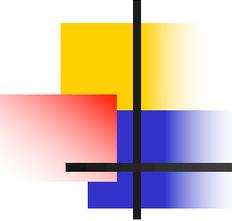


APPLYING A METHOD OF EXTENDED SYSTEM ANALYSIS TO COUNTRY DEVELOPMENT

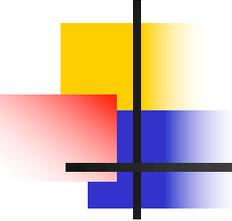
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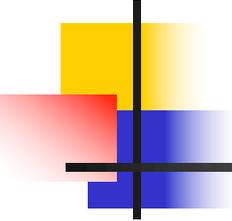
Outline

1. Four methods for describing systems
2. F. Capra's approach to understanding systems
3. 4+4
4. An example to show how this approach can be used to describe change in a complex system
5. Some conclusions



Introduction

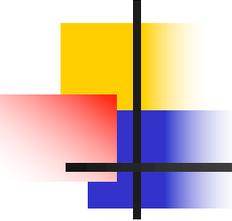
Scientists become aware of the world using scientific methods to guide cognition. The construction and verification of descriptions of reality use certain logical approaches which are part of established intellectual traditions. The apparatus of logical thinking is based on a set of special categories, rules of problem formulation and methods for constructing proofs, which are used in each field of knowledge. Knowing the logical apparatus, it is possible to solve certain problems. But with time new problems appear, which cannot be solved with existing methods and, perhaps, within the old, intellectual framework.



Methods for describing systems

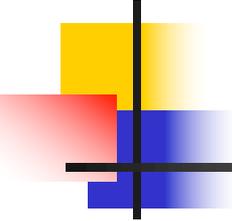
- Some disciplines describe systems as a set of interrelated variables.
- Some disciplines define sequences of events.
- Some disciplines describe systems by the relationships among the groups of people.
- Some disciplines focus on ideas or beliefs or values.

Efforts to understand a system usually require using more than one descriptive method. (Medvedeva and Umpleby, 2004)



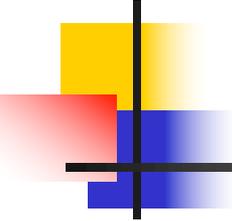
Necessity to make connection among the four methods

Problems of XXI century, such as ecological problems, crisis of financial system etc., have become a challenge to contemporary science. The global nature of the problems confronting humankind requires a global approach for its solution. It is necessary to use all the accumulated knowledge about the contemporary world.



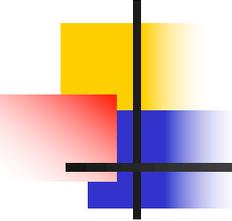
The unified approach to understanding systems

In the book “The Hidden Connections: A Science for Sustainable Living”, 2002 F.Capra describes the unified approach to understanding the biological and social phenomena, which is based on the synthesis of modern theories of living systems, including theory of complexity systems.



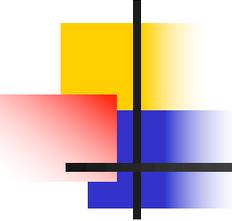
Capra's approach

“The synthesis is based on the distinction between two perspectives on (the nature of living systems, which I have called the “pattern perspective” and the “structure perspective,”) and on their integration by means of a third perspective, the “process perspective.” In more general terminology, the three perspectives on the nature of living systems correspond to the study of form (or pattern of organization), the study of matter (or material structure), and the study of process. (Capra, 2002)



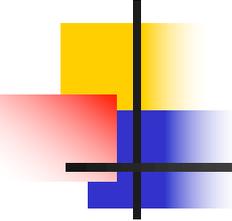
Capra's approach

More specifically, I have defined the pattern of organization of a living system as the configuration of relationships among the system's components that determines the system's essential characteristics, the structure of the system as the material embodiment of its pattern of organization, and the life process as a continual process of this embodiment." (Capra, *The Hidden Connections: A Science for Sustainable Living*, 2002, p.70)



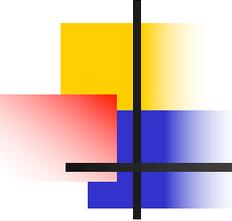
Meaning is the fourth perspective

“When we try to extend the new understanding of life to the social domain, we immediately come up against a bewildering multitude of phenomena – rules of behavior, values, intentions, goals, strategies, designs, power relations, - that play no roles in most of nonhuman world, but are essential to human social life.” (Capra, 2002, p. 73)



4+4

- Sense (meaning) might be expressed as ideas, beliefs and values.
- Form (pattern of organization) is configuration of relationships among groups.
- Matter (structure of the system) might be described as a set of interrelated variables
- Process is a sequence of events.



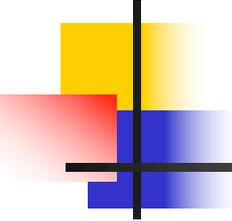
Model of understanding the social system

Sense (ideas, beliefs, values)

Matter (variables)

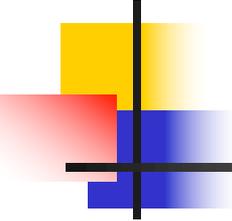
Form (relationships
among groups)

Process (events)



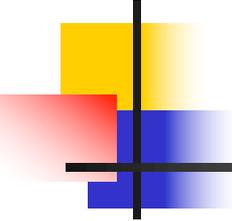
Transformation of the social and labor relations system in the time of the market reforms: general notes.

Any system of social and labor relations is based on a particular set of values (sense). In a period of social and economic transformations values become important and serve as a basis for decision-making in the new situations which arise.



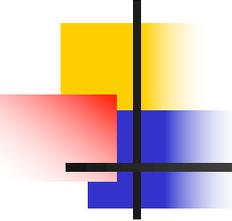
Transformation of the social and labor relations system in the time of the market reforms: general notes.

In the ideal case, the system of social and labor relations should be based on the set of values accepted by the participants in these relations and manifested either in the system of individual preferences or in a group morality.



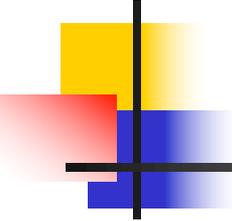
Transformation of the social and labor relations system in the time of the market reforms: general notes.

During the last twenty years Russia has aspired to a new system of social and labor relations, based on market values. The two sets of values, latent and declared (that is, the current system of social-labor relations and the one to be introduced), interact. **Therefore, the development of social and labor relations in many respects is subject to the interaction between the latent and declared sets of values.**



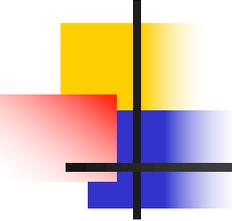
Transformation of the social-labor relations system in the time of the market reforms

If the declared model of social and labor relations turns out to be in conflict with the latent set of values existing in the society, an imbalance may occur, which is manifested either in the **degradation** of social and labor relations or in their **advanced development** with respect to the development of society as a whole. (Medvedeva, 1998; Medvedeva and Umpleby, 2000)



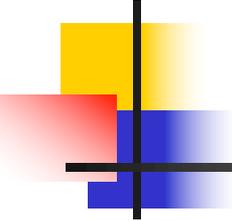
Interpreting the results of the market reforms

After twenty years of market reforms we can see **both** tendencies in Russia. The results of the reforms are controversial. Interpretations of the results vary depending on the social, economic and political views of observers (**different groups** with their sets of values and beliefs and interests). But mainly there are two radically different points of view.



Interpretations of results of the market reforms

- (1) Some authors conclude that in Russia a transition without transformation occurred and the country endured a new tragedy in its history and faces the danger of degradation. (Buravoi, 2009)
- (2) A liberal group of Russian economists think that Russia is experiencing a very difficult time, but the direction of reforms was correct, and it is too early to make conclusions because the changes, which started at the beginning of Russian market reforms, are not finished yet.



All groups of economists

All groups of economists agree that the macro foundation (social and economic institutions) for a market economy has been created, but the micro foundation (new values, beliefs, social networks for helping the people to adapt to a market economy, new specialists, etc.) has not yet been created.

Ideas underlying the old and new systems of social and labor relations in Russia

Old Soviet System	Tendency 1 - degradation	Tendency 2 - development
Supply is more important than demand. Managers strive to control resources.	Managers struggle for resources.	Demand is more important than supply. Managers strive to increase demand.
Barter is used to exchange excess resources for desired goods. In the early transition economy barter was used to avoid cash transactions and hence taxes.	Tax rates are high, firms and individuals try to avoid taxes.	Tax rates should be low enough that individuals and companies will pay them rather than avoid them. Some firms work “in the light” (pay taxes, even if they are high)
Workers wait for bosses to decide.	Workers do not believe that it is possible to change something.	A market economy requires that those who work in a process continually strive to improve the process.

Ideas underlying the old and new systems of social and labor relations in Russia

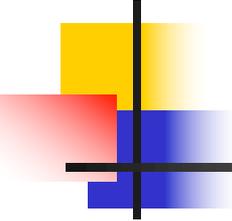
Old Soviet System	Tendency 1 - degradation	Tendency 2 - development
A mistake leads to someone being blamed and punished.	The guilty person must be found and punished publicly in order to prevent similar behavior by other people.	A mistake leads to the process being redesigned so the error does not occur again.
The “external environment” is a ministry planning office and several suppliers.	The “external environment” includes government regulations, sometimes competing firms, consumers.	The “external environment” includes government regulations, competing firms, independent labor unions, consumers, and residents who live near factories.
Managers do what is good for their boss.	Managers do what is good for their boss.	Managers do what is necessary to be successful in the market

Ideas underlying the old and new systems of social and labor relations in Russia

Old Soviet System	Tendency 1 - degradation	Tendency 2 - development
Employees do what they are told but do not exercise initiative	Employees do what they are told but do not exercise initiative	Employees exercise initiative, innovate
Business is based on personal relations	Business is based on personal relations	Business is based on market and professional relations
Charismatic, personal leadership	Charismatic, personal leadership	Lead by organizing and by defining a vision and mission for the organization
Authoritarian style of management	Authoritarian style of management, even stronger than it was before	Creativity and flexibility in management

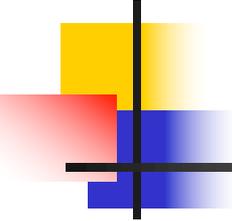
Ideas underlying the old and new systems of social and labor relations in Russia

Old Soviet System	Tendency 1 - degradation	Tendency 2 - development
Treat employees as interchangeable parts	Treat employees as interchangeable parts	Treat employees as highly skilled knowledge workers who know the company, its history and its capabilities
Pay workers as little as possible	Pay workers as little as possible	Provide salaries and benefits that make employees loyal, highly skilled and highly motivated
Family relationships in organizations	“Primitive order” in organizations	Business relationships in organizations
Maintain traditions	Maintain traditions	Deliberately create the desired organizational culture



First tendency – degradation

The first tendency is the process of surviving and self-organization of social and labor relations based on the rules of primitive group because of the weakening influence of cultural factors and social organization. Extreme poverty does not permit working people to solve their social and economic problems.

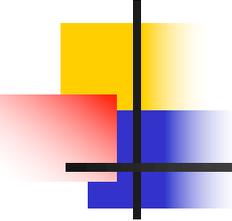


First tendency – degradation

Primitive group is organized on the base of hierarchy which is close to the animal world.

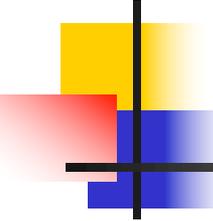
There are powerful positions in organizations which are taken by strong people once and forever. All other positions are distributed on the basis of loyalty to the leader, not on the basis of professionalism.

This is the common style of interaction in a strict hierarchical environment.



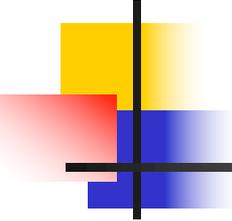
Second tendency - development

The most progressive social and labor relations are in high technology companies. These companies did not exist in the time of the Soviet Union. Consequently, these companies do not have problems dealing with a “Soviet” mentality. The organizations are new, and that is why they are more successful than other companies.



Groups who favor and oppose changes in social and labor relations

<u>In favor of change</u>	<u>Opposed to change</u>
Younger generation (less than 30)	Older generation (older than 60)
Managers with new knowledge	Workers and managers who believe in the old system
High level managers	Administrators, low and mid levels managers
People who can find personal benefits in the new system	Workers and managers who lose something because of changes
Bureaucrats	



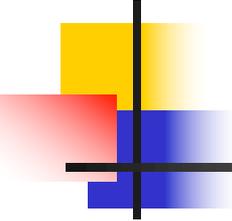
Transformation of the social-labor relations system: matter

According to a nationwide survey in 1994 from 80 to 90% of Russia's population considered the situation an alarming crisis or a catastrophe.

About 69% of respondents admitted that their well-being significantly or "somewhat" fell.

More than 50% expected further deterioration in the coming period.

85% of respondents believed that their personal life, no matter what, is going in some way



Transformation of the social-labor relations system: matter

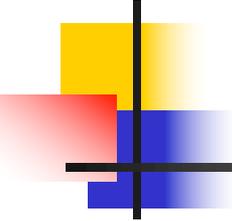
At the same time, only 2-3% of the respondents expressed willingness to participate in political rallies and demonstrations,

4-8% - in strikes,

5-7% - in civil society organizations and civic initiatives.

7-14% were prepared to go to court or to work through personal contacts,

50-57% believed that political actions would have no influence on leaders.



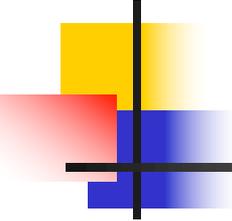
Transformation of the social-labor relations system: matter

The same trend continued in general and in the 2000s.

40-50% of respondents stated that they expect that they will lose in the course of transformations, not win,

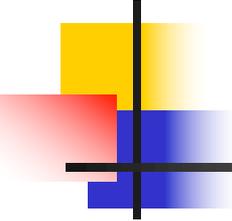
80% believe the situation is in crisis, or even critical.

Most people work for individual survival and do not cooperate for the good of the group.



Transformation of the social-labor relations system: matter

Only 20% of respondents said the biggest achievement of reform for society as a whole was the opportunity of unlimited earnings,
For themselves, this factor was named the most important by 42% of respondents.



Process (events)

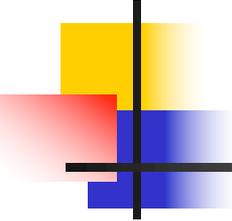
1986-1989 A series of reforms called glasnost and perestroika

1992 price liberalization, hyperinflation

1991-1996 fall of production by more than 50%

1992-1996 workers were not paid, therefore workers striked

1996 workers at the factory “Roscelmash” tried to organize a trade union independent from the official bureaucratic trade union. They tried to introduce worker control, etc. At the end of 1990 they were fired.



Process (events)

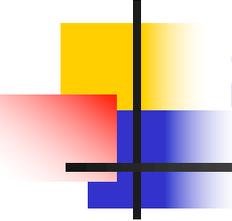
1998-1999 strike of workers of Yasnogorsky factory. The strike was managed by an assembly of workers

1999 strike of workers Mosenergmontazh in Moscow

2001 strike of trolley drivers in Saransk

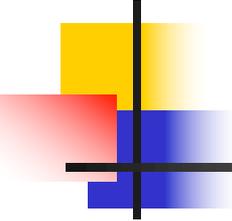
2002-2003 strike of workers in Penza, Frunze Factory

(In soviet time there has been no tradition of granting people the ability to self-organize. Moreover, the state purposefully deprived people of the ability to self-organize. (Okara, 2009))



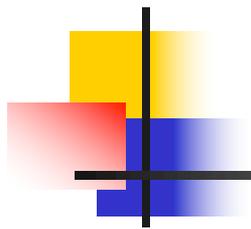
Some conclusions

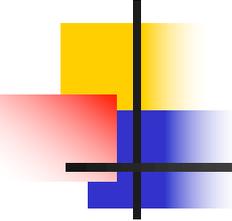
Such an approach -- using four descriptions of a social system and four philosophical perspectives -
- gives a broader and deeper understanding of a social system and ways of how to change it.



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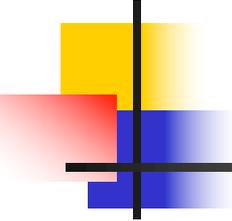
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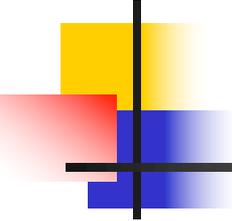
Some conclusions: sense

1. The target of the reforms could simply be the model of social and labor relations declared by Russian labor law. Setting such a target makes for an active role of the state in social and labor relations aimed at removing the current differences between the model what we want and the model we have.



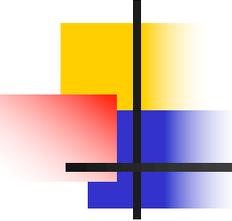
Some conclusion: form

2. Reforming the system of Russian social and labor relations might not be based on involuntary market regulation since economic factors, even though dominating, govern the system in an indirect way. More clearly manifested is the effect of social factors. Developing an effective model of social-labor relations becomes feasible if a solution is found to the problem of transformation and interaction of the social and economic sector rather than if the social factors alone were to be emphasized.



Some conclusions: process

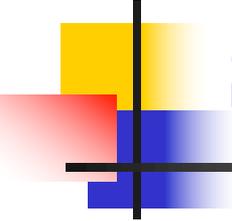
3. To eliminate the differences between the normative and actual models of social-labor relations it is necessary to develop the mechanisms for practical implementation of the normative model declared by current Russian law and to solve the problem of training workers in the new model.



Some conclusions

This could be achieved through social learning only, which makes it possible to solve the conflict of values and at the same time to cope with the lack of a culture of rational self-interest in the mentality of workers.

This is a task for education, and a constructivist approach to education is a very appropriate way to help people to adjust to new social and economic conditions.



Some conclusions: matter

Consideration needs to be given not only to economic factors, such as the level of industrial development of the country, the scientific and technical potential, and the amount of economic monopolization, but also cultural factors, such as the sense of justice, historical traditions, general mentality, and the system of values.