Article

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LEXICAL CONCEPTS AS FLUCTUATING STRUCTURES

SUMMARY: Lexical concepts (i.e. semantic units conventionally associated with linguistic forms) are viewed in the article as structures consisting of interrelated facets (i.e. conceptual slots filled with various types of information about the referent) with different structural weight. The paper suggests a way to model the graded structure of lexical concepts by assessing the weight of each constituting facet according to its relevance for defining purposes, frequency of contextual profiling and salience in derivation processes. Thus, the approach taken exploits as many linguistic points of access to the concept as possible and uses three different dimensions to range its facets. The suggested idea is verified with a case study of some common lexical concepts in English (e.g. represented by concrete nouns such as "bird", "tree", etc.), which reveals both the advantages and the limitations of the approach taken.

 $K\,{\tt E\,Y\,W\,O\,R\,D\,S}\,{:}\,$ lexical concept, feature weights, ways-of-seeing, facets, meaning, profiling, salience.

INTRODUCTION

In cognitive linguistics, meaning is understood as not residing in the words as such, but pertaining to the level of actual expressions in speech, and the linguistic units are viewed rather as prompts for listeners to form meaningful conceptual representations (Radden, Köpcke, Berg, & Siemund, 2007, p. 1). As for words as such, their meanings are viewed as construed on-line on the basis of some flexible, open-ended semantic values (Evans, 2006, p. 491) with the help of contextual information and background knowledge (Lakoff, 1987; Langacker,

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1987; Allwood, 1999; Croft & Cruse, 2004; Kharitonchik, 2009, etc.). The activation of the semantic value of a word in context, in its turn, allows the receiver (listener or reader) access to a certain facet of a richer cognitive structure associated with this lexical item (Langacker, 1991, p. 4; Taylor, 2006, p. 570). Thus, the multiple instances of word use in communicative situations "lead language users to decontextualize its meaning and to slowly grasp it as a gradually emerging entity which might change at any moment under the influence of a novel communicative situation" (Kharitonchik, 2009, p. 119). Viewed from this perspective, a lexical concept becomes "an inherently dynamic structure of semantic components" (p. 120) with one least changeable constituent—the classifier. The question for researchers, though, is how to objectively assess the centrality, or structural weight, of other components of a lexical concept which group around its classifier.

The question itself is not new. The idea of structuring the content plane of a lexical unit was exploited in structuralist semantics, where the components of lexical meaning were divided into linguistically relevant, necessary and sufficient to distinguish the given word from others in the lexical system (cf. the notion of "value of a linguistic sign" introduced by F. De Saussure), and extralinguistic components, also termed "potential", "occasional", etc. Thus, the semantic content of a word was looked upon in two aspects—the narrower and the wider—and one of the most important tasks (which is still a lexicographic problem) was to find objective criteria to delineate the linguistic from the encyclopaedic.

From the point of view of cognitive psychology, there are two major theoretical standpoints on this issue: the conceptual and the categorial (Khalidi, 1995; Sloman, Love, & Ahn, 1998). The conceptual centrality of a feature in the structure of any concept depends on whether it constitutes an essential property of the referent, determines its other properties, and whether its absence "affects the likelihood that an object belongs to a certain category" (Ahn, Kim, Lassaline, & Dennis, 2000, p. 361). For instance, in natural kind terms like "tiger," "swan," etc. the most conceptually central are internal, molecular features of the referents that cause all other characteristics, like appearance or behavior (Ahn et al., 2000, p. 362; Keil, Kim, & Grief, 2002, p. 380). In artefact terms like "chair," "table," etc. the conceptual core is constituted by functional features which determine all other properties of the referents (Sloman et al., 1998, p. 191; Keil et al., 2002, p. 380). However, this view does not explain why a complete ignorance of essential characteristics may not necessarily lead to a failure in reference. In its turn, the categorial centrality of a feature in the structure of a concept is determined by its vividness, distinguishing force, typicality, and diagnosticity (Pattabhiraman 1992, p. 27; Sloman et al., 1998, p. 192). It differs from the first perspective in reliance on external rather than internal properties when forming a class of entities.

However, from both standpoints the criteria of centrality largely depend on the type of mental operation—careful analysis of all features vs. brisk judgement about categorial membership—and, consequently, are not based on the objective data of language use.

This paper continues the search for the principles of objective structuring of the content plane of a word and suggests using linguistic data as a marker of the structural weight of semantic features, thus, unifying the structuralist and cognitive approaches to lexical semantics.

METHODOLOGY

As mentioned in the introduction, the meaning of a word is a property of situational language use, and under various contextual factors we may observe the foregrounding of some aspects (also termed "facets", "ways-of-seeing" [Croft & Cruse, 2004, p. 137], etc.) of the designated concept and suppression of others. The well-known examples include cases with artifact terms like the word "book" which allows for the [TOME] and the [TEXT] reading in different contexts (Croft & Cruse, 2004, p. 116):

- (1) Some of the books were paperback, most were hardbacks.
- (2) Some of the books we read were novels and the others were **biographies**.

Whereas these readings, or facets, seem quite autonomous due to the metonymic link between them, in other contexts the activated facets seem more closely connected to each other, for example, the locative and behavioral facets in the concept BIRD in contexts (3) and (4):

- (3) Recovering my composure, if not much dignity, I **followed** the <u>bird</u> **through the trees** [CRJ 1407]¹ ('movement');
- (4) Fears [...] have been partly eased by preliminary studies of <u>bird</u> **habits** [AAL 501] ('typical actions').

These readings are not the ones usually pointed out in the lexicographic definitions of the word "bird", and the designated class of entities is the same in both examples (although the referents are different). However, the contextual focus is obviously on different aspects of the concept BIRD.

In fact, the observed similarity in the contextual modulations of noun concepts has led some scholars to introduce general lists of semantic aspects (facets, roles) which govern the linguistic manifestation of nouns. For instance, J. Pusteyovsky suggests four roles in the so-called *qualia structure* of nouns: the constitutive role (the internal constitution of the object, material, weight, parts, etc.); the formal role (the features distinguishing the object from other objects in

¹ The examples are taken from the British National Corpus (2007) and cited with the corresponding code.

a larger domain, such as shape, orientation, colour, etc.); the telic role (the function of the object); and the agentive role (how the object was created) (Pusteyovsky, 1991, p. 426–427).

The ways-of-seeing (WOS) introduced by Croft & Cruse include the part-whole WOS (views an entity as a whole with parts), the kind WOS (views an entity as a kind among other kinds), the functional WOS (views an entity in terms of its interaction with other entities) and the life-history WOS (views an entity in terms of its coming into being; Croft & Cruse, 2004, p. 137).

All the above-mentioned is also in line with the idea expressed by A.Wierzbicka, that

the very complex structures of concrete concepts have a simple skeleton, a skeleton shared by many, if not all the concepts of a given domain, so that all the concepts of a given domain can be viewed as different answers to the same basic conceptual questionnaire. (Wierzbicka, 1985, p. 332)

The introduction of these general schemata has a rich explanatory potential when it comes to understanding how concepts combine in complex linguistic expressions (Murphy, 2002, p. 453), however, it does not show which of the facets are more salient. Besides, without substantial empirical support, it is difficult to say whether the proposed lists of facets are finite.

The starting point in the search for the objective empirical criteria of evaluating feature weights in a concept is to consider the frequency parameter which, according to Dirk Geeraerts, underlies the overwhelming salience phenomena in lexicon and may be looked upon from onomasiological, semasiological and structural perspectives (Geeraerts, 2006, p. 74–94). Since the present research is semasiological in nature, let us consider the last two approaches.

Semasiological salience is "a relationship among various semantic possibilities of a given lexical item" (Geeraerts, 2006, p. 79), i.e. some semantic possibilities are chosen more often than others. It may be revealed paradigmatically (on the systemic level) and syntagmatically (in the language use), cf. "type frequency" vs. "token frequency" of a linguistic phenomenon (Bybee, 2003, p. 11–12). For example, the more frequently a certain reading is used with the linguistic unit, the more salient it is among other possible readings of the unit. And the more frequently the unit is used in a certain syntagmatic context, the more salient this context is among other possible syntagmatic contexts of the unit.

If we continue this theoretical line, the facets of a lexical concept salient paradigmatically are the ones that are most frequently used in association² with the concept, for example, when one tries to define it. This can be revealed not only by experimental (psycholinguistic) methods (Rosch, 1978, p. 32), but also with the help of lexicographic sources. For example, explaining the meaning of the

² The paper does not include free associations that spring to mind in relation to a given word, since they may not be conventional. However, if they are fixated in phraseology, they become part of the modelled structure.

word *bird* one may rely on perceptual and locative features of the referent (5); others will add biological properties to the list (6); still others will profile perceptual, biological and behavioral types of knowledge (7):

- (5) bird "a creature with **feathers** and **wings**, usually **able to fly**" (CALD 2003);
- (6) bird "a creature with **feathers** and **wings**. **Female** birds **lay eggs**. Most birds **can fly**" (Collins COBUILD 2007);
- (7) bird "an animal covered in **feathers**, with two **wings** for **flying** and a **hard pointed mouth** called a beak or a bill. Birds **build nests**, in which **female** birds **lay eggs**" (Macmillan).

So, the frequency of lexicographic profiling of certain facets in the structure of lexical concepts will show how salient the facets are from the paradigmatic perspective. Likewise, the frequency of contextual manifestation of certain facets will testify to their syntagmatic salience.

Structural salience, after D. Geeraerts, is determined by the frequency with which a feature occurs "in the structure of the lexicon", i.e. in the "totality of distinctive relations in the lexicon" (Geeraerts, 2006, p. 88). One of the possible implementations of this dimension is to consider what features of a source concept occur as distinctive ones among the derived units from the given word. Consider some of the expressions derived from the word "bird" or using the concept BIRD as a starting point to form new linguistic expressions (8), (9), (10), (11), (12):

- (8) bird 2: "a light object shaped like a cone that is hit over the net in the game of badminton; shuttlecock" (MWD);
- (9) bird of passage: "a person who moves from place to place frequently" (AHDEL);
- (10) bird-voiced tree frog: "a species of frog in the Hylidae family easily distinguishable during the spring and summer when it gives its characteristic call" (Bird-Voiced Tree Frog, n.d.);
- (11) eat like a bird: "to eat sparingly" (RHD);
- (12) free as a bird: "at liberty, without obligations" (AHDI).

These derivatives, due to the metaphorical shift which underlies their formation, highlight some features of the source concept: feathers, moving in the air

(8); migration (9); ability to sing (10); nutrition habits³ (11); behavior (12). From this perspective the weight of a feature in a lexical concept is graded according to the frequency with which the feature was used as a base for a metaphorical shift.

The three types of linguistic manifestation of the facets constituting a lexical concept described above will constitute a basis to assess their structural weight. Thus, in this research the problem of grading the facets of a lexical concept will be solved using the established methodology of linguistic analysis.

RESEARCH

The case study was based on some common English concrete nouns (12 animal and plant terms, 7 terms referring to people) characterized by the diversity of the constituents of the corresponding lexical concepts. The choice of lexical items was mostly based on their relatively high contextual frequency⁴ and difference in the levels of categorization among them (basic level, superordinate level, and subordinate level terms).

The sources of information about the features of the analyzed lexical concepts included their lexicographic definitions in 10 English-English dictionaries (190 entries used), corpus data of the profiled features in more than 2000 contexts for each word retrieved from the British National Corpus (2007), and the derived units foregrounding certain properties of the source concepts (358 derived linguistic expressions) found in idiom dictionaries and other etymological sources.

The choice of dictionaries was based on the premise not to miss any aspect or type of information that is relevant for definitional aims, that is why the list included American dictionaries alongside British ones, learner's dictionaries together with unabridged lexicographic sources, older and contemporary dictionaries (see the full list in the cited literature). The facets and the features constituting them were discovered in the process of componential analysis of the studied definitions. To unify all the classifiers, we substituted the narrower ones with their definitions. For example, "mammal" was substituted with "a warm-blooded vertebrate animal of a class that is distinguished [...]", so that to explicate a broader classifier "animal", common for all the studied animal terms. As a result, some definitions were enriched with new features coming from transformations of this kind.

The range of contextual word combinations under analysis included four basic structural types: noun phrases and predicative phrases with the studied words as heads (e.g. "The **lean-flanked wild** and **free** horse [...]" [A0L 3852]; "[...] the cat curled up against his feet" [FPB 618]), noun phrases with the stud-

³ Phraseological units fixate different features of the source concept, be it scientifically proved properties or folk wisdom. As a result, the image of the referent in this perspective may be far from reality, like the sparse nutritional habits of birds.

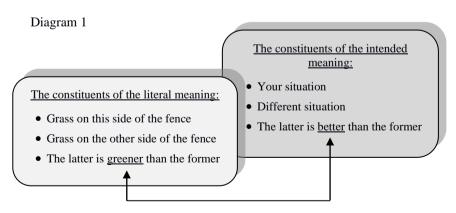
⁴ Most of the analysed words belong to the 3000 most frequent words from Longman Communication 3000 (2nd ed.).

ied words as modifiers (e.g. "[...] <u>bird</u> **droppings**" [ADA 1675]; "[...] the normal **life span of** the <u>mouse</u>" [EA0 1103]), verb phrases with the studied words as arguments (e.g. "[...] remember to **pat** the <u>dog</u>" [CJE 553]; [...] "swooping in **from behind** the <u>owl</u>" [BLX 1644]), and phrases with subordinate clauses attributive to the studied words (e.g. "The wave is a <u>fish</u> **that always gets away**" [ASV 82]; "[...] the <u>creature</u> **which has never been seen before in any swamp or tropical rainforest**" [AKE 155]). The contexts not taken into consideration were scarce and included the following main types: 1) the referent of the studied word belongs to a different category, e.g. "[...] **artificial** <u>grass</u>" [CJC 533] (not a category of plants); 2) the studied word refers to the class in general, without specifying any aspect, e.g. "[...] to **learn more about** the <u>fish</u>" [J3N 147], "Donald Gillies **was** a <u>friend</u>" [A0N 1754]; 3) the studied word is a component of a set nominative complex, e.g. "[...] plant **life**" [BOP 556].

The analysis of the derived and phraseological units under consideration consisted of three stages: 1) stating the literal and intended meaning of a derivative, 2) identifying the constituents of both that are being mapped, and 3) finding the semantic links between them (Lakoff & Turner, 1989, p. 170–191; Geeraerts, 2006, p. 200). Consider example (13):

(13) The grass is always greener on the other side (of the fence): "a different situation always seems better than one's own" (AHDI).

The intended meaning of the phrase is made possible due to the mapping of the colour characteristics of the source concept GRASS and evaluative characteristics of the target concept SITUATION (see Picture 1). Consequently, the more colour there is in the grass, the higher the value of the situation is. Therefore, the perceptual feature "colour" of the concept GRASS is made prominent via this set expression.



Another example is (14) which highlights the biological and temporal facets of the concept GRASS ("low speed of growth"—"delays in acting"):

(14) not let the grass grow under one's feet: "not delay in acting or taking an opportunity" (OD).

Conversely, in metonymy based expressions like grassy: "covered with grass", grass box: "a container attached to a lawn mower that receives grass after it has been cut", grass widow: "a woman who spends a lot of time apart from her partner, often because he or she is working in a different place" (CALD), etc. we cannot identify the features of the source concept that get fixated in the derived concepts. So, suchlike expressions were not taken into account.

The frequencies of feature profiling in dictionary definitions were calculated as percentages of the number of features found to the number of definitions (10 definitions for each word). The contextual frequency is a relation of the number of profiled features to the 2000 sentences found for each word. Finally, the frequency in derivation processes was estimated as the number of features found as bases for metaphors to the whole number of the derivatives (it is specified for each of the studied words and ranges from 56 for "dog" to 1 for "oak" and "person").

All the obtained frequencies were later unified to a 10-grade scale using the formula in (Baltatescu, 2002). This allowed the building of models of lexical concepts reflecting the different structural weights of their constituting facets, or types of features.

The research shed light on some important aspects of lexical semantics which I would like to dwell upon in detail in the next section.

FINDINGS AND DISCUSSION

1. The Open-Endedness and Relative Stability of Lexical Concepts

The first thing clearly observed from each of the studied perspectives (definitional needs, contextual profiling, and derivational activity) is the following: no matter how big the variety of the profiled information about the referents of the words is, it is logically reducible to a closed set of conceptual slots. There are 10 facets for animal terms, 8 for plant terms, 9 for terms referring to people. However, the list is longer than the one suggested by J. Pusteyovsky and Croft & Cruse, which is explained by the broader scope of the employed empirical data.

Consider the features of the lexical concept BIRD foregrounded in its various types of linguistic manifestation (see Table 1).

⁵ According to etymological sources, the allusion to grass is not clear, but it was commonly believed to refer to casual bedding (see Online Etymology Dictionary, 2019).

Table 1

The features of the lexical concept BIRD obtained from linguistic data

Semantic features and facets in the	Profiled		
lexical concept BIRD	in definitions	in context	via derivatives
Perceptual (size, appearance, shape, etc.)	+	+	+
Systematizing (taxonomic name, etc.)	+	+	
Biological (biological activity, gender, etc.)	+	+	+
Constitutive (internal parts, container, etc.)	+	+	+
Behavioral (habits, situational actions, etc.)	+	+	+
Locative (movement, habitat, location, etc.)	+	+	+
Utilitarian (domesticity, owner, etc.)		+	
Temporal (age, stage of development, etc.)		+	+
Psychological (character, emotional state, etc.)		+	+
Social (role in society, pedigree, etc.)		+	

It is clearly observed that some of the discovered facets of the concept BIRD are specific to the domain of animals and animate objects in general (biological, behavioral, psychological features); others reveal the connection of the designated concept with a broader concept THING (perceptual, constitutive, locative, temporal features). Also, the list includes the so-called meta-facet of systematizing features (i.e. relevant in human-built taxonomies) and the utilitarian facet showing the proximity of the referent to humans. The same refers to all other concepts under study: the majority of the facets serve as general links to other concepts, and there are certain anthropocentric facets.

As the data show, although the contextual use is clearly the richest source of features of the analyzed lexical concepts, the number of rubrics that the information obtained can be divided into does seem to be rather stable, and new features that might be actualized under novel contextual circumstances are likely to fall under one of the categories already established for the first 1000 contextual findings. This demonstrates the stability and open-endedness of a lexical concept. The stability is achieved by the set number of facets that can potentially be present in lexical concepts belonging in the same broader domain (e.g. of

animate things). The open-endedness is achieved by the fact that within the established facets more and more features may appear under novel contextual factors. For example, in contexts (15), (16) we may observe the activation of the feature "container" not common for concepts represented by animate things. However, the new feature appears under the already established rubric (constitutive facet).

- (15) [...] the mercury compounds underwent further "biotransformation" **inside** the <u>fish</u> [AMS 576];
- (16) [...] a condom prevents sperm from **entering** the woman [A0J 447].

Finally, as the data show, the conceptual slots may be filled in one perspective and left empty in another (see Table 2).

Table 2

The number of the profiled facets of the lexical concepts

Some of the analyzed lexical	The number of facets profiled		
concepts	in definitions	in context	via derivatives
CREATURE	4	10	0
BIRD	6	10	7
CAT	6	10	7
HORSE	8	10	8
OWL	7	10	5
PLANT	5	8	0
GRASS	5	7	5
PERSON	5	8	1
WOMAN	3	8	5
TEACHER	2	8	2

This refers, first, to the facets actualized in one dimension and nonexistent in another. For example, the dimension of derivation serves as a good basis for evaluation feature weights only for concepts represented by basic and subordinate level terms. As for superordinate level terms, the data here are rather scarce, with only one derivative found: person 2: "biol. a shoot or bud of a plant; a polyp or zooid of the compound Hydrozoa, Anthozoa, etc." (Biology Dictionary, 2019), which profiles the constitutive facet of the source concept PERSON ("member of a group"—"part of the whole"). Secondly, the facets profiled in the three dimensions do not always overlap, which proves that a lexical concept cannot

be fully revealed in only one of its linguistic manifestations.

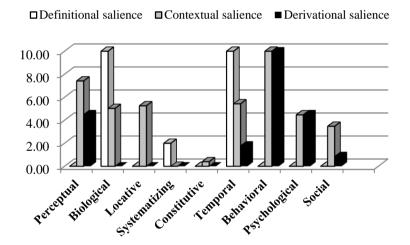
2. The Fluctuation of Lexical Concepts

In most of the studied concepts the rigid dividing line between central and peripheral constituents is impossible to draw, since, firstly, the weights of facets in different linguistic perspectives may not coincide, and, secondly, the difference in salience among them may not be great.

Consider the structure of the lexical concepts WOMAN and TEACHER. In the structure of the concept WOMAN (see Diagram 1) there are no facets equally salient in all three perspectives.

Figure 1

The model of the lexical concept WOMAN showing the weights of its facets



For example, the information relating to the behavior and character of the word's referents is most frequently profiled in context, as in (17), (18) or (19), and via derived units, as in (20) or (21), but is completely irrelevant for definitional needs (22):

(17) [...] traditional female tasks such as cooking and cleaning are more likely to be shared equally when the <u>woman</u> works full-time [AP5 243] ('occupation');

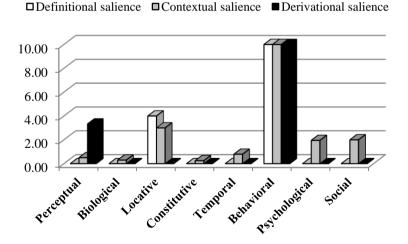
- (18) The <u>woman</u> **showed her a bundle of tiny packages, secret notes**, from some of the disappeared men, smuggled out of their secret jail by one of the guards [A03 832] ('situational action');
- (19) In their defence, I'm not **the most approachable** <u>woman</u> in the world [A0F 506] ('habitual behavior');
- (20) woman's tongue: "bot. the tree *Albizia lebbeck*; an allusion to the sound the seeds make as they rattle inside the pots, and women's tendency to gossip" ('typical behavior'; Woman's Tongue Tree, n.d.);
- (21) womanish: "suggestive of a weak character" (MWD) ('character');
- (22) woman: "an adult female human being" (LDOCE).

The same difference in structural weight is observed for biological and temporal facets of the lexical concept WOMAN which are salient for definitional needs, but have relatively low salience in context, let alone derivation.

In the lexical concept TEACHER (see Diagram 2), quite the opposite, there is a facet salient in all the perspectives—the behavioral one.

Figure 2

The model of the lexical concept TEACHER showing the weights of its facets



Behavioral features and, namely, the type of occupation of the word's potential referents, are profiled in all its definitions, e.g. teacher: "someone **whose job is to teach**" (Macmillan Online). In contextual use the features relating to all

types of behavior of the referents are also most frequent, as in (23), (24), and (25):

- (23) The case of a **physics** teacher [A06 189] ('job specialization');
- (24) In such a setting, he believes, his **work as** a <u>teacher</u> can only be betrayed [A05 1599] ('occupation');
- (25) Method must be learnt from a **specially-trained** <u>teacher</u> [A0J 474] ('qualification').

As for the sparse derivatives of the word "teacher", they are all based on the features of the source concept in this or that way related to the referent's occupation, as in (26) and (27):

- (26) teacher 2: "the index finger; the forefinger" ("typical gesture—pointing"; Wordnik, 2019);
- (27) teacher's nodes: "small, circumscribed, bilateral, beadlike enlargements on the vocal cords caused by overuse or abuse of the voice" ("habitual behavior—speaking"; Mondofacto, 2019).

So, the behavioral facet in the structure of the concept TEACHER could be considered central in all the studied perspectives. However, other facets, being surely on the periphery, show a certain degree of fluctuation in salience according to the type of manifestation and, thus, are difficult to range objectively in one dimension.

To sum up, the structure of a concrete concept is multidimensional, i.e. in each type of its linguistic manifestation we observe different order of its semantic constituents.

The analysis of patterns of meaning fluctuation in the semantics of the studied words revealed both similarities and differences, and this makes it interesting to analyze the contributing factors.

3. The Difference in Patterns of Fluctuation

In the distribution of feature weights in the studied concepts there can be observed two tendencies: to the convergence and the divergence of most salient facets in all three perspectives. There are no clear-cut cases to illustrate, but the studied models of lexical concepts may be considered as being closer to this or that trend.

3.1. The Convergence Tendency

The tendency to the convergence, or overlap, of most salient facets in their different linguistic realizations is predominant in the studied material and can be

observed in the lexical concepts TEACHER and FRIEND, and also in the cases of BIRD, OWL, TREE and GRASS. The concepts HUSBAND and WIFE occupy an intermediary position, with only partial overlap of most salient facets across the three perspectives.

In the TEACHER and FRIEND cases the convergence tendency is most vivid, with one facet salient in all the perspectives and other components lagging far behind. The nouns "teacher" and "friend", being nominal kind terms, along with "husband" and "wife", differ from the latter in their functional character. Thus, even though their referents are human beings with biological, perceptual, locative, etc. properties that can be attributed to them, it's their function in society, emphasized in their definitions, that becomes the crucial factor guiding the linguistic realization of these concepts. For example, the above discussed contexts (23), (24), and (25) for "teacher", with the foregrounded behavioral facet, are more frequent than, say, (28) or (29), with the locative and perceptual properties profiled, though they are fairly possible:

- (28) I was just sitting reading and the <u>teacher</u> walked in and I didn't hear him [KDP 2814] ('movement');
- (29) I have met a very **nice young lady** <u>teacher</u> [A89 417] ('appearance', 'age', 'gender').

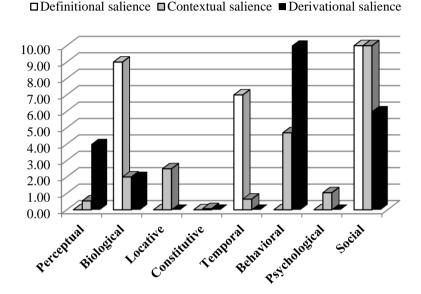
As for the derived units of different kinds built on the basis of the words "teacher" and "friend", they are also formed by exploiting the functional side (i.e. behavioral features) of the source concepts, with other features present only scarcely, accompanying the behavioral ones. In the example (26) there is a metonymic shift of *totum pro parte* type, where the term for the whole concept (a teacher with the highlighted typical gesture of pointing with a forefinger) is used to name part of the concept (the forefinger itself). At the same time, the source referent (a teacher) and a target referent (a human's forefinger in general) share a common functional characteristic (pointing), so the case might be treated as a metaphorical extension as well. At any rate, the feature foregrounded in the concept TEACHER by this derivative is "gesture" which is, on the one hand, a type of behavior, and, on the other hand, involves information about visible body parts (perceptual facet).

The lexical concepts HUSBAND and WIFE do not show the convergence tendency so vividly, but they are similar to TEACHER and FRIEND in the partial overlap of feature salience in all three perspectives. Namely, the social facet is most salient in definitions and context, but comes second in derivation (see Diagram 3).

The social facet is presented mainly by the feature "marriage partner", as in contexts like "my husband"; "her husband"; "the husband of the cleaning woman", etc. Thus, it's the relational character of the word "husband" (and also "wife") that is the key factor in structuring their meaning constituents in terms of salience for definitional needs and context profiling.

Figure 3

The model of the lexical concept HUSBAND showing the weights of its facets



As for the derivatives of the word "husband", they are mainly formed in reliance on typical behavior attributed to husbands (30) and some perceptual properties used to be characteristic of them in the past (31):

- (30) husband: "to use something carefully so that you do not use all of it" (CALD 2003) ('typical behavior—economizing');
- (31) husband 2: "a polled tree; a pollard; so called in humorous allusion to the traditional bald head of husbands with energetic wives" (CD) ('typical haircut—cropped').

In general, since the division into facets is not completely devoid of subjectivity and the social facet in relation to human referents might be considered similar to the behavioral one, the overall picture with the most salient constituent seems much the same as in the TEACHER case. The only difference, then, is the greater degree of fluctuation in salience of other facets in the meaning structure of "husband" compared to "teacher".

In the cases of BIRD, OWL, TREE, and GRASS, the facet most salient in all the dimensions is the perceptual one. However, other types of knowledge about the referents of these animal and plant terms (mainly, biological, locative and

utilitarian) do not lag far behind in salience. So, depending on the nature of the designated referent (its typical behavior, habitat and proximity to people) the distribution of structural weight among these dominant facets will differ, but not significantly.

3.2. The Divergence Tendency

The divergence tendency in salience, i.e. the absence of facets similarly high in frequency in all types of linguistic realization, is observed only in the lexical concepts MAN and WOMAN. The words "man" and "woman" are predominantly aimed at characterizing rather than identifying their referents, hence the relatively limited and stable number of features in their definitions (mainly "gender" and "age"). However, their actual use in context and as derivational bases triggers a vast range of otherwise latent types of knowledge constituting these lexical concepts (behavior, appearance, locomotion, character, social role, etc.). The difference in fluctuation patterns in the lexical concepts, represented by the nouns *man* and *woman*, and the concepts represented by other terms of people, also characterizing in their primary function, may be attributed to the features underlying the corresponding classes of referents: the so-called natural characteristics (gender and age) vs. the nominal characteristics (profession, marital status, interpersonal relations).

CONCLUSIONS

The suggested models of lexical concepts built on empirical data are more embracing than those built on the basis of psycholinguistic and introspective studies, since they include not only the types of knowledge relevant for definitional aims. At the same time, they do not go too far from the schemata proposed deductively, which serves as a proof of their objectivity.

The models of lexical concepts construed in the research demonstrate how these inherently stable structures may change and enrich themselves under novel circumstances. The stability of a lexical concept is achieved by the set number of constituting facets, common for the whole class of similar entities, but depending on the type of linguistic manifestation, the facets are either filled, or left empty; either frequent, or scarce. The enrichment of a concept with new features is possible within the established rubrics (facets); otherwise a new concept is formed.

The undertaken study illustrates that although in many cases the most salient facets in all the studied dimensions are the same, the weight of other facets is mostly fluctuating depending on the type of linguistic manifestation. The patterns of fluctuation of the facets in the studied concrete concepts differ due to the influence of the following main factors: the nature of the referent, the function that the corresponding word is primarily used in (identifying vs. characterizing), the features underlying the concept (natural vs. nominal), and the relational or functional character of the word content. The rigid dividing line between the

most salient facets and the rest is only possible to draw for the concept TEACH-ER, which is due to its highly functional character (i.e. the word "teacher" mainly serves to characterize the referent by its main function).

Among the limitations of the approach taken I would mention the derivation criterion which works for some concepts, but is useless for others (e.g. most superordinate terms) and the part-of-speech dependency (it works well only for multi-faceted concepts, like the ones represented by concrete nouns or some types of verbs).

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REFERENCES

- Ahn, W., Kim, N. S., Lassaline M. E., Dennis, M. J. (2000). Causal Status as a Determinant of Feature Centrality. *Cognitive Psychology*, *41*(4), 361–416.
- Allwood, J. (1999). Semantics as Meaning Determination with Semantic-Epistemic Operations. In: J. Allwood, P. Gärdenfors (Eds.), *Cognitive Semantics. Meaning and Cognition* (pp. 1–18). Amsterdam, Philadelphia: John Benjamins Publishing Company.
- Baltatescu, S. (2002). *Problems of Transforming Scales of Life Satisfaction* [PowerPoint presentation]. Retrieved from: https://studylib.net/doc/9985031/problems-of-transforming-scales-of-life-satisfaction
- Biology Dictionary. (2019). *Person*. Retrieved from: https://www.biology-online.org/dictionary/Person
- Bird-Voiced Tree Frog. (n.d.). Retrieved from: https://en.wikipedia.org/wiki/Bird-voiced tree frog
- Bybee, J. (2003). *Phonology and Language Use*. Cambridge: Cambridge University Press.
- Croft, W., Cruse, A. D. (2004). *Cognitive Linguistics*. Cambridge: Cambridge University Press.
- Evans, V. (2006). Lexical Concepts, Cognitive Models and Meaning-Construction. *Cognitive Linguistics*, 17(4), 491–534.
- Geeraerts, D. (2006). Words and Other Wonders. Papers on Lexical and Other Topics. Berlin, New York: Mouton de Gruyter.
- Keil, F., Kim N. S., Grief M. L. (2002). Categories and Levels of Information. In:M. E. Forde, G. Humphreys (Eds.), *Category Specificity in Brain and Mind* (pp. 375–401). Hove: Psychology Press.
- Khalidi, M. A. (1995). Two Concepts of Concept. *Mind and Language*, 10(4), 402–422.

- Kharitonchik, Z. A. (2009). Lexical Meaning as a Dynamic Entity of Variant Semantic Components. *Probleme Actuale de Lingvistică*, *Glotodidactică* şi Ştință Literară, IV(I), 113–121.
- Lakoff, G. (1987). Women, Fire, and Dangerous Things. What Categories Reveal About the Mind. Chicago, London: University of Chicago Press.
- Lakoff, G., Turner, M. L. (1989). *More Than Cool Reason. A Field Guide to Poetic Metaphor*. Chicago, London: University of Chicago Press.
- Langacker, R. W. (1987). Foundations of Cognitive Grammar. Theoretical Prerequisites. Stanford: Stanford University Press.
- Langacker, R. W. (1991). Foundations of Cognitive Grammar. Descriptive Application. Stanford: Stanford University Press.
- Mondofacto. (2019). Retrieved from: http://www.mondofacto.com/facts/dictionary?query=teacher%27s+nodes&action=look+it+up
- Murphy, G. L. (2002). *The Big Book of Concepts*. Cambridge (Massachusetts), London: The MIT Press.
- Online Etymology Dictionary. (2019). Retrieved from: www.etymonline.com/
- Pattabhiraman, T. (1992). *Aspects of Salience in Natural Language Generation*. (Ph.D. dissertation, Simon Fraser University, Vancouver).
- Pustejovsky, J. (1991). The Generative Lexicon. *Computational Linguistics*, 17(4), 409–441.
- Radden, G., Köpcke, K.-M., Berg, T., Siemund, P. (2007). The Construction of Meaning in Language. In: G. Radden, K.-M. Köpcke, T. Berg, P. Siemund (Eds.), *Aspects of Meaning Construction* (pp. 1–15). Amsterdam (Philadelphia): John Benjamins Publishing Company.
- Rosch, E. (1978). Principles of Categorization. In: E. Rosch, B. B. Lloyd (Ed.), *Cognition and Categorization* (pp. 27–48). Hillsdale, N.J.: Lawrence Erlbaum Associates.
- Sloman, S., Love, B., Ahn, W. (1998). Feature Centrality and Conceptual Coherence. *Cognitive Science*, 22(2), 189–228.
- Taylor, J. R. (2006). Cognitive Linguistics and Cognitive Semantics. In:K. Brown (Ed.), *Encyclopedia of Language and Linguistics* (Vol. 2, pp. 569–582). Amsterdam: Elsevier Science.
- Wierzbicka, A. (1985). *Lexicography and Conceptual Analysis*. Ann Arbor: Karoma Publishers.
- Woman's Tongue Tree. (n.d.). Retrieved from: https://en.wiktionary.org/wiki/woman%27s_tongue_tree
- Wordnik. (2019). *Teacher*. Retrieved from: https://www.wordnik.com/words/teacher

Sources of Lexicographic Definitions:

- AHDEL: American Heritage Dictionary of the English Language. Retrieved from: https://www.ahdictionary.com
- CALD: Cambridge Advanced Learner's Dictionary. (2003). Cambridge University Press.

CED: Collins English Dictionary. Complete and Unabridged. Retrieved from: http://dictionary.reference.com

Collins COBUILD: *The Collins COBUILD Advanced Dictionary of American English.* (2007). Harper Collins Publishers Ltd.

LDOCE: Longman Dictionary of Contemporary English. Retrieved from: http://www.ldoceonline.com

Macmillan: *Macmillan Dictionary*. Springer Nature Ltd. Retrieved from: http://www.macmillandictionary.com

MWD: Merriam-Webster Dictionary. Retrieved from: http://www.merriam-webster.com

OD: Oxford Dictionaries. Retrieved from: http://www.oxforddictionaries.com

RHD: Random House Dictionary. Retrieved from: dictionary.reference.com/

WRUD: Webster's Revised Unabridged Dictionary. DICT Development Group. Retrieved from: http://www.dict.org/

Cited Sources of Idioms:

CD: The Century Dictionary: An Encyclopedic Lexicon of the English Language.
Retrieved from: www.micmap.org/dicfro/introduction/century-dictionary
AHDI: The American Heritage Dictionary of Idioms. (1997). Houghton Mifflin.

Source of Contexts:

The British National Corpus, version 3. (2007). Oxford: Oxford University Computing Services, on behalf of the BNC Consortium.