

А. В. Беляєва,
Запорізький національний університет, Запоріжжя

CONCEPTUAL ANALYSIS AND CONCEPT MODELLING IN CONTRASTIVE LINGUISTICS

Концептуальний аналіз та моделювання концептів в зіставному мовознавстві. Стаття присвячена розгляду використання процедур концептуального аналізу у контрастивному аспекті. Презентовано різні методики концептуального аналізу та моделювання структури концепту, запропоновано методику моделювання структури концепту в аспекті зіставного мовознавства.

Ключові слова: концепт, контрастивна лінгвістика, *tertium comparationis*, концептуальний аналіз, когнітивна метафора, образ-схема.

Концептуальный анализ и моделирование концептов в сопоставительном языкознании. Статья посвящена рассмотрению использования процедур концептуального анализа в контрастивном аспекте. Представлены разные методики концептуального анализа и моделирования структуры концепта, предложена методика моделирования структуры концепта в аспекте сопоставительного языкознания.

Ключевые слова: концепт, контрастивная лингвистика, *tertium comparationis*, концептуальный анализ, когнитивная метафора, образ-схема.

Conceptual Analysis and Concept Modelling in Contrastive Linguistics. The article is devoted to the use of conceptual analysis procedures in contrastive language studies. Different methods of conceptual analysis and concept modelling structures are studied; concept structure modelling in contrastive linguistics is defined.

Keywords: concept, contrastive linguistics, *tertium comparationis*, conceptual analysis, cognitive metaphor, image schema.

1. Introduction. Contrastive analysis works on the basis of the assumption that the entities to be compared have certain properties in common, that any differences between them can be laid against this common background. Thus contrastive analysis should always involve a common platform of reference, against which contrastive deviations are stated. Depending on this common platform, or *tertium comparationis*, the same aspects of language may turn out to be similar or different [25, p. 16]. Over the last few decades cognitive approach to language phenomena proved to be applicable to modern contrastive analysis. The main advantage of the research performed in the cognitivist framework is seen in the fact that it essentially aims to reveal and explain the intricate structure of the conceptual and semantic organization of human experience [26, p. 120].

The present study aims to outline the theoretical bases of conceptual analysis and concept modelling that can be utilized in contrastive studies. The objectives of the article include reviewing concept analysis and establishing techniques that can be used in contrastive research.

Currently conceptual analysis is not a standardized method but a combination of different techniques. Most linguists share O. Selivanova's views on the purpose of conceptual analysis that seeks to establish cognitive mechanisms of individual or group consciousness that influence the formation of knowledge about the objects of real world and results of cognition [11, p. 7]. Conceptual analysis is aimed at identifying and understanding the structure of verbalized concepts in order to determine its properties and specific features, to get knowledge about the world, traditions and culture.

The article outlines the procedures of conceptual analysis in contrastive study of concept EDUCATION in English, French, Ukrainian, and Russian languages. Research procedures have been put forward by T.V. Lunyova [6], but the contrastive focus calls for modification of the research procedures. Analysis of the concept EDUCATION in English, French, Ukrainian, and Russian languages is carried in several stages.

2. Analysis. In the study EDUCATION is regarded as verbalized concept that is expressed by the units of language. Consequently, the first stage of the analysis utilizes the method of key words. At this stage the name of the concept is investigated, with the help of analysis of dictionary definitions, its lexical compatibility is established. The study of the semantic structure of the lexical units that verbalize the concept serves as a key to understanding the mechanisms of conceptualization [5, c. 53-55].

Dictionary definitions and texts are used to establish cognitive properties of the concept. Cognitive properties form the concept and can be studied with the help of semantic analysis of lexical units that verbalize the concept and interpretation of associations that reflect stereotyped knowledge, beliefs, assumptions, evaluation, expectations that are associated with the phenomenon concept represents [8, p. 102]. Conceptual analysis is linked to the semantic analysis. However, unlike the latter it involves not only language but also cultural data and studies meaning in cultural and national context. Thus, conceptual analysis is much broader than semantic analysis; the latter is regarded as a stage in conceptual analysis in the present study. For example, concept EDUCATION in English, French, Ukrainian, and Russian languages is verbalized by key words: *education, éducation, освіта, образование*. Analysis of semantics of the above mentioned lexical units and their derivatives leads to singling out such cognitive components in its structure: 'subject', 'process', 'result', 'discipline', 'improvement', 'establishment', 'training'.

Analysis of the structure of the concept involves singling out a number of components (modes). The nature and number of components or layers that scholars single in concepts vary according to the research objectives. Majority of linguists distinguish three major components in a concept: notional, perceptive and value layers. The notional component of a concept is its language representation, its name, structure and definition, its characteristics as compared to other groups of concepts. Perceptive component represents visual, auditory, tactile, taste characteristics of objects

or events reflected in human consciousness [3, p. 49; 12, p. 51]. Crucial task of conceptual analysis is to present a concept in schematic form of central (core) layers and the periphery.

Researchers agree that the concept is not a one-dimensional structure. Core of concept is formed by the cognitive (rational, logical, notional) component and perceptive component (based on imagery and visual, auditory sensations). Interpretive field of concept or its periphery contains evaluation of the concept and includes such elements as figurative component (conceptual metaphor), and axiological (value) component. Rational (logical) component of the concept is the result of the process of conceptualization; it reflects the structure and characteristics of the relevant phenomena and notions [3, p. 56]. According to R. Langacker, usage of language units profile the most significant parts of the content of the concept that serve as the speaker's focus of attention [27, p. 145]. In language verbal explication of the actualized sense serves as the equivalent of profiling [13, p. 116-117]. In the study of rational (logical) component and perceptive mode of concept researchers should identify the senses of the names of the concept that are 'profiled' in the context. The study of the structure of rational (logical) layer of the concept provides researchers with an inventory of its components that are verbal equivalents of notional components of concept.

For example, cognitive component 'system' of concept EDUCATION is profiled by key words in English, French, Ukrainian, and Russian languages: *He concludes, however, that our employers will not, indeed cannot, change; therefore the **education system** must continue to bail them out* [28]; *Dans son roman L'Ornière, Hesse montre comment un **système d'éducation** rigide peut détruire un jeune homme sensible* [28]; *Сучасна багаторівнева **система** вищої освіти, природно, взаємозв'язана з особливостями соціально-економічних структур, які функціонують сьогодні* [4]; *При подготовке программы должны быть учтены все моменты, с которыми уже сталкивалась **система** российского образования* [9].

According to some scholars concepts are primarily sensual images that arise as perceptions and then go through several stages of abstraction to become mental images [7, p. 46-53; 14]. Concepts are structured by selecting the most prominent features of the empirical analysis of the impact different fragments of reality (objects, events) have on the perception, emotions. Thus, the impact of a particular element of objectively existing world on perceptual or somatic sphere of an individual forms a persistent associative relationship, which later becomes a concept. The result of these processes is the emergence of a generalized image, mental «footprint» of the qualities and properties of the element of the physical world [15, p. 16].

For example, information about education as activity or characteristics of people encountered by speakers in their daily life form part of perceptive component of concept EDUCATION in English, French, Ukrainian, and Russian: *They adored her physical beauty but did everything in their power to **educate** her mind. Her father tutored her in sports, her mother in literature and the arts* [30, p. 22]; *Il conversa avec sa femme et s'amusa avec ses enfants qu'il **éduquait** de son mieux, mais il n'avait plus rien à dire à ses parents dont la pensée limitée sous 10 empêchait tout dialogue* [33, p. 81]; *Роль **батьків** на підготовці **дітей** до школи величезна: **дорослі члени сім'ї** часто **самотужки готують** та освічуючи їх* [4]; *Благоразумный **родитель мой** ничего так прилежно в нас не **образовал**, как сердце. Большую часть дня просиживал с ним, и он **образовал** своими поучениями мой разум, мое сердце* [9].

Somatic knowledge is involved in conceptualization through the creation of metaphor. Conceptual metaphors are the result of cognitive operations of correlation of the structure of the source domain and the target domain [29, p. 161-162; 31, p. 250]. In cognitive linguistics scholars are interested in the sources of metaphor and transformations of metaphorical models; they study metaphorical conceptualization as source of human knowledge about the world [10].

For example, in English, Ukrainian, and Russian languages EDUCATION is metaphorically perceived as a product: *There is a need to whet society's **appetite for education** and training throughout life* [28]; *It will awaken a new **thirst for education** in those not wishing or unable to learn in a conventional teaching setting* [28]; *Люди **спрагли за освітою*** [4]; *Понятно, что мы сегодня **доедаем** остатки советской системы **образования**, – точно так же большевистская Россия сначала **доедала**, а потом по-своему **достроила**, тысячекратно увеличив, **систему образования** царских времен* [9].

Results of human perception are also reflected in evaluation [1, p. 9-17; 2, p. 227]. Analysis of the ways and means by which evaluation of concepts is verbalized is the study of axiological mode of a concept. It enables scholars to establish the role and place of the phenomenon in culture because the concept exists as the unit of reasoning and perception, and the latter involves evaluation [16, p. 8; 21]. Phenomenon of education is evaluated by speakers of English, Ukrainian, and Russian languages which is evident in axiological layer of concept EDUCATION: *Ten years ago sponsorship might well have been included in the company's charity budget, along with health, **education** and other good causes* [28]; *До того ж, **система** інклюзивної **освіти** позитивно впливає і на батьків хворих дітей* [4]; *При правящей партии коммунистов, в советское время народ имел все **блага**: **бесплатное образование**, бесплатное лечение, бесплатные квартиры, обеспеченную старость, счастливое детство* [9].

The most significant information about the results of the speakers' conceptualization can be found in the core of the concept. The latter includes components that are formed as a result of human cognitive and sensory perception of the world, rational (logical) and perceptive layers are the core of the concept.

Mental structures that sustain the integrity of the concept and enable the combination of its core components of different nature are image schemas [22, c. 29; 32]. Image schemas «help to explain how our intrinsically embodied mind can at the same time be capable of abstract thought. As patterns of sensory-motor experience, image schemas play a crucial role in emergence of meaning and in our ability to engage in abstract conceptualization and reasoning that is grounded in our bodily engagement with our environment» [23, p. 15]. Image schema is an embodied prelinguistic structure of experience that motivates conceptual metaphor mappings, playing an important part in understanding the world. It can be defined as a dynamic pattern of perceptual interactions and motor programs that give coherence to experience without which human experience would be chaotic and incomprehensible [22, p. xix; 24, p. 207]. Image

schemas make it possible for people to use the structure of sensory and motor operations to understand abstract concepts and draw inferences about them. They are repeated patterns of sensory-motor experience of the individual that are perceived as a whole [22, p. XIV]. Scientists have created a list of image schemas presented in the works of T. Clausner and W. Croft [17; 18, p. 15; 19].

For example image schema PROCESS can be found in the core of concept EDUCATION in English, French, Ukrainian, and Russian languages: *When he finishes his secondary education, Vicente will receive the principal in the fund, which could be put toward college or starting a business* [28]; *Mes parents ont été incapables de gérer correctement mon education* [20, p. 9]; *Тільки врахувавши усі тенденції, а краще – передбачивши їхній вплив на майбутні події, ми зможемо забезпечити ефективну освітянську діяльність, результатом якої буде підготовлена, конкурентоспроможна молода людина, що повністю відповідає професійним і суспільно-громадським вимогам майбутнього життя* [4]; *До того образование сводилось к подражанию. Ребенка отдавали мастеру: никто, надо сказать, этого ученика ничему не учил, он просто выполнял наиболее трудоемкие и не требующие особых навыков дела: краски растирал, чего-то варил, чего-то строгал* [9].

3. Conclusion and Prospects. The combination of different methods of analysis of the concept allows for their integration into a single method of study in conceptual analysis. As the concept has a complex structure, the method of its study has to include a number of methodologies. The structure of concept EDUCATION can be established following seven stages of analysis: 1) at the first stage the lexical units that verbalize the concept are established, cognitive properties of the concept are then defined; 2) the second stage involves analysis of rational (logical) component of the concept structure; 3) at the third stage perceptive component of concept is studied; 4) the fourth stage deals with the analysis of figurative components of concepts represented by cognitive metaphors; 5) the fifth stage is modelling axiological (value) component of concept; 6) sixth stage is comparing the core of the concept; 7) modelling concept structure and comparing it in the contrastive aspect.

The prospect of the research is the study of concept EDUCATION in discourse and combining Corpus Linguistics methods with concept analysis procedures in contrastive studies.

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