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MENTALITY ISSUES IN THE TRANSFORMATION PROCESSES OF THE POSTMODERNITY SOCIETY

Abstract. A new class of models with associative memory is proposed to study they phenomena in large social systems. The models have a structure similar to the structure of Hopfield neural network models. Considering the intellectual properties inherent in the subjects of social processes in the proposed conception has recently significantly expanded the range of phenomena the modeling of which becomes possible.

The previously proposed methods and models that can be applied to problems of archetypes, sustainable development, transformation and other similar problems are summarized. The internal variables of description of individuals are divided into two classes. The first class includes variables that change relatively

quickly in dynamics. The second class includes relatively stable variables, which include perception, archetypes, development patterns, etc.

The proposed methodology is also suitable for consideration of global problem of sustainable development. The idea of “economic” and “environmental” way of society evolution can in fact also be represented as constructs in terms of variables of the second class, that is, as quasi-stable constructs. The transition from “economic” to “environmental” way is carried out through education, media influence and other. In the future, the proposed conception will also be useful for practical tasks of public administration.

In particular, considering the ability of subjects to predict situations and make decisions based on these predictions leads to completely new decision properties, the main of which is the possibility of making multiple decisions. At the level of large social system, this leads to emergence of a large number of behaviors of such a system, that is, scenarios. The consequences of such behavior for modeling the decision-making are discussed.

Keywords: associative memory, social models, scenarios, mentality, archetypes, multiplicity.

ПИТАННЯ МЕНТАЛІТЕТУ У ТРАНСФОРМАЦІЙНИХ ПРОЦЕСАХ ПОСТМОДЕРНІСТСЬКОГО СУСПІЛЬСТВА

Анотація. Запропоновано новий клас моделей з властивістю асоціативної пам'яті для вивчення явищ у великих соціальних системах. Моделі мають структуру, подібну до структури нейромережових моделей Хопфілдовського класу. Врахування у запропонованій концепції інтелектуальних властивостей, суб'єктів суспільних процесів, дало змогу останнім часом значно розширити коло явищ, моделювання яких стає можливим.

Наведено узагальнення запропонованих методик і моделей, які можуть бути застосовані до проблем архітектури, сталого розвитку, трансформації й інших схожих проблем. Внутрішні змінні опису індивідів розбиваються на два класи. До першого класу належать змінні, що відносно швидко змінюються в динаміці. Другий клас включає відносно стабільні змінні, до яких належать уявлення, архетипи, шаблони розвитку і т. п.

Запропонована методика також підходить до розгляду глобальної проблеми сталого розвитку. Ідея “економічного” та “екологічного” шляху еволюції суспільства насправді також може бути представлена як конструкти в термінах змінних другого класу, тобто як квазістабільні конструкти. Перехід від “економічного” до “екологічного” шляху відбувається через освіту, вплив мас-медіа та ін. У майбутньому запропонована концепція буде також корисна і для практичних завдань державного управління.

Зокрема, врахування можливості суб'єктів будувати прогнози ситуацій та приймати рішення, засновані на цих прогнозах, призводять до абсолютно нових властивостей рішень, основними з яких є можливість появи багатозначних рішень. На рівні великої суспільної системи це призводить до появи чималої кількості способів поведінки такої системи, тобто сценаріїв

розвитку подій. Обговорюються сліdstва такої поведінки для моделювання процесу прийняття рішень.

Ключові слова: асоціативна пам'ять, моделі суспільства, сценарій, ментальність, архітептика, багатозначність.

ВОПРОСЫ МЕНТАЛИТЕТА В ТРАНСФОРМАЦИОННЫХ ПРОЦЕССАХ ПОСТМОДЕРНИСТСКОГО ОБЩЕСТВА

Анотация. Предложен новый класс моделей со свойством ассоциативной памяти для изучения явлений в больших социальных системах. Модели имеют структуру, сходную со структурой нейросетевых моделей Хопфилдовского класса. Учет в предложенной концепции интеллектуальных свойств субъектов общественных процессов позволил значительно расширить круг явлений, моделирование которых становится возможным.

Приведены обобщения раньше предложенных методик и моделей, которые могут быть применены к проблемам архитипики, устойчивого развития, трансформации и другим похожим проблемам. Внутренние переменные описания индивидов разбиваются на два класса. К первому классу относятся переменные, относительно быстро меняются в динамике. Второй класс включает относительно стабильные переменные, к которым относятся представления, архетипы, шаблоны развития и т. п.

Предложенная методика также подходит к рассмотрению глобальной проблемы устойчивого развития. Идея “экономического” и “экологического” пути эволюции общества на самом деле также может быть представлена как конструкты в терминах переменных второго класса, то есть как квазистабильные конструкты. Переход от “экономического” до “экологического” пути происходит через образование, влияние СМИ и прочее. В будущем предложенная концепция будет также полезна и для практических задач государственного управления.

В частности, учет возможности субъектов строить прогнозы ситуаций и принимать решения, основанные на этих прогнозах, приводят к совершенно новым свойствам решений, основным из которых является возможность появления многозначных решений. На уровне большой общественной системы это приводит к появлению целого множества способов поведения такой системы, т. е. сценариев развития событий. Обсуждаются следствия такого поведения для процессов принятия решений.

Ключевые слова: ассоциативная память, модели общества, сценарии, ментальность, архитипика, многозначность.

Problem statement. The issues of conscious transformation of large socio-economic-political systems are becoming increasingly important in modern conditions, both in theoretical and practical terms. It should be noted that in the Ukrainian context they are particularly significant in terms of

governing the country in conditions of great challenges, as well as internal and external uncertainty. When considering these issues there is a need for adequate understanding and consideration of modern stage of society evolution, namely the postmodern state [1, 2]. Put simply, this state is characterized by coexistence of different types of society subsystems, pluralism of thoughts, rules, morals, stages of development, etc.

Different concepts, approaches, definitions and methodologies to the problem of sustainable development, especially in the global aspect, can be considered as one of the examples [3, 4]. Of course, material factors play crucial role in consideration of social systems: resources, effect of environment, technological wave, infrastructure and many others.

It is obvious that human properties as a thinking being are very important (and perhaps even outstanding). Figuratively speaking it can be called the human mentality. In terms of an individual, these issues are considered by psychology, neurophysiology, computational neuroscience and philosophy. The next very important step is to understand the social systems as groups of interacting entities. In this case, it is possible to talk about systems of a large number of thinking agents with different mental properties. Many issues have already been considered by various disciplines related to society: social science, political science, economics, theory of public administration, social psychology, cultural studies, theory of management and many others. However, it is now becoming increasingly clear that quantity, quality and depth

of problems associated with understanding the mentality of properties is becoming increasingly necessary, even in solving the current management problems for post-industrial society in postmodernism.

Considering the existence of society archetypes is one of the examples of such a problem. As it is known, the history of those concepts begins with already classical works of C. Jung [5, 6], it has gone a long way of development (e.g., S. Grof [7]) and continues now [8]. In particular, the Ukrainian School of Archetypes, founded by E. Afonin [9, 10], should be noted. Very figuratively, according to these sources, the archetypes include deep constructions in the subconscious (which are often not understood by individuals) that are inherent in social communities, very stable and are transmitted from generation to generation. For example, behavioral stereotypes are often such constructs. It is intuitively clear what such constructs are. But it is still very difficult to formalize, measure, or apply them in real-world management. It should be noted that approach of psychological tests, including color, developed by E. Afonin and his colleagues [11], is one of the interesting approaches to the study of these concepts (let's say to the measurement). The problems of global sustainable development are another example of problems where mentalities are important [3, 4].

Despite the great attention to sustainable development at all levels — from the world leaders to the population of different countries — it is recognized that significant changes from economic to environmental way are still ahead. We can assume that the

main thing in such changes and transformational processes will be carried out in the future. The change in rules, preferences and attitudes of society is the main obstacle to sustainable development. These very concepts are related to and based on understanding of mental properties of the person. Therefore, the problem of sustainable development requires an adequate understanding of influence of properties of mentality, including archetypes.

Purpose of the article. So far, the influence of mentality of individuals on processes in society has been largely studied using the methods of the humanities, that is, intuitively and qualitatively. At the same time, it is well known that increasing use of methods of the exact sciences, especially mathematics and physics, is the mainstream of development of various sciences. It should be noted that the author proposed the aspects of mathematical modeling of society, which allow us to formalize and include the issues of mentality and to carry out the modeling, including formulation of real management plans.

That is the subject of the proposed article.

Analysis of recent research and publications. Consideration of mental properties of subjects of large social systems.

Some problems and properties of society.

First of all, we will very briefly recall some key properties of society that should be presented in the proposed conception and models (a large number of details and motivations are given in the author's works [12, 13]).

Doctrine of unity of life and abiotic environments. So far, various scientific

disciplines have considered different society subsystems. The multiple connections between countries cause the emergence of a new object – the whole World as a unique global system. There is a long history of development of this conception in the economy – World – system analysis (I. Wallerstein), in cultural studies – global culture (R. Robertson), in ecology D. McNair, L. Brown, D. Odum, as well as conception of sustainable development.

Civilization in social history. There is currently no formal description of civilization in the content of M. Weber, A. Toynbee, S. Huntington and many others. However, the concept of civilization, or economic formation, or regimes, is implicit in all of the above conceptions. There are some models for the World in system dynamics (J. Forrester, D. Meadows and their followers), F. Marchetti, some models of expert type and a few other more local models for local problems (L. Richardson, V. Weidlich, many models of macroeconomics, etc.). However, these models cannot answer all the questions.

Dynamic essence of society. There is another basic feature of the state of modern World: its evolutionary nature. In the current context, this causes an obvious acceleration of changes, so that now the problems of studying the essence of global systems have become more complex. The acceptability of existing theories and models of society is therefore in question. For example, there are many economic theories based on equilibrium or quasi-equilibrium conceptions (V. Pareto, D. Gayle, J. Keynes, P. Samuelson, L. Walras, J. Nash, and others). These theories have had many brilliant achievements,

but now when there are too many changes in the world, they are also in question. The economy now also recognizes the need to consider global changes and ongoing changes in the economic structures (e.g., J. Foster, *Evolutionary Economics*, 1987; many articles in such journals as *Methoduth*, *Economical Journal* and others). The approach of physical theories that comes from the synergetic theory of self-organization is one of the main tools to study the system properties (I. Prigozhin, H. Haken, G. Nicolis and many others). We have many achievements in applying such conceptions in the humanities (e.g. see the description of the role of nonlinear and chaotic dynamics in the economy: K. Lorenz, J. Schenkman, G. Mosekilde). However, the difficulties in creating a theory of this type are still considerable.

Relationships and property of holographicity. There are some basic elements in the developed society. Namely, there are many relationships between elements of social systems (not only in social but also in natural systems). Philosophy and theology always have an idea of interconnecting all things in the World (without specifying such influences). However, in global science there are usually more developed conceptions to describe the relationships, sometimes even quantitative ones. One source of the idea of relationships is the sciences of humankind (humanities): social science, psychology, political science, etc. Almost all well-known modern sociological theories have as their main idea of different types: social interactions: T. Parsons, D. Easton, E. Durkheim, social fields — K. Levin. The environmental influence on the

individual is represented in the psychology of small groups (with some weights to measure the mutual influence between individuals), implicitly in social psychology — G. Le Bon, C. Jung, G. Tarde, S. Moscovici, in the theory of social compliance of Durkheim and many others. The recognition of influence of the media is a common phenomenon now. It is to be noted that theory of social influence of J. Habermas and theory of social exchange of G. Homans are one of the main theories.

The whole/subsystem ratio is also important property of society. Many society subsystems inherit the common properties of society. For example, a small village has many common properties as to the country as a whole. The examples are faith, tradition, technological wave, creation and many other things.

Spatial and time scales and hierarchical structure of society. As the author suggests, the problems in the heading of this section can also be considered using the methodology proposed below. The common place now is that there are many periodic phenomena in history. There are many periods in the economy: Kondratiev waves (about 50 years), Kuznets cycles (15–20 years) in construction, Cameron cycles (150–300) (see works of Glazyev, Firsov, Marchetta, Schumpeter). The periodic processes coexist in parallel in social and political life. The most recognized is clothing trends. The following example is electoral processes in sustainable societies (such as in the USA). It is well known that there is a 16-year cycle in the United States in the public interest in scientific and abstract knowledge, or vice versa, in

the interest in business and personal success (see, for example, works of A. Schlesinger). The next period in history is a period of global change in world history. It is recognized that the leading countries in history were consistently Spain — England — Germany — USA with a period of change of 150-300 years. According to L. Gumilyov, the typical lifetime of nations is approximately 800 years. Much larger historical scales — scales of development of world religions — are the axis of history (with periods of about 2000 years, according to Jaspers). In addition to periodic processes, many aperiodic (and stochastic) processes have now been recognized. Such processes are called chaos and they exist in many areas — financial, economic, weather forecasts.

Another important aspect is the essentially hierarchical nature of society. The society has (very schematically) elements and relations between them. There are many options to connect elements into blocks and levels and consider the hierarchy of levels and elements as integrated object.

Internal image of the world and mentality of the individual. There are also many concepts and problems that were considered in philosophy, political science and social science, and which do not have adequate analogues in the system theory. The examples are reflexivity of society (self-referential systems, N. Luhmann), theory of social exchange of G. Homans, individual model of the World of J. Habermas or P. Chickeland (see concept of “Weltanschauung”), individual constructs of J. Kelly that predict the properties of society and many others.

It is desirable to be able to describe the concepts such as mentality, faith, emotion, advantage, etc. The different scientific disciplines mentioned in the previous section have different approaches to such problems. But so far, this description has only been applied to small groups of people, and mainly in verbal or qualitative content due to the lack of operational methodology for quantitative considerations.

First of all, we should mention the well-known concepts in psychology — personal constructs of J. Kelly and repertory grids of Fransella and Bannister. Such approaches described people on some (perhaps binary) scales of advantage: individualism — collectivism, reforms — conservation, etc. The second approach is the so-called cognitive maps with description of a person using the direct graph with key concepts of the type of vertices and relations as chart elements. Such a description of the leaders can be found in the works of Olker, Stilos and Grompos and others. A new concept of artificial society of artificial agents has recently been introduced. There is also some oral description of the external world in the humanities. We have to mention the concept of “Weltanschauung” in works of Habermas, the world in works of Chickeland. Among others we can mention the “mental space” for describing the mentality of people in the works of Fauconnier, and description of cognition using some language in the works of Dijk, social space of Bourdieu, as well as the concept of three worlds — physical, human and ideas in the works of K. Popper. The separate integrated models for the dynamics of mental parameters can also be applied:

neural networks, fuzzy cognitive maps or expert systems.

Scenarios for the future, bifurcation and decision-making. Such concepts can help to discuss the predictability of historical processes. There are many concepts of Philosophy of History. The examples are 1) tendency of deterioration from the “golden age” to the present state (Plato, Popper), 2) tendency of evolution from the poor to the better state (Fukuyama), 3) predictability of history and “social design” (Marxism, B. Banati), 4) unhistoricalness and ubiquitous unpredictability of history (K. Popper); 5) theological approach (T. Chardin). It should be noted that progress is not an absolute conception and depends on the point of view. The examples are Belarus, life of northern tribes and aborigines.

The problems of chance in history, role of personality in history, possible and impossible ways of historical process, virtual history and possible scenarios of history are the related problems.

Statement of basic materials. Thus, in the previous sections, the author outlined some concepts related to modern society. The analysis of the problems above and many others led the author to a new class of models. These models resemble models with associative memory in artificial neural networks. The details of models and motivations for their introduction are given in other works [12, 13]. Therefore, here we will describe only main features of simple models and emphasize some points related to the properties of predicting, multiplicity and some quantum and mechanical concepts.

Models. Let’s imagine a society consisting of a large number of individuals and let each individual be characterized by a state vector with a set of possible values. There are many possibilities to connect the elements into blocks and levels in such models. In a highly developed society, the individuals have many complex relations. Let’s formalize this. We assume that there are relations between the individuals. In this way, the set of elements and relations characterizes the state of society. The analysis of recent models for environments from the sets of elements and relationships shows the similarity of such models of society with neural network models.

The hierarchical systems can be described in the same way. We can assume first that there are M hierarchical levels in the social and economic system with elements at j -th level. Each i -th element at j -th level has a description with a parameter vector. Some elements at the selected levels may be in dependencies marked by a set of possible indexes in the dependencies. Many elements in a developed society have a large number of connections at upper and lower levels. The other processes of interest (political, social, educational, etc.) have a similar network presentation and society is a combination of such networks.

The relations can be very different in nature. The meaning of relations can represent the normalization of economic, informational, management channels, national, family, professional interactions and others. The society is an evolutionary system with dynamic changes over time. Further, for simplicity, we consider only discrete models

with moments of time: 0,1,2,, n, ...
... Following the evolutionary nature of systems, we believe that it is naturally to consider the values of parameters at this point in time as a system input at time n and the value at the next $(n + 1)$ moment (for $n = 0, 1, 2, \dots$) as an output. It should be noted that the set of elements can change in a developing society. For example, in the economy, the list of companies and corporations is constantly changing due to bankruptcies and coalitions. The social, political and government networks are also often transformed. This generally leads to changes in the number of elements $N(n)$ and number of hierarchical levels $M(n)$ at different points in time.

The author's models consider society as a large complex object created from many elements with connections. Considering the properties of society allows us to select some interesting properties and then propose models that can mimic the regimes of society. In a strange way, the models resemble the models of brain activity — neural network. The author has been studying such models since 1992 and has already had some interesting applications.

We now briefly describe the models. The first step of model development is to select the model elements and describe them. As the mentality of the population should be taken into account, the individuals with description of their qualities (mental and other: economic, demographic and other parameters) were taken as elements. These parameters can be evaluated in some psychological scales, in social science and other humanities (see, for example, the mental spaces of Fauconnier, set grids of Kelly, etc.).

A critical step in creation of new models is to take into account the concept of global culture of society as collection of all material achievements plus spiritual, such as morality, ethics, religion, justice and creation. The global culture is also sometimes called the collective memory of society. The global culture is a very stable structure and is the basis of civilization (A. Toynbee, I. Wallerstein). The proposed models have the dynamic principles that allow us to model the behavior of global culture over time. This is due to the fact that models have the property of associative memory. The behavior of historical processes resembles the desire for very stable structures, the so-called points of attraction in the image recognition in computer science and neuroscience. It is important that many social subsystems in society also have similar properties, and this allows us to consider the selected submodels.

In earlier works, the author considered a new class of social models as a modification of Hopfield neural network models or spin glasses. It is known that the dynamics of Hopfield model is derived from consideration of the functional that is called "energy". In Hopfield models, the system tends to one of some stable states with a minimum of energy functional. Many of possible initial conditions result in a small number of such minimum "energy" states that are called points of attraction. It should be reminded that such a law is valid only in case of symmetric connections.

In the simplest case, the model takes the form of famous Hopfield model presented in many publica-

tions. In case of hierarchical systems and symmetric connections, there is also a functional — analog of “energy” between different elements and different levels.

Models with internal structure and mentality. *Internal representation of the external world.* Considering the mentality requires consideration of internal structures and their inclusion in the global hierarchical models. There are many approaches to considering the mentality. The most natural way is to consider the model for the internal structure also in the class of neural networks. The easiest way is to represent the image of the World in the brain or the individual in the model as a collection of elements and connections between elements. In this image of the world, there is a place to represent the individual directly with personal faith, skills, knowledge and advantages. We imagined some individual with some perception of structure of the World. This perception is similar to the “pattern” above. The substantially new effect is that the individual can present himself as one of the elements of the “pattern”. The mental structures of other personalities are also represented in the same way. Thus, society as a complex system has its own new representation. At the first level of description, we have collection of elements connected by links. At the second level of description, the structure (some image of the world) is added to all elements.

One possible way to consider the mentality. The laws for elemental dynamics should depend on such a representation. To represent the image of the external World in the individual brain: it is very important that each

individual has his or her own personal image of the World. Some of the simplest options will be presented in the next section, in parallel with description of the property of predicting. Of course, there can also be the recursion with many levels of recursion, as in the theory of reflexive systems of N. Luhmann, G. Soros, S. Lefebvre and others. In our scheme, this can be represented as a mutual representation of all personalities in the internal representation of the individual.

Internal representation of the external world. Considering the mentality requires consideration of internal structures and their inclusion in the global hierarchical models. There are many approaches to considering the mentality. The most natural way is to consider the model for the internal structure also in the class of neural networks. The neural network models were initially introduced when studying the brain. First, we can change the basic laws. At the phenomenological level, this can be implemented by introducing the subdivision of element parameters into external and internal variables and setting separate laws for two parameter blocks — external and internal output and input parameters. The functions can be of completely different forms. For example, the equations for external variables can be in the form of neural networks combined with differential equations for internal variables. Let’s make a very important remark that allows, in principle, a significant summary of the proposed methodology and models, including the problems of archetypes, sustainable development, transformation and other similar problems. The internal variables should be

divided into two classes. The first class includes variables that change relatively quickly in dynamics under the influence of environment and internal state of the individual. In fact, most of the current economic tasks deal with such variables (and external factors). The second class includes relatively stable variables, which include perception, archetypes, development patterns, etc. These constructs can also change but much slower (for example, at change of several generations).

The parameters of the first and second classes are just what should be considered as components of the mentality. One of the most promising ways to consider the mentality is to find the equation in the neural network class. The easiest way is to represent the image of the World in the brain of the individual or in the model as a collection of elements and connections between elements. In this image of the world, there is a place to represent the individual directly with personal faith, skills, knowledge and advantages. It is interesting that the importance of “pictures“, “patterns” and others is widely introduced in the works of G. Durand [14]. The schematic perception of the image of the world of the individual can be presented in the proposed scheme.

The representation of an individual is important. He has a certain perception of structure of the World. This perception is similar to the “pattern” and is represented as networks. The substantially new effect is that the individual can present himself as one of the elements of the “pattern”. The mental structures of other personalities are also represented in the same way. Thus, society as a complex system has

new representation. At the first level of description, we have collection of elements connected by links. At the second level of description, the structure (some image of the world) is added to all elements.

The laws for elemental behavior should depend on such a perception. Formally, we can introduce the projection operators P to represent the image of the external world in the individual brain: it is very important that each individual has his or her own personal image of the World. It should be noted that the influence of the operator P can be divided into many local projection operators. The equation can then be replaced with a more complex one by substituting the self-representation of the individual in the right part of the dynamic law for elemental dynamic change in parameters. Some of the simplest options will be presented below, in parallel with description of the property of predicting.

Some qualitative consequences of applying the proposed methodology for modeling large social systems. Let's make a very important remark that allows, in principle, a significant summary of the proposed methodology and models, including the problems of archetypes, sustainable development, transformation and other similar problems. The internal variables should be divided into two classes. The first class includes variables that change relatively quickly in dynamics under the influence of environment and internal state of the individual. In fact, most of the current economic tasks deal with such variables (and external factors). The second class includes relatively stable variables, which include perception,

archetypes, development patterns, etc. These constructs can also change but much slower (for example, at change of several generations). The parameters of the first and second classes are just what should be considered as components of the mentality.

As has already been emphasized, the second class of variables allows considering the aspects of archetypes. In particular, in the simplest case, they can be represented through use of color psychological tests in the proposed models [11] and through introduction of special parameters (or even one summarized parameter).

The proposed methodology is also suitable for consideration of global problem of sustainable development. The idea of “economic” and “environmental” way of society evolution can in fact also be represented as constructs in terms of variables of the second class, that is, as quasi-stable constructs. Therefore, the transition from “economic” to “environmental” way depends on changing the leading constructs of individuals. This will sooner or later happen through education, media influence and other.

It can also be assumed that in the future the proposed conception will also be useful for practical tasks of public administration. First, the conception can give a qualitative understanding of influence of various factors (including archetypical) on processes in society. Also, with further development and working out in detail the proposed models, they can become part of state decision-making systems.

It is obvious that in decision-making the individuals have predictions for the future. In this case, the states of

elements in the model should depend on the images of the future described in the internal view. According to [15], we call this case hyperincursion. The selection procedure is another important part of forestalling.

It should be noted that the proposed conceptions allow us to move towards an adequate reflection of modern conceptions of postmodern society, for example, the phenomenon of emergence of simplified crowds of society studied by M. Mafussali [16].

The system of equations and its modifications can be the basis for study of many problems with internal and external images of the world. We should emphasize that the right part of the equation depends on the future values of the state of the element. This form is opposite to the form of delayed equations. It is very promising that the structure of such a system coincides in structure with caution systems studied by D. DuBois [15]. This entails possible similarity in properties.

Conclusions. In the proposed article we outlined the part of the approach to process modeling in large social systems. It was suggested to include the properties of mentality of individuals in society, as well as the individuals’ property of predicting in a rigorous approach. As a result, we obtained some new models considering the properties of mentality of individual. The possibility of including the archetypical problems in the mathematical models is also described. The possibilities of applying the conceptions to problems of society management are also proposed. The approach useful for application in the economic models are proposed.

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