

Intersubjective Management Theory: Conceptualization of the Subject Area

Tatiana Moiseeva*
ICCS RAS
Samara, Russia
mtv-2002@yandex.ru

Natalya Polyayeva
PSUTI, ICCS RAS
Samara, Russia
nat.polyayeva@yandex.ru

Abstract—A lot of problem situations arise in our everyday life, that worsen quality of life, and modern science has no technologies of decision-making in such situations, when a man sees no way out. The only theory that proposes actors a new approach to managing the problem situations solving is the theory of intersubjective management, proposed at the beginning of the XXI century. The fundamental difference between intersubjective management and classical one is that management functions are assigned to the people themselves, immersed in a problem situation and actively acting (actors). Actors are aware of the situation from the inside of it and are internally motivated to resolve it. To facilitate the study, perception and application of the theory, it is proposed to systematize information from various sources, to form a conceptual apparatus and to build a conceptual scheme of the theory.

Keywords—intersubjective management, actor, problem situation, conceptualization, intelligence map, conceptual map

I. INTRODUCTION

The theory of intersubjective management was proposed by Samara scientist V.A. Vittikh at the beginning of the twenty first century. Key points of new theory were presented in [1-5] and supplemented in [6-10]. The theory of intersubjective management was accepted by the part of the scientific community and supported by a number of scientists in their speeches at conferences and published articles [11-14], but as it usually happens with new trends, concepts, paradigms and theories it also met misunderstanding and generated a scientific discussion.

To facilitate the process of perception of the theory by the followers, opponents, and the actors themselves (its main characters), as well as to help in supporting the processes of joint problem solving, it is necessary to form the conceptual apparatus of the developing branch of science and to systematize all materials presented in various publications, since the most important element of understanding the essence of the theory is its content. We intend, that proposed in this paper approach will give the followers some adaptive guidance easy to use.

Sharing and understanding by all users should be supported by common terminology of subject area. Coming across fragmented and patchwork papers, often resulting in frustration and impossibility to have complete knowledge in the field, people can lose interest to the subject. A holistic view of the theory of intersubjective management can be given by its conceptual model, as it is a set of theoretical knowledge

built on the basis of main concepts of theory and logical connections between them.

The possibility of graphically presentation of conceptual model would facilitate visualization and perception of new scientific field, as well as allow it to be supplemented, deepened and expanded as new knowledge appears and becomes available.

Taking into account that the paradigm of mathematization and structuring of various fields of scientific knowledge dominates today, we believe that the conceptual modeling of the theory of intersubjective management will help to promote and make more understandable this new approach to management.

II. KEY POINTS OF THE THEORY OF INTERSUBJECTIVE MANAGEMENT

Intersubjective management is focused on problem situations solving, that occur in people's everyday life. It uses the knowledge and experience of actors who have a subjective view of the processes that happen on an everyday basis and are motivated to solve problem situations together with other people. The main difference between intersubjective management and classical management is that controlling functions are delegated to people, who find themselves in problem situations and are following them from within, but not outside.

Heterogeneous actors, performing cognitive and creative functions in society, are the key subjects of the theory of intersubjective management. They have unique value settings, under which they build personal ontologies of the problem situation they are looking for a way out. Actors $A_1 \dots A_n$, $n = \{1, \dots, N\}$ can find themselves in different problem situations PS_j , where $j = \{0, \dots, J\}$, caused them a great deal of trouble.

Searching for the way out in the process of solving the current situation actors are forced to self-organize into communities $G_i = \{A_1, \dots, A_n\}$, where $i = \{1, \dots, I\}$ in order to find a solution. They could not work out appropriate decision on their own due to lack of information, knowledge, experience, or a one way of looking at the problem. Actors' resources R_i , $l = \{1, \dots, N\}$ are limited and consist of resources of different types (from intellectual to material) r_{lk} , which each of them plans to invest in solving this problem:

$$R_l = \sum_k r_{lk}. \quad (1)$$

In the vast majority of cases each actor sees his own meaning in a particular problem, and it is usually

impoverished by the absence of other views. Actor A_1 can offer a solution d_1 , actor A_2 -a solution d_2, \dots , actor A_n - a solution d_n .

The intersubjective self-organized community built by actors makes its contribution in the formation of the situational joint semantic space. A special role in the process of creating a joint semantic space is given to the common knowledge and skills of actors, since it is very important for the participants of the intersubjective community to be able to negotiate with each other. At the initial moment, the actor A_k , where $k=\{1, \dots, K\}$, supports some set of solutions $D_k = \{d_1, \dots, d_i\}$, and $D_1 \cap D_2 \cap \dots \cap D_k = \emptyset$. In the course of iterative discussion, a general solution $d_{joint} = D_1 \cap D_2 \cap \dots \cap D_k$ is born, which can be a way out of the problem situation only if all the members of this intersubjective community are not against it. Therefore, the process of discussion has explicit tendency to convergence of different opinions and resolving the situation. The only acceptable method here is consensus but not voting, dismissing the dissatisfied minority [10].

It should be noted that in the process of negotiating and discussing different points of view, actors, being "social theorists" (according to A. Giddens [15]), develop new synthetic knowledge themselves. These knowledge can be named as the theory of intersubjective management of this problem situation. This theory describes and explains a certain set of phenomena and natural connections between them.

III. CONCEPTUAL ANALYSIS OF THE SUBJECT AREA

The terminology of the new theory has not yet been fully formed, and the used concepts don't have an unambiguous interpretation. That is why it can be difficult to understand the basics of intersubjective management. The global image of the complicated theory of intersubjective management formed in the minds of its developers can be reflected in such subject area model (where subject area is the theory of intersubjective management), which includes the list of the main concepts used in the theory, their properties, characteristics, and relationships. The mathematical or quantitative apparatus, which is used mainly in natural sciences, is not always suitable for such disciplines as sociology, psychology, management, or economics, at which confluence the theory of intersubjective management was formed. The description of the intersubjective approach refers to soft, or slightly structured, subject areas where definitions are blurred, terminology may have some differences being applied in other areas of knowledge, and qualitative characteristics dominate over quantitative ones.

The desire to facilitate perception and present a new approach more vividly led to the idea of conceptualizing the subject area of intersubjective management and designing its ontology in the future.

Let's consider conceptualization as a process of transition from the representation of a subject area in a natural language to the specification of this description using formalization tools. The formalized model will include definitions of only qualitative aspects of the subject area, the combination of which will make it easier to understand the laws that are essential for interpreting the theory of intersubjective management.

The new theory of intersubjective management can be attributed to the category of "conceptually unrefined" subject areas where "the meanings of terms are not clearly fixed, the

scope and content of concepts are not defined, and the relationship between concepts is not established" [16]. Although it is impossible to achieve a completely unified understanding due to people's individual, social, and cultural differences, conceptualization will help to clarify the meaning of different terms. Thus, an attempt to prevent their ambiguous interpretation, which is important for a homogeneous understanding of the new concept in the field of management, reducing disorientation and facilitating its perception by newcomers, will be made. Conceptualization allows us to give a holistic view of the theory, defining the structure of this knowledge area by specifying the relationships between its elements. It will assist learners in understanding the intersubjective management domain and in the concept of cross-linking.

Such visualization tools as building mind maps of conceptual structure of intersubjective management, and concept maps with more detailed description of the concepts with the relations between them were used in the first stage of conceptualization of the subject area (i.e. intersubjective management domain). It was targeted on improving the efficiency of analysis, presentation, perception, and understanding of information.

A. Conceptual structure of intersubjective management

The idea of intelligence maps building, proposed by T. Buzen, is regarded by him as the development of a tool for thinking in scientific work and innovative areas [17]. As Dominic O'Brien noted in the Preface to this book, "intelligence maps can be an effective tool for concentrating and processing information, formulating an action plan, and taking the first step in new projects." Therefore, we propose to benefit from visual tools that use vocabulary and graphics and are powerful means that facilitate the structuring and understanding of the subject area, because they represent the main conceptual structures in such a new project as intersubjective management.

An effective descriptive model in the form of thesaurus has been developed by the authors of this paper as the first step of conceptualization. The main notions or concepts of the theory of intersubjective management are shown in Fig. 1. They are drawn in the form of a linked node structure (graph) (which is called as "an intelligence map") with the help of FreeMind software tool. A linear topology with no loops and minimal concepts linking was proposed. The fundamental concepts are concentrated around the central image - "the basic concepts of intersubjective management theory". These include "heterogeneous actor," "problem situation," "phenomenology," "consensus," etc. Some of these concepts require further specification, so the intelligence map has a tree structure in which branches from the basic concepts diverge to the secondary ones, etc.

Most of the concepts have only one part, i.e. they consist of a single word. In some cases, there are terms that are a combined from two or three words. They reflect the meaning of concepts such as "heterogeneous actor," "problem situation," "self-organized community," "semantic space," and so on. Such terms contains the definition of the symptom, quality or property of the described object. These definitions indicate that if objects do not have these characteristics, it isn't typical for the core of the intersubjective management theory.

For example, the object of consideration in the theory of intersubjective management is actor whose main feature is his

heterogeneity, emphasizing that each actor is unique. Every actor has his own value characteristics, knowledge and experience, so each problem situation participant's contribution to the creating of the common ontological model of the situation is important. Therefore, using the concept of "actor", we always mean "heterogeneous actor".

The term "problem situation" also indicates that people may find themselves in such types of situations as emergent, urgent, complicated situations, etc. But we take into consideration only those ones when the unsatisfactory state of affairs has been already recognized, but it is not yet clear what

needs to be done to change it [18], and only such situations are called problem situations.

The specificity of intersubjective management is that heterogeneous actors act on the basis of self-control, and they develop coordinated solutions to manage the problem situation, taking into account common interests. They do it without waiting for commands from outside and orders from governing bodies. This spontaneous, unplanned occurrence of order from random (chaotic) local interactions without external organizing influences is defined as self-organization [19]. As a result, a group of actors united to resolve a problem situation is nothing more than a "self-organized community".

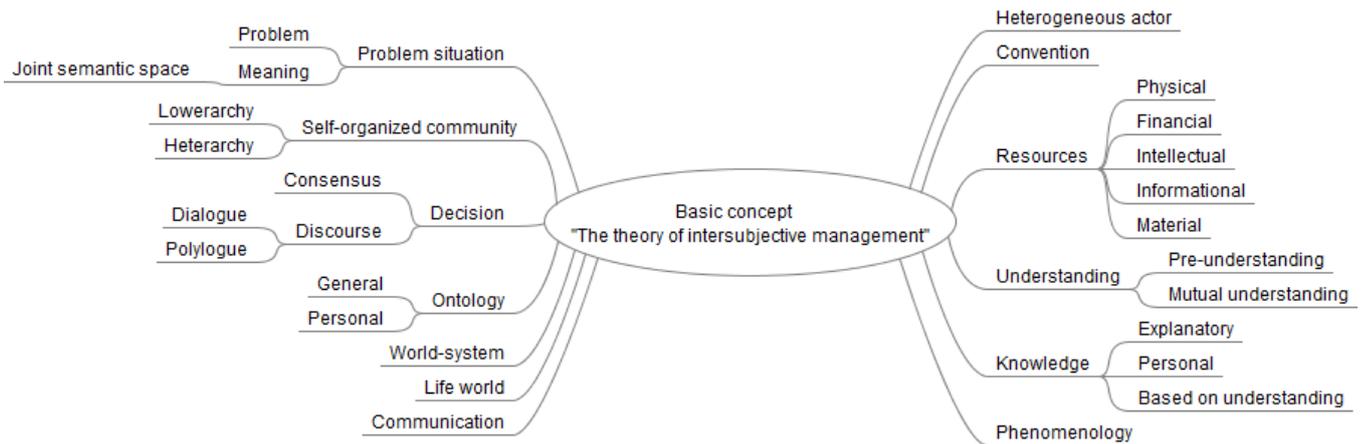


Fig. 1. Intelligence-map of the basic concepts of intersubjective management theory

It is obvious that an intelligence map in the form of a graph, setting the meaning of the subject area generating it, cannot be designed unambiguously. The choice of concepts is always subjective, because it represents the author's individual knowledge and skills. Thus, concepts presented in Fig. 1 were identified at the initial stage of creating the theory of intersubjective management, and in the future the theory can be supplemented with new terms.

B. Conceptual map of intersubjective management

For more detailed representation of the subject area, the theory of intersubjective management intelligence map should be supplemented with an image of the relationships between concepts. These connections must be necessary and sufficient to describe such properties of intersubjective management, which are required to present the basics of the theory and so to achieve the goal. Implementation of this representation is possible by means of graphs of a slightly different type (opposite to intelligence maps), which are called conceptual maps or diagrams. Such schemes can be effective tools for displaying the conceptual system, enhancing and expanding human knowledge.

Conceptual map can be represented in such forms as relational, attributive, axiomatic, structural or set-theoretical. Let's choose an attributive form of representation that contains a list of its constituent concepts, and try to give an exhaustive list of terms, that fully specify the subject area and do not contain unnecessary attributes that are not essential for it.

Conceptual maps, as well as intelligence maps, consist of nodes and links that connect nodes, but these links may have

a direction and can be named. Relations can be of different types, but to represent the meaning of the theory of intersubjective management, we will use verb forms that define the types of interaction of related concepts. Indeed, during the map development the set of concepts and the linking words were selected in order to arrange the basic statements in the subject area.

In the process of building a conceptual diagram (Fig. 2) the following actions were performed in accordance with the program proposed in [20]:

- the context is defined by setting a specific focus question that defines the main theme and boundaries of the conceptual map. Our focus question is "solving of the problem situations from which heterogeneous actors are looking for a way out;"
- basic concepts of the subject area of the theory of intersubjective management (in Fig. 2 they are represented by rectangles) are extracted;
- relationships and interactions of basic concepts are defined, links between concepts are built;
- in the process of creating the graph (Fig. 2), several iterations were performed to put it in order, clarify concepts and attributes, remove unnecessary links and build missing ones, and remove contradictions in general.

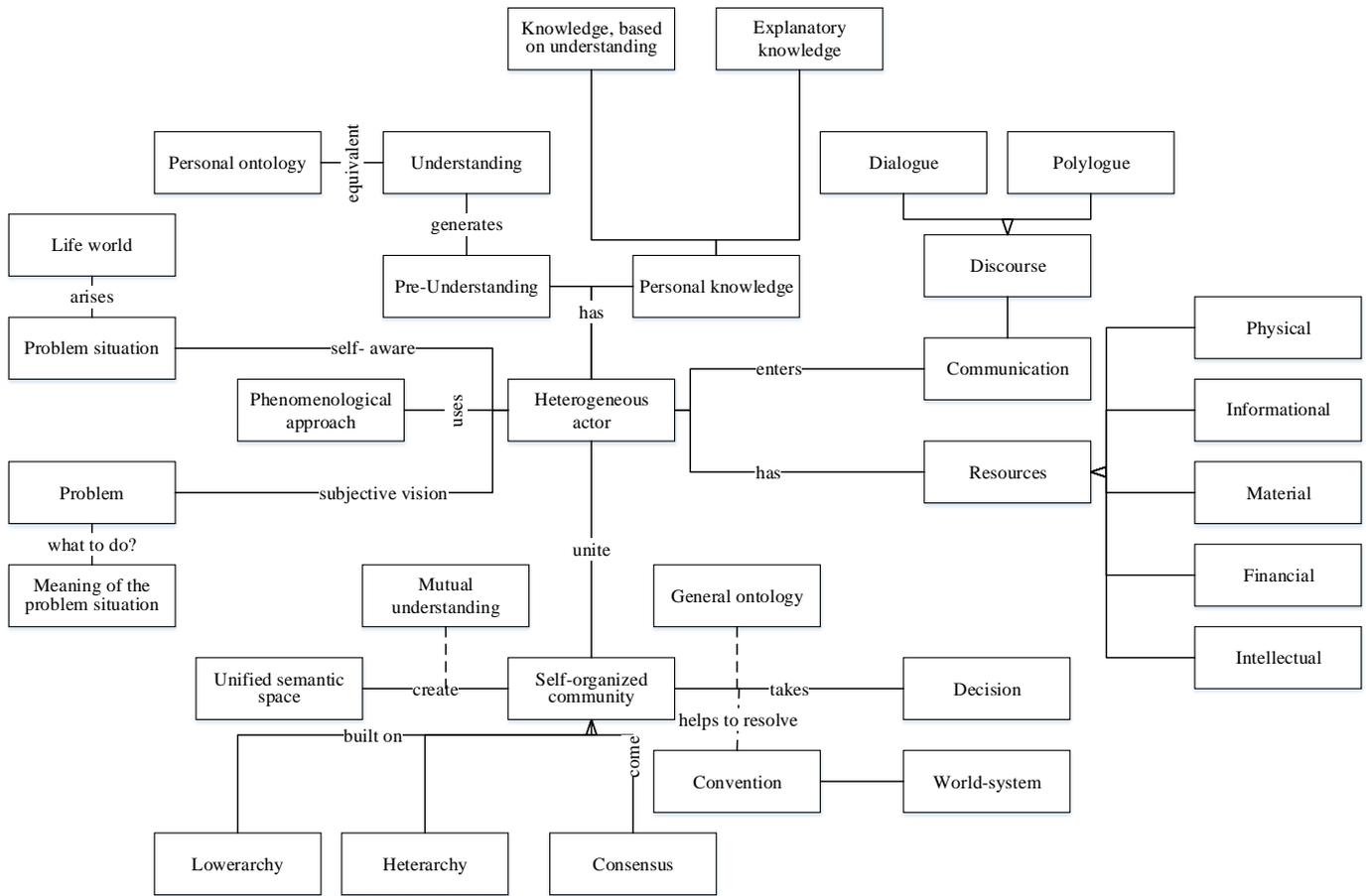


Fig. 2. Conceptual map of the theory of intersubjective management

IV. CONCLUSION

The main goal of this work is to provide access and help to understand the main points of new approach to management (the theory of intersubjective management) to researchers and practitioners who plan to use it for solving problem situations in society. The concept map developed can become a suitable tool supporting the researchers in improving their understanding of new theory.

To achieve this goal, the following tasks were solved, and their results were presented:

- visualization tools are selected to represent the main concepts of the theory and the relationships between them;
- the basic concepts of the theory of intersubjective management are defined;
- an intelligence map of the basic concepts of the intersubjective management theory, corresponding to its text description, is created;
- a conceptual map, that includes a more detailed description of the concepts, taking into account the relationships between them, is developed.

As far as our knowledge and skills are enhanced, researchers will enrich the concept map. Because of the dynamic nature of learning, such work might never be completed [21]. In the future, we plan to expand the model by adding new concepts, establishing their relationships, adding attributes to many concepts, and create ontology of the theory.

The development and use of ontologies is one of the relatively new information technologies, it responds to support the joint problem solving processes, i.e. to give the ability to ensure that all users have the same understanding of the meaning of terms used, their attributes and relations between them.

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