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Altai Empathy Culture: Ontological Design of Altai Cognitive Environment

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ABSTRACT

This study considers the features of Altai cultural semantics through the cognitive materialism of culture basing on the assumption that the linguistic structures are part of culture, and the metaphorical linguistic use is the basis for cultural cognitive structures forming. Altai text is considered as a structural unit of Altai cognitive environment and landscape, a form of Altai territory psychic life and a way to study the physiology of historical life. Eidoses creating cultural landscape and their role in the ontologization of a territory language are studied by linguistic engineering. Thus, this study includes ontological designing of deep structures of texts created by E.I. Roerich, N.K. Roerich, G.D. Grebenshchikov and V.M. Shukshin that represent Altai cultural empathy. Cultural and behavioral patterns of a certain territory inhabitants appear as a multi-dimensional structure which includes elements and units functioning in accordance with certain criteria developed in the synthesis of natural forces and human mind activity.

KEYWORDS
Materialism, landscape, semantics, Altai, engineering

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Introduction

The interrelations of people and living environment are determined by the empathy culture, which is a system of values, institutions, rules and norms developed by people and focused on the ethical and aesthetic rationalization of environment, i.e. the production and reproduction of aesthetically and conceptually matured thinking and behavior. First of all, cultural empathy determines cultural landscape features, an anthropogenic superstructure over the natural landscape, which includes text as an element, which structure is determined by cultural semantics of a certain territory or region. In this regard, Altai text is considered as an element of Altai cultural landscape, which, on the one hand, includes cultural empathy of Altai region population, and, on the other hand, as a model of cognitive environment of an Altai inhabitant, who develops his or her living environment and spatial competence basing on the synthesis of different cultural semantics. The model of spatial – Altai – competence and cognition is studied on the basis of Altai text ontological engineering, particularly, on the basis of

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texts by E.I. Roerich & N.K. Roerich, (1923-1937); G.D. Grebenshchikov (1999) and V.M. Shukshin (2004). The texts selected are considered to be culture-forming for Altai region, they configure cognitive activity of local population the way to understand its own identity. The texts reflect and, at the same time, develop the culture of Altai empathy and demonstrate the features of Altai as a self-referential Russian territory.

B.H. Bgazhnokov (2003) notes, that a human being is the consumer or creator (or the consumer and creator at the same time) of living environment, who takes moral responsibility as the creator and an independent part of the cultural landscape. Ethics and aesthetics of relations between people and living environment becomes especially important; the enhancement and rationalization of these relations becomes the main objective of people, and the focus is on people's need in favorable environment conditions, the ways and methods to achieve this objective. B.H. Bgazhnokov (2008) distinguishes the culture of empathy in these ways and methods, which is understood as a system of values, institutions, rules and norms developed by people and aimed at the ethical and aesthetic rationalization of environment, i.e. on the production and reproduction of sympathizing and understanding, aesthetically matured thinking and behavior.

B.H. Bgazhnokov (2015) associates the concept of empathy culture with the cultural landscape concept, which is a clear reflection of processes and results of interaction of the territory power (its natural and geographical features) and the power of its population. The concept of cultural landscape was introduced into scientific use by prominent Russian geographer and biologist L.S. Berg (1915) in the beginning of XX century as an anthropogenic superstructure over the natural landscape. In the cultural anthropology and related disciplines this concept is associated with the artifacts and history of people's territory development (Kalutskov, 2004).

As believed, culture-developing texts, that illustrate the power of territories and their population, their interaction, make a cultural landscape element. Studying the physiology of historical life of a territory and country is studying the language of texts that develop cultural semantics of a separate territory and position it in the axiological hierarchy of country and global community. A separate territory is considered as a self-referential system capable of self-observation. Self-referential systems can configure their own operations to self-identification based on a difference, which helps to separate their own identity from any other (Rojek & Turner, 2000).

Texts by E.I. Roerich & N.K. Roerich (1923-1937); G.D. Grebenshchikov (1999) and V.M. Shukshin (2004) configure the activity of a territory inhabitants to understanding their own identity. The functional model of public (state) reality is created by the intellectual force of individual provinces and territories structured according to aesthetic sensibility in corresponding word-complexes, which include Altai texts as well.

The physiology of a region historical life makes it possible to study the language tectonics of Altai landscape ecosystem. The tectonic patterns take form of specific objects, depending on their functional, structural and aesthetic requirements. Language tectonics is a mediated set or an assembly of linguistic structures, which, on the one hand, represents the viability and fitness of Eurasian axiology, and, on the other hand, represents an individual, who takes this axiology as a system of rules, "draft" epistemology.

Tectonics seems a way more complex at the living nature level, since its structures get in the living organism environment, which carried out complex functions. Different subsystems overlap each other in the organism activities, which results in a living form

emergence. Tectonics appears as the unity of constructive forms and laws of mechanics at the engineering design level (pure construction).

Studying the physiology of a territory historical life makes it possible to determine the viability degree of people and regions. The viability depends on their correspondence to reality, ability to save their cognitive schema in the context of new experience, as well as on the compatibility with other schemas and working theories. Suggested study of regional linguistic ontology helps to identify factors stimulating language global representation and development.

In the Russian state as a system the real structures are represented by the principles of managing administrative centers activity, and the world models correspond to the landscape and geographic complexes that include Altai. "Altai world" model is especially important as it includes a language-type responses program based on the Russian language natural acquisition.

H. Maturana & F. Varela (1972) points out the existence of linguistic and narrative forms, which, being part of ethnic culture, establish connections between physical perception of an object and its culture, and with its intersubjective representations.

The dependence revealed between forms and representations becomes the basis for considering the study of cultural phenomena as an independent research direction, which brings together cognitive and social sciences (cognitive materialism of culture) to set up new connections between cognitive and social sciences. Thus, the language structures are part of culture, and the metaphoric use of language is the basis for revealing culture cognitive structures.

This statement correlates with one of the main postulates of the culture cognitive materialism, namely mental transition from the process of signification (signifying position of an object or event as part of cognitive environment) to "schema", which defines the cognitive environment features and understood according to the philosophical tradition of I. Kant (Walls, Widemeyer & Sawy, 1992).

The concept of "schema" was introduced by I. Kant as a technical term to signify intermediary units between logic concepts and sensorial data (Guyer, 1987). Such units make it possible to signify mental representations that demonstrate synaptic structures and interlocks, which are empirically formed in mind and activated when an individual analyzes new situations and language tasks identifying them with the patterns already existing in his or her cognitive world.

Each active organism in the world, according to H. Maturana & F. Varela (1972) appears structurally "interlocked" with certain environment aspects because of evolution processes. Connections between specific qualities of an organism neural structure and specific aspects of environment constitutes cognitive domains of a living organism. Individuals with similar cognitive domains make interlocked systems to focus mutually oriented actions on saving a community or population. Such interlocked systems are called consensual domains in H. Maturana & F. Varela (1972) studies.

Materials and Methods

This study implies the use of design theory and associated methods of conceptual design and semantic data modeling as the basic tool for constructing the theory of a territory cultural empathy. H.A. Simon (1996) and his followers who support the theory of design and actions, consider design as a form of theory. The term "management theory" is often used for prescriptive, solution-oriented knowledge that encompasses "technological rules," while distinguishing more description-oriented knowledge as "organization theory" (Iivari, 2007; Markus, Majchrzak & Gasser, 2002; Manjali, 1998;

Walls, Widemeyer & Sawy, 1992; Van Aken, 2005). Design theory is a phenomenon of the human abstractions' world, which includes such algorithms and models (Gregor & Jones, 2004). Design theory is based on adapting realistic anthology, while the realism presupposes that the world includes certain types of realities that exist independently from people and their knowledge of them. At the top level the ontological (existential) position correlates with ideas, as both J. Habermas (1984) and K. Popper (1986) suggest. J. Habermas (1984) differentiates three different worlds: objective world of actual and possible states / situations, subjective world of individual experience and expectations, and social world of governed relations. These three worlds correlate with the first, second, and third one suggested by K. Popper (1986). The first world includes material things, the second world is subjective and includes mental rstates, the third world is objectively existing, it includes abstract realities created by people such as language, mathematics, knowledge, science, art, ethics and different institutions. Thus, any theory including the theory of territory cultural empathy refers to the third world.

In this way, it is possible to talk about Altai living ethics from the design theory perspective, understanding the ethics as the tenacity of an Altai cognitive community representative to respect the spoken word Obligation (λογος), which is true imitation of words in the Soul interpreting logos in the Mind. In the mind, there is a transition from one element to another, since the mind goes from a supposition to a conclusion. The Soul includes sequentially and separately everything that is inside the Mind.

The power of the highest order in Russian cosmos is its consistency predetermined by the Divine word power, which brings the Grace and replaces the Law by humility and love, which exist above the limits. According to I.A. Isaev (1998), it is Apostle Paul who was the first to formulate the concept of Law as a synthesis of positive, natural and divine Law, which in fact denied the Law as a normative phenomenon.

Altai living ethics represents the promise of faith in human powers to obtain a "body" with its place in nature, its own form with spiritual parameters proportional to the Universe laws and all that exists. The elements of Altai living ethics are considered as philosophemes, which system in Altai texts adjusts textual configuration of the Law and the promise of faith (Kartavtsev, 2011). The philosophemes are understood as special phenomena of integrating different types of knowledge (for example, philosophical and artistic). T.I. Blagova & B. V. Emiljanov (2003) when studying Dostoevsky's works define a philosopheme take as as a semantic invariant identical to itself in the verbal space. At the same time, the philosopheme becomes an element of Dostoevsky text paradigm itself, which unites symbols, notions and concepts of philosophical and anthropological, ethical, aesthetic, historical and philosophical views of the author.

The philosophemes of Altai text reveal the Promise of Law, being the Law of using language and concepts. In this case logos shall be understood as a mental act to ensure the correlation of human and universal existences.

Philosophemes to reflect the Logos Mind represented by Altai symphonic personality can be revealed when constructing ontologies of texts by E.I. Roerich & N.K. Roerich, (1923-1937); G.D. Grebenshchikov (1999), V.M. Shukshin (2004) and in the texts of the XVIII century.

This study is mainly focused on Altai texts and cultural semantics of Altai territory. It is believed that the concept of "Altai text" shall be understood as an immaterial flow of consciousness measuring the dimensions of Materia and seeking for right proportions in forming the world images by projecting natural landscape segments on

the images through the cultural empathy of Altai inhabitants and narrators, who are able to create the materia changing tools.

Texts by E.I. Roerich & N.K. Roerich (1923-1937), G.D. Grebenshchikov (1999), V.M. Shukshin (2004) give options to describe activities of linguistic intelligence in Eurasian territory. The ontologies of E.I. Roerich & N.K. Roerich (1923-1937), G.D. Grebenshchikov (1999), V.M. Shukshin (2004) texts create an idea of the Eurasian discourse schema in Altai cultural semantics. Linguistic structures, which are the forms of conceptual modeling of Altai subject area, or social facts of new, Eurasian, social reality, are created in analyzed texts according to the constructivism norms. The sets of linguistic structures create assemblies that model the projections of their own connections on the constructed social reality in accordance with the Art Nouveau.

The analysis of texts by means of ontological engineering makes it possible to construct a model of Altai cognitive system (schema), revealing cognitive domains, synaptic structures and interlocks, and entire meaning assemblies that allow Altai community to demonstrate its viability. The viability of Altai community (territorial, linguistic, cultural, cognitive) is found in the linguistic features represented by Altai text as the main tool of Altai empathy. Altai text becomes a system of Altai community self-description and configures the territory inhabitants for understanding their own identity.

The texts analyzed in this study represent three dimensions of Altai identity: social (Shukshin, 2004), religious (Grebenshchikov, 1999), and theosophical (Roerich & Roerich, 1923-1937), demonstrating three corresponding levels of cognitive schema: society, world, and cosmos.

The main modeling tool of Altai cognitive system is ontological engineering, which is a technology of ontology building. Ontology is a schema, which includes hierarchically organized semantic units (concepts, ideas, meanings, connotations, group of meanings) that characterize the semantic space of a text. Ontology organizes text meanings in a system, which elements are considered both in terms of their value to the system and to its other elements. Establishing relations between the ontology units makes it possible to reveal the assemblies of meanings important to the text semantic space.

Like any system, ontology includes a bunch of elements represented by lexical units essential for the text comprehension, and a structure, which arranges relations between the units. Thus, the technology of ontological engineering has two stages. The first stage includes the selection of lexical units that form the basis on ontology. The relevance of lexical units is defined by statistics (frequency). The ontology includes only most frequent units, which correlates with modern synergetic ideas of text as a complex system and the relevance of the number or repeating units in the text as the formative factor.

The second stage includes establishing connections between the ontology elements by identifying overall contexts of two or more units. The strength of connection between any two units of ontology is thus defined by the number of contexts they share.

The ontologies revealed are systematic (one ontology element is relevant to another ant to the system itself) and dynamic. Besides, the ontology makes it possible to get a computer processing-friendly hierarchy of semantic space units.

Given the aforesaid, the method of analysis used in this study is modeling based on the technology of ontological engineering. Our objective is to analyze selected texts, construct ontologies and interpret them. The purpose set is to study the features of

Altai text as a schema revealing the cognitive potential of landscape and geographical complex "Altai". Our research is carried out by following steps: 1. selecting text of Altai's most prominent authors that form the basis of Altai people self-identification culture; 2. selection of most frequent (and most important) word forms in those texts; 3. finding contexts shared by two or more word units, and determining the strength of connections between them basing on contexts they share (the more contexts they share, the stronger their connection is); 4. graphical representation of constructed ontologies; 5. interpretation of connections between the units basing on the texts analysis principles.

Results

Construction of Altai cognitive schema starts from analyzing texts on the social dimension of the schema. A historical novel written by V.M. Shukshin (2004) "I came to give you freedom" constructs reality by "recalling" some facts from the past, as any narrative of this genre. Shukshin's novel suggests a way of the Russian society self-description (Figure 1).

The main character of the novel is represented by the text's most frequent lexeme "Stepan", which occupies the central position in ontology and has connections with all its elements. It is reasonable to group the ontology elements with similar lexical meanings or same reference. Thus, the main character has many nominations: "Sten'ka", "Razin", "Stepan Timofeevich", "ataman", "bat'ka", and other. The variety of lexical units denoting the main character can be explained by his different social statuses represented in the novel: ataman, Cossack rebellion leader, robber, husband, brother, etc. "Stepan" unit is associated with "Cossacks" unit, which refers the main character to a social group. Thus, the social level of Altai cognitive schema is formed around an individual as a minimal constitutive unit of society. The principle, according to which a part is isomorphic to the whole and gives a complete idea of the whole, is extrapolated to the entire universe in the E.I. Roerichs' "Living ethics" (1923-1937).

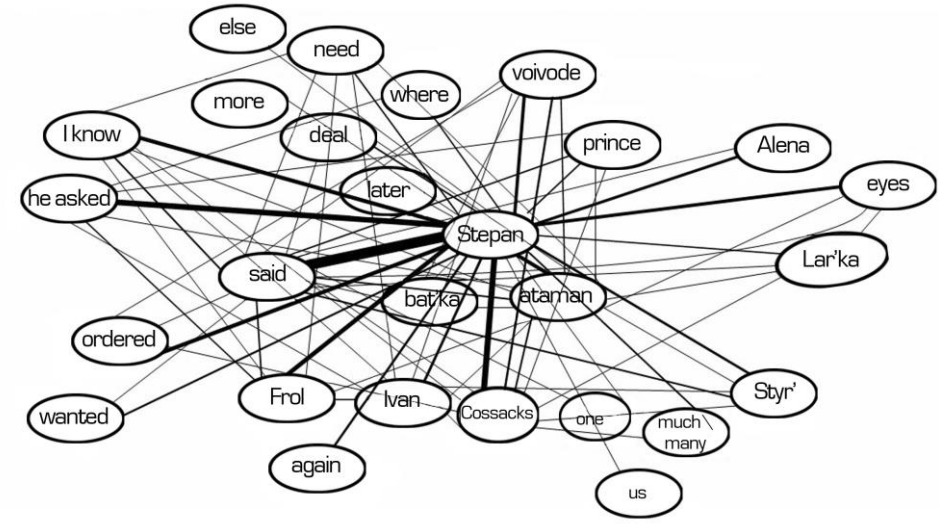

Figure 1. The ontology of V.M. Shukshin's (2004) text "I came to give you freedom" (2004) (Source: authors).

"Stepan" unit has strong connections with the units "I know" and "He asked". The meanings of these units share one and the same seme of "the information possession", which makes it possible to conclude that the society designed in the novel is an information society.

Another important unit in the ontology of V.M. Shukshin's (2004) novel is "He said". The strongest connection is found between the units "Stepan" and "He said". A man in the V.M. Shukshin's (2004) novel is represented as "homo eloquence" – "man-who-speaks". The word is transformed into the Logos Bible, by which the main character demonstrates his social activity; the opposition of the main character to the Old Testament's God, and analogies with the Christ are actualized in the novel. A cataclysm planned by Sten'ka Razin is also a rebellion against the Universe laws. Stepan criticizes terrible and fearful God of the Old Testament, while being compared with Jesus Christ sacrificing himself for the people. The Biblical allusions bring V.M. Shukshin's (2004) text to the level of universal generalizations. Thus, the unit "said" connects the society and world dimensions in Altai cognitive schema.

G.D. Grebenshchikov's (1999) essay "Altai Russia" makes it possible to reach more abstract level of cognitive schema "Altai level – World level". There is a transition from the unit "said" in Shukshin's text ontology to the unit "to say" in the ontology of G.D. Grebenshchikov's (1999) text. The unit "to say" is not only unimportant in the "world" level ontology, but does not even have any important connections with other ontology elements. A man is still able to try to be equal with the God at the social level, but at the World level saying is beyond human abilities (Figure 2).

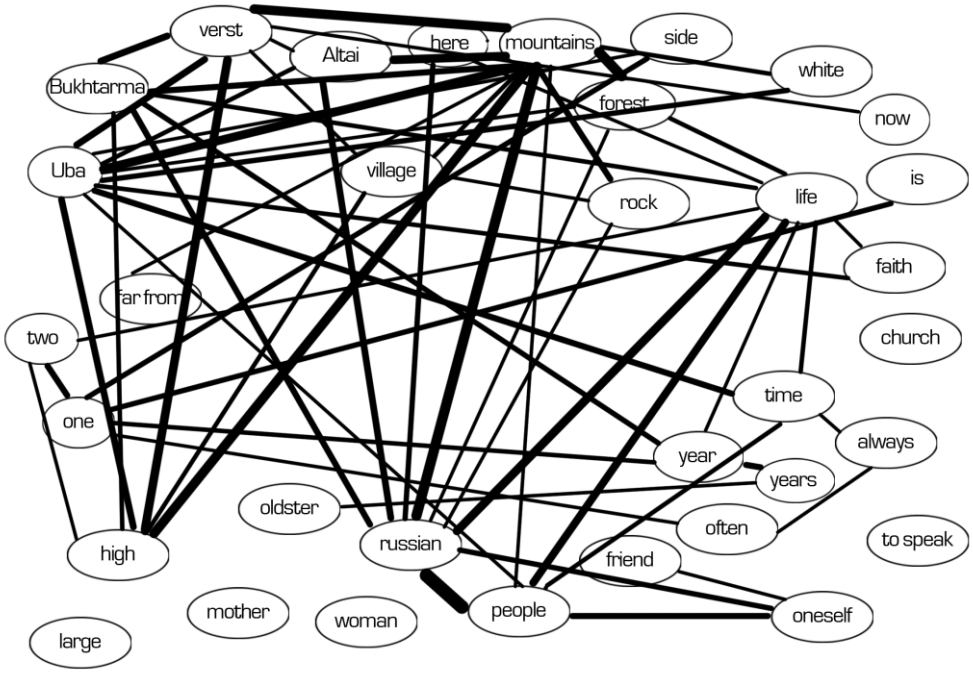

Figure 2. The ontology of G.D. Grebenshchikov's text "Altai Russia" (1999) (Source: authors)

An ontology, which dimensions are set by the time and space, is constructed as result of the essay analysis. Altai world is a space with the horizon crossed by the mountains' vertical line. The majority of ontology units is represented by lexemes denoting space and spatial objects: "mountains", "verst", "here", "away", "village", "forest", "side", "Bukhtarma", "Altai", "Uba". The time category is represented by the units "often", "year", "years", "time".

While a man at the social level is represented by units denoting proper names ("Stepan", "Lar'ka", "Frol", and etc.), in G.D. Grebenshchikov's (1999) text those units are "people", "woman", "old people", and "mother". Using lexeme "man" in plural ("men") expresses the idea of unity: a man is nothing at the world scale. Units "woman" and "mother" do not have clear connections with the other ontology units and considered as less important compared to other units denoting men.

The unit "church" also does not have clear connections despite it comes from a text on religious topic, which tells about the Old Believers' life. At the same time, the unit "faith" of the same semantic space has strong connections with other units. In this case it is assumed that the unit "faith" in this particular context is used in its non-religious meaning as a conviction requiring no proof. The unit "life" is important to both ontologies and can become a bridge connecting the "world" level with the "cosmos" level.

As opposed to the ontology of G.D. Grebenshchikov's (1999) text, the ontology of "Living Ethics" texts does not have indicators of time and space. The level of abstraction is high, and it implies the boundlessness and timelessness. The texts'

structure itself expresses the following idea: “Living Ethics” is a complex of texts with no beginning and no end, so one can read the texts in any order. In this study analyzed are the following books of the cycle: “Leaves of Morya's Garden. The Call”, “Leaves of Morya's Garden. Insight”, “Community”, “AgniYoga”, “Infinity. Part 1”, “Infinity. Part 2”, “Hierarchy” (Figure 3).

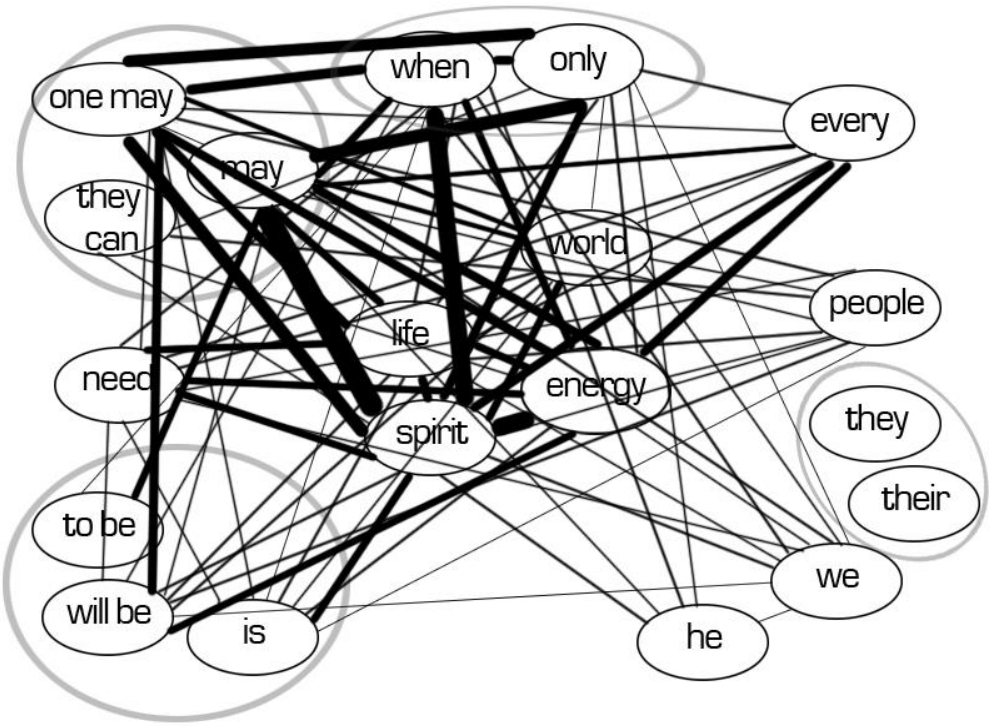

Figure 3. The ontology of the E.I. Roerich & N.K. Roerich (1923-1937) text “Living Ethics” (Source: authors)

The unit “life” in the ontology of “Living Ethics” is based on a group of units denoting existence: “to be”, “it is”, “It will be”. The variety of forms in this group brings the idea of time to the ontology: the future is opposed to the present. At the same time, the unit “it will be” has the strongest connections with the units “energy” and “it is possible” associating the future with the great opportunities and strength of mind.

In addition to the central group of units in this ontology (“Energy”, “Spirit”, “World”, “Life”), the following semantic ensembles are revealed: a group of elements sharing same meaning of possibility: “it is possible”, “one may, “they can”. The unit “they can” demonstrates the strongest connection with the unit “people”, and the unit “one may” with the unit “Spirit”. The most powerful, driving force in Altai cognitive schema at its higher level (“cosmos”) is “Spirit”. At the same time, the lexeme “Spirit” is connected with the unit “When” representing a group of units denoting the concept of conditions and / or limits (“Only”, “When”). Revealing strongest connections among elements in the possibility denoting group, it is concluded that the power is opposed, on the one hand, to necessity (unit “it is necessary”), and, on the other hand, to conditions (units “Only” and “When”).

A man is represented by the unit "People" in the "Living Ethics" text ontology, which makes it possible to reveal connection with the ontology of "Altai Russia" essay. The idea of unity, which is actualized in G.D. Grebenshchikov's (1999) text, is supported by the unit "Every(body)" connected with the units "Energy" and "Spirit". The unity transforms into universality, and the unifying principle is the energy going through everything in the universe, being also the spirit driving force.

On the other hand, the concept of man in this ontology is represented by the following pronouns: "We", "They", "Them" (pronoun "He" correlates with the unit "Spirit" and thus is not considered in this context). Units "We" and "They" are opposed on the commitment to Agni Yoga, which principles are described in the "Living Ethics' texts. The pronoun "We" refers to the community members, including the text authors. The unit "We" correlates with the ontology units, including units "Spirit" and "Energy", while the pronouns "They" and "Them" become isolated.

Discussions

Local cognitive culture, mostly associated with the representational thinking of a community, uses the language system to understand the concepts and images of another culture. Catching resonant interactions between mind and semantic context by means of language semiotic system, the local cognitive culture replicates the object in the mind of a certain territory representative as an element of natural empiric system. Thus, local cognitive culture specifies human mental abilities as the formalization of emotional experience, spirit self-opposition.

In the context of human life, the language narrative function tends to become reproductive, demonstrating the involvement of language in the process of reality strategies forming. Given this, special attention shall be paid to the local cognitive culture, in particular, Altai cognitive culture, where the language becomes a process, which allows people adopting their behavior to the environment.

Apparently, special interest in cognitive local culture appears because it features the designing of sensual objects by linguistic means. Cognitive local culture is developed by the method of intuitive design, which gives humans access to the natural specification principles, and contributes to revealing the probabilistic form of the Universe logical system by using "unconscious inferences" (Nalimov & Drogalina, 1995). Sensorial data acquisition process becomes cognitive in local cognitive culture, which contributes to understanding empirical laws of natural things and specific forms consistent with them.

Local cognitive culture is primarily connected with the representational thinking, which objectives include establishing similarity, symmetry between the areas of thinking represented by the subject, concept, and object. It is the ratio of these areas that forms the ethnic spiritual way of being built up of "learned and adopted historical and social relationships" (Shpet, 1994).

A concept produced by the representational thinking is a projection of Altai empirical system, which can be perceived as an identifier of changes in communication society from the position of local cognitive culture modifications. A mind that produces concepts contributes to creating a single image, which integrates the experience and ethics from different times and spheres of life. This mind satisfies the need in separating each idea and giving it as a reality unit, creating hierarchical interrelations of ideas to make the basis for the empirical system of people at a synchronic history moment (Giddens, 1984).

Language, as M. Foucault (1977) believes, makes disordered elements ordered. Language in Altai local culture exists as a process, which makes it possible for an

individual to keep up with cyclic metamorphoses and changes in the nature empirical system. Language intermediates the substitution of semantic sets that differentiate the features of local cognitive culture and mental abilities state of its residents. The substitution of sets makes it possible to reveal the cognitive function of idea, degree of mental eidos presence in the ethnos mental structure (Sweetser, 1995).

Linguistic ontology of Altai is created in Altai texts. Linguistic ontology is a term frequently used in informatics and computer engineering rather than in the science of language. Usually it is understood as specialized information retrieval thesaurus for automatic text processing. The study of element relations within the existential triad "Being – Language – Man" becomes the task of studying the physiology of historical life, manifestations of psychological life of Altai territory. Eidoses typical for landscape complexes are considered in the course of such study, as well as their role in the ontologization of a territory inhabitants' language.

First academic seminar on "Altai text in the literature of the second half of XIX - the beginning of XX century» took place at Altai State University at the Department of foreign and Russian literature in January, 2002 and brought together experts from related scientific areas - specialists in literature, historians, archivists, culturologists, and fine art experts – to scientifically study regional culture phenomenon. One of the seminar initiators and its permanent editor is T.G. Chernyaeva (2002), candidate of philology, associate professor notes in her prolusion to the first collection of seminar materials that Altai text is considered as an important and integral part of the national literature and culture. The seminar becomes interregional with international participation, as the study of Altai texts puts together the efforts of philologists from two sovereign states – Russia and the Republic of Kazakhstan. First academic seminar drew the attention of colleagues from East Kazakhstan University named after S. Amanzholov, who studied Altai texts in Russian culture, in particular, actively popularized works of G.D. Grebenshchikov (1999). "There are many documents in the libraries and archives of Ust-Kamenogorsk city, - as T.G. Chernyaeva (2002) says, - that are still not introduced to the wide scientific community; they are letters, diaries, pre-revolutionary publications that are scientifically important and shall be republished".

The introduction of "Altai text" in the beginning of the current century, which subsequently became a term, marked the development of a new textual understanding approach in studying the object of a new structure that changed the topology of research area. As a result, the research area gained variable dimensions and complex topology of a space with multiple singularities.

Conclusion and Recommendations

Internal conditions that configure the response of social and communication systems include the state of real structures and parameters of algorithmic program of reactions. In the Russian state as a system, the real structures are represented by the principles of managing administrative centers activity, and the world models are correlated with the landscape and geographic complexes including Altai among them. Altai world model is of particular importance, since it includes a language-type reactions program based on the Russian language natural acquisition.

The main purpose of the natural acquisition of language is to learn the system of semantic rules to produce messages by the language of structural alternatives of culture in general and the culture of thinking principles in particular.

Altai world model makes it possible to reveal communication dimensions of the Russian language connotations, and demonstrates a new complex of interacting systems in the "Culture" cognitive schema, which reflects the transitional state of deep

semiotic structures. The transitional states make it possible to estimate if the system is ready to reach a new level of functioning. The basic measurement unit of semantic space, which is essential to an individual for navigating the oppositions "Present – Past", "Present – Future", "Past – Future" in Altai world model, is a local discourse idea. The discourse idea is about specific concepts and cognition criteria developed within a specific territory and making the basis of spiritual strength of people inhabiting this area. The discourse local idea includes the data on the regulatory principles aiming at modifying the integral natural phenomena, which elements are interdependent and remain in constant interaction. A Man of Altai culture or an Altai Man is the carrier of discourse local idea in Altai world model, who lives in Altai Krai and the Republic of Altai and creates so-called "we-relations" or "co-relations" based on implying the criterion of probabilistic determination when establishing casual relations in the system of "Man – Space – Time". The principles of harmonizing the patterns of life and thought with the spiritual semantics (spiritual perception of the world, which is the result of artistic designing in the language of everyday reality theory) are developed in the language of Altai Man.

The construction and interpretation of Altai text ontologies make it possible to describe three levels of Altai cognitive schema. The transition from one level of the schema to another corresponds to the system transition from one stable state to any another. The system self-identity is ensured by connecting units (connectors) marking the bifurcation transition. Changing the character of processes in the system features, firstly, changing the idea of the time and space (from the idea of locality in time and space (historical novel) to infinity (theosophical treatise), and, secondly, changing the idea of major creative power (from a man to the spirit (energy). The presence of several stable states of Altai cognitive system, and the complication of its structure, allows the description of this system in terms of self-organization.

The results of this study can be used in different areas of scientific research, such as linguistics, cultural studies, sociology, history, and etc., and might become of particular interest to researchers from the abovementioned areas in their further studies of cognitive environment according to study objectives. Describing the schema of social relations functioning in a community gives a way for further advanced studies of natural laws and their interaction with the human cognitive ability.

The description method and principles of ontological design suggested in this study are universal and can be used for analyzing texts of any culture and territory in order to see their place and role in local and even global cognitive environment.

Disclosure statement

No potential conflict of interest was reported by the authors.

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