CONCEIVING AND GENERATING A VIABLE COMPLEXITY MODEL FOR PERSONAL AND/OR ENTREPRENEURIAL CHANGE AND DEVELOPMENT

Prof. George Niculescu Ph.D
„Constantin Brâncuşi"University of Târgu-Jiu, Romania, gniculescu@yahoo.com
Assoc prof. Cecilia Răbonțu Ph.D.
„Constantin Brâncuşi"University of Târgu-Jiu, Romania, cecilia.rabontu@yahoo.com
Researcher Doina Tătaru
Romanian Academy, Romania, Centre for Industrial Economics and Services

Abstract: This article proposes on the one hand to do research and study – with a genuine approach, inspired and deep-rooted in the method of the sociological school in Bucharest and creatively renewed and integrating the newest acquisitions of complexity science – the representative intricate entity "man as an economic actor (resource and potential) within the industrial organization and corporation in mono-industrial area (region) in the period in which the phenomenon of transition from an industrial society to knowledge society takes place; and on the other hand our project proposes to conceive a viable model of change and career of the human resources in the Electric Plant of Rovinari as well as to conceive and accomplish a pilot-model of a platform in order to support the efficient implement through a research-action approach of the model of personal and/or entrepreneurship change and career of the human resources in the Electric Plant of Rovinari.

Kee words: the human resources model, the sociological school,

Introduction

Nowadays issues are more and more intricate, more and more challenging, more and more difficult to tackle with. The difficulty in solving the isues[1] lies in that they are intricate in different ways (for instance):

- Dynamically intricate – the case and effect are far off in space and time and thus are more difficult to be understood in an immediate experience;

- Generally intricate – they propagate in non-familiar and unpredictable ways;

- Socially intricate – the people involved can see things differently and thus the issue becomes at once polarized and stiffened.

This difficulty is doubled by the present global crisis, which is not only financial, but economic and social at the same time, in this way becoming a civilization crisis, which is the crisis of first globalized human civilization, western type civilization.

Social science as a scientific discipline is, in the highest sense of the word, a discipline of entities/ of intricate systems. What can be more complex than studying the entity "the man evolving in the culture of a community/ organization in a (local, regional, global) society in a natural ecologic environment in the context of certain time"?

Dimitrie Gusti's sociological school in Bucharest studied the entity "the Romanian peasant and the village community within different social cultural regions of Romania in the inter-war period, of transition from a peasant civilization/ society to an industrial civilization/ society" using as a main mean of research, his own method and that is" the method of the sociologic school in Bucharest" (inappropriately called only monographic), which is in itself one of the most elaborate and complex methods of sociologic research.

Thus, we can say that Dimitrie Gusti's sociologic school in Bucharest – with its integrated method, supposing a simultaneous multidisciplinary approach of the topic in frameworks and manifestations, using interdisciplinary teams of specialists (social sciences, physicians, engineers, agronomists, school masters etc.)as well as its particularities of direct, willing and active participation of the population subject to investigation concerning understanding, career and even change of the researched reality. It was a complex intercession, foreshadowing a specific integrated approach of what we call today "the science of complexity". This intercession is still present and may become viable through the organic integration of the complexity paradigm and of the research-action approach.

---

[1] Kahane, A., Power and Love: A Theory and Practice of Social Change, Published by Berrett-Koehler Publishers, 2010.

Challenge

Our times facing uncommonly great and diverse difficulty, when on the one hand there is a need to change (of alteration), of transition towards the sustainable knowledge based society/ civilization, and on the other hand there is a double constraint not to hastily take action (research deficiency) and/ or not to respond too late (action deficiency), the challenge of research-action type lies in:

"Conceiving and shaping in order to change (develop) complex entities (the people in the organization in a certain environment – mono-industrial area) within the context of the transition from the industrial society to the knowledge society, utilizing an intercession of research-action type from the perspective of complexity paradigm, with a methodology of Gusti –

Revival type, and achieving a pilot-pattern of the platform in order to uphold the efficient implementation of changes pattern and personal career and/ or entrepreneurship of the human resources in the Electrical Plant in Rovinari".

Project

- Research for conceiving and generating a viable intricate pattern and acquiring the pilot platform for upholding the change and personal career and/ or entrepreneurship of the human resources in a mono-industrial are, in particular of the Electric Plant of Rovinari, starting from the intricate social and economic analysis of Gusti – Revival type, from the perspective of complexity paradigm utilizing an approach of research-action type.

Objectives – aim

Aim – conceiving and generating a viable pattern and achieving of a pilot platform in order to uphold the change and personal career and/ or entrepreneurship of the human resources in a mono-industrial are, in particular of the Electric Plant of Rovinari.

Main objectives of the project are:

- To research and study generically – the complex entity the man as an economic actor (resource, potential) in the industrial organization/ community in a mono-industrial area and specifically the human resource in the Electrical Plant of Rovinari *(outcome/ result: research report)*

- To conceive a viable personal change pattern and career and/ or entrepreneurship of the human resources in the Electric Plant of Rovinari *(outcome/ result: viable pattern of change-career)*

- To conceive and achieve a pilot pattern of a platform (hard components – network laboratory, soft component – textbooks, guidebooks, soft programs etc.) to uphold the efficient implementation through an intercession of research-action type of the viable pattern of personal change and career and/ or entrepreneurship of the human resource in the Electric Plant of Rovinari *(outcome/ result: pilot pattern, report on achieving the first cycles of research-action).*

-

State of the art

Re-assessment of the sociological school of Bucharest

As it is re-assessed today, Gusti's sociological school should be understood not merely as a school of peasant monograph, but as the sociologist, Ilie Badescu[2] shows as the first sociological school which created a methodology of comparative-progressive research upon the social units, starting with the family and village as social units to the over-vilages communities and from these to national societies and the international units created and consisted from groups of nations, League of Nations-like or of those attested by the Paul H. Stahl's Balkan ethno-sociology, from which we can take a jump to the science of that social unit called – humanity".

The fact that "Gusti School" makes use of a progressive amount of anthropological ethnographical and sociological procedures and techniques as the monograph of the social entities, the method of regional studies, the sociological film, the sociological exhibition, the sociological museum etc. is to be taken into consideration. To the same effect, the ethno-musicologic method of Constantin Brailoiu, noteworthy musicologist and leading representative of Bucharest school is to be remarked; it does research not only on music but also on the entire social and cultural univers (the creator, the peddler, the interpret of music, customs, beliefs or gestures done in music etc) id est, the man and his intricate and evolving world „where songs really live, are born, die and transform inseparable from the living of the environment from which they emerged, the musical reality will remain unknown without knowing the social reality"[3]

To all intents and purposes, today, the methodology of social science school of Bucharest, at first glance appears to be an intricate one, a forerunner of the methodology and epistemology of complexity, and at a closer

---

[2] Bădesecu I. - "Şcoala Gusti: perenitatea unei paradigme" în lucrarea Institutului de Sociologie al Academiei Române, Tratat de Sociologie Rurală, editori Ilie Bădescu, Ozana Cucu-Oancea, Gheorghe Şişeştean, editura Mica Valahie, Bucuresti, p.60.

[3] Brailoiu C, *Outline of a method of folk music*, first published in the journal „Boabe de Grâu" 1931, quoted from **Works**, IV, Musical Printing House, Bucharest, 1979, p. 35).

look, the ethno-musicology appears as a forerunner of Garfinkel's "ethno-methodology", which in turn is among the forerunner specific approaches of complexity science in humanities.

The activity of sociological school of Gusti was not only called in a more complex knowledge of a social reality in the course of evolution and change, but it was called in the pedagogical imperative of changing the social cultural realities of the Romanian village in the sense of the transition from a peasant society to an industrial one. To this intercession, elements of sui-generis research-action-like of integrating a pedagogy specific to the epoch in the larger system – social (as a reality in itself), ethic (as ideal society), political and pedagogical (as a means of achieving a new ideal in the context of a given reality) are to be remarked.

Social science and "complexity-turn"

Sociological theory and practice (generally of social economic sciences) are in the situation of re-thinking the ontological and epistemological basis under the increasing influence and impetus of theories, methods and tools in the complexity approaches. Whether in physical, biological and even economic sciences this movement began more than two decades ago, in sociology only in the last decade an emphasis of the movement is to be noticed, called by John Urry "complexity turn".

Castellani & Hafferty[4] show in their recent book "Sociology and Complexity Science – A New Field of Inquiry" that the theory (science) of complexity stirs confusions and mistaken interpretations especially in the field of humanities. So the complexity science:

- It is not a quasi-spiritual embracing of the great "web of life", in the idea that everything is connected with everything, with the Gaia hypothesis, with different metaphysical ideas etc.

- It does not concern a particular political or moral agenda and it will not "save" or "destroy" the world, even if in the last century has a tremendous contribution to science and technology.

- It is not (limited to) the theory of chaos or fractal geometry or the theory of catastrophes etc., even if they as branches of mathematics within the theory of dynamic systems, may be considered as part of the tools of the complexity science.

- It does not mean "postmodern scientific literature", even if it refers to the limits of modern science, to the fact that science is a kind of knowledge among many others, as well as the fact that even if postmodernism and complexity science share the same concern towards the limitation of modern science as reduction, linear or mechanic thinking, as well as the limits of a just quantitative science.

"The science of complexity may be called postmodern only for the fact that it is "beyond" modernism. In other words, in order to understand no-linear, dynamic, evolutionary, emergent, negotiated, conflict, highly independent, distributed, far from equilibrium, self-organizational as properties of complex systems, the science of complexity has had to find new modalities of making science including new epistemologies, methods, concepts and theories. This change into modalities "to do science" requires that the researchers of the complexity science to ask questions similar to those asked by the postmodernists. Yet, in contrast with the postmodernists, the scientists in the complexity science believe in mathematics, but in a new form, computational of it, qualitative, highly linear. They still believe in science, but in a reduction form, non-mechanic, dynamic. They still believe in the thorough empiric study, yet they know that a full description of anything is impossible, both because of limitations of that who knows and because the methods utilized. They believe in the fact that science solve the problem by providing applicable solutions, even if temporary and partially. Finally, they believe in something else in which the postmodernists cannot do it: synthesis. Contrary to the postmodernists, the researchers in the complexity science think that the specificity (difference), local knowledge and complexity are phenomena of the systems[5]".

Castellani & Hafferty follow that the standpoint of the researchers in the complexity science may be emphasized beginning with two points of departure.

The first starts from a series of phenomena and processes as it is the case of the complexity of globalized society which attained a critical point, requiring a shift in organization; this shift is mainly a function of the informatics revolution specific to post-industrialization and globalization and to this new situation, with phenomena and events as the collapse of the environment, economic globalization, political and cultural conflicts, cannot be applied ordinary (old) tools of science, consequently new methods, new perspectives are necessary, in other words the science of complexity represents the future of science.

The second starts from "the bottom of the bag" to which investigation of the modern science reached. Thus despite the unprecedented success, reduction science "finished its race", the same happens with the quantitative programme of traditional statistics and mathematical shaping and thus new modalities to do science are necessary for carrying on the scientific investigation, and the best modality is that of adopting the perspective of complex systems, characterized through the idea that life is holistic, self-organized, emergent, highly relational,

---

[4] Castellani B. & Hafferty F.W., *Sociology and Complexity Science – A New field of Inquiry*, Springer Publishing House 2009, p. 16
[5] Ibidem pp.20-21

interconnected, non-linear and evolutionary as well as by adopting the new advances in mathematics, networks, informatics and computational modelling as tools to be used in scientific investigation of these complex systems.

In any dialectic concept (in N.G. Georgescu's opinion) there is a cross-disciplinary transverse-ality as well as cognitive/ interpretative polysemy, making difficult any intercession to conceptualize and communicate.

The theory of complexity is not a unified body of knowledge; it is rather a diverse set which emerges, a conceptual framework, developing transversely, a new paradigm of knowledge in course of undertaking.

The theoretical synthesis made by Castellani and Hafferty in the above mentioned book "Sociology and Complexity Science - A New Field of Inquiry" together with what they call "Sociology and Complexity Science" (SACS) Toolkit, that is with the practical aspect, still represents "state of art" of "complexity turn".

Thus our project starts with a first integration not only theoretic but pragmatic too of the intercession "Gusti Revival" with that of "complexity turn".

The phenomena of deep social and economic crisis as well as the fact that all these changes and/ or alterations transcend the economic field and/ or the economic science, dealing with what U. Beck[6] called "meta-change" of modern societies; "whether crisis, alteration and radical social change have always been part of modernity, the transition towards a second reflexive modernity not only changes the social structures, if not revolutionize the coordinates, categories and conceptions of the change itself".

We have to remark the fact that any crisis, beyond the negative aspects (generally on short run) determines us to revise and rethink those aspects of long run which generally are forgotten in the rush with which the present global civilization moves.

Generally speaking, the social activity and practice, the scientific one included requires other trans-disciplinary revisions and even re-framings. In the conditions of a more and more accelerated evolution with non-linear dynamics, the practice itself becomes a "research-action".

In this sense, our project resorts to a second integration: that of science with action which adopts an intercession "research-action-like".

Conclusions
Stages and activities of implementing the project

I. The complex social and economic analysis "Gusti Revival"-like

- Conceiving the methodology and the method "Gusti Revival"

- Generic research – the complex entity man as an economic actor (resource, potential)in the organization/ industrial corporation in a mono-industrial area

- Specific study, including the prospective (foresight) – the human resource in Industrial Complex Rovinari

II.   Conceiving and accomplishing a viable complex pattern of personal change and career and/ or entrepreneurship of the human resource in the Electric Plant of Rovinari

- Conceiving a frame of shaping (a meta-pattern) from the perspective of complexity for personal change and career and/ or entrepreneurship

- Generating of patterns diverse-situational of personal change and career and/ or entrepreneurship of the human resource in the Electric Plant of Rovinari

- Selecting a viable pattern and generating screenplays of possible evolution through diverse conceptual simulations

III.   Conceiving and accomplishing pilot pattern of a platform to uphold the efficient implementation of the personal change and career and/ or entrepreneurship of the human resource in the Electric Plant of Rovinari

- Conceiving the pilot pattern of the platform to uphold the efficient implementation of the selected viable pattern in the previous stage;

- Accomplishing/ implementing the pilot-pattern (hard components, network-laboratory, soft components-textbooks, guidebooks, soft-programmes etc.);

- Accomplishing a first cycle of research-action for testing and improving the components of the platform.

Bibliography:
1. Bădesecu I. - "Şcoala Gusti: perenitatea unei paradigme" în lucrarea Institutului de Sociologie al Academiei Române, Tratat de Sociologie Rurală, editori Ilie Bădescu, Ozana Cucu-Oancea, Gheorghe Şişeştean, editura Mica Valahie, Bucuresti, p.60.

2. Beck, U & others – The Theory of Reflexive Modernaization Problematic, Hypotheses and Research Program, in Theory Culture Society, vol..20 (2)/2003.

3. Brailoiu C, *Outline of a method of folk music*, first published in the journal „Boabe de Grâu" 1931, quoted from **Works**, IV, Musical Printing House, Bucharest, 1979.

---

[6] Beck U. & others The Theory of Reflexive Modernization Problematic, Hypotheses and Research Programme, in Theory Culture Society, vol. 20 (2)/ 2003, p.2

4. Gallagher, Sh. and Zahavi D, - The Phenomenological Mind: An Introduction to Philosophy of Mind and Cognitive Science, New York: Routledge, 2008.

5. Gorun A., coordonator, Niculescu G., Caragea A, Jinaru A, Caragea S. - Recadrări transdisciplinare. Un demers focalizat pe cercetarea antreprenorială în turismul cultural, Editura Academica Brâncuşi, Târgu-Jiu, 2010.

6. Kahane, Adam, Power and Love: A Theory and Practice of Social Change, Published by Berrett-Koehler Publishers, 2010.

7. Moldoveanu M.C. , Inside Man: The Discipline of Modeling Human Ways of Being, Stanford University Press, 2011.