“Where is the bank?” or how to “find” different senses of a word

Alexandra Yu. Smirnova*
Saint-Petersburg State University, 7-9, Universitetskaya nab., St. Petersburg, 199034, Russia

* Corresponding author.
E-mail address: sandy.86@inbox.ru (A.Y. Smirnova).

Abstract

This article highlights certain inconsistencies that exist in modern lexicography with respect to word meaning representation and proposes an alternative outlook on the nature of word meaning based on the principles of the functional linguo-anthropological theory. Through the case study of the lexeme bank, it has been demonstrated that word meaning can be presented as a more coherent structure if only the functional evaluative nature of language be taken into account more accurately while compiling a dictionary entry. The article defends the idea that the evaluative nature of human experience as a source of meaning in language determines the way lexical items behave in real texts and, therefore, demonstrates the necessity of abandoning basic principles of referential semantics (with its stress on objective features of referents as physical objects) in lexicographical descriptions.

Keywords: Semantics, Linguistics, English language

1. Introduction

Dictionaries play a highly important role in modern society providing a link between different cultures and helping people to get acquainted with specific features of language use typical for this or that linguistic community. The major task of any dictionary in this respect is to create a consistent picture of word use
based on real texts and to provide the reader with an adequate description of the
sense structure of words in a given language.

The comparative analysis of a number of dictionary entries for the English word
*bank*, however, has revealed the existence of some problems in modern
lexicographic descriptions:

1. the lack of common principles for the distinction between polysemy and
   homonymy;
2. the lack of internal coherence in the representation of the semantic structure
   of the word;
3. the confusion between the properties of the word and the properties of its
   collocations.

In the first part of this article we shall have a closer look at these problems
giving examples from various English – English dictionaries. In the next chapter
we are going to dwell on the theoretical questions of meaning interpretation and
try to elucidate the peculiarities of our approach. To conclude, we shall present
an account of a specific case study which aims at providing possible solutions to
the problems of the lexicographic description outlined above.

2. Background

2.1. Polysemy or homonymy?

Different dictionaries give different accounts of the semantic structure of the
English lexeme /bank/. Three major strategies can be distinguished:

1. presenting the noun/bank/as one polysemous word [6, 4];
2. considering it as two separate words that happen to have the same
   articulatory realisation, but share no semantic features (a river bank ↔ a bank
   as a financial institution) – bipolar homonymy [2, 3];
3. splitting it into three different words (a river bank ↔ a bank as a financial
   institution ↔ a bank as a row or a tier of objects) – discrete homonymy
   [5, 1, 9, 7].

Such difference in the interpretation of the linguistic data shows the absence of
common criteria for the distinction between polysemy and homonymy. On the
one hand, those dictionaries that adopt the polysemous approach to the
description of the semantic structure of the noun *bank* do not mention explicitly
the basic unifying principle that underlies different types of word use. In this
respect it is not quite clear from the dictionary entry in what way such senses of
the word *bank* as “business that keeps and lends money and provides other
financial services”, “land along the side of a river or lake” or “a large number
of machines, television screens etc arranged close together in a row” (LDCE) are interconnected to form one semantic unit. It is a purely formal approach to polysemy which is based exclusively on the unity of the phonetic features of the word, but reveals no semantic coherence between its senses.

On the other hand, those dictionaries that favour the homonymic interpretation ground their position basically on etymological principles (three of the four dictionaries with the discrete version of homonymy include information on the historical origin of the word in their entries). As far as etymology is concerned, it should be pointed out that it is not such a reliable criterion for the distinction between polysemy and homonymy. Even those words that historically have come from very different sources can be reconceptualised, forming one semantic unit for the speakers of the language at present (the process that is going on, for example, with the French words décrépit and décrépi). And as for the English lexeme /bank/, it is quite probable that all the three etymologically different senses have their common origin in the Proto-Germanic. Following F. De Saussure, we would like to claim the importance to distinguish between the historical development of the word in diachrony and the particularities of its use in synchrony [76].

As for the synchronic analysis, it is often conducted on objectivist grounds: instead of comparing functional features of word use in different situational models, researchers try to contrast objective properties of the referents, concentrating their attention mainly on their physical characteristics. As a result certain functional features are overlooked, which leads to inconsistencies in the interpretation of the linguistic data and its representation in lexicographic descriptions. We shall try to show this in more detail in our case study.

2.2. What is more important: statistics or consistency?

Modern corpus-based studies favour statistical approaches to sense distinction stressing the importance “to study, not merely authentic usage, but repeated and reinforced authentic usage” [55]. “...there are dictionaries that – no doubt on the basis of a couple of authentic citations – assert that there is a verb to newspaper in English, meaning either ‘to read a newspaper’ or ‘to work on a newspaper’ – but not, surprisingly enough, ‘to cover (a surface with newspaper)’. The editors of such dictionaries have not asked themselves whether they should make a distinction between all normal usage and all possible usage, nor whether recording all possible usage is a realistic goal, nor (if normal usage is the goal) how normal is to be defined and established” [55].

Such approach, when exaggerated, leads to the omission of certain statistically insignificant senses that, although being rare, play the role of important semantic links. For example, in the CCLD edited by John Sinclair - who is known as an
advocate of statistical significance for the collocational analysis – the verb sense ‘when an aircraft banks, one of its wings rises higher than the other, usually when it is changing direction’ [3] (the same in [8]) has no noun equivalent. The verb is given as a separate homonymous form labelled ‘other verb uses’ and thus, according to this dictionary, bears no semantic relation to other senses of the lexeme /bank/. However, if we take into account statistically rarer contexts in which the word bank stands for the elevated part of a racetrack and – metonymically – for an inclined position of the car on this part of the track, we will be able to restore important links that exist between the aforementioned verb sense and the river bank sense of the noun (we are going to expand on this question in the third part of the article).

This shows clearly enough that too much accent on statistical data leads sometimes to inadequate representations of the semantic structure of the word, leaving out essential semantic links and splitting the word into seemingly unrelated homonymous forms. In this respect we would like to stress the importance of consistency together with statistics. Such approach may lead to a coherent representation of all semantic relations and, thus, is more explicative, providing better understanding of possible creative uses of the word.

2.3. Metaphor or metonymy?

We have already pointed out that modern monolingual dictionaries do not mention explicitly relations that exist between word senses listed in their entries. It may create the impression that all the senses have equal status within the semantic structure of the word. It is well known, however, that certain senses result from metonymical shifts, while others are metaphorically related. Metonymical shifts are accompanied by major modifications in the functional features of the word (ex. [U] → [C], [TR] → [INTR] etc.), whereas metaphorically related senses are functionally analogous. Explicit representation of such relations may contribute to better consistency of the dictionary entry, helping language learners to develop their processing skills.

2.4. Lack of systematic relations between noun and verb senses

In most dictionaries word senses for the noun and for the verb bank are given as two separate and seemingly unrelated lists (the only exception that we have found is CCLD which lacks, nevertheless, certain coherence due to its overestimation of statistical data – see 1.2.1). Nowadays it is well known, however, that our cognition is composed of a number of scenarios or scripts [46, 47, 63, 75, 77]. The lexeme /bank/ forms part of several such scripts and almost in each of them it may function either as a verb or as a noun. For example, in the following sentences the verb and the noun bank definitely refer to the same situational model:
1. She keeps all her money in a bank.
2. He prefers to bank online.

The fact that such correspondences are not featured in the dictionary entry leads sometimes to asymmetric representation of the semantic structure of the grammatical homonyms. In the LDCE, for example, one of the senses of the verb *bank* is described as follows: ‘*to arrange something into a pile or into rows*: Snow was banked up on either side of the road’. As for the noun, the analogous type of usage is split up into two different senses: 1) ‘*a large sloping mass of* earth, sand, *snow* etc’; 2) ‘a large number of machines, television screens etc *arranged* close together *in a row*’. It is not quite clear why similar usage types of the verb and of the noun are described in such a different way.

### 2.5. The word and its collocations

Many dictionaries do not make clear distinctions between the properties of the word and the properties of its collocations. To give just an example, some dictionaries distinguish between such cases of use as *a snow bank* and *a fog bank* defining them as two separate senses (Longman Dictionary of Contemporary English; Longman Dictionary of Language and Culture; MacMillan Dictionary). In LDCE, for instance, these types of usage are described as follows: 1) ‘*a large sloping mass of* earth, sand, *snow* etc’; 2) ‘*a large mass of* clouds, mist etc’. Apparently these senses were distinguished because of the difference in the qualities of the matter which is referred to by the collocations: solid vs. non-solid matter. In our opinion, this distinction is introduced by the attributes (earth, sand, snow vs. clouds, mist) and has little to do with the functional properties of the word *bank* itself, which is associated here with a specific kind of shape regardless of the matter it consists of.

We have made an attempt to outline some of the problems that currently exist in lexicographic descriptions of word senses (similar criticism of French monolingual dictionaries has recently been made by the French linguist Emily Pauly [72]). Now let us turn to theoretical questions of meaning interpretation in order to clarify special aspects of our approach which might be advantageous in the search for possible solutions.

### 3. Analysis

#### 3.1. Theoretical questions of word meaning interpretation.

##### 3.1.1. Lingo-anthropological theory in the context of other functionally oriented approaches. Meaning as word use

The nature of word meaning has always been one of the key questions in linguistics and philosophy of language, which has been treated differently by
representatives of different schools of thought. Four major trends can be distinguished that define word meaning as:

1. reference to real-world entities [49, 69, 74];
2. its place in the language system [76];
3. its relation to conceptual structures [62, 50];
4. its use in speech.

Supporting the last point of view, we are going to dwell on this aspect of meaning interpretation in more detail in the present paragraph.

Introduced by Ludwig Wittgenstein in his “Philosophical Investigations” [90], this approach to word meaning has since been developed by scholars working in different fields of research: in functional linguistics [14, 42, 52, 53, 56, 67, 68], in cognitive studies [44, 73], in corpus-based research and computational linguistics [55, 60], in the philosophy of language [41], in constructivism [17, 40, 48, 64, 70, 72], in the integrationist theory [58, 57], in the functional linguo-anthropological approach [63, 80, 84, 85]. All these schools of linguistics defend the common idea that word meaning is not a property of the word per se, but arises from language use and depends on the desired communicative effect of the utterance. However, this basic idea is applied in a slightly different way in different theoretical frameworks.

Functional semantics, for example, has adopted certain objectivist principles in its word meaning interpretation. According to objectivist views, meaning is a conceptual equivalent of real world objects. Functional semantics distinguishes between two basic types of word meaning – conceptual and associative [67], or functional-interactive meaning [56]. Such opposition is purely objectivist in nature, for it contrasts a denotational core (which is emotionally neutral and referential) and various connotative supplements in the meaning structure. “In effect connotations are relatively peripheral meanings in comparison with denotations” [67]. Interestingly enough, evaluative potential of the word meaning is regarded here as part of the associative meaning and is, thus, relatively insignificant.

Roy Harris and Christopher Hutton call objective referential approach ‘a reocentric version of language myth’ opposing it to the ‘psychocentric versions of language myth’. The latter “place more emphasis on the connections that words make between different ideas in the mind” [58]. We shall not expand on this problem here; however, we would like to point out that we support their critical view of these approaches as well, since for us there are no such entities in mind as extra linguistic ideas. In our opinion, all ideas are composite linguistic structures, which means that relation to a certain (non-linguistic) idea...
cannot be regarded as a source of word meaning at all (for such an entity simply does not exist in our mind).

Being critical of the objective referential approach, the authors still distinguish, however, between denotation and connotation: “modern lexicography has inherited from the nineteenth century extremely muddled concepts of meaning and definition. The origin of this muddle is not difficult to detect: it arises from confusions about denotation and connotation, which in turn reach back to the earlier conflation of real and lexical definition . . . The possibility that the connotation(s) might actually determine the denotation was clearly foreign to him (to Murray, the editor of the New English Dictionary later called the Oxford English Dictionary)” [58]. It is quite clear from this quotation that Harris and Hutton make an important shift in favor of the evaluative potential of the word – connotation. However, they still maintain the distinction itself which, in our opinion, is totally irrelevant. As we are going to argue further on, it is based on wrong philosophical premises and leads to inadequate representations of word meaning structure.

Objective referential approach is also criticized by the constructivist and functional linguo-anthropological linguistic schools. Having studied the use of French determiners, Lidia Lebas-Fraczak, for example, makes the following conclusion: “The use of determiners represents one of the major difficulties for learners and non native speakers of French. Reference grammatical descriptions can be considered as partly responsible for this, as they imply that grammatical morphemes are endowed with precise meaning reflecting the characteristics of things in the real world” [64].

A specific feature of certain corpus studies [55, 60], as well as LCCM-theory developed by V. Evans in the scope of cognitive linguistics [44], is their decompositional principle: outside particular usage-events words have only meaning potentials composed of a number of discrete features that are present in real speech acts in different combinations. ‘Outside the context of a meaning event, in which there is participation of utterer and audience, words have meaning potentials, rather than just meaning. Meaning potential of each word is made up of a number of components, which may be activated cognitively by other words in the context in which it is used’ [54]. Decompositional semantics presupposes that there are neither clear-cut word senses, nor unifying semantic principle which is shared by all metaphorically related instances of word use. Such interpretation, in our opinion, does not explain clearly enough mechanisms underlying the integrity of each word as a separate semantic unit (for similar views see Pauly 2014). The word becomes just a disparate multitude of particular instances of use.

A more radical version of ‘meaning as use principle’ is defended by the integrationists. “The ‘radical indeterminacy’ recognized by integrationists . . .
questions the notion of semantic determinacy altogether. In integrational
semiology, the sign does not ‘have’ its own meaning: it is ‘made to mean’
whatever the circumstances require . . . More exactly, the contextualization that
makes a sign mean something is simultaneously what establishes its identity as a
sign” [58]. The principle of ‘radical indeterminacy’ questions even the
possibility of existence of ‘meaning potentials’ outside a specific usage event.
This apparently means that each word has as many meanings as there exist
particular utterances that it has ever been part of.

This idea challenges the notion of a dictionary altogether. How is it possible to
describe word meaning if it is so unstable that differs from one utterance to
another? Giving a very interesting critical account of lexicographical practices,
Harris and Hutton, however, do not propose any alternative model of word
meaning description. To say simply that it is impossible to compile an adequate
dictionary because of radical indeterminacy of lexical items would be just
shying away from the actual problem of how to improve dictionary entries in
order to provide language learners (esp. foreign language learners) with more or
less reliable (based on the detailed analysis of real speech acts and not just
speculations) information on particularities of word use. Harris and Hutton
suggest only “the abolition of context-free definitions altogether and their
replacement by semantic descriptions based on... a ‘communicational’ concept
of word-meaning” [58]. In this respect our case study definitely presents such an
attempt. Senses that we propose for the word ‘bank’ are descriptions of
particular context-types that can be described as stable patterns of word use in
speech.

In general, decompositional semantics, as well as the idea of radical
indeterminacy, are criticized by the constructivist and linguo-anthropological
approaches for their complete disintegration of word meaning.

As we can see, the constructivist and linguo-anthropological linguistic schools
take similar stands on a number of important questions concerning word
meaning interpretation, the main distinction between them being their views on
the nature of the integral core part of the word meaning. In constructivism it is
an idealized schematic form common to all instances of word use that gives rise
to specific word senses in interaction with particular contextual elements
[71, 72]. “La forme schématique est cette forme abstraite (métalinguistique) qui
permet de simuler par le raisonnement ce qui reste, en soi, inaccessible, toujours
entr'aperçu à travers le matériau textuel . . . ” [18]. This approach works well
for those categories of words that are associated with spatial or dynamic features
of experience. It is no coincidence that proponents of this theory work mainly
on prepositions and verbs. It is much more difficult to imagine how such
abstract nouns as love or justice can be interpreted in terms of a formalized
schema. In order to solve this problem, the linguo-anthropological approach proposes to take the evaluative potential of the word as its integral core part. It results from the continuous interaction of human beings with their environment in the process of need satisfaction.

3.1.2. The nature of word meaning according to the functional lingo-anthropological approach

The functional linguo-anthropological approach grounds its theory of meaning on findings made in the XX century in the fields of biosemiotics [78, 87] and the philosophy of biology [65, 93] where meaning is defined as “the relation between an organism (O) and its physical and cultural environment (E), determined by the value (V) of E for O” [93]. The main point here is that, being the property of a biological organism, meaning always originates in the process of interaction between the organism and its environment in the course of need satisfaction. Specific mechanisms of such intercourse depend largely on bodily structure and functions of each species. In this respect the origin of meaning for us as human beings can be defined as the projection of features of our experience onto the elements of the environment that we enter in contact with.

Speaking about categorization processes, J.-M. Klinkenberg says that the existence of different specific objects and their features is not a property of the world per se, but is characteristic of a particularly human vision of the outside world: ‘nous avons appris à classer ces sensations, en qualifiant tel son d’aigu ou de grave, telle couleur de bleu ou de jaune. Les couleurs – le ‘bleu’, le ‘rouge’ – ou les sons – le ‘la’, le ‘do’ – ne sont donc guère que les noms qu'on donne à des subdivisions de longueur d'onde. Mais ces subdivisions n'existent pas comme telles dans la nature. Celle-ci ne nous offre qu'un spectre continu, et c'est nous qui le découpons en unités nettement séparées les unes des autres ou, pour mieux le dire, en unités discrètes'. We have learnt to classify our sensations qualifying this or that sound of being high- or low-pitched, and this or that colour of being blue or yellow. Colours – “blue”, “yellow” - or sounds – “A” or “C” - are just names that we assign to different subdivisions of the wave's length. These subdivisions, however, do not exist in the world as such. The world offers us just a continuous spectrum and we are the ones who divide it into highly distinct or, to put it better, discrete units [61]. This projection of specific features of human experience onto the outside world enables us as human beings to structure different elements of our environment in the most appropriate way, thus enhancing the efficiency of our contacts with the external world.

Human beings as one of the most complicated form of life on Earth have developed their own “exclusive” means of communication with the outside world – language with its highly sophisticated symbolic system. “Man has, as it were, discovered a new method of adapting himself to his environment.
Between the receptor system and the effector system, which are found to be in all animal species, we find in man a third link which we may describe as the symbolic system. This new acquisition transforms the whole of human life . . . No longer can man confront reality immediately; he cannot see it, as it were, face to face . . . Instead of dealing with the things themselves man is in a sense constantly conversing with himself” [16]. Human symbolic system, being a new method of adaptation to outside world, is therefore a new means of need satisfaction.

Applying this principle to language studies the functional linguo-anthropological approach defines word meaning as the evaluative potential of the word. This evaluative potential is related to specific features of human experience originating from the contact with the outside world in the process of need satisfaction. In other words, word meaning is the fixation of human experience in the language system which ensures further successful interaction of humans with their environment [63, 84, 85]. From this point of view, each word in language has a functional core element which determines the stability of its use in different situational models. The evaluative potential of the word is associated with the root morpheme, and as a result it is present in all instances of use of words that contain this root (with the exception of some metonymical extensions). Following I. V. Tolochin we are going to call this functional core of the word its integral category (for similar views see [15]).

It can be seen that in the linguo-anthropological approach the integrity of the word is provided for by the existence of an integral category or, in other words, by the functional features of human experience associated with the word which can be projected into different situational models. And in our opinion, it is exactly this ability of the integral category to be used in different situational models that should be taken as a basis for sense distinction. A thorough analysis of the way the word functions in real texts may provide valuable evidence for the description of the word's integral category and its senses.

Let us now return to the case of the word \textit{bank} and try to provide a more systematic picture of its meaning structure, taking into account the basic assumptions of the functional linguo-anthropological theory that we have just discussed in a nutshell.

3.2. Alternative model of meaning structure for the word ‘bank’

3.2.1. Basic word senses

The first important question that should be answered is how to define relations that hold between such instances of use of the lexeme \textit{bank} as a river bank
and a bank as a financial institution: are they homonymous or do they constitute two senses of the same word? To answer this question, let us consider the following examples and try to single out the function of the word bank here:

(1) But for the moment, Marian and Maus are safe while the river bank holds its own against the turbid Merwede - a river, by the way, that begins as the Waal and ends in the Noordzee at Haringvliet. [19, 29]

(2) Standing on a concrete river bank in Berlin, they recall that it took a long time before the primeval river found its bed. They remember the melting of the glaciers. (COCA: [22])

(3) On the more resisting bank, called a point bar, the river deposits some of its load of silt and rock as it flows by, while its currents sweep under to scoop out the opposite bank. When the neighboring land is relatively level and soft, the resulting bend can keep extending toward its eroding elbow until it hits the resistance of harder rock or hill; then it reverses its pattern to begin swinging back to the other side of the valley.

. . . it runs down a straighter course to the Falls, making islands out of the most stubborn obstacles. [91]

(4) In most large cities of developing countries, rapid urbanization has created many problems concerning the uncontrolled development of informal settlements. Some urban migrants select river banks for their settlements because these areas are accessible with very low costs and are strategically located to areas that can support their economic activities. [82]

(5) Flowing through the heart of the city, the Singapore River is a timeless juxtaposition between old and new, work and play. The Singapore River has been a lifeline for Singaporeans since ancient times, through the colonial era and the early days of the nation's independence. The century-old godowns and shophouses along the river, and colonial-era civic institutions of the north bank stand in stark contrast to the striking skyscrapers of the downtown skyline on the south bank. [83]

These abstracts bring forth two important functional aspects of the word bank. First of all, as we can see from the examples (1) – (3) bank is perceived as something solid, resistant, stable (‘bank holds its own against the turbid Merwede’; ‘a concrete river bank’; ‘primeval river found its bed’; the more resisting bank’; hits the resistance of harder rock or hill), and in this respect it is opposed to the continuous movement, instability of water. The function of the word bank in this situational model is to represent human experience connected with the idea of containment and guidance of such movement as well as of provision of a solid basis for human activity. In this way the word
bank is associated with that element of human environment which guarantees a steady, secure and more or less predictable flow of water preventing it from an undesirable outgo.

We should also bear in mind that water has always been of vital importance to human beings. As examples 4 and 5 show us clearly enough, river banks have always been among the most preferential spots for human settlements: the proximity of a river ensures a stable supply of one of the most important values – water, and at the same time provides a good means of transport leading to an easier accessibility of the place (‘strategically located’; ‘can support their economic activities’; ‘a lifeline for Singaporeans since ancient times’). Fresh water being such a valuable resource, banks help to store it, not to let it go and thus to create a stable provision of this value for future needs.

At this point already a parallel with bank$_2$ (bank as a financial institution) becomes more and more evident: do not banks as financial institutions store and safekeep another highly important value – money? Are not financial banks supposed to be reliable or, in other terms, solid institutions? Referring to their etymological difference some linguists qualify bank$_1$ and bank$_2$ as two different words [55, 45]. A detailed functional analysis, however, leads us to a totally different conclusion. These are, rather, two distinct senses of the same word sharing the same integral category which may be expressed as follows: the possibility to ensure the safekeeping of something valuable for regular use in the future. Nevertheless, it should be kept in mind that this is not a traditional dictionary definition. It is just an attempt to explicit the evaluative potential of the word, a specific feeling which is triggered by the contact with a particular element of the outside world. As such it cannot be regarded as a fixed formula, but rather as a more or less close approximation to the state of mind in question as it anticipates a specific kind of experience represented by bank within the language system.

Up to now we have considered only two most typical contexts of use for the word bank and have come to the conclusion of their functional unity. They share the same integral category which is projected into two different spaces: its projection into contexts representing human activity in PHYSICAL SPACE gives us SENSE I (a river bank), whereas its projection into SOCIAL SPACE gives us SENSE II (an institution). Now let us turn to other contexts in which the word bank is used and try to establish their status with respect to the two major senses we have just singled out. The following abstract gives us an idea about another possible context for the word bank:

(6) Daytona International Speedway is a fearsome track, with steep banks that enable cars to travel at mind-boggling speeds...The banking, or the slope of the track, ranges from 31 degrees in the turns to 18 degrees on the front stretch and three degrees on the nearly level backstretch. How steep is 31 degrees? It's
like a ski slope. If the banking weren't this steep, the cars would fly off the track while trying to go through the corners at maximum speeds. [59]

Certain markers in the text allow us to draw an analogy with the river bank sense. First of all, the word ‘speedway’ definitely invokes the word ‘waterway’ often used when speaking about a river: “The Singapore River is an important waterway synonymous with the growth and development of Singapore” [83]. Besides, there is an evident indication of the idea of containment: ‘If the banking weren't this steep, the cars would fly off the track while trying to go through the corners at maximum speeds’. In other words, the banks of the racetrack ensure a steady and secure movement of cars along the track preventing them from the undesirable outgo. It is conspicuous, therefore, that the function of the word bank in the racetrack context bears much resemblance to that of the river bank context. A subtle difference that exists between these two instances of use (water – racetrack/cars) is due to the difference in situational models that the word is part of. The functional analogy as well as the existing difference between the two situational models allows us to conclude that these are two subsenses of the more general SENSE I which may be expressed as: an elevated surface ensuring a steady and consistent process within the space it encompasses.

There is one more functional analogy in the billiards game context. The word bank is used here to refer to the protective cushion of the billiards table which does not let balls get out of the table surface and in this way serves to contain the game within restricted space.

Up to now we have the following structure:

**PHYSICAL SPACE**

**SENSE I:** an elevated sloping surface ensuring a steady and consistent process within the space it encompasses

- **SUBSENSE a:** [N; C] a raised area of land along a river or surrounding a lake that secures water from an undesirable overflow
- **SUBSENSE b:** [N; C] an elevated part of a racetrack that prevents cars from skidding off the track during the turn
- **SUBSENSE c:** [N; C] (in billiards) an elevated protective cushion that does not let the ball out of the table

**SOCIAL SPACE**

**SENSE II:** [N; C] An institution responsible for storing, safekeeping and management of some valuable resources providing stable access to these resources when needed

This structure, however, would be incomplete without metonymical extensions that we shall consider in the next paragraph.
3.3. Metonymical extensions

3.3.1. Metonymy in the racetrack context

To continue our analysis let us look at the following phrases:

(7) I don't think cars do bank much, they would follow the slope of the road, but it works well for boats and airplanes [79].

(8) The more the inputs the steeper the bank. An airplane does not necessarily have to bank when turning but that would be considered skidding and not a coordinated turn [92].

According to the first sentence, cars bank when they ‘follow the slope of the road’, which means that they tilt to one side as a result of the contact with a sloping surface. The idea of a direct contact immediately brings forth the notion of metonymy. It is evident, therefore, that such instances of use as the one exemplified in phrase (7) present a metonymical extension of SENSE Ib (a racetrack context), in which bank becomes a verb representing a process determined by close contact with a special feature represented by SENSE Ib of the noun. As far as planes are concerned, the word bank is applied to them by analogy with the racetrack situation: an airplane trajectory is regarded as a path and banking is perceived as following the sloping surface of this path. Therefore, both cases can be considered as a metonymical extension of SENSE Ib that allows a verb of the same root to be used in the same context.

In general, metonymical extensions based on the relation of contact do not retain features of the integral category of the word. In this case, however, the situation is different and certain elements of the integral category are nevertheless retained. It is well known that quitting its path might be very dangerous for a car or for a plane. However, in both cases banking during a turn generates a lateral force that facilitates the turning process and does not let the vehicle ‘skid off the track’. As we can see, the idea of control, containment and security is present here as well: not to bank ‘would be considered skidding and not a coordinated turn’; ‘Given just the right speed, a car could safely negotiate a banked curve even if the road is covered with perfectly smooth ice!’ [10].

3.3.2. Snow banks, flower banks, fog banks...

Another case of metonymy connected with the word bank is present in the following examples:

(9) He parked the pickup as far to the side as he could, then he climbed the snow bank and plodded through the dreamy deep snow to the house. (COCA: [30]).
(10) Vases of flowers, baskets of them, posies tied with ribbon or even string, great woven banks of flowers standing about like lengths of gardenwall (COCA: [28]).

(11) The next morning, we ran into a fog bank so thick we could only see perhaps two boat lengths ahead. (COCA: [27])

From a purely physical point of view, all these banks are different simply because they are composed of different materials – snow, flowers, fog. This multiplicity, however, presents a problem in lexicography: if we consider these instances of use to be different lexical senses, we would have to mention in our dictionary entry all possible materials that can constitute banks. On the one hand, it will pad the dictionary entry; on the other hand, there is always a risk to miss certain possibilities. To solve this problem, most dictionaries give just some examples ending their list by ‘etc’, which is not the best option, in our opinion; for it is not always clear what is meant by this mark. “A large sloping mass of earth, sand, snow etc” (LDCE) does not presuppose a flower bank, for example, in an obvious manner.

If we approach this problem from the functional perspective, we will notice that all these ‘different’ banks do have something in common, which enables us to combine them within the scope of one and the same lexical sense providing only one common definition. The common feature that we are talking about is the bulky and prominent shape of these banks which reminds us of the typical elevated/towering shape of a river bank. In other words, we have here another metonymical extension which is based on the function-to-shape shift. Different materials create similar elevated surfaces; as a result, we can ‘climb’ a snow bank, ‘run into’ a fog bank or be surrounded with flowers that ‘stand about’ like a ‘gardenwall’.

### 3.3.3. Things arranged in tiers and rows

There is another group of metonymical extensions related to SENSE A. The first-order metonymical extension – a bench, esp. for rowers in a boat – which gives rise to the whole group is also based on the similarity of shape (an elevated surface), as well as certain functional resemblance (a solid support for the human body, allowing it to maintain balance while sitting).

In the boating context this sense brings forth a second-order metonymical shift: by contiguity the meaning of the word shifts from benches (arranged in rows) to oarsmen sitting on these benches and to oars they pull. Boats usually have several groups of oars (at least two) called banks. In order to maximize the speed of the boat and to maneuver well, banks of oars should coordinate their actions. As a result, it can be said that each bank of oars forms one functional unit.
(12) In large pulling boats, oarsman are divided into two divisions called “banks,” referring to the side of vessel they are on, LARBOARD or STARBOARD . . . In smaller vessels where beam is not ample enough to allow for two full banks seated side by side, oarsman are staggered behind each other in a single row, but maintain their bank and number identity . . . When giving commands to the oarsman, the bank for which it is intended, Larboard or Starboard should precede the order [86].

By analogy with the rowing context, the word bank can be used in other situational models fulfilling the same function of representing human experience related to the possibility of contact with a large amount of objects arranged in rows or tiers and being closely related to each other. Let us consider the following example:

(13) In this way, travel time is reduced as the elevator makes fewer stops for individual passengers, and the computer distributes adjacent stops to different cars in the bank... Some elevator banks are programmed so that at least one car will always return to the lobby floor and park whenever it becomes free [89].

This example shows that a bank of elevators works as one single unit, tasks being distributed between its cars by the central computer. It is noteworthy that, when one of the elevators (in the same row) works in the independent mode, it is considered to be single, not forming part of the bank: ‘In a bank of elevators, traffic is rerouted to the other elevators, while in a single elevator, the hall buttons are disabled’ [89]. It is, therefore, important to mention this functional unity in the dictionary entry alongside with spatial disposition of objects in rows and tiers.

3.3.4. Metonymical extensions and the overall structure of Sense II

The question that still remains unresolved concerns the structure of SENSE II. We have established so far that SENSE II is the projection of the general integral category of the word bank into SOCIAL SPACE, which results in the possibility of applying the word bank to a financial institution responsible for the storage, safekeeping and management of financial resources. What is still unclear is the status of numerous other banks such as blood banks, food banks or data banks. The argument that we shall apply here is similar to the one we have already provided for the snow bank case. It is pointless to consider all these instances of use to be different senses of the word just on the basis of these banks' contents, for it is quite impossible to describe all such banks in one dictionary entry. Besides, the list of such uses is open and is constantly being added to, which prompts us to look for a descriptive principle other than the nature of the matter being stored. We should be able to explain the creative mechanism that allows speakers to produce new word combinations.
If we look at various sorts of things that are usually stored by different banks, we will be able to discern an important feature that is shared by all of them. Blood, food, sperm, data, seeds are of vital importance to human beings. All of them are highly valuable resources that humanity tries to preserve in order to provide a stable access to them when needed. Let us have a look at some examples:

(14) Her internal bleeding was so severe it threatened to drain the ship's depleted blood bank and cost both mother and baby their lives (COCA: [35]).

(15) Chrome OS users will no longer have to worry about storing, managing, or backing up their personal data. But what if Google's vast data bank gets hacked, accidentally leaked, or shared with a pernicious government? (COCA: [23])

(16) Historical documents later revealed that Hitler had, in fact, established a commando unit to seize the seed bank, perhaps hoping to one day control the world's food supply (COCA: [21]).

These examples prove our point of view as they reveal the importance of the matter in question. Let alone such an obvious case as blood, we can see the importance of seeds, for example, that may help to establish ‘control over the world's food supply; or the importance of personal data that should be preserved from being stolen (‘hacked’, ‘accidentally leaked’) or ‘shared with a pernicious government’ and used against you. As we can see, the word bank imposes certain functional constraints on its collocates: to be stored in a bank, an entity should be considered to be a valuable resource that is desired to be preserved in a particular situational model. This being said, we can easily notice that there is no major difference between a bank as a financial institution and a food bank, for example: both are institutions designed to store, safekeep and manage a specific resource the importance of which is beyond any doubt. At the same time, there definitely exists a difference between an institution sense and a building sense, for instance. Let us have a look at the following examples:

(17) “It's exciting,” said Dr. Brian Freed, director of the University of Colorado Cord Blood Bank . . . (COCA:[20])

(18) Her internal bleeding was so severe it threatened to drain the ship's depleted blood bank and cost both mother and baby their lives (COCA: [35]).

(19) As she left the lab, she waved to the night technologist in the blood bank. (COCA: [24])

In order to stress the difference between the three instances of use, we have chosen examples belonging to the same situational model – blood banking. In all these sentences the word bank is introduced by the same collocate – blood. It can hardly be said, however, that the word bank has one and the same sense in all these cases. In the first sentence we are definitely dealing with the institution sense, its marker
being the word ‘director’ which presupposes the existence of managerial staff responsible for the organization of the working process. In the second sentence we have a shift from the institution responsible for storage and management to the matter that is being stored. In this case ‘blood bank’ is not an institution, but a stock of blood that has been built up and is managed by such an institution. In other words, we have a metonymical extension based on the container-to-contained principle. As for the third sentence, it is a typical example of a building/place sense. It is another metonymical shift from the institution to the building housing this institution or the place where the stock is held. These observations let us elaborate the following structure of SENSE II:

**SOCIAL SPACE**

SENSE II: [N; C]  
An institution responsible for storing, safekeeping and management of some valuable resources providing stable access to these resources when needed (esp. a financial institution)

→ (container → content) [N; C]  
A secured stock of some valuable resources

→ (entity → location) [N; C]  
A building housing such an institution or a place where the stock is held

It should be mentioned as well that we have chosen the institution sense as our point of departure in this sequence for the reason of its compatibility with the integral category. Just to remind the reader, the integral category of the word bank is connected with the ability to ensure the safekeeping of something valuable for regular use in the future. In this respect the institution can be regarded as a safe and solid boundary which guarantees the safekeeping of the value in question. Therefore, the institution sense should be considered a primary sense giving rise to two metonymical extensions.

3.4. Verb senses

The picture drawn in this article would have been complete if we had accounted as well for the instances of use of the verb bank. However, there is not much space left for a detailed discussion, so we propose only a short scheme which shows the possibility to integrate the verb senses into the structure which we have elaborated above for the noun.

**PHYSICAL SPACE**

SENSE I

NOUN [C]: an elevated surface ensuring a steady and consistent process within the space it encompasses
La NOUN [C]: a raised area of land along a river or surrounding a lake that secures water from an undesirable overflow

**METONYMICAL EXTENSIONS:**

La.1 (function → shape) NOUN [C]: a prominent elevated surface

VERB [INTR]: to form a prominent towering surface

EX: *As the fall deepened to winter, the sky thickened, a low dark blanket of clouds banked on the mountains* (COCA: [37]).

La.1.1 (effect → cause) VERB [TR]: to surround something with an elevated surface in order to put it in a prominent position

EX: I *banked* the extra pillows around the baby to keep Mm next to me, killed the TV and the lights and curled up with Mm (COCA: [33]).

La.2 NOUN [C]: an elevated surface providing stable support for human body while sitting, esp. a bench for rowers in a boat

EX: A seat, or bench of rowers, is called a *bank* [66].

La.2.1 (part → whole) NOUN [C]: (in a vessel) a group of oars arranged in rows or tiers that form one functional unit

EX: I had noticed that the Zairian . . . had possessed no less than thirty six oars in each of her *banks* [11].

La.2.2 (by analogy) NOUN [C]: a significant amount of objects arranged in rows or in tiers and functionally related to each other

VERB [TR]: to arrange a significant amount of objects in rows or in tiers so that they form one functional unit

EX: And one whole wall in one room – there was a TV wall, maybe a hundred identical sets *banked* floor to ceiling [43].

Lb NOUN [C]: an elevated part of a racetrack that prevents cars from skidding off the track during the turn

VERB [TR] to surround a racetrack with an elevated surface in order to ensure a steady and safe movement of cars along the track

EX: *It's a real high-banked, fast track. The straightaways are even banked, so when you get yourself in trouble, you can end up getting into either the inside wall or outside wall* (COCA: [38]).

**METONYMICAL EXTENSIONS:**

Lb.1 (cause → effect) VERB [INTR]: to tilt while making a turn

EX: *I don't think cars do bank much, they would follow the slope of the road, but it works well for boats and airplanes* [79]

NOUN [U]: a tilt made by a vehicle in order to change direction

EX: The more the inputs the steeper the *bank*. An airplane does not necessarily have to bank when turning but that would be considered skidding and not a coordinated turn [92].
I.b.1 (effect → cause) VERB [TR]: to make something tilt
EX: I banked the plane left a mile past the bridge (COCA: [25]).
I banked my skis to set up for a clean landing – one that wasn't going to send me into the trees – and thudded to earth (COCA: [36]).

I.c NOUN [C]: (in billiards) an elevated protective cushion that does not let the ball out of the table
EX: Vertical walls (banks in English) around the edges kept balls from falling off the table [51].

METONYMICAL EXTENSIONS (in billiards):
I.c.1 VERB [INTR]: to rebound from the protective cushion of a billiard table (about a ball)
EX: There are many variables that affect how a ball banks [12].

I.c.1.1 (effect → cause) VERB [TR]: to score a shot by driving a ball into the protective cushion of the table
EX: The object of the game is to be the first player to bank five balls in any order [88].

NOUN [C]: a shot when a ball rebounds from the cushion and gets into the pocket
EX: This is another advantage for using faster speed for banks [12].

SOCIAL SPACE

SENSE II

NOUN [C]: An institution responsible for storing, safekeeping and management of some valuable resources providing stable access to these resources when needed (esp. a financial institution).

VERB [TR] to store, safekeep and efficiently manage some valuable resources (when speaking of such an institution)
EX: In 2001, the US Bureau of Land Management inaugurated its Seeds of Success program, an effort to bank native US plants for restoration projects and a contributor to MSBP (COCA: [39]).

METONYMICAL EXTENSIONS:
II.1 VERB [TR]: to have something valuable stored and managed by such an institution
EX: My sister banked her daughter's cord blood when she was born, and is encouraging us to do the same with our baby . . . my husband and I are concerned about the cost [13].
The money Campbell makes will be banked in a prison account to pay his expenses, such as phone calls. (COCA: [32])
II.1.1 (part of the process → whole process) (only in the financial domain) VERB [INTR]: To use services provided by a financial institution

EX: Opt out of receiving paper bank statements. If every U.S. household banked online, we’d save 16.5 million trees a year! (COCA: [34])

II.2 (functional contiguity) (only in the financial domain) VERB [TR]: To provide any financial services

EX: Community Bank of the Bay in Oakland also has "a fair number of dispensaries banking with us," says its CEO, Brian Garrett. "We used to have more," he says, but a few years ago, the Federal Deposit Insurance Corp. "made it very difficult for us to bank them," and he closed some accounts. (COCA: [31])

II.3 (container → content) NOUN [C]: A secured stock of some valuable resources

VERB [TR]: to create a stock of some valuable resources

EX: Meredith had $46,000 of her own money. This was the savings that she’d tucked away in a CD earning 1.5 percent, from her teaching job in the 1980s. (Freddy had ridiculed her for this. Let me invest it, he’d said. I'll double it in six months.) But Meredith had kept rolling over the money in that CD for no reason other than personal pride—and how relieved she was now! She had something to live on, actual legitimate money that she’d earned and banked. (COCA: [26])

II.4 (entity → location) NOUN [C]: A building housing such an institution or a place where the stock is held

The advantage of such presentation is that it shows clear parallelism that exists between the senses of the verb and the senses of the noun, the same integral category being the functional core of both words in question. It is the common integral category that allows for the possibility to use the verb and the noun bank in the same types of situational models. The noun presents the static aspect of the integral category, while the verb reflects its dynamic features (for more on the distinction between the static and dynamic features of experience see [85]).

4. Discussion

The purpose of the study was to investigate the possibility of elaborating a communicatively oriented method of lexicographic description free from the drawbacks of referential semantics. The alternative dictionary entry proposed here seems to be more coherent with the actual linguistic data. However, some
important questions have been left out. For example, it concerns phraseology and the status that phrasal verbs and idiomatic expressions should have in lexicographic descriptions. Are they totally different linguistic units or are they systematically related to the meanings of the elements in their structure? How should they be treated by lexicographers? A possible answer to this question has been proposed in [81, 85].

Besides, the present case study deals only with two English words — bank as a noun and bank as a verb. It would be interesting to check the applicability of the method for a wider range of words, especially belonging to other word classes.

5. Conclusion

In this article we have made an attempt to apply basic principles of the functional linguo-anthropological approach to the case of the word bank. Hopefully, we have succeeded in demonstrating that lexicographic descriptions can have a more coherent structure if we take into account functional features of human experience, regarding the meaning of the word as its evaluative potential related to the state of mind as it anticipates a particular kind of experience represented by the word in the language system. We have seen that certain principles of referential semantics (which are still retained even by some of the functional approaches), like favoring physical features of the environment and regarding them as properties of the world as it is, often lead to erroneous word meaning interpretations. Such instances of use of the lexeme bank as a river bank and a bank as a financial institution are often considered to be homonymous mainly because lexicographers tend to interpret river banks only in terms of their physical characteristics — material, shape, location (see, for example, [55]) — and disregard functional features of human experience associated with the word in this situational model. This shows that underestimation of functional qualities of the language may lead to an inaccurate picture of the word meaning structure and create inconsistencies in its lexicographic descriptions.

Declarations

Author contribution statement

Alexandra Smirnova: Conceived and designed the experiments; Analyzed and interpreted the data; Wrote the paper.

Funding statement

The authors received no funding from an external source.

Competing interest statement

The authors declare no conflict of interest.
Additional Information

No additional information is available for this paper.

Acknowledgements

I would like to thank Professor I. V. Tolochin for his valuable comments that helped to improve the present manuscript.

References

[1] American Heritage Dictionary of the English Language, In: Anne H. Soukhanov (Ed.), 3rd edition, Houghton Mifflin, Boston, MA, 1996, pp. 2140.

[2] Cambridge International Dictionary of English, In: P. Procter (Ed.), University Press, UK: Cambridge, 1995, pp. 1792.

[3] Collins Cobuild Learner’s Dictionary, In: J. Sinclair (Ed.), Harper Collins Publishers, UK, London, 1996, pp. 1322.

[4] Longman Dictionary of Contemporary English, In: St. Bullon (Ed.), Education Limited, UK: Pearson, 2003, pp. 1949.

[5] Longman Dictionary of English Language and Culture, In: D. Summers (Ed.), Pearson Education Limited, UK, 1998, pp. 1568.

[6] MacMillan English Dictionary for Advanced Learners, In: M. Rundell (Ed.), International Student Edition, MacMillan Education, London, 2005, pp. 1744.

[7] Merriam-Webster Online Dictionary, USA, available at: http://www.merriam-webster.com/dictionary/bank (accessed on 4 April 2015).

[8] Online Collins Cobuild English Dictionary, UK, available at: http://www.collinsdictionary.com (accessed on 10 April 2015).

[9] Webster's New World Dictionary of American English, In: V. Neufeldt (Ed.), Third College Edition, Webster's New World, Cleveland & New York, 1988, pp. 1574.

[10] A Banked Turn –No Friction, available at: http://www.batesville.k12.in.us/physics/phynet/mechanics/circular%20motion/banked_no_friction.htm (accessed on 12 August 2015).

[11] A.B. Akers, The Krozair Cycle: The Saga of Dray Prescot Omnibus, Bladud Books, 2010 Available at: https://books.google.fr (accessed on 05 March 2015).
[12] Alciatore D., Banks and Kicks in Pool and Billiards. Available at: http://billiards.colostate.edu/threads/banks_and_kicks.html (accessed on 03 April 2015).

[13] Baby Center, Available at: http://www.babycenter.com/400_should-i-bank-my-babys-cord-blood_500601_0.bc?startIndex=20&sortFieldName (accessed on 30 August 2014).

[14] Ch.S. Butler, S.M. Doval-Suárez, M. Gómez-González, The Dynamics of Language Use, In: A. de los (Ed.), John Benjamins Publishing Company, Amsterdam/ Philadelphia, 2005, pp. 415.

[15] P. Cadiot, Y.-M. Visetti, For a theory of semantic forms. Motives, profiles, themes [Pour une théorie des forms sémantique. Motifs, profils, themes], Presses Universitaires de France, Paris, 2001, pp. 234.

[16] E. Cassirer, Essay on Man: An Introduction to a Philosophy of Human Culture, Yale University Press, New Haven, 1963, pp. 250.

[17] A. Culioli, For enunciative linguistics [Pour une linguistique de l’énonciation] Tome 1, Ophrys, Paris, 1990, pp. 225.

[18] A. Culioli, On the subject of même [A propos de même], Langue française 133 (2002) 16–27.

[19] Davies, M. The Corpus of Contemporary American English (COCA), available at: http://corpus.byu.edu/coca/ (accessed on 4 April 2015).

[20] M. Booth, Small wonders With a nearly paralyzed right side, Chloe Levine was diagnosed with cerebral palsy at 1. A year later, she can say her nickname and is walking normally and jumping on beds, Denver Post (2008).

[21] S. Charles, FOOD Ark, Natl. Geogr. (2011).

[22] R. Ebert, Wings of Desire, Chicago Sun Times (1998).

[23] S.L. Garfinkel, A Less Personal Computer, Technology Review 113 (3) (2010) 86–88.

[24] Kathy Oltion, Graveyard Shift, Analog Science Fiction & Fact 120 (10) (2000) 48–60.

[25] T. Harper, Intimately Acquainted with the Sky, Christian Science Monitor (1993).

[26] E. Hilderbrand, Silver girl (a novel), Little, Brown and Co., New York, 2011.
[27] P.A. Janssen, Taming the Reversing Falls, Motor Boating 202 (9) (2009) 37–40.

[28] R. Jordan, The Shadow Rising, TOR Fantasy, New York, 1992.

[29] N. Lock, Tango in Amsterdam, New England Review 24 (4) (2004) 152–158.

[30] E. Mirabelli, Catalog, Fantasy & Science Fiction 116 (2) (2009) 142–161.

[31] K. Pender, Banking on legal pot biz, San Francisco Chronicle Business (2010) NET WORTH; Pg. D1.

[32] J. Scott, Boredom to be Campbell's partner in prison; Miami vise: Atlanta's ex-mayor faces 912 days of limited activities, an ugly shared room, a military diet and restricted money, Atlanta Journal Constitution (2006).

[33] S. Shivnan, Dicking the Buddha, Antioch Review 65 (3) (2007) 424–439.

[34] Smart About Money, Redbook 216 (2) (2011) 125.

[35] S. Sternberg, On a floating hospital, a drama of life and death; USNS Comfort doctors face wrenching choices, USA Today (2010).

[36] The Mad River Cult, Skiing 47 (3) (1994) 140–149.

[37] E.B. Vandiver, Forcing Bowl, The Kenyon Review (2011).

[38] 10 drivers, 10 tracks, one championship (2006). USA Today.

[39] M. Velasquez-Manoff, Stashing seeds in Noah's fridge, Christian Science Monitor (2007).

[40] A. Derradji, Schematic form and polysemy [Forme schematique et polysemie], Etudes romanes de Brno 35 (2014) 1.

[41] D. Dennett, Consciousness Explained, Back Bay Books/ Little, Brown and Company, USA, 1991, pp. 511.

[42] S.C. Dik, The Theory of Functional Grammar. 2 Vols, Mouton de Gruyter, Berlin, 1997.

[43] Don DeLillo, Underworld, Picador Classic, 2015 Available at: https://books.google.fr (accessed on 03 April 2015).

[44] V. Evans, Lexical Concepts, Cognitive Models and Meaning-Construction, Cogn. Linguist. 17-4 (2006) 491–534.

[45] I.L. Falkum, A Semantics and Pragmatics of Polysemy: A Relevance-Theoretic Account, PhD Thesis. University College London (2011).
[46] C.J. Fillmore, Frames and the semantics of understanding, Quaderni di Semantica 2 (1985) 222–254.

[47] C.J. Fillmore, B.T. Atkins, Towards a Frame-based organization of the lexicon: the semantics of RISK and its neighbors, In: Adrienne Lehrer, Eva Kittay (Eds.), Frames, Fields, and Contrasts: New Essays in Semantics and Lexical Organization, Lawrence Erlbaum, Hillsdale, 1992, pp. 75–102.

[48] J.-J. Franckel, D. Paillard, Aspects of Antoine Culioli's theory [Aspects de la théorie d'Antoine Culioli], Language 129 (1998) 52–63.

[49] G. Frege, On sense and meaning [Über Sinn und Bedeutung], Zeitschrift für Philosophie und philosophische Kritik, NF 100 (1892) 25–50.

[50] P. Gärdenfors, Meanings as Conceptual Structures, Lund University Cognitive Studies (1995) 40.

[51] Hall L. Pool Table, Available at: http://www.madehow.com/Volume-6/Pool-Table.html (accessed on 02 April 2015).

[52] M.A.K. Halliday, An Introduction to Functional Grammar, Edward Arnold, London, 1985, pp. 387.

[53] Continuum Companion to Systemic Functional Linguistics, In: M.A.K. Halliday, J.J. Webster (Eds.), Continuum Companions, UK, 2009, pp. 299.

[54] P. Hanks, Do word meanings exist? Comput. Humanities 34 (2000) 205–215.

[55] P. Hanks, Lexical Analysis: Norms and Exploitations, MIT Press, London, England, 2013, pp. 480.

[56] H. Harder, Functional Semantics: A Theory of Meaning, Structure and Tense in English, Mouton de Gruyter, Berlin, New York, 1996, pp. 586.

[57] R. Harris, The Semantics of Science, Continuum International, London, 2005, pp. 240.

[58] R. Harris, Ch. Hutton, Definition in Theory and Practice: Language, Lexicography and the Law, Bloomsbury, London, 2007, pp. 238.

[59] How Stuff Works, available at: http://auto.howstuffworks.com/auto-racing/nascar/race-tracks/daytona-5003.htm (accessed on 12 August 2014)

[60] A. Kilgarriff, I don't believe in word senses, Comput. Humanities 31 (2003) 91–113.
[61] J.-M. Klinkenberg, Essay on general semiotics [Précis de sémiotique générale], De Boeck Université, Paris, 2006, pp. 597.

[62] G. Lakoff, Women, Fire and Dangerous Things, The University of Chicago Press, London, 1987, pp. 614.

[63] E.A. Loukjanova, Ocenochnyje modeli kak osnova tekstoporozhdeniya (na materiale anglojazychnoi obshhestvenno-politicheskoi publicistiki). Diss. kand. fil. nauk [Evaluative models as a basis for text production (a case study of English social and political journalism). PhD philol. sci. Diss.], Saint-Petersburg (2004) 220.

[64] L. Lebas-Fraczak, “Communicative” description of French determiners for didactical purposes [Description “communicative” des déterminants français en vue de la didactisation], Les Cahiers de l’Acedle 6 (2009) 2.

[65] R. McShea, D. McShea, Biology and Value Theory, Biology and the Foundation of Ethics. Cambridge, (1999), pp. 307–327.

[66] G. Mogridge, The Old Sea Captain, Facsimile Publisher, 1842 Available at: https://books.google.fr (accessed on 05 March 2015).

[67] A. Mwihaki, Meaning as Use: A Functional View of Semantics and Pragmatics, Swahili Forum 11 (2004) 127–139.

[68] O'Donnell. (2011–2012). Introduction to Systemic Functional Linguistics for Discourse Analysis. Universidad Autónoma de Madrid, available at: http://web.uam.es/departamentos/filoyletras/filoinglesa/Courses/LFC11/LFC-2011-Week1.pdf (accessed 27 March 2015)

[69] C.K. Ogden, I.A. Richards, The Meaning of Meaning, Harcourt, Brace & World, New York, 1946, pp. 363.

[70] D. Paillard, On the subject of polysemous verbs: semantic identity and principles of variation [A propos des verbes polysémique: identité sémantique et principes de variation], Syntaxe & Sémantique 2 (2000) 99–120.

[71] D. Paillard, Prepositions and verbal government[Prépositions et rection verbale], Travaux de linguistique, I /44 (2002) 51–67.

[72] E.P. Pauly, Theoretical and methodological reflexion and application to lexicography [La polysémie. Réflexion théorique, méthodologique et application à la lexicographie], L'Harmattan, Paris, France, 2014, pp. 417.

[73] M.D. Porto Requejo, The Role of Context in Word Meaning Construction: A Case Study, Int. J. Engl. Stud. 7 (1) (2007) 169–173.
[74] H. Putnam, Meaning and Reference, J. Philosophy 70 (19) (1973) 699–711.

[75] C. Ramirez, Schemata, Frames, and Dynamic Memory Structures [Technical Report], University of Kent, UK, 1997.

[76] F. De Saussure, A course on general linguistics [Cours de linguistique générale], Payot, Paris, 1971, pp. 332.

[77] R. Schank, R. Abelson, Scripts Plans and Knowledge, Advance Papers of Fourth Intern. Joint Conf. on Artif. Intell. 2 (1975) 151–157.

[78] T.A. Sebeok, Biosemiotics: its Roots, Proliferation, and Prospects, Semiotica 134 (1/4) (2001) 61–78.

[79] Second Life, available at: http://community.secondlife.com/t5/LSL-Scripting/How-to-make-a-car-bank-on-a-banked-turn-on-a-race-track/td-p/2720316 (accessed on 12 August 2014)

[80] A.Yu. Smirnova, Forest Fire vs. Cooking Fire: primeneniye dostizheniy lingvo-antropoligicheskogo podkhoda k resheniyu problem leksikograficheskogo opisaniya slova [Forest Fire vs. Cooking Fire: Application of the Achievements of the Functional Linguo-Anthropological Theory to Lexicographical Problems of Meaning Description], Vestnik Novosibirskogo gos. un-ta 13 (2) (2015) 36–48.

[81] A.Yu. Smirnova, Utochneniye statusa slovosochetaniya catch fire: polisemiya i idiomaticnost [Specifying the Status of the Collocation ‘Cath Fire’: Polysemy and Idiomaticity], Vestnik Cheljabinskogo gos. ped. un-ta 8 (2015) 148–155.

[82] I. Soemarno, A ‘Simple’ Solution Proposal for Riverbank Settlement Problems in Surabaya, Environment and Urbanisation ASIA 1 (2) (2010) 209–222.

[83] The Singapore River, available at: http://comesingapore.com/travel-guide/article/541/the-singapore-river (accessed on 25 January 2016).

[84] I.V. Tolochin, Stone Upon Stone: gde najti cheloveka v znachenii slova? [Stone Upon Stone: How to find a human being in the meaning of a word?], Jazyk cheloveka. Chelovek v jazyke [Language of Humans. Humans in Language] Saint-Petersburg (2012) 130–164.

[85] Tolochin I.V. (2014). Uchebnik po leksikologii [A course book on lexicology] Saint-Petersburg, Antologija. p. 352.

[86] Tucker R.V. Pulling Boat Oar Commands 1775–1783, available at: http://www.hmsrichmond.org/oarcmd.htm (accessed on 10 September 2014)
[87] T.V. Uexküll, From Index to Icon. Iconicity. Essays on the Nature of Culture, Tübingen (1986) 119–140.

[88] Wikipedia. Bank Pool, Available at: http://en.wikipedia.org/wiki/Bank_pool (accessed on 03 April 2015).

[89] Wikipedia. Elevator, Available at: http://en.wikipedia.org/wiki/Elevator (accessed on 04 April 2015).

[90] L. Wittgenstein, Philosophical Investigations, Basil Blackwell, UK, 1986, pp. 250.

[91] Woodlief A., The River as Shaper. River Time: the Way of the James, available at: http://www.vcu.edu/engweb/Rivertime/chp7.htm (accessed on 15 September 2014).

[92] Yahoo!Answers, available at: https://answers.yahoo.com/question/index?qid=20091025135438AAReKjP (accessed on 12 August 2014).

[93] J. Zlatev, Meaning = Life (+ Culture): An Outline of a Unified Biological Theory of Meaning, Evolut. Commun vol. 4 (2) (2003) 253–296.