# FUNCTIONAL ASPECTS OF INDETERMINACY CATEGORY AND INVARIANT STUDY OF POLYSEMOUS WORDS

# ASPECTOS FUNCIONAIS DA CATEGORIA DE INDETERMINAÇÃO E ESTUDO IN-VARIANTE DE PALAVRAS POLISSÊMICAS

ASPECTOS FUNCIONALES DE LA CATEGORÍA DE INDETERMINACIÓN Y ESTU-DIO INVARIANTE DE PALABRAS POLISÉMICAS

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ABSTRACT: The article shows how language consciousness forms semantic unities and individualities in its mental lexicon. The article typologies and lists the functions of indeterminacy markers in English and Russian. The category of indeterminacy is juxtaposed to the problem of polysemous word representation at the lexicon level. We focus our attention on the contextless general representative of a polysemous word's structure, called its "lexical invariant". The invariant is a generalized experience of the word's contextual realizations, narrowing its semantic components to dominant and stable necessary minimums that stand behind conceptualization and formation of new meanings. Empirical invariant-component analysis of English polysemous words "a leg", "a cheek", "a knee" serve as examples of the invariant's functioning. The analysis allowed us to determine the invariants of these words as collections of base dominant components of a word's semantic nucleus. In speech context, an invariant takes shape as one of its combinatorial variants.

**Keywords:** Markers of indeterminacy. Indeterminate noun groups. Polysemous words. Lexical invariant. Meaning

**RESUMO:** El artículo muestra cómo la conciencia del lenguaje forma unidades e individualidades semánticas en su léxico mental. El artículo tipifica y enumera las funciones de los

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marcadores de indeterminación en inglés y ruso. La categoría de indeterminación se yuxtapone al problema de la representación de palabras polisémicas a nivel léxico. Centramos nuestra atención en el representante general sin contexto de la estructura de una palabra polisémica, llamado su "invariante léxico". El invariante es una experiencia generalizada de las realizaciones contextuales de la palabra, reduciendo sus componentes semánticos a mínimos necesarios dominantes y estables que están detrás de la conceptualización y la formación de nuevos significados. El análisis empírico del componente invariante de las palabras polisémicas inglesas "a leg", "a cheek", "a knee" sirve como ejemplos del funcionamiento del invariante. El análisis nos permitió determinar las invariantes de estas palabras como colecciones de componentes dominantes de base del núcleo semántico de una palabra. En el contexto del habla, un invariante toma forma como una de sus variantes combinatorias.

**Palavras-chave:** Marcadores de indeterminação. Grupos de substantivos indeterminados. Palavras polissêmicas. Invariante lexical. Significado

RESUMEN: O artigo mostra como a consciência da linguagem forma unidades e individualidades semânticas em seu léxico mental. O artigo tipifica e lista as funções dos marcadores
de indeterminação em inglês e russo. A categoria de indeterminação é justaposta ao problema da representação de palavra polissêmica no nível do léxico. Concentramos nossa
atenção no representante geral sem contexto da estrutura de uma palavra polissêmica,
chamado de "invariante lexical". O invariante é uma experiência generalizada das realizações contextuais da palavra, estreitando seus componentes semânticos a mínimos necessários
dominantes e estáveis que estão por trás da conceitualização e formação de novos significados. A análise empírica do componente invariante de palavras polissêmicas inglesas "uma
perna", "uma bochecha", "um joelho" servem como exemplos do funcionamento do invariante. A análise permitiu determinar os invariantes dessas palavras como coleções de componentes básicos dominantes do núcleo semântico de uma palavra. No contexto da fala, um invariante toma forma como uma de suas variantes combinatórias.

**Palabras clave:** Marcadores de indeterminación. Grupos de sustantivos indeterminados. Palabras polisémicas. Invariante léxica. Significado

### Introduction

Researchers have long noted the widespread use of indeterminate language groups in English and many other languages, especially in their colloquial forms, due to their variability and general language economy. It is useful to investigate pragmatic functioning of language tools that mark indeterminacy in their linguistic-cultural context. An attempt to classify and categorize these tools also seems relevant.

Modern linguists use various names for semantic units of indeterminacy. In English, these are known as *vague expressions/tagging/general extenders/list completers* or *linguistic vagueness / set marking tags / utterance final (terminal) tags / vague word clusters*. There are many other terms for similar units, like "dummy nouns", "cadigans", "colloquialisms". According to J. Channel, placeholder words can also be considered a way to express indeterminacy and uncertainty (CHANNELL, 1994). All this testifies to a significant popularity of

these units, which are necessary for natural communication (PESINA, PULEKHA, TANDON, 2019).

The reason for this multiplicity of terms lies in functional multi-dimensionality of these words. Only common knowledge about the word, shared between the speaker and the listener, allows for the use of indeterminate groups, since their references are conjectured by the listener, if he understands their category.

On the other hand, a certain semantic uncertainty is inherent not only to the semantic category this article investigates, but also to the lexical meaning in general, with its composite, clustered character (KOSTINA, ZERKINA, PESINA, 2015).

#### Methods

Our typologies of lexical uncertainty units are based on their functional peculiarities. Passages from classic literary works were used as examples. These examples were described through descriptive-analytic, contextual analysis, literary text interpretation, and continuous sampling methods.

We used introspection, linguistic observation, empirical invariant-cluster method, description and comparison to reveal dominant elements of polysemous words' structure and algorithms of decoding their secondary meanings. We used semantic reduction in analysis of certain figurative meanings by successively removing trivial semantic components.

## The main part

Here we list the various classifications of indeterminacy markers (vague category markers). The small group of words below contains words united by a junction link. These words are, mainly, two-component expressions. We call these units "indeterminacy lexical marker groups with disjunctive conjunction (or-expressions)": or whatever, or anything, or something (like that):

Bye one and get ten free or whatever.

A similar model of general indeterminacy markers can contain a coordinating conjunction ("indeterminacy lexical marker groups with coordinative conjunction (and-expressions)": and so on (and so forth), and everything, and that sort of thing, and something of that nature:

- But er yeah. Have you done anything on the intentionalist fallacy and the effective fallacy and that sort of thing?
- Before we go on to the third lecture where we talk about the liver and pancreas and so on...

Other classification of stable expressions is based on their functionality. It includes

1) indeterminacy markers which finish a list (vague tagging). A large part of this group and the next are colloquial words/slang:

and things (like that), and all the rest of it, and all that sort of thing, etcetera/etc./et cetera, and/or something (like that), and something of that nature, and so on and so forth, or anything, or so, and/or stuff (like this/that), or what/where/whoever, and everything (like that/else), and that kind of thing, and that (sort/kind/type of thing, lot. Adverbs and lead-ins like, kind of, sort of, called hedges in English linguistic literature.

In English-Russian linguistic and semiotic dictionaries, these indeterminacy markers are called *limiting words*, and are characterized as lexical units which dissolve the boundaries of extensional. They are often considered approximants (see the third group of this classification). The main argument for this is these words' ability of semantic correction with their modal hue of approximation:

- He's very smart but he's also kind of young and naive and quiet and sort of shy.
- 2) the second group consists of indeterminacy markers which are placeholders, fillers, or dummy nouns: whatshisname, thingy/thing ie, what is it, thingamajig, thingy bob, thing ummy bob, thingummy.
- 3) the third group includes what some researchers call "approximants" multilevel language tools that describe quality and quantity with an "indefinite" semantic component: almost, about, around etc. Words with suffixes and postpositives ish, -odd, -something, -anything are also included
- There were sixty or so people there. We'll see you at seven or thereabouts. It's half two-ish.

Collective nouns *heaps of loads of, oodles of*, etc. и and quantifiers like *some, lots of, several* also belong to this group.

The computer caused loads of problems.

Some researchers separate a special group of "generalized list completers" which is rather frequent both in spoken and written speech:

and/or something, something/anything (like that), and/or stuff (like that), or what, or whatnot, and all, and everything, and crap:

I left all the foils and equipments and stuff on the goddam subway.

They did not have a maid or anything, and they always opened the door themselves.

*It is a pretty good book and all* (SALINGER, 2011).

To reference hidden categories in sentence external structure, exemplification sentences which include elements of the necessary category in question are often used. They call upon associations with other elements of this category in the consciousness of the listener, bringing up the whole cognitive category.

In general, indeterminate expression groups signify that the listener should interpret the listed elements as a typical basic illustrative material that refers to a higher - super-ordinate - level of the cognitive category in question. The purpose of listing thematically close words is to describe the corresponding super-ordinate level. Thus, the receiving consciousness is called to extrapolate, to make its own choice within the limits of the given category, by the elements of this indeterminant category.

To make reference to a cognitive category, there is no need to list all elements of it - this would violate the principle of speaker cognitive effort economy. It is enough to list one-two typical members of this category, ended with a finisher like *etcetera*:

...Some languages, like English, lexicalize or semi-lexicalize them by means of modal verbs ('may', 'must', etc.), modal adjectives ('possible', etc.), modal adverbs ('possibly', etc.) and modal particles ('perhaps', etc.) (LYONS, 1981).

The speaker usually picks the cognitive prototype of the category to ensure maximum clarity about it: listing marginal or untypical members of a category can lead to misunderstandings. For instance, everyone knows that the question "Would you like a drink?" refers the listener mainly to the category of alcoholic drinks. Therefore, in the next example, the speaker, knowing that his companion prefers soft drinks, picks one of the main members of "soft drinks" category - orange juice - as a definite prototype:

- Would you like a drink - an orange juice or something? (CHANNELL, 1994).

Common and hidden categories are different from *ad hoc* ones. These ones possess a conceptual reality only for the speaker, so it is difficult to complete them. For instance, someone can have special categories like "what I enjoy doing on holidays" or "ways to get revenge on noisy neighbors" etc. These categories' content is closed and hard to determine. These categories are usually conceptualized through a complete list of their elements without any indeterminacy markers, which, in such cases, are both impossible and inappropriate:

He ordered himself, too, the very dinner the boy had always chosen – soup, whitebait, cutlets, and a tart (GALSWORTHY, 1994).

In this situation from a famous J. Galsworthy novel, the reader can't determine all elements of the "dinner which young Jolyon always chosed" category, since it is unique and exists only in the author's consciousness.

These are the functions of the aforementioned lexical elements:

- They all can serve as markers of general indeterminacy, when the conversation topic doesn't require exact formulations (including cases where the speaker deliberately uses them for a perlocutionary effect or to set the mood of a conversation);
- the speaker refers the addressee to a known knowledge or information, with the indeterminacy markers serving as a link between the old and the new information;
- the indeterminacy markers refer to other members of a specific cognitive category, members of which are hard to list in their entirety in such cases the marker is a substitute for an uncertain number of elements;
- the speaker wants to avoid giving a direct answer or to hide his own point of view; the speaker may not know the exact word or it is missing in his language;
  - the speaker does not know the exact answer to a question;
  - the speaker wants to save his time, his cognitive or speech efforts;
- speakers attempt to close the communicative/psychological distance between them;
- speakers pay attention only to important information, leaving out details they consider unimportant;
  - the speaker is not interested in the topic;
- the speaker deliberately hedges. The use of "speech hedging" means defending yourself from aggressive or insulting statements by using words and phrases which deliberately obscure meaning.

So, during communication, actualization of indeterminacy markers can be motivated by removing excessive information, doubt, lack of complete knowledge of the matter, use of various diplomatic moves, ambivalence, lack of interest in the topic, incomplete mastery of language, etc. (MARTYNOVA, 2017).

These are the most frequent English indeterminacy markers:

or something (like that); or whatever and whenever; etc. / etcetera/ et cetera; (and) (all) that/those sort(s)/type(s) /kind of thing; (or) anything (like that); (and) staff (like that); and that; and so on; and this, that and the other; and things like that; and so forth; and all that sort/kind of stuff; and everything (else); and things; and all that; and stuff; and so on.

In Russian linguistics, indeterminacy markers ("неопределенные именные группы") are muna/(на)вроде (того), и все такое (прочее), в этом духе/роде, и так далее/тому подобное, по типу того, и бла-бла-бла.

Further developing the idea that humans are prone to generalize at all levels of language units, we can attempt to describe the functioning of generalized meanings that form the structures of polysemous words. In any explanatory dictionary, phrases *something resembling...* in form or position/ something suggesting /either of parts forming corresponding sides of anything and the like can frequently be seen at the ends of polysemous words' definitions. These meanings arise because as a language speaker increases her vocabulary, she needs to systematize all received semantic data (clusterize) at a higher level of abstraction.

Our analysis shows that in communicative urgency, not all semantic components of a word are initially activated. Instead, only the most general and dominant components which are the easiest for consciousness to access and which are connected by the firmest neural links. This is why the meaning of a word can be interpreted as unstable and elastic, based on the minimum of semantic identifiers. In this regard, it is important to determine the base configuration of semantic features that underline the semantic structure of a polysemous word (PESINA & YUSUPOVA, 2015).

We think that every polysemous word has an abstract semantic core that provides quick access to key nodes of its semantic net. We call this node the "semantic invariant", defined as an ensemble of dominant features which cover the semantics of all figurative meanings (mostly metaphorical, since metonymy and idiom is based on the primary meaning). Since the actualization of the contextual meaning takes a fraction of a second, the communicator isn't consciously aware of the feature selection proves, but intuitively perceives inter-word links as "something in common" which is hard to immediately explain verbally (PESINA, LATUSHKINA, 2015).

Generalized dictionary meanings that begin with words *something resembling*... serve as a prove of these lexical invariants which cover the semantics of all figurative transitions.

As an example, let us pick several polysemous words of "human body" lexic-semantic category. We conducted invariant-component analysis on words *leg, cheek,* and *knee*.

In the structure of the polysemant *leg* there is anthropomorphic comparison of a leg to some artifact, natural object or its part. These comparisons take place because the compared objects are not congruent (one situation is nongeniune): *something resembling or suggesting a leg in use, position or appearance; something resembling a support branch of a forked or joined object* (ACD). Based on contextual realizations of this word's meanings and dictionary data we determined the following generalized core of the word: a long straight, often lower and branching off part of an object which that acts as a support or one of the portions or important stages of anything. It is realized in the following metaphors: *leg of a road/an-*

tenna/ table/ chair/bed, а также в абстрактных значениях a long journey/flight/ a football game/a dart match/races, etc.

There are many artifacts which, like a human face, have "cheeks" as vertical smooth surfaces on the sides: *cheek of bridle/ mortise/ foundry flask, etc.* The amount of objects which can have cheeks is limited only by people's capacity to anthropomorphize: *cheek of fire/ a dormer window, etc.* This confirms the maximally general meaning, listed in several dictionaries: cheek – a vertical side of any mass, structure, or opening (WTHID), something resembling the human cheek in form or position, as either of parts forming corresponding sides of anything (NWDEL). We have defined the lexical invariant of this polysemous word as **one of the two corresponding lateral horizontal flat or concave parts of an object.** This semantic invariant is contained in all possible figurative meanings. Compared to the primary meaning, it is more general since it lacks the semantic components of *part of the face, below the eves.* 

According to our analysis, the semantic structure of the word *knee* shows a clear example of language anthropomorphism. Realization of the word's metaphorical meanings is conducted based on a schematic representation of a human knee. All these meanings can be interpreted using the following lexical invariant: **part of a structure, long, projecting, with an angular bend and abrupt change in direction often used in supporting structures.** It is actualized in meanings like *knee of a beam/ framing/supporting structure/ tree branch/a tree timber / a stair handrail / a sawmill block / curve, etc.* These invariant semantic components, will, we think, participate in further word derivation, enriching the structure of the word *knee*.

Lexicographers intuitively feel the existence of general meanings that underline the structure of a polysemous word. This is why we constantly find definitional abstractions like *knee* – something resembling this joint, esp. when bent with the leg running at an angle to the main member; (ACD) something resembling this joint, esp. when bent; sth. felt to resemble the human knee esp. in its angular bent form (NWDEL).

Based on these lexical invariant clusters of semantic features, our consciousness generally understands what is going on. While decoding statements, our brain quickly links with the necessary cluster of semantic features, ignoring "unnecessary" components of the meaning, and, comparing the data, outputs concordance or discordance of the content to the form of the language sign. In the case of concordance, the meaning is understood without much difficulty. If the sign form doesn't find the needed correspondence, then the brain has to analyze the complete semantic structure of a word to find the correspondence that fits the context.

Human consciousness can even not be aware of the transition between one cluster to another, but perceive the link between the meanings intuitively. This intuitive connection exists because the brain does the difficult work of analyzing semantic features that are hierarchically structured in a polysemous lexeme.

## Summary

The double-level approach of this article to human capability of generalizing semantics - both groups of thematically linked words and structures of polysemous words - is productive. This approach revealed universal features of natural language semantic, to develop the fundamental principles of language meaning formation, and to unite facts which were considered separate before.

These invariant lexical generalizations aid in quick analysis of existing data and in revealing links between meanings, in accordance with the principle of language economy. Neuropsychological studies confirm that our perceptions rely on feature networks, not on readymade meanings and phrases, since our visual cortexes contain a huge number of highly differentiated neurons, each of which reacts only to a single trait of the perceived object (CREE, MCRAE, 2003).

Thus, during message decoding, the brain quickly "connects" to the necessary cluster of semantic features, ignoring the meaning's "unnecessary" components, and, comparing the data, outputs concordance or discordance of the message content to the form of the language sign. In the case of concordance, the meaning is understood without much difficulty. If the sign form doesn't find the needed correspondence and signage process in consciousness doesn't take place, the brain has to analyze the complete semantic structure of a word to find the correspondence that fits the context (SOLONCHAK, PESINA, 2015).

Lexical markers of indeterminacy, analyzed in this article, are extremely important to communication, often reflecting common interests and the ability to reach mutual understanding. These lexical tools save our time, shortening conversational distance between people and realizing the principle of language economy. They can also serve as a defense mechanism that masks uncertainty and doubt.

This article attempts to describe the way how our language consciousness successfully picks the necessary contextual meaning without scanning all the semantic features of a polysemous word. We attempted to analyze the representation of polysemous meanings in individuals' mental lexicon, and the quick access to them during communication.

Our research into semantic structure of multi-meaning words reveals important details about perception and actualization of meanings during communication, about meaning representation in human vocabulary, about the interpretation and understanding of figurative contextual meanings.

### **Conflict of interests**

The authors confirm that the available data do not contain the conflict of interests.

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