"Human Strategy in Complexity"

INTAS Project International Seminar

21-22 September 2001
Kiev, Ukraine

Report by Natalya Savicheva

Participants:

Austria
Wolfgang Hofkirchner
Bert Klauninger

Germany
Annette Schlemm
Dorris Zeilinger

Ukraine
Irina Dobronravova
Yury Melkov
Tatiana Bilous

Russia
Vladimir Arshinov
Vladimir Budanov
Vjacheslav Voitsekhovich
Natalya Savicheva

The seminar was dedicated to the start-up discussion on joint activities. All the tasks set in the Project have been discussed. As results an exchange of important viewpoints and a common understanding of the ways of co-operation have been achieved. Decisions have been made on the tasks for the first year of Project activities. Proposals for the second and the third year have been considered.

The Project activities are based on yearly reports. Wolfgang Hofkirchner, Project Coordinator, is responsible for submission of the reports to INTAS. The first report should be submitted before August 1, 2002, a month after the completion of the first Project year. These INTAS requirements helped the seminar participants to agree to the following schedule:

It was agreed that all the articles planned for the first year of the project should be completed by April 30, 2002, and sent to:

Sub-Task 1.1 – Wolfgang Hofkirchner, Vienna
Sub-Task 1.2 – Vladimir Arshinov, Moscow
Sub-Task 2.1 – Vladimir Budanov, Moscow (optionally, half of the time period)
Sub-Task 2.2 – Rainer Zimmermann, Kassel (optionally, half of the time period)

Having summarised the results the Sub-Tasks' leaders should send the materials to Wofgang no later that June 30, 2002
The articles should be written in the English language

Year 1

Sub-Task 1.1: Causality and Emergence

Objective: To determine the place of emergence within the framework of causality in the initial phase of the genesis of evolutionary systems (formation, becoming) and in other phases of their development as well as in their hierarchical structure (being), using the differentiation of macro- and micro-causality, against the background of the chasm between determinism and indeterminism.

Expected results: A non-mechanistic and nonidealistic concept of emergence, laid down in articles

months 1-12
Vienna, Kiev, Moscow

talks in Kiev:

1. Wolfgang Hofkirchner:
2. Bert Klauninger: "Causality and Emergence"
3. Irina Dobronravova: "Bifurcation as the Point of Formation of the Cause of Emergence"
4. Yuriy Melkov: "Causality-Emergence-Factuality: the Becoming of the Problem"
5. Vladimir Arshinov, Vladimir Budanov: "Dynamical Hierarchicity as a Synthesis of Synchronicity and Diachronicity"

Sub-Task 1.2: Principles of Synergetics

Objective: Following the line of recent results given by several researchers in self-organization theory, to extract a bundle of elementary principles which can serve as a general scientific approach to understanding evolutionary systems and which can help to clarify the concrete conditions which are responsible for the co-evolution of the worldly and its cognitive representation and comprehending.

Expected results: A concise concept of self-organization, laid down in articles

months 1-12
Moscow, Kassel, Vienna, Kiev

talks in Kiev:

1. Vladimir Arshinov, Vladimir Budanov, Vyacheslav Stepin: "The Space of Principles of Synergetics"
2. Vyacheslav Voitsekhovich: "The Principles of Intuitivistic Mathematics and Modern Synergetics"

3. Irina Dobronravova: "Methodological Principles of Non-Linear Thinking"
4. Christian Fuchs: "Principles of Synergetics" (paper)

Year 1-2

Sub-Task 2.1: Models and Metaphors I: Boundaries of Formalization

Objective: To test the boundaries of formalised modelling in order to locate the transitional region between formal and non-formal languages representing phisical processes within a holistic framework; to examine recent results provided for by Topos theory with a view to generalising their explicit meaning within a space of interaction as defined in terms of logics and germeneutics.

Expected results: An elaboration of the differences between formal languages and nonformal ones, laid down in articles.

months 1-24
Moscow, Kassel

talks in Kiev:

1. Vladimir Budanov: "The Unity of Formality and Nonformality in the Context of Interdisciplinary Communication"

Sub-Task 2.2: Models and Metahphors II: the Visualization on the Non-Formalized

Objective: Working within the boundary region between formal and non-formal languages as disclosed under sub-task 2.1, to inspect metaphorization and to develop it as a stringent technique for representing and interpreting worldly processes so as to eventually complete the task of introducing a "unified language" which is able to transdisciplinarily take into account the various tasks of the different regions of research dealing with the main topic of the project.

Expected results: An elaboration of the common grounds of formal languages and nonformal ones, laid down in articles.

months 1-24
Kassel, Moscow

talks in Kiev:

1. Vladimir Arshinov, Igor Moskalev: "Autopoetical Approach to the Languagelike Systems"
2. Vjacheslav Voitsekhovich: "The Concept of Mathematical Cathegory as a Tool to Construct Unified Language"