

## ON COGNITIVE MODELLING OF KINSHIP CLUSTER IN RUSSIAN AND ENGLISH

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### **Abstract**

Cognitive methodology allows to look at language from a new perspective, the perspective of experience in understanding reality. Classification and categorization are the key cognitive processes that are basic in understanding and conveying information. Investigating language through cognitive structures like categories of perception and understanding greatly extends the subject and contributes to our knowledge about the language. This work is devoted to cognitive modelling of kinship cluster in languages belonging to different families and syntactic types. It is inspired by works of G. Lakoff, prominent American linguist, who outlined the general direction in investigating semantic groups through their mental representations. The objective is to form the cluster of key kinship terms in Russian and English (*mother, father, parents*), identify language and cognitive differences in this social domain and study the role of stereotypes and ideal images in its structure and content. The methodology of structural techniques, psycho-linguistic approaches, and comparative analysis have been chosen to profile the category that invokes a cluster of cognitive models. The further research will focus on semantic shifts of this experiential cluster to identify the channels and regularity of its cognitive development.

**Keywords:** kinship, cluster, models, cognitive structures, stereotypes and ideal images

### **1 INTRODUCTION**

Cognitive science being one of the youngest studies has made convincing advancements practically in all the existing branches of research. Focus on cognition allows to speak about cross-disciplinary character of investigation including both purely theoretical perspective and practical realization as in computer modeling. The boundaries of this theory are rather capricious and indefinite: from psychological and language aspects, connected with cognitive abilities and natural language to technical, addressing the challenges of computer programming.

One of the theses of the content theory of language is based on correlation of mental and linguistic domains, or in other words, on the language ability to shape cognitive categories underlying human reflection. Language studies from such angle involve focusing on the language picture of the world that has developed in the process of bodily or perceptual experience. Thus, there are numerous works oriented on processes and ways of categorization of human experience and the role of natural language.

The central issues of cognitive linguistics are categorization and conceptualization, investigation of cognitive structures, cognitive modeling of mental and language processes, cognitive semantics, and some others.

## **2 OBJECTIVES AND METHODOLOGY**

This work is devoted to the general methodological category of meaning. The conceptual apparatus of structural lexicology allows considering the vocabulary as a gradual transition from one semantic cluster of words to another. The study of words existing and interacting within their natural formations makes it possible to describe in detail their interrelationships determined by semantic paradigm. Close dependence of the lexical meaning of a unit on its neighbours in a paradigm creates an impression of a certain semantic unity, which has certain potential. The semantic field thus appears as a phenomenon that directly leads to the idea that this feature of lexical organization in terms of structure and system objectively correlates with the broader paradigmatic-syntagmatic potential of the language and should be expressed in language as a functional system. However, the very first experience of comparing the basic and situational meanings of a word makes one wonder. The point is not that the subordination of linguistic means to communicative goals introduces certain adjustments to the initially established paradigmatic semantics. It is quite natural. The trouble is that these adjustments are so significant that they do not allow to trace the continuity in these two kinds of lexeme meanings. The meaning's splash far beyond its denotative core, which is obvious in contextual realisations, strongly raises the question of existence of some kind of intermediate structures between language and speech organization of vocabulary. This problem can be solved with the help of cognitive approaches in linguistics, which allows to clarify ideas about language as a reflex of the relevant structures of consciousness. According to the cognitive theory, learning about the world follows the principles of prototypical categorization, resting on basic objects. The result of such epistemological process are conceptual ideas of society about reality. From this point of view, the concept is justly regarded as a categorial unit of consciousness.

The concept easily correlates with the word and its meaning. It is structured and can be decomposed into models of simple connections or relations between objects. Along the lines of these models is formed a cluster, representing an open set of related objects. Their conceptual content significantly complements the informative side of the dimension, bringing the whole range of socio-cultural influence on its content and scope.

All of the above allows recognizing this cognitive unit as an intermediate structure between real reality and the language reflection of the world. The concept of a generalized image of an object may also play the role of an intermediate link between language and speech. In this case, the identification of cognitive structures with linguistic acts as a technique allows to attract that part of the extralinguistic information that is necessary for understanding the natural language message.

The aim of this paper is to analyze the essential principles of modelling the kinship clusters in Russian and English and to identify the channels of their further conceptual evolution.

The chosen methodology of the research includes structural method of cluster organization of lexis, psycholinguistic method of possible understanding of kinship terms within the society, comparative method allowing to analyse genetically diverse languages, elements of semantic differential method applied in investigating the influence of pragmatic factors on the content of words under study and elements of statistic analysis.

For better understanding the mechanisms of cluster formation we have carried out the experiment involving 25 respondents. They formulated their typical and ideal images concerning basic kinship terms which contributed to their modelling. The collection of two thousand literary quotations with kinship terminology formed valuable material for comparative analysis across languages.

## **3 MATERIAL AND DISCUSSION**

The material of kinship lexis has been traditionally selected for pioneer research in different language fields: etymology and history of language, lexicography, word formation, language borrowing, issues of language and cognition and many others. Endless flow of works looking at these anthropocentric units determines numerous approaches and ways to study. Kinship systems are a rewarding source for examining socio-economic development of society and family as public and historical phenomenon. This compact and easy to identify lexical group of a closed type has been tested with various methods of lexical analysis.

Relatively recent studies are devoted to functional analysis and formation of collocations and larger complexes with words of kinship; this language cluster is also a good material to illustrate various linguistic issues. Being the oldest layer of any existing languages, these words are highly active in further semantic

development. They are involved in indirect nomination (phraseological scientific and technical terms, metaphorical and metonymic shifts).

Kinship terms are conceptually complex constructs that can be decomposed into a number of particular models. They are: genetic, nurturing, marital, and genealogical models, material/spiritual and authority models relevant for *mat'* - *mother* and *otec* - *father*, model of sexual relations in the pair of *zhena* - *wife* and *muzh* - *husband*, and others. Within the category some terms are more central than the others. Basic models let to differentiate category from another category, whereas inner models determine the relationships and functions of members within the category (Rosch, 1978).

Identified kinship models heavily depend on real life situations and personal experience. They structure human perceptions and shape mindsets such as social stereotypes, ideals, good and typical examples, social patterns, etc. (Lakoff, 1983, p.19-20). Social and cultural components of the concept are central in its further ontologizing.

The domain under study includes around 120 words in the Russian language (Lomtev 1964); it is a group of the closed type which does not however mean that it is not developing further on. Changes are primarily associated with the extinction of many family traditions, which entails the withdrawal of certain references to family ties and replacement of some simple terms with complex naming, e.g. *dever'* – *brat muzha* – *husband's brother*. Such trend mostly touches upon relations through marriage, which finds its reflection in both languages, e.g. the words *mother/father* can be used in addressing *mother-* or *father-in-law*.

Rehabilitation and great interest to Christianity in modern Russia revive ceremonies associated with marriage and baptism of ancient Russia. The role-playing behaviour of individuals, their immediate participation is not limited to the festive ceremony, since their choice is not accidental. As a rule, they are the people who are directly or indirectly involved in the family's life and raising children (compare: *krestnaya mat'* - *godmother*, *krestnyj otec* - *godfather*, *krestnaya doch'* – *goddaughter*, *krestnyi syn* - *godson*, *krestnaya sestra* – *godsister*, *krestnyj brat* - *godbrother*, *kum/kuma* – *godfather/godmother* in reference to each other and parents of the child they baptize).

Initially we aimed at describing the bulk of Russian kinship terms in this work, however, the format of an article forces us to confine ourselves to the basic ones: mother – father – parents.

## 4 COGNITIVE MODELLING

Everyday interpretations are always quite voluminous. They contain a wide range of properties of the observed objects, and they also reflect the properties of the observers themselves (Apresyan, 1980). This is especially true of social terms in which the assessment of an individual's role-playing behavior fixed in society acquires urgency. Such concepts reflect the normalized distribution of duties, influence of art and foreign ideology, and quick changes of lifestyles, which entails revision of stereotypes, as well as romantic and idealized representations of the society. Such cognitive structures span over the centuries a naïve picture of the entire social life of native peoples, thus formal modelling of any of its multifaceted spheres is fraught with certain difficulties.

To begin with, let us try to highlight some common properties that characterize all the kinship concepts. First of all, their cognitive multiplicity encompasses a variety of diverse human relations based on economic, spiritual, physiological, etc, connections between people. Secondly, each concept forms its own set of these relations, which allows to differentiate conceptual values among themselves. And finally, it is always possible to single out one kind of behaviour as the most significant and cognitively supporting. This finds its reflection in the basic meaning of similarly-named lexeme in a dictionary article.

Let us briefly outline the key kinship concepts through a number of relevant models (*mat'* – *mother*, *otec* – *father*, *roditeli* – *parents*). In modelling these categories we refer to G. Lakoff's suggested scheme (Lakoff, 1983).

### 4.1 Birth/Genetic Model

*The woman who gives birth to a child is the mother.* (Hereinafter the models allocated for one concept also apply to other members of the micro block). New life, child birth, blood relationship of parents and children are the characteristics that are originally semantically embedded in the specified lexical units.

However, there are certain deviations associated with the ambiguous interpretation of the birth criterion. Modern medical science distinguishes between the female-donor of the egg, who is considered to be *geneticheskaya mat'* - the *genetic mother* of a child and the woman who gives birth to a child being

*surrogatnaya mat'* - a surrogate or birth mother. G. Lakoff singles out such cases into a separate model calling it a *genetic model* within the cluster. However, for this research such differentiation is not relevant.

## 4.2 Upbringing Model

Upbringing or nurturance model in Lakoff's terminology includes two types of relationships: material (the woman who maintains the child is his mother) and spiritual (the woman who nurtures the child is his mother). Material relations imply a certain care for a child depreciated in the Russian catch phrase: *to clothe, shod and feed*. Such functions can also be performed by *stepmothers/fathers, adoptive mothers/fathers, foster parents*, other relatives and/or their guardians.

A comparison of naïve interpretations associated with the *otec* - father and *mat'* - mother cognitive structures emphasizes that material duties/economic provision are more associated with the role of a father, whereas spiritual bonds more often characterize a mother and child relationships. Together they constitute a single process of upbringing and nurturing.

Of those two the most significant seems to be the spiritual bond. According to respondents a mother manifests goodness and morality, care, affection and warmth, sympathy and patience. There is a Russian saying, "a mother is not the one who bore a child, but the one who nurtured them". We also include into this category *krestnaya mat'* – godmother and *krestnyj otec* - godfather due to the attributed functions.

*From time immemorial, godfathers and godmothers were senior tutors. Having rejected this social institution, we did not find a worthy replacement, leaving a child alone with their problems (Literary newspaper).*

It is this type of relationships that is emphasized in the following examples: *He is like a father to me. Kind and considerate (Randall). She is more than a mother to me* (according to functions performed); However, *I don't have a father any more* describes a conflict of breaking relations when it is impossible to break the blood bonds.

Both material and spiritual models are so important (*otec-mat'* - mom & dad) that weakening or lack of one of them is expressed by a special name, e.g. *mat'/otec odinochka* - a single mother/father, or *mapulechka (madad)* – an ideal single father who combines the features of loving mother and providing father. These terms in the Russian language, especially the latter neologism, feature the acute social phenomenon associated with the tragedy of incomplete families. In 2017 the number of single mothers in Russia reached unprecedented five million, the number of single fathers comprised six hundred thousand, which together represented one third of the total number of Russian families (<https://www.ridus.ru/news/244096>).

We should confess that there are certain difficulties in classifying the concept of *single* and *unwed mothers* - *mat' odinochka*. If we assume that the main feature in this cognitive structure is motherhood outside wedlock as indicated by the English *unwed mother*, it would be logical to attribute this concept to the model of marriage relations with the negative value. However, the growing trend of conscious pregnancy and childbirth in Russian and Western cultures puts this term in line with *donor-mother, donor-father, surrogate mother, adoptive mother* in terms of the options to have a baby. In this case the genetic or even legal modal (for adoptive parents) become central.

Russian stereotypical ideas about a single mother are associated primarily with an unwanted child, whose birth harbours many problems of a material nature. Such arguments allow talking about the relevance of the model of upbringing and nurturing and the semantic opposition of a *single mother* to a *single father* on the horizontal level within the concept only confirms our opinion (compare with the arguments of G. Lakoff, who connects this concept with the birth model).

## 4.3 Marital Model

*My father's wife is my mother.* With such understanding, it can only be relevant in combination with other models. Moreover, it will never be meaningfully leading, as a mother does not cease to be a mother for a child even in the common-law marriage whereas a new mother's or fathers' spouse (*otchim* – stepfather, *machekha* – stepmother) in the officially registered marriage will not become closer to a child because of formal relations, e.g. *My parents weren't married* (Murdock). In our database only one case corresponds to this sense in its pure form, solely through the marital model, e.g. *What I'm not quite sure, she said, is whether I can let him be the child's father legally* (Lawrence).

We also include in this subcategory cases when *son-* or *daughter-in law* addresses their *spouse's parents* as *mother* or *father*. Although the Russian language possesses special terms to denote this type of relationship (*test'* – *teshcha* for the wife's father and mother and *svekor* – *svekov'* for the husband's father and mother),

in line with functions performed (material support, sometimes actual participation in the affairs of a young family, assistance in raising grandchildren, etc.) this subcategory of mothers and fathers consistently fits in the general structure of this construct.

#### 4.4 Genealogical Model

The presence of the genealogical model in terms under study (*a woman of the older generation than me in my family is my mother*) is mostly subconscious, which is confirmed by the fact that it receives a semantic load mainly in metaphorical transformations, e.g. *I fell madly in love with Christopher. Yes, yes, I know I'm old enough to be his mother, but such things happen* (Murdock).

Based on the English correlates *grandfather/grandmother*, we find it possible to extend this category with Russian *ded – babka*: *The mother had put on a sober-brown dress and was consciously playing grandmother* (Shaw). This example features the woman playing the role of the grandmother towards the grandson she has never nurtured.

#### 4.5 Authority Model

Empirical data show that for the *father category* the model, which we conventionally call the authority model, is also cognitively important (e.g. *otec semejstva* tracing from the Latin *fater familias*). English sources also confirm this idea, e.g. *That's what he'll look like when he's the father of a family, Eleonor thought* (Woolf). *The back door crashed open again as Jasper Llewellyn emerged like some neo-Victorian pater-familias* (Howatch).

Of interest is the significant gap in the personality strength between the images of *mother* and *father* in general. The facts that the average image of mother is stronger than the average image of father indicates that feminization, loss of authority by males and, on the contrary, masculinization of females are inherent both to younger and older generations of respondents. (Similar results were obtained by V. Petrenko, 1988). Maybe that is why the image of a "strong father" needs emphasizing through the authority model. Judging by the following example, situation where descriptions of mother and father seem to change places, is as well known in the American culture, e.g. *Three good people who belonged to me, his father gentle and honorable and hard-working, his mother a staff to lean on all times, his brother too young to have sinned* (Shaw).

### 5 TYPICAL AND IDEALIZED REPRESENTATIONS

Bing social concepts, the kinship terms can be understood through typical and idealized representations. The former plays the role of a certain social stereotype or general ideas common for many people, the latter acts as references and best examples shared by the society. The question is to which extent they impact the formation of kinship concepts. Looking ahead, we can assert that the working hypothesis that the *typical mother* social stereotype is central to the motherhood category, has not been confirmed.

When analyzing the stereotypical descriptions, we paid attention to the fact that respondents, as a rule, outlined them through reduced connotation, e.g. *a typical mother is a woman who gives birth to a child and whose life turns into a continuous mess. She trots about the kitchen and curses everyone*. Typical duties range from work representing the material support of the child and the family as a whole, to domestic chores, among which the chores of raising the child are minor. Such ideas reflect the multifaceted role of a modern woman in a modern society and represent difficulties she faces with the birth of a child. Most evidently such visualization is the reason why Russia has joined the club of the aging nations where birthrate is lower than the death rate. To reverse a steady population decline the state has introduced a number of incentives, among which are cash rewards to poor families for their first child and a big one-off payment for the second or subsequent child, born or adopted, to all mothers.

Three decades have passed since G. Lakoff described stereotyped image of an American mother as a housewife (Lakoff, 1983, p.13). Such stereotype is relative to the nurturance model and is taken as a norm. Since then a great number of researches have determined certain impact of the age, race, gender, social position, education and other factors of respondents along with the role of the art, cinema, and mass media on shaping societal stereotypes connected with motherhood. Poor moms, rich moms, single moms, teen moms, queer moms, black and white moms, working moms, Jewish moms, "Tiger moms" stereotypes have been studied to outline different attitudes to this phenomenon. Public debates have also highlighted the greater role of women in business, political and social life of the state extending far beyond housekeeping. Numerous cases of changing roles between males and females in terms of domestic and family hierarchy also speak about great shifts in people's minds. One of the examples is Tony Blair, the ex-British Prime Minister, who took a paternity leave while in office.

Back to our experiment, the description of a typical father can be outlined as *a man who has charged all the responsibilities of raising a child to his wife and who believes that his main duty is to earn for the family*. Or more briefly: *lies on the couch and watches TV*. It is in line with the opinion of Anne-Marie Slaughter, president and chief executive of New America, a nonpartisan think tank, who wrote: "Men aren't brought up to seek roles beyond breadwinning, much less act on those desires" (The Washington Post, June 19, 2015).

In an effort to break out of everyday life, our mind often draws pictures of the ideal situations, which usually correlate with the future plans, reasoning and judgments. It is then that many categories are perceived through abstract ideal patterns that may not be either typical representations of this category or stereotypes.

*It is something to have had such very exceptional parents (Hartley). She was a little overweight and she never bothered with make up and she wore kind of old-lady clothes, but she was a terrific mom (Hartley).*

The ideal role of a mother is described with the adjectives: loving and caring, hardworking, nurturing, spoiling, sensitive, gentle, pure, guiding, teaching, positive and encouraging, self-giving, loyal and trustworthy, emotionally close to a child.

Ideal fathers are expected to be: loving, friendly, authoritative, interested in his child, strict but not tough, respectable, supportive, able to listen and solve problems, sharing his interests with the child (sports, modelling, cars, etc.). He gives the sense of safety and security in the family and is a role model for his son.

How do typical and ideal representations relate to each other within the category? With good reason we can argue that typical ideas can be reduced in value compared with a neutral basic concept. Most often they are formed on memorable personal experience and are of a very specific character. They are relative to one conceptual model and cannot be taken for a prototype as the latter comprises the whole bundle of essential features associated with the category (in this study they are the basic models of relationships relevant for the *parent category*). Typical representations shape out social stereotypes that change with time. On the contrary, ideal representations are more stable as they embrace the best features of the model roles of mom and dad. Evolved on one of the base models of parenthood, stereotype and ideal images add to the structure and content of the category; they are its inherent subcategories that have gained existence through metonymy as part in relation to the whole.

## 6 CONCLUSION

The findings of the research can be outlined as follows:

1 The set of core principles of cognitive analysis allows to considerably expand the boundaries of language semantics as one of the possible models of universal human knowledge.

2 They allow to harmonize ideas about language as a categorical map of everyday consciousness.

3 Reconstruction of such experience reveals numerous channels of impact on formation of categories. Categories are not defined once and for all and undergo development with the appearance of new conditions. It results in new terms, most often compound or collocations which are related to the base model. The prototypical understanding of social relations combines various cognitive structures, among which are social stereotypes, ideals, characteristic examples, etc.

4 Idealized representations in society are the semantic basis on which the generic concept unfolds. In the structure of the latter, they occupy a central place, denoting its semantic core. Stereotypes form another pole of the concept, pushing its boundaries with reduced evaluative judgements about a particular social role.

5 The central member of the category, together with its generally accepted conceptual modifications, forms an experiential cluster, which can be described as a structured set of homogeneous objects. Each member of the category contributes to the semantic bank of the conceptual unit, specifying and sometimes violating the symmetry of its meaningful structure (e.g. *otec* - father, *krestnyj otec* - godfather, *otchim* – stepfather, *test'* – wife's father, *svekor* – husband's father, *otec odinochka* – single father, *ded* – grandfather, *otec semejstva* - father of a family, etc.).

6 In this sense, one cannot ignore a number of factors that prevent the unambiguous description of the kinship category. One of them is blurring and prototypical effects. They manifest themselves in cases where certain conditions do not fit into clearly understood models of people's relations just as the whole world does not fit into the practical experience of society (*unwed mothers*, *single mothers* in our case).

7 Cross-language differences identified in the study, indicate specific linguistic consciousness of Russian and English native speakers based on categorization and classification. However, base cognitive structures

of kinship are similar in many ways.

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