To a question on self-organizing literary genres: chaos, structure, system, model in the literature, author's innovative genres

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Abstract: Self-organizing was that bridge which has allowed to connect together various under the laws and development of system of the alive and inanimate nature. However, having made a step from the inanimate nature to a human, scientists have considered only biological systems, not having finished process of generalization and connection together all processes. For the staff there was one of the basic processes of human creativity – art, created by the person, culture – that layer where, in our opinion, self-organizing is present, also as well as in complex systems (physical, chemical, biological etc.).

Keywods: self-organizing literary genres, system, chaos, innovative genres.

1. Introduction

In Sci-fi move "Short circuit" eventually the mankind carries out old dream: creates the robot which not only can execute some programs in its systems, but also self learns, self develops and, finally, to operate at own discretion. As a result the robot starts to understand a human, starts to feel as the human, remaining the robot. However, not looking at numerous efforts of scientists and engineers of the different countries, trying to create something similar, it is necessary to tell, that for today a miracle-robot from "Short circuit" and the whole series of the same fine robots from of some other films is only dream of mankind, beautiful, but unfulfilled. And a problem, in our opinion, not in that of what material the robot, not what are created in those "clever" technological systems (smart systems engineering) [1] are used for recognition by the robot of the surrounding validity, and the problem consists in the general attitude to this problem, in understanding of human essence, in understanding of self-organizing created in the nature and a human society.

2. The theoretical bases of self-organizing literary

The theoretical bases of self-organizing incorporated by the Nobel prize winner of 1977 of I.R.Prigozhin [2], allow to apply, in our opinion, uniform scientific approaches, both to the physical phenomena of the validity, and to the world of art created by the person, the world which predetermines essence of the person, is a product of its creativity and development. « To us living in the end of XX century, the accumulated experience allows to approve, that the science carries out the certain universal mission mentioning interaction not only the person and the nature, but also the person with the person » [2. p.47]. Self-organizing is

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present at physical and chemical systems, self-organizing in biology, ecology and medicine and, at last, in the world created by the person - in art. Only up to the end having understood the general laws of this chain of scientific achievements probably creation of rather intellectual system (in particular, the mentioned robot) capable to operate on system of self-organizing - creatively. The human brain used by an individual only on 10 %, allows the person to create. However, creating new in the world of art the person meaningfully or, more likely, intuitively regularly repeats passed up to it predecessors, frequently not knowing it, intuitively, i.e. Not reflecting at all about the actions (is available in view of recurrence in sphere of genres, kinds in art, etc.). Why art in general and the literature in particular exists as the certain system, in fact purposefully as system nobody created it? Why each new product, getting in the given system, finds there the place? Why the system develops? What supervises over her? Why the chaos from products of the present eventually becomes order and at each new stage of existence it seems (sees) chaos?

« Today the kernel is determined : understanding of necessity of scientific synthesis of separate areas of natural sciences and all sciences as a whole, exact and humanitarian. Sharp nostalgia on unity of culture in general, to restoration of such integrity of outlook what was peculiar, perhaps, only to a classical antiquity has ripened. Such general synthesis should cause switching of interest of culture from sphere of the macrocosmos on sphere microcosmos – the person » [3. p.19] - wrote N.Y.Klimontovich about problems of synergetrics per 1986. Since then has passed 22 years, and during these years the science has promoted in the field of consideration of processes of self-organizing (the basic processes considered by synergetrics) in complex physical, chemical and even biological systems. (see complex systems [4], [5], [6]). Self-organizing was that bridge which has allowed to connect together various under the laws and development of system of the alive and inanimate nature. However, having made a step from the inanimate nature to a human, scientists have considered only biological systems, not having finished process of generalization and connection together all processes. For the staff there was one of the basic processes of human creativity - art, created by the person, culture - that layer where, in our opinion, self-organizing is present, also as well as in complex systems (physical, chemical, biological ...).

To investigate the assumption offered by us, we shall not consider culture as whole as, it is a problem of the big research. In this article we shall be limited to more simple examples. We shall consider the mechanism of self-organizing in model of family -genre system of the literature. For the beginning we shall analyse with reference to model of sorts of the literature a chain: structure – system – the order – chaos, concepts with which the theory of self-organizing (synergetrics) operates.

It is possibly to accuse us in attempt to apply laws of self-organizing opened in the field of natural sciences to sphere spiritual (in the field of culture). The answer to opponents is simple: or we shall analyse so to apply the scientific device and uniform approaches to the field of self-organizing, both for exact, and for humanitarian fields of knowledge, or philological sciences and will remain in the field of subjective perception of an object of research.

And if about what it has been told above, sounds convincingly enough – we shall continue. First of all, we shall be defined, that there is "self-organizing": « self-organizing – process of self-structurization, self-regulation, self-reproduction of complex dynamic systems of the various nature » [6. p. 563]. Whether processes of self-structurization, self-reproduction are possible in the literature? Whether Is the literature complex dynamic system?

The human life and "life" of the literature are incomparable. The person lives and creates too short time to affect literary system as whole. The life of many genres is estimated in centuries. Certainly, for such long way they partially change, get or lose new kinds, some qualities, etc., but live! And this process, seems at first sight static (numb) certainly, is dynamic, i.e. changes in time (see dynamic systems [5]). The fact, that occurrence of new genres, allows "beginners" to take a place in the system of sorts discovered by Aristotel is interesting as well. That fact, that mankind, creating the literature (as well as art as a whole) never operated entirely this process, could not (and in the future, most likely, will not) change this process which basically self-exists, proofs that the processes occurring in the field of the literature (art) are rather similar on the processes of self-organizing occurring in the field of natural sciences. The literature with its huge quantity of products, various on structure and the maintenance, is represented chaos, a heap of large and small forms. However great discovery of Aristotel in the field of the literature (in its structure of literary sorts meaning) has allowed to see in antiquity harmonious literary system, which today (strengthened by Gegel's philosophy) is, in our opinion, unique complete model. However the structure opened by Aristotel, has been only seen by him in the literature as it was already developed in literary process at a dawn of antiquity, i.e. processes of selfstructurization in the literature have already occured. Occurrence of new literary works in the subsequent centuries actually has not broken existence of the given structure and has not destroyed genre system. And the mankind, creating more new products, did not think, how many and what kind of products it was necessary to create do not destroy or destroy this or that process in the literature, i.e. it is exact processes of self-regulation and self-reproduction in the literature. This or that genre which appeared in antiquity (for example, the novel), has passed through all metamorphosises of literary process, lost or got some attributes, "was forgotten" at the certain stages of development of the literature, or, on the contrary, was super famous. However, despite of all this, has known now as the novel. And such examples exist a great variety. How does the system, which nobody plans and nobody thinks about exist? It exists as self-regulated system, as complex dynamic system of the certain class [5. p.378]. The literature, in our opinion, concerns to complex dynamic systems which functioning is connected with presence at their behaviour of chaos and processes of selforganizing. The given dynamic system is limited by final number of degrees of freedom and, first of all, means (conditions) of creation of an artistic image, that

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also has been noticed in antiquity by Aristotel .

« The structure is an object possessing stability, « rigidity » » [3. p. 57]. The structure has ability to not change as whole under influence of external and internal factors, to resist to them. The concept of structure is key for the theory of self-organizing because self-organizing is process which leads to formation of new structures. Aristotel, marking up literary роды, has found out, in our opinion, existential structure of the literature. The phenomenon - the literature, certainly connected with oral national creativity, was all the same qualitatively new formation (qualitatively new structure) in comparison with everything, that preceded it. This stage is characterized by other type of self-organizing when it is a question not simply of the phenomena of verbal creativity, and about occurrence written, works of art where the author is not simply known, but also is a key figure of the given product. Thus, in Aristotel's reasonings, speaking in modern scientific language, the certain stable existential structures are seen: each kind of art as the certain structure, genre literatures as self-organizing structure. However has passed not one century while the mankind has realised the structure of literary sorts as harmonious system: Aristotel the first proves structure, Gegel interprets this structure as system, that once again proves reasonings of Aristotel. In the certain sense concepts of structure and system interact because there where it is considered self-education of structure, it is spoken and about selfcontrol and self-maintenance of system as well (these questions are considered in the theory of systems, cybernetics, synergetrics). That structure could be considered as system, it should consist of subsystems (an opportunity to segment it), the parts should make the whole, to help research of all system, there should be such interrelation of elements in system which can be characterized mathematically, and the system should be a subsystem of big system. Whether applicable definition of system given in 30th years of last century by L. fon Bertalanfi [3. p.59] to structure of literary sorts? Literary sorts could be easily segmented: the epos, lyrics and a drama. Research of each of sorts of the literature certainly helps studying of system at whole. The system of literary sorts is included into greater system – the literature as a kind of art, and the literature in turn in system of arts. Thus, all properties of system take place for the literature. However, studying system of literary sorts, we deal with the model of literary sorts created by mankind, called « a white box » (concepts « the white box "and" a black box » are applied in cybernetics: « The real system – « a black box », model - « a white box », is constructed, under knowledge that is known about behaviour of system, about the parameters defining this behaviour » [3. p. 60]). The problem of the researcher to approach « a white box » to « a black box », i.e. to create such model which will answer entirely to the validity. At construction of model of literary sorts, undoubtedly, important to consider such subsystem as a genre because occurrence of new genres, kinds of genres affected creation in the modern theory of the literature of new models of literary sorts. We will not stop in the given work on a question, how successful this or that model is. For us the fact of communication of development of literary process with the advent of new

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genres is more important. In literary criticism there is no precise definition of new genres. Them, certainly, it is possible to name author's since at the certain stage of development the new genre only gains creativity of the certain author [7],[8],[9]. The part of such genres then occupies a niche in the standard genre system, and continues the life in creativity of many, and the part for ever remains within the limits of creativity of one writer. Author's genres should be defined as innovative, that will allow to place accents on their leading part in self-organizing literary process.

In our opinion, occurrence of these genres in a plenty leads to the phenomena in system of literary genres of processes leading chaos, from here and perception of the modern literature as unstable chaotic process. However it is necessary to note, that after certain time all system comes to a condition of rest, and the chaos is replaced by order.

3.Conclusions

Thus, each step of evolution in the field of the literature (art) is connected with processes of self-organizing.

References

[1] Krot, A.M., Tkachova, P.P. and Goncharov, B.A. New approach to speech signal recognition using nonlinear signal decomposition by measuring Wiener kernel// Smart Engineering System Design. – Vol.4 – №1. – 2002. – PP. 265-276 (Taylor & Francis Publ. Co., USA).

[2] Prigogine I., Stengers I. Order out of chaos. London: Heinemann, 1984

[3] Климонтович, М.Ю. Без формул о синергетике. – Мн.: "Вышэйшая школа", 1986.
[4] Крот, А.М. Сложные системы// Энциклопедия: Республика Беларусь. – Минск: Беларуская энцыклапедыя, 2008. – Т.6. – С. 705-706

[5] Крот, А.М. Динамическая система// Энциклопедия: Республика Беларусь. –

Минск: Беларуская энцыклапедыя, 2006. - Т.3. - С. 378-379.

[6] Крот, А.М. Самоорганизация// Энциклопедия: Республика Беларусь. – Минск: Беларуская энцыклапедыя , 2008. – Т.6. – С. 563.

[7] Ткачова, П.П. Да праблемы межаў гумару і сатыры ў сістэме родаў літаратуры.//Весці НАН Беларусі.Сер.гуманіт.навук.2007. – № 4. – С. 92-95

[8] Ткачева, П.П. Разрушение границ жанра сказки в современной поэзии (В.С.Высоцкий «Лукоморья больше нет...») // Фалькларыстычныя даследванні. Кантэкст. Тыпалогія.– Мінск: Бестпрынт, 2006.– Вып. 3.– С. 105-109.

[9] Ткачева, П.П. Жанровые границы произведения В.Высоцкого "Про дикого вепря"// Фалькларыстычныя даследванні. Кантэкст. Тыпалогія. Сувязі.– Мінск: Бестпрынт, 2008. – Вып.5. – С.210-215