

# The Semantic Field of Physical Constituent within Deviation Category in English

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## Abstract

**Objectives:** This article deals with the semantic field of biological part of physical aspect within deviation category. **Methods/Analysis:** All the information about the language expression means is classified in accordance with the elements distinguished in the semantic field of the above mentioned mental unit. The biological component of physical origin is presented as the semantic field with the core, near periphery and distant periphery. **Findings:** The core of this constituent is formed by means of special medical terms describing illnesses. This part includes the list of the official names of medical terms that are classified by WHO, the terms that belong to the neutral-bookish style class of words denoting some physical ailments, the third component of the core includes the words that are considered as the words meaning the physical aberrations and they are of neutral-bookish style too. The near periphery of physical component stands as the semantic frame with the words denoting informal style, the distant periphery is occupied by the words that are used as the euphemisms in the language. On the basis of this research the new Concise English-Russian Dictionary of Biological Deviations that includes mental and physical ailments and all the words of semantic domain within deviation has been published. **Novelty/Improvement:** The author uses two new terms “border-line word” and “trans-segment word” to denote some linguistic peculiarities of the words functioning in several frames of the mental unit.

**Keywords:** Biological Component, Border-Line Words, Category, Deviation, Physical Constituent, Semantic Field, Trans-Segment Words

## 1. Introduction

Semantico-cognitive analysis allows to consider the semantics of the word, semantic data set that can be presented by this word in the process of its usage<sup>1</sup>. The core and the periphery of the mental unit are under the analysis of concept structure. The core of the concept is its basic layer (including the coding image) and the combination of cognitive levels and cognitive segments. The interpretative field of the concept forms its periphery<sup>2</sup>. The mental unit is grouped around a certain “strong” (value-accentuated) point of cognition with its associative vectors. The most urgent associations of native speakers form the core; the periphery consists of less important stereotypical views<sup>3</sup>. The core of the concept is the coding image of USC (Universal Subject Code) and the basic layer (the unity of cognitive layers and cognitive segments that

indicate cognitive marks). The periphery of the concept is formed by its interpretative field. The terms “category” and “subcategory” are the key ones in this research. They are considered as the key notions in describing cognitive activity of a human being<sup>4</sup>. In earlier publications the author mentioned other terms – “category” and “concept” that were studied in the context of describing the cognitive activity of a person. It is necessary to mention that the new principle of representing the mental units is quite logical. The concepts in the system “category – subcategory – concept” play the role of less abstract language formations, the subcategories are positioned in the middle of this hierarchy; they are being broad mental units that are integral part of the categories of high abstraction. For example, *deviation* (category) – *deficiency* (subcategory) – *fool* (concept). At the same time, we agree with the statement by Anna Wierzbicka that super-categories

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exist. For instance: “For *furniture*, one cannot draw a line between kinds of things which are included in this super-category and things which are not – because by virtue of its meaning, the word *furniture* doesn’t aim at identifying any particular kind of thing”<sup>5</sup>. Furthermore, we should agree with the second idea of well-known scientist. She analyzed the names of “natural kind” and stated that “it is an illusion to think that words such as *doll*, *ball*, *tricycle*, *rattle*, *swing* and *teddy bear* can be similarly defined in terms of one non-arbitrary super category such as toy”. The same thought can be referred to *deviation* that is being considered as category or super category; some of the elements that are included into the sphere of biological deviation are debatable and might be seen in the boundaries of other categories or even function autonomous.

## 2. Materials and Methods

The categories serve as the linking element that unit the language material with the general line of brainwork, with the categories of logic and psychology<sup>6,7</sup>. Categories are the most general notions and principles that describe the structural organization of nature, society and abstract behavior<sup>8,9</sup>.

The data of categorization are required in revealing structural and semantic characteristics of deviation category. “Categorization in its narrowest meaning is the classification of phenomena, objects, processes in accordance with a certain rubric of someone’s experience, category and determination of any above-mentioned feature as the member of this category; in its broadest meaning the categorization is the process of forming and distinguishing the categories, division of the outer and inner worlds of a person taking into consideration the essential characteristics of his functioning and objective reality, ordered view of various phenomena by means of reducing them into smaller units and also the result of taxonomical activity”.

The categorization is the mental operation which is directed for forming the categories as the notions that summarize and classify the results of cognition activity of a person fully<sup>10-12</sup>.

The categorical characteristics are pointed out on the basis of lexeme meanings that represent the semantic fields of categories<sup>13,14</sup>. This type of analysis is called the conceptual one<sup>15</sup>. Lexemes, set phrases, some texts and

even the whole book are in the focus of conceptual analysis<sup>16-18</sup>. It is necessary to identify the cognitive context of sphere of knowledge that is the basis of lexeme meaning and structure it in a certain way having shown what parts of this field were “taken” by the sign.

The above-mentioned method is used to define the elements of deviation category and its subcategories and concepts<sup>19-21</sup>.

The categorization is the neuroprocess of using stereotypical concepts in ordinary or extraordinary mental activity of a human. It will be rough to point out the levels within the categories. The author considers the elements that are distinguished within this category as equal because these mental units can be met in the boundaries of other categories. It does not mean that the classical theory of categories is rejected in this work, but it needs enriching the data because categories are different in its functioning and are reflected in languages in specific way. Nevertheless, the term *subcategory* is used in this paper to underline the hierarchy of the mental unit. It is necessary to point out that the *subcategory* is a specification of deviations, further detalization leads to concepts which are considered as the elements of *subcategories*<sup>22</sup>.

## 3. Results and Discussion

Further analysis of semantic field of physical component of deviation category that is based on considering special literature resulted in finding the brightest representatives of the notional category of deviation<sup>23-26</sup>. Medical literature has been of special focus<sup>27,28</sup>, etc.

According to the view of the author the mental unit of physical deviations can be showed in the following way: The core of the category is formed by means of three components: 1. Medical terms denoting the ailments of various types. In this article only physical frame is taken; 2. Terms of neutral-bookish style marking the idea of developmental deviations that mean underdevelopment (inborn pathologies); 3. Group of words meaning the acquired physical disorders in a neutral-bookish style. Near periphery of this component within deviation category is constructed with the help of words of informal origin. Euphemisms occur in the part of the semantic field called distant periphery in the following Table 1 is shown.

The key understanding of biological component as any other component of this complex unit includes the

idea that it can be interpreted in a different way. The question about the position of this or that word in the structure of notional category *deviation* is debatable. The author should inform that the data about it always change. The language is always in the process of constant development. Nevertheless, we can fix the main boundaries in the semantic field that has an “endless” line of words that form the notional category of deviation.

**Table 1.** The structure of physical component of biological component of deviation category in English

Deviation	
Pathology	
<p><i>Mental pathology</i> See the article devoted to “Paralogia”, published in the journal “Fundamental Research”, listed at the end of the article<sup>22</sup></p>	<p><i>Physical Pathology</i> <b>The Core:</b> 1. <u>Medical terms</u> 2. <u>Underdevelopment of a person</u>, words of neutral-bookish style 3. <u>Traumas or acquired pathologies</u>, words of neutral-bookish style <b>Near Periphery</b> – informal style words <b>Distant Periphery</b> - euphemisms</p>

The core of this mental unit (*pathology*) is presented by medical terms of physical type. These are divided into the following subclasses according to International Code of Diseases<sup>29</sup>: *Certain Infectious and Parasitic Diseases* (A00-B99) > (A00-A09) Intestinal Infectious Diseases > Cholera (A00), Typhoid and paratyphoid fevers (A01), Typhoid fever (A01.0), Infection due to Salmonella typhi (A01.0), Paratyphoid fever A (A01.1), Paratyphoid fever B (A01.2), Paratyphoid fever C (A01.3), Paratyphoid fever, unspecified (A01.4), Other Salmonella infections (A02), Shigellosis (A03), Shigellosis due to Shigella dysenteriae (A03.0), Shigellosis due to Shigella flexneri (A03.1), Shigellosis due to Shigella boydii (A03.2), Shigellosis due to Shigella sonnei (A03.3), Other shigellosis (A03.8), Shigellosis, unspecified (A03.9), Bacillary dysentery NOS (A03.9); *Neoplasms* (C00-D48) > .... *Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism* (D50-D89) > ... *Endocrine, nutritional and metabolic diseases* (E-00-E90) > ... *Diseases of the nervous system* (G00-G99) > ... *Diseases of the eye and adnexa* (H00-H59) > ... *Diseases of the ear and mastoid process* (H60-H95) > ... *Diseases of the circulatory system*

(I00-I99) > ... This system shows further specification from abstract category deviation to exact type of the disease. It means that the core has various levels. Another thing of this structure is the existence of the terms that are used in everyday speech for indicating this or that disease. For instance, the word *pox* is a medical term, but at the same time it belongs to vulgarisms and have the meaning of *syphilis*. This example shows the idea that the segment *medical terms* in the core of biological component of deviation category has further division in to *official names of diseases* and words referring to the official names but also functioning like the representatives of the periphery of the core: Euphemisms, vulgarisms – *border-line words* i.e. lexemes of phrases belonging to the center of the core and to the periphery of it. In context of the words functioning in various fields of biological component we should say about close interconnections between mental constituent and physical one. For instance, the adjective *backward* can function in the boundaries of mental component denoting a person being mentally retarded, but on the other hand it means a physically challenged personality. The adjective *handicapped* can be referred to both – physically or mentally disabled people. Thus, in contrast to the border-line words we see *trans-segment words* that are characteristic of both components of deviation category. The most important thing about the primary word that characterizes the physical component in general is that it is also a *trans-segment word* – handicapped or physically handicapped.

The core component “*underdevelopment*” can be presented by the following synonyms line: Physically handicapped, underdeveloped, undeveloped, rudimentary, abortive, dwarfish, half-grown, immature, juvenile, defective, inferior, inadequate, impaired, deficient, retarded, physically challenged<sup>30</sup>; disabled, invalid, shut-in<sup>31</sup>; afflicted<sup>32</sup>. The word *retarded* is also productive one in the segment of physical disorders, this word has been considered by the author in the article “The Means of Expressing the Mental Component in the Deficiency Category (Data of English)” in detail<sup>33</sup>. The lexeme *disabled* is a border-line word, it can be presented in the sphere of *underdevelopment of a person* and in the frame of *traumas and acquired pathologies*.

For example, now little girls play hockey as well and so do older men and women; so do the *blind* and the *mentally and physically handicapped*<sup>34</sup>. The lexemes mean “physical defect” and refer to the core frame “underdevelopment”. Our final theme focuses on coping with health

issues and includes immediate radiation reactions after the bombing; fears and suffering concerning the ability to get pregnant and of having miscarriages; passing on *genetic disorders* to one's children; and having *physically handicapped* offspring. When the survivors talked about their health concerns, they often mentioned their children, friends and relatives who also had been bombed<sup>35</sup>. The author of this example mentions the genetic disorders that are considered as the inborn pathologies, the combination of words *physically handicapped* is used here in its direct meaning "having a biological deviation". I now understand that I was for my age a weirdly *underdeveloped human being*, ripe for the sort of encounter I had with<sup>36</sup>. In the last example the phrase *underdeveloped human being* is used metaphorically with no reference to the biological deviation.

The component of the core called *traumas and acquired pathologies* include the following list of words belonging to this semantic core (this is not the full line of words within the core under discussion): Defective, abnormal, damaged, deficient, faulty, flawed, inadequate, insufficient, unhealthy, unsound, amiss, blemished, impaired, imperfect, incomplete, injured, lacking, on the bum, out of order, sick, subnormal, unfinished, wanting<sup>37</sup>; irregular, marred, inoperative, disabled, crippled, incapacitated, lame, weakened, out of action, prostrate, paralyzed, bedridden, confined to a wheelchair, paraplegic, quadruplegic; handicapped, etc.

This segment according to British National Corpus<sup>38</sup>: *Abnormal development* may occur if a protein is not made at the right time or place or the protein is *defective* or if too little or too much is made (BNC ASL 1087); *A disabled man* who is unable to speak typed out a message on his computer to call the fire brigade when he woke to find a candle had caused a small fire in his bedroom (BNC AKR 300). Sixteen policemen were *injured* in clashes (BNC A1Y 581). First, many patients in hospital have taken overdoses or *injured* themselves in the past (BNC B30 1100).

Near periphery of physical component is formed by means of the words of the informal style. These are the words of slang origin, vulgarisms: *Wingy*, *basket case*, *wheelie*, *cabbage*, *manky*, *mankey*, *fritz*, *touched*, *queer* and *kinky*<sup>39</sup>. We presented some words from this segment to show that it existed; we did not demonstrate the division in accordance with the core components. It was done intentionally; this sphere of biological component is of special consideration.

Distant periphery is presented as the following collection of euphemisms: *Off one's feed*, *green around the gills*; *ableism*, *Irish*, *physically challenged*, *resident*, *sheltered*, etc<sup>40</sup>. The main idea here is that such well-known words like abnormal or disabled can be marked as euphemisms and be met functioning in both segments of biological component: Physical and mental ones. The phrase *physically challenged* is also considered here being a euphemism. The word *challenged* is very productive: *Follicularly challenged*, *aurally challenged*, *visually challenged*, *cerebrally challenged*, *developmentally challenged*, *vertically challenged*, *physically challenged*. The word *handicap* stands in this segment as the euphemism too.

All lexical units belonging to physical ailments are included into Concise English-Russian Dictionary of Biological Deviations. The above-mentioned language units are the examples showing the hierarchy of physical constituent of biological component within deviation category where we can find several levels with further specification.

## 4. Conclusion

The data about the psychical component within biological deviation is included into Concise English-Russian Dictionary of Biological Deviations. That is only the basis for further analysis of semantic elements within the distinguished constituents - *physical and mental deviations*. This paper is only an attempt to show the peculiarities of the semantic fields within biological deviations. The perspective feature is to see the functional sides of the lexemes marked in the dictionaries as *informal* and *euphemistic*. The author introduced two terms *border-line word* and *trans-segment word* to mark some language functioning features that are obvious in analyzing the cultural peculiarities depicted in the language.

The semantic analysis of the lexemes and phrases was intentionally omitted, only some of that parts have been presented here. Our main goal was to show the structure of semantic frames that are included in the sphere of notional category of deviation. For this reason, the method of categorization has been considered. The term *subcategory* was further developed in understanding the process of structuring the above-mentioned mental unit of deviation. The term *semantic field* was productively used in the way of constructing the levels of the category. The cores, near periphery and distant periphery of bio-component within *deviation* have been distinguished. We

think that such structure is debatable one and can be presented in the form of layers<sup>41,42</sup>.

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