

Раздел 1

ПЕДАГОГИЧЕСКИЕ И СОЦИАЛЬНО-ФИЛОСОФСКИЕ ВОПРОСЫ ДУХОВНОЙ И ФИЗИЧЕСКОЙ КУЛЬТУРЫ

УДК: 81'276.6

DOI: [https://doi.org/10.14258/zosh\(2020\)4.01](https://doi.org/10.14258/zosh(2020)4.01)

АНТРОПОМОРФНАЯ МЕТАФОРИЧЕСКАЯ МОДЕЛЬ «ЧЕЛОВЕК» И ЕЕ ПРОЯВЛЕНИЯ В ДЕНТАЛЬНОЙ И ЧЕРЕПНО-ЧЕЛЮСТНО-ЛИЦЕВОЙ ТЕРМИНОЛОГИИ

Танева Светлана Йорданова

Старший преподаватель факультета общественного здоровья, Софийский медицинский университет (София, Болгария). E-mail: svetlanataneva@abv.bg. ORCID: <https://orcid.org/0000-0002-1348-0029>.

ANTHROPOMORPHIC METAPHORICAL MODEL "PERSON" AND ITS MANIFESTATIONS IN DENTAL AND CRANIO — MAXILLOFACIAL TERMINOLOGY

Taneva Svetlana Yordanova

Senior Lecturer, Faculty of Public Health. Medical University (Sofia, Bulgaria). E-mail: svetlanataneva@abv.bg. ORCID: <https://orcid.org/0000-0002-1348-0029>.

Следует цитировать / Citation:

Танева С. Й. Антропоморфная метафорическая модель «Человек» и ее проявления в дентальной и черепно-челюстно-лицевой терминологии // Здоровье человека, теория и методика физической культуры и спорта. — 2020. — № 4 (20). — С. 4–11. URL: <http://journal.asu.ru/index.php/zosh>. DOI: [https://doi.org/10.14258/zosh\(2020\)4.01](https://doi.org/10.14258/zosh(2020)4.01).

Taneva S. Y. (2020). Anthropomorphic metaphorical model "Person" and its manifestations in Dental and Cranio — Maxillofacial terminology. *Health, Physical Culture and Sports*, 4 (20), pp. 4–11 (in Russian). URL: <http://journal.asu.ru/index.php/zosh>. DOI: [https://doi.org/10.14258/zosh\(2020\)4.01](https://doi.org/10.14258/zosh(2020)4.01).

Поступило в редакцию / Submitted 04.08.2020

Принято к публикации / Accepted 12.10.2020

Аннотация. Цели работы: сделать краткий обзор теорий метафор и современных терминологических теорий (Коммуникативная теория терминологии, Социокогнитивная теория

рия терминологии, Фреймовая теория терминологии); выявить метафоризацию как высокопродуктивный лексико-семантический способ формирования терминологии в дентальном и черепно-челюстно-лицевом научном дискурсе; продемонстрировать развитие англо-болгарской терминологии на основе антропоморфной метафорической модели «Человек» и ее подмоделей: «Состояния», «Части тела», «Физические способности», «Общество», «Качества». *Материалы и методы исследования.* Шестьдесят (60) односложных и сложносоставных метафорических терминов на английском и болгарском академических языках были отобраны и проанализированы с применением методов анализа дефиниций, концептуальной интеграции, когнитивного анализа, компонентного анализа, метафорического моделирования. *Обсуждение и результаты исследования.* Теории метафор и терминологии рассматриваются в контексте их вклада в развитие специализированного медицинского языка. Посредством метафоризации (аналогии, подобия, сравнения) в дентальной и черепно-челюстно-лицевой терминологических системах формируются новые терминологические структуры. Акцент делается на антропоморфной метафорической модели «Человек», обозначающей различные анатомические структуры, заболевания, синдромы, симптомы, хирургические методы. Сделаны следующие *выводы*: 1. Человеческая сфера в ее многочисленных проявлениях — физических, моральных и интеллектуальных качествах, социальной активности, болезни, смерти — является «вечной темой» в контексте исторического развития языка. 2. Антропоморфная метафорическая модель «Человек» за счет высокой терминологической продуктивности расширяет и обогащает терминологический ресурс дентальной медицины и черепно-челюстно-лицевой хирургии; повышает медицинскую терминологическую компетентность и способствует коммуникации на специализированном уровне. 3. Формирование терминов — это живая современная тенденция, управляемая специалистами и терминологией с учетом дальнейшей стандартизации международной дентальной и черепно-челюстно-лицевой терминологии.

Ключевые слова: англо-болгарские метафорические терминоединицы, дентальная и черепно-челюстно-лицевая терминология, метафоризация, метафорическая модель, формирование терминов.

Abstract. Objectives: to make a brief overview of the theories of metaphor and modern terminology theories (Communicative theory of terminology, Socio-cognitive theory of terminology, Frame-based theory of terminology); to identify metaphORIZATION as a highly productive lexico-semantic way of forming terminology in dental and cranio-maxillofacial scientific discourse; to demonstrate English/Bulgarian terminology development based on anthropomorphic metaphorical model “Person” and its sub-models: “Conditions”, “Body parts”, “Physical abilities”, “Society”, “Qualities”. *Materials and research methods.* Sixty (60) monosyllabic and compound metaphorical terms in English and Bulgarian academic languages have been selected and discussed applying the methods of definition analysis, conceptual integration, cognitive analysis, component analysis, metaphorical modelling. *Discussion and results of the study.* Theories of metaphor and terminology are considered in the context of their contribution to the development of specialized medical language. By means of metaphORIZATION (analogy, similarity, likeness, comparison) new terminological structures are formed in dental and cranio-maxillofacial terminology systems. The emphasis is on anthropomorphic metaphorical model “Person” denoting various anatomical structures, diseases, syndromes, symptoms, surgical techniques. *Conclusions.* The following conclusions have been made: 1. Human sphere in its numerous manifestations — physical, moral and intellectual qualities, social activity, illness, death — is an “eternal theme” in the context of language historical development. 2. Due to its high terminological productivity the anthropomorphic metaphorical model “Person” expands and enriches the terminological resource of dental medicine and cranio-maxillofacial surgery; increases medical terminological competence and facilitates communication at a specialized level. 3. Term

formation is a living contemporary trend subject to management by specialists and terminology with regard to any further standardization of the international dental and cranio-maxillofacial terminology.

Keywords: English/Bulgarian metaphorical terminology unit, dental and cranio-maxillofacial terminology, metaphorization, metaphorical model, term formation.

Introduction

Terminology development is an ongoing process that occurs at different levels of its formation. Within the cognitive approach dental and cranio-maxillofacial terminology is considered to be “special treasure”, reflecting the stages of dentistry development as a science. For professionals, working in a particular field of medicine, term is not only a necessary “tool” in professional speech but also a means of accumulating valuable information related to deep processes of dental terminology system development. Term formation activates professional artistic activity where the terms themselves are included in the process and results of knowledge. Adequate terminology system creates opportunities for optimal exchange of specialized information both within a homogeneous linguistic environment and on the level of multilingual communication. All this contributes exclusively to improvement of a certain scientific and practical field and enriches science and culture as a whole.

Purpose and objectives of the study

Therefore, the objectives we have set ourselves in the present research are, as follows:

1. To make a brief overview of the theories of metaphor.
2. To consider the main postulates of the last three theories contributed most to the development of terminology theory.
3. To discuss metaphorization as a highly potential lexico-semantic way of forming terminology in dental medicine and cranio-maxillofacial surgery.
4. To demonstrate the productivity of the anthropomorphic metaphorical model “Person” (based on examples from dental and cranio-maxillofacial terminology discourse).

Materials and Methods

The objectives of the present study led to the inclusion of **English and Bulgarian dental and**

cranio-maxillofacial metaphorical terminology units collected at random from monographs, articles, textbooks, terminological dictionaries, encyclopedias, reference books, Internet catalogues, etc. **Sixty (60) monosyllabic and compound metaphorical terms** (involving synonymous variants of both languages), have been discussed.

The current research is realized from a nominative-cognitive perspective using the following methods: 1. Method of definition analysis; 2. Method of conceptual integration and Method of cognitive analysis (language is considered as a mental entity generated by human thought and as one of the most important systems of human knowledge representation); 3. Method of component analysis (division of semantic markers meaning is achieved, a formula with the structure of meanings is constructed); 4. Method of metaphorical modelling.

Discussion and results

In terminology the issues of the metaphorical term formation become the research subject with the development of theories of metaphor and theory of terminology.

Theories of metaphor:

1. Classical theory of metaphor — According to Aristotle's classical notion, a metaphor is a name given to something that generally belongs to something else. According to him it is an *implicit comparison* based on the principles of analogy, performing only a *decorative function* and appearing as a *deviation from normal language use*.

2. Substitution theory — In substitution theory metaphor is considered in a way similar to classical theory. A metaphorical expression is used instead of an equivalent literal expression and hence becomes completely *interchangeable* with it in terminological practice. This theory can explain the cases of replacing a terminological metaphor with a longer, more transparent and directly motivated

syntagm, as well as the cases of replacing a literal expression with a short metaphor to name the already established concept.

3. Comparative theory — According to this theory a particular metaphorical expression is a statement of some similarity or analogy — namely, metaphor is created on the basis of some resemblance between the signs of two objects. Such similarity is implicit in the term surface structure and can be explained by its transformation into *comparison*. In terminology, naming a concept by comparison is often only one stage in the process of metaphorical term formation.

4. Blending theory and mental spaces — Blending theory suggests that metaphorical connection between the components can be described by means of *integration (blending)*. The process of metaphorization is interpreted as an interaction between two subjects — a literal primary subject and a metaphorical secondary subject, also called *implicative complexes*. Simultaneously associated ideas about the secondary subject are projected over the primary one. The main idea in blending theory is that metaphors can create previously unknown similarities, i. e. the interaction leads to the creation of a new metaphorical concept (Fauconnier, 1985, 1998; Fauconnier & Turner, 1998, 2002). In specialized language blending is a common cognitive phenomenon (for instance, *sonar* comes from *sound navigation + ranging*). In medicine, particularly, a number of cases of etymological blending can be identified (*hysterectomy* — from Greek *hustera* (uterus) and *tomos* (cutting) — uterus removal).

5. Experiential theory (geschalt) — Experiential theory, proposed by Kolb (1984), treats metaphor as a broad concept with linguistic, conceptual and cultural dimensions. Metaphor is *a process of mapping* from directly meaningful — namely, repeatedly encountered in everyday life concepts (for instance, parts of the human body) on more vaguely defined concepts (for instance, concepts in science and technology). Regarding Kolb's Experiential Learning Theory a cycle of four elements is presented: a) Concrete Experience; b) Reflective Observation; c) Abstract Conceptualization; d) Active Experimentation.

Therefore, terminological metaphor should be approached from both — a cognitive-experiential

and a terminological point of view, as it is simultaneously a metaphor and a terminological unit.

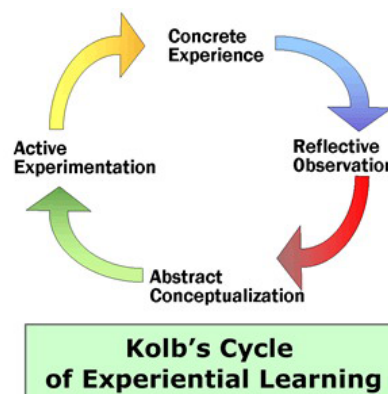


Fig. 1. Kolb's Cycle of Experiential Learning Theory

For the purposes of the current research, the last three theories of terminology will be considered briefly. They are extremely ambitious and propose the notion that specialized knowledge is multidimensional and necessitates being debated in the light of cognitive, linguistic, socio-communicative and psychological perspective.

1. Communicative theory of terminology (CTT) — It is proposed by Cabre (1998–2003). Terminological units are treated as a *unity of cognitive, linguistic and communicative entities* and are a central object of study. They are presented as a polyhedron with three dimensions — concept, term and situation, which Cabre conditionally calls “doors” to the main object. Each of these “doors” allows direct access to the object to be studied in a broad communicative framework including a number of communicative scenarios for the transfer of specialized knowledge (Cabre, 1999, 2000, 2001, 2003; Cabre, et al., 1998).

2. Socio-cognitive theory of terminology (SCT) — The theory was developed by Temmerman (1997–2006) on the basis of an empirical study of categorization and lexicalization processes in a corpus of scientific publications in the field of biological sciences. The main principles of SCT are, as follows: a) combined semasiological and onomasiological approach to terminology; b) existence of concepts with distinguishable characteristics and those that are not unambiguous; c) acceptance of synonymy and polysemy; d) diachronic approach to terminology; e) perception and creating categories in one's conscious-

ness; f) interaction between language and thinking (Temmerman, 1997, 2000; Temmerman, Kerremans & Vandervoort, 2005).

3. **Frame-based theory of terminology (FBTT)** — This theory, introduced by Pamela Faber (2005–2007), grew out of Fillmore's semantics frames. However, it is focused on a) *concept — template* organization; b) multidimensionality of terminological units; c) extraction of semantic and syntactic information. Each field of knowledge has its own template while general categories are configured in a prototype domain event or action interface environment. This provides a template at all levels of information structuring. As a result the obtained structure is able to facilitate and enhance knowledge acquisition owing to the fact that the term information is internally and externally coherent. In cognitive linguistics, when studying the internal structure of domains, cognitive models, image schemes and frames are formed. In Faber's theory, *frames* are proposed as the main structural mechanism for the specialized domain (Faber, Marquez Linares & Vega Exposito, 2005; Faber, et al., 2006; Faber, et al., 2007). According to Faber's scheme, the framework of the concept "tooth erosion" in dental medicine terminology can be represented in the following way:

"tooth erosion" → occur (predicate) → erosion (process) → tooth (location)

The focus of the present study is on building up terminological layers in dental medicine and cranio-maxillofacial surgery. Modern terms of these fields are formed in accordance with the three main term-forming ways: **lexico-morphological, lexico-syntactic and lexico-semantic**. In addition, **word borrowing** in its two forms: word borrowing by translation (literal translation and direct translation) and word borrowing of ready-made foreign terminological units has imposed its results in terminological norm. These days term formation is a living contemporary trend subject to management by specialists and terminology with regard to any further standardization of the international dental and cranio-maxillofacial terminology.

The selected terms from the considered medical fields are formed by **metaphorization**, lexico-semantic term-forming way, in which the newly discovered structures are named in relation to their analogy, similarity, likeness, comparison main-

ly in form or function with objects from the surrounding material world. Variety of metaphorical terminological units in dental and cranio-maxillofacial terminology systems in English and Bulgarian is immense and turns out to be a prerequisite for their division into models and sub-models. Models "Person", "Construction and architecture", "Living conditions", "Natural components", "Aqua", "Fauna world" and "Flora world" are proven to have the largest number of metaphorical terms. However, most influential is the presence of the anthropomorphic metaphorical model "Person". It is represented by 60 units in English and Bulgarian dental and cranio-maxillofacial discourse. The following sub-models were formed within the discussed one: "Conditions", "Body parts", "Physical abilities", "Society", "Qualities".

Human sphere in its numerous manifestations — physical, moral and intellectual qualities, social activity, illness, death, etc. — refers to "eternal themes" in the context of language historical development. This lexis, reflecting most important personification realities, is most ancient, as well. Therefore, it is deeply rooted in human consciousness and serves as a basis for the formation of other semantic units and the interpretation of what needs to be expressed by means of language.

The anthropomorphic metaphorical terms, belonging to model "Person", are formed on the basis of analogies related to main human biological characteristics, such as — death, ability to sleep, see, produce a speech, express emotions, etc. They are used for the term formation reflecting the category of quality in anatomical nominations, names of medical scientific experiments and pathological processes.

Lexemes like *dead, sleeping, blind, dumb, burning*, etc. are the basis for the formation of metaphorical terms in dental and cranio-maxillofacial terminology systems. For example, burning mouth syndrome (BMS)/синдром на парещата уста (chronic condition with burning pain and dryness in oral cavity); dead pulp/мъртва пулпа; dead space/анатомично мъртво пространство (140 ml of inhaled human air remain in the airways and do not participate in alveolar ventilation — designated as dead space); sleep parasomnia / парасомния (sleep disorders category); carotid artery / сънна артерия; foramen cecum

linguae / задънен отвор на езика; double-blind placebo / двойно сляпо плацебо; electrocerebral silence / “електрическо мълчание на мозъка”; kiss of life / изкуствено дишане “уста в уста”; silent area / няма зона от мозъка (any area of cerebrum or cerebellum, the lesions on which do not lead to visible sensory or motor changes).

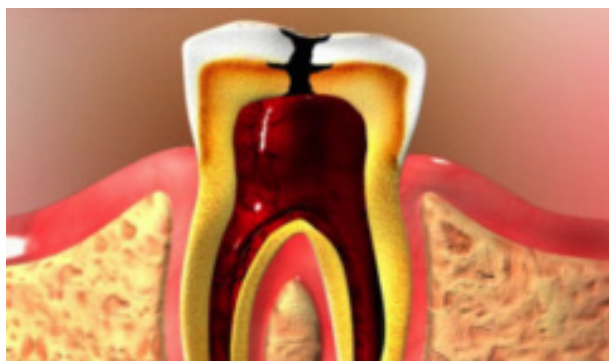


Fig. 2. Dead pulp

Another separate group was identified, as well — a cohort comprising the metaphorical terms in the composition of which a certain component is present — the name of a part of the human body or a property of a living organism. This can be illustrated by many examples from English and Bulgarian terminology of dentistry and cranio-maxillofacial surgery: pedicle flap / ламбо на краче (tissue is used to correct a defect, it is usually taken from the adjacent area); bipedicle flap / двойно ламбо (tissue located on both adjacent sides of the defect is used to compensate for the defect itself; technically a tubed pedicle flap); back of the tongue / гръб на езика (as a part of tongue's body); neck of a tooth / зъбна шийка; neck of the condyloid process of the lower jaw / шийка на долната челюст; eye tooth / канин, кучешки зъб; wisdom tooth / мъдрец; digital impressions / вдлъбнатини на черепа (in case of increased intracranial pressure); mammelon / мамелон (израстък); female element / женски елемент; graft versus host disease (GvHD) / “графт срещу хост-болест” (common side effect of allogeneic bone marrow or stem cell transplants); granny knot / бабин възел (surgery-specific knot used in deep wounds); male element / мъжки елемент; brachium colliculi / рамо на хълма (two upper and two lower parts of midbrain); orphan disease/рядка болест, болест “сирак”, etc.

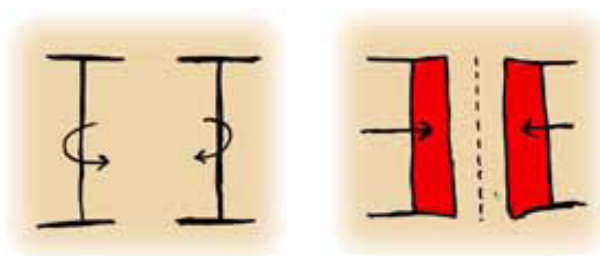


Fig. 3. Bipedicle flap

Typical human actions were identified in the course of the current research. Generally they are most often chosen for semantic transmission. Such actions are represented by the verbs: sleep / спя, jump / скачам, wander / блуждая, dive / гмуркам се, waltz / валсирам. The participles formed by them with the help of semantic transmission express human abilities, realized by inanimate organisms. Examples of such metaphorical terms in English and Bulgarian are, as follows: waltzed flap/стягащо ламбо (reconstructive technique); wandering cell / блуждаеща амебовидна клетка; diving goiter / ендемична гуша (non-carcinogenic enlargement of the thyroid gland due to iodine deficiency).

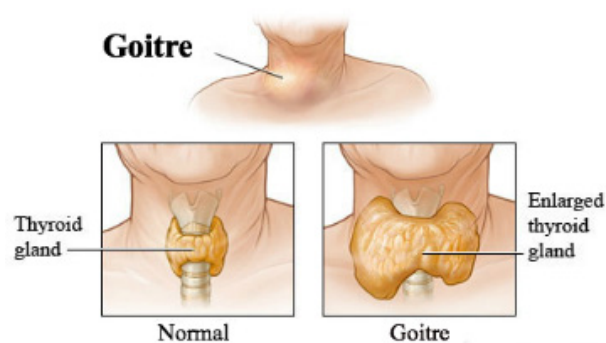


Fig. 4. Diving goiter

A number of nouns, formed as a result of conversion from English verbs *jump* and *sleep*, being components of metaphorical terms, can also illustrate human physical abilities performed by inanimate objects in semantic transmission. Typical terminological examples are, as follows: jump flap/мигриращо ламбо (in case of impossibility to use tissue adjacent to the defect, it needs to be taken from another part of the body); sleep parasomnia/синдром на спящата красавица, etc.

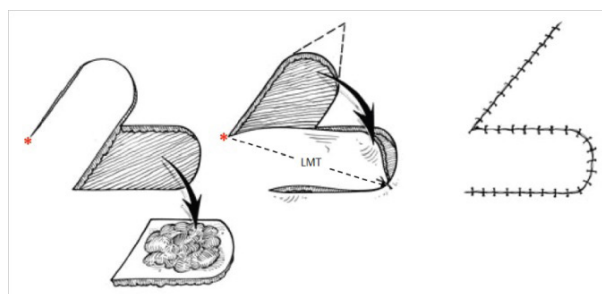


Fig. 5. Jump flap

CONCLUSIONS

1. Metaphorization is a lexico-semantic way of generating terminological units in the domain of dental medicine and cranio-maxillofacial surgery.
2. The newly discovered structures are named in relation to their analogy, similarity, likeness, comparison mainly in form or function with objects from the surrounding material world.
3. Anthropomorphic metaphorical model “Person” has the highest productivity compared to other metaphorical models in dental and cranio-maxillofacial terminology systems.
4. Due to the immense diversity of terminology units the necessity for standardization of the international dental and cranio-maxillofacial terminology base arises.

REFERENCES

- Cabré M. T. Hacia una teoría comunicativa de la terminología: Aspectos metodológicos. In Cabré, M. T. *La Terminología: Representación y Comunicación. Elementos para una teoría de base comunicativa y otros artículos*. Barcelona: Universitat Pompeu Fabra, 1999, pp. 129–150.
- Cabré, M. T. Elements for theory of terminology: Towards an alternative paradigm. *Terminology*. 6 (1): 2000, pp. 35–57.
- Cabré, M. T. Consecuencias metodológicas de la propuesta teórica (I). In *La terminología científico-técnica: reconocimiento, análisis y extracción de información formal y semántica (DGES PB96-0293)*. Barcelona: Institut Universitari de Lingüística Aplicada. Universitat Pompeu Fabra, 2001, pp. 27–36.
- Cabré, M. T. Theories of terminology: their description, prescription and explanation. *Terminology*. 9 (2): 2003, pp. 163–199.
- Cabré, M. T., et al. La terminología hoy: replanteamiento o diversificación. *Terminologia e integración. Organon* 12, (26): 1998, pp. 33–41.
- Faber, P., Márquez Linares, C. & Vega Exposito. Framing terminology: a process-oriented approach. *M. : META* 50 (4): CD-ROM, 2005.
- Faber, P., et al. Process-oriented terminology management in the domain of coastal engineering. *Terminology* 12 (2). M: 2006, pp. 189–213.
- Faber, P., et al. Linking images and words: the description of specialized concepts. *International Journal of Lexicography* 20: 2007, pp. 39–65.
- Fauconnier, G. *Mental Spaces: Aspects of Meaning Construction in Natural Language*. Cambridge: MIT Press. 1985.
- Fauconnier, G. Mental spaces, language modalities, and conceptual integration. In Tomasello, M. (ed.). *The New Psychology of Language: Cognitive and Functional Approaches to Language Structure*. Mahwah NJ/London: Lawrence Erlbaum. 1998.

Fauconnier, G. & Turner, M. Conceptual integration networks. *Cognitive Science* 22 (2): 1998, pp. 133–187.

Fauconnier, G & Turner, M. *The Way We Think: Conceptual Blending and the Mind's Hidden Complexities*. New York: Basic Books. 2002.

Temmerman, R. Questioning the univocity ideal. The difference between Sociocognitive Terminology and traditional Terminology. *Hermes. Journal of Linguistics*. (18): 1997. pp. 51–91.

Temmerman, R. *Towards New Ways of Terminology Description. The sociocognitive approach*. Amsterdam/Philadelphia: John Benjamins. 2000.

Temmerman, R., Kerremans, K. & Vandervoort, V. *La termontographie en contexte(s)*. Actes des Septièmes Journées Scientifiques du Réseau Lexicologie, Terminologie, Traduction, Brussels, Belgium. 2005.