), *катерещи се влакна* ‘climbing fibers’(neurofibra ascendens) etc.

2. Lexico-Morphological Term Formation Method

The lexico-morphological term formation is based on affixation and composition. In the anatomical terminology these processes are directly linked to the strong trend of loan translation.

2.1. Affixation is the addition of word-building formants to the root forms of various parts of speech with the aim of forming new term words.

2.1.1. By adding prefixes a number of Bulgarian anatomical terms and term elements, pertaining to nouns and adjectives are formed. The use of the following Bulgarian prefixes is rather common: *зад-* 'behind', *над-* 'above', *под-* 'below', *пред-* 'in front of', *между-* 'between', *около* 'around' etc. They are connected to the bases of nouns, e.g. *задстомашен* (pancreatic), *надкостница* (periosteum), *подлигавица* (submucosa), *предмишница* (forearm), etc. Together with the borrowed anatomical terms, a number of foreign language affixes were introduced, such as: *епис-* (epi-), *мета-* (meta-), *диа-* (dia-), *пери-* (peri-) etc., e.g. *епифиза* (epiphysis), *метафиза* (metaphysis), *диафиза* (diaphysis), *перикраний* (pericranium) etc.

2.1.2. Sufficsation is used to form: a) Noun terms through the following suffixes: *-еи*, *-ник*, *-ица*, *-ач*, *-тел*, *-ък*, *-ак*, *-ка*, *-ло*, *-ост*, *-не*, *-ние*, *-ие*, *-ице*, *-че*, *-ица²*, *-ка²*, *-ичка*, *-ен*, *-це*, e.g. *кръстец* (os sacrum), *гръдник* (sternum), *коремница* (peritoneum), *междинница* (perineum) etc.; b) Adjective terms through the following suffixes: *-ест*, *-ист*, *-ен*, *-ов* (*-ев*), *-ен²*, *-ов²*, *-ен³*, *-ов³*, *-телен* (*-ителен*, *-ателен*), e.g. *гъбест* 'spongy' – *гъбесто вещество* (substantia spongiosa), *скалист* 'rocky' – *горен скалист синус* (sinus petrosus superior), *долен скалист синус* (sinus petrosus inferior) etc.

2.1.3. By confixation (prefix-suffix word formation method) a number of terms are created. Examples: *надгръклянник* (epiglottis), *надкостница* (periosteum), *надсеменник* (epididymis).

2.1.4. Term formation without suffixes (zero suffixation). Only one example was found – *просвет* (lumen).

2.2. By composition a great number of noun and adjective terms are formed.

2.2.1. Formation of compound noun terms. Depending on the relationship between the initial root bases two groups exist: a) Terms with syntactically equal bases, e.g. *назофаринкс* (nasopharynx); b) Terms with syntactically unequal root bases, e.g. *хранопровод* (esophagus).

2.2.2. Formation of compound adjective terms: a) Compound adjectives with a conjunctive link between the two bases. Example: *стомашно-чревен* (gastro-intestinal); b) Compound adjectives, formed by binominal word combinations with a subordinating link between the two bases. Example: *горночелюстен* 'of the upper jaw' (maxillaries); c) Compound adjectives formed by using Bulgarian word bases: *-виден*, *-образен* '-shaped'.

3. Lexico-Syntactic Term Formation Method

The word combination terms in anatomical terminology have been analyzed on the basis of syntactic models representing the syntactic relationship between the word combination components – attributive, objective, adverbial – and on structure-positional models which represent a) the structural elements (term elements) of the word combination as parts of speech; b) the linear position (word order) of the structural elements and c) the presence or absence of grammatical words (6: p.107-108).

3.1. Non-prepositional word combination terms. These are of two types.

3.1.1. Principal part – a noun and a subordinate part – one or more (2, 3) adjectives or an ordinal number (+/- adjective-s), or a participle (+/- adjective-s) with a syntactic relationship between the term elements of attribute coordinated type. Examples: *бедрена кост* (os femoris), *голям объл мускул* (m. teres major), *четвърто мозъчно стомахче*

(ventriculus quartus), *блуждаещ нерв* (n. vagus). The word combination terms of this kind are characterized according to the basic lexico-grammatical and semantic features of the subordinate element. The cases studied are: of a subordinate element being an adjective with a general meaning of: 'relation to an object' (relation to size, place and location, shape, surface), 'characteristic' (structure, colour), 'relation to sequencing and quantity', or 'relation to action'.

3.1.2. Two-element word combination terms with the formal structure of noun + noun (S+S) with an attributive syntactic correlation between the term elements of the application type. Examples: *мускул дъвкач* (m. masseter), *мускул квадратен пронатор* (m. pronator quadratus).

3.2. Prepositional word group terms. With regard to the syntactic relation between the term elements these are: 1) attributive or 2) objective.

3.2.1. Attributive word group terms are a type of non-concord attributes with the preposition *на* (of). The formal structure is S+of+S with possible extensions by concordant adjectives. Example: *ос на таза* (axis pelvis). The general semantics is one of 'possession and belonging' and is related to the intra-systematic partonomic relations in anatomy. The preposition *на* 'of' can be used once, twice or three times in the word group, corresponding to a one degree, two degree or three degree attribute.

3.2.2. Object word group terms with the preposition *на* 'of'. Formal structure S+S+of+S with a possible extension S+A+S+of+A+S. This structure is used in the cases when the motivating feature for the terminological nomination is the function of the anatomical structure – the work done by them, together with the objects of that work. Example: *мускул отвеждач на палеца* (m. abductor hallucis).

4. Linguistic Borrowing as a Term Formation Method

In Bulgarian anatomical terminology the sources of borrowing are the Greco-Latin nomenclature terms.

4.1. Borrowing through translation. Translation is a lasting trend in modern Bulgarian anatomical term formation, supported by the necessity to strictly comply with the Nomina Anatomica standards. As a term formation method it has two varieties – literal translation, realized by word formation and phraseological loan translation and free translation.

4.2. Borrowing of existing terms. Related to word loan implementation mechanisms in the Bulgarian anatomical text, two cases emerge:

4.2.1. Unchanged borrowed terms. Examples: *брегма* (bregma), *вертекс* (vertex), *оципунт* (occiput) etc.;

4.2.2. Assimilated (Bulgarianized) terms: Examples: *енифиза* (epiphysis), *диафиза* (diaphysis), *метафиза* (metaphysis), etc. The terminological borrowings become a basis for a further morphological and syntactical term formation.

Conclusion

At present, the Bulgarian anatomical terminology is a subsystem of the Bulgarian literary language having an orderly internal structure. It has its own well-defined terminological norm.

The Bulgarian anatomical terminology is open system to the relationships with the generally used vocabulary and the Latin anatomical terminology. With regard to the language structure and the origin several groups of anatomical terms are outlined:

■ – Word-terms, created by changing the meaning of commonly used nouns of Bulgarian origin. Examples: *китка* (carpus), *чукче* (malleus), *наковалня* (incus), *стреме* (stapes).

■ – Artificial world-terms. Their creation is directly linked to the strong trend of loan translation. Example: *предмишница* (antebrachium).

■ – Borrowing of existing nomenclature world-terms. Examples: *мускул* (musculus), *нерв* (nervus), *стернум* (sternum), *дуоденум* (duodenum), *колон* (colon).

■ – Word group terms, created from Bulgarian term elements. Example: *петна върга* (tuber calcanei).

■ – Word group terms, created from Bulgarian term elements and assimilated (Bulgarianized) Latin term elements. Example: *хипофизна яма* (fossa hypophysialis).

■ – Word group terms, created from assimilated (Bulgarianized) Latin term elements. Example: *висцеларна плевра* (pleura visceralis).

■ – Eponyms. Examples: *поленце на Брока* (area subcallosa), *Лангерхансови острови* (insulae pancreaticae).

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