UDC 341.174(4):351.824.11

# SYNERGETICS IN LAW: FOUNDATION, LIMITS AND POSSIBILITIES OF GENERAL THEORETICAL AND SECTORAL APPLICATIONS

## Kryvtsova I.S.

National University «Odessa Law Academy»

There is an attempt to determine bases and limits of possibilities of applying ideas of synergetics in the science of law, both general theoretical and at the sectoral level in the article. In particular, it is stated that there is an "extension of object" of the jurisprudence, adjustment methodology of legal cognition, interpretation of the process of legal regulation, the legislative process and the implementation of the law from the standpoint of self-concept. Analysis of the existing practice of testing synergetic models in relation to the legal reality let the author to come to the conclusion that the expansion of the field of legal research in the view of synergetics. Legal research is based on the ideas of synergetics expanding the palette of scientific and legal research through the transfer of emphasis on the necessacity consideration the factors of determination process of legal phenomena, the causes of which are not only natural, but also random; studying system of legal phenomena through the prism of self-organization; following the evolution of the system of legal phenomena, taking into account their specific conditions — the state of "transition".

Keywords: synergetics, law, legal cognition, methodology, legal reality, legal system, general theory of law, legal sectoral science.

Formulation of the problem. Analysis of ideas of synergetics is constantly multiplying in the publications of research in the social and humanitarian sphere: from writing scientific texts with special terminology of synergetics to implementation of synergetic models in the context of the study of social systems. Taking into account the existing diversity of the possible ways of introducing a new paradigm in the social and human sciences, a number of authors doubted different ways of tactics synergetic adaptation, pointing to the speculation of ideas of synergetics or as a result «physicalization» of social phenomena.

Similar pessimism dominates while attempting approbating the provisions of synergetics within the sphere of legal cognition. There is a small number of publications, which consist analysis partly a matter of law, involving synergistic ideas in a metaphorical sense. However there is only development of interpretive side of synergetics-legal phenomena. Such an attitude towards synergistic structures in the legal sphere is caused by the prevailing opinion on the partial borrowing jurisprudence provisions of synergetics or inability to find universal principles of self-organization and evolution of legal phenomena in connection with the orientation of the law to «the elimination of the elements of self-organization of a particular system by setting some «game rules» [1, p. 64].

Relevance of the exploration of ideas of synergetics in legal cognition is also supported by the inability of the traditional epistemological tools of legal science to explain the unpredictable occasions and turns in the development of legal phenomena, to discover the mechanisms of evolution. Obvious essentiality to find «key» to overcome many of its current problems (in particular, problems of the methodological crisis, transition law, legal forecasting), and recourse to the achievements not only of social and humanitarian, but also the natural sciences. Specifically synergetics deserves it among recent achievements.

The current epistemological situation indicates a high degree of elaboration of synergetic ideas in the legal sphere. That, in turn, defines the **purpose**  of the research — the necessity of reviewing and cognitive accumulation of application of synergetic models in the legal sector, not so much on general-cognitive (filling synergistic with legal content), but on the structural and fundamental (forming their own structure based on the principles of synergetics) level.

Statement of the base material. The provisions of synergetics can be regarded as science (aggregation of scientific knowledge about the self-developing systems, achievement of various theories aimed at identifying common laws of self-development systems, received expression in a strictly scientific, mathematical knowledge) and as a methodology (the formation of ideals, concepts and principles of synergetic research empowering researchers certain worldviews, «mental scheme» causes conducting surveys in the coordinate plane, where openness, instability and nonlinearity of the medium will be taken as the initial value).

Application of methodological development of synergetics with cognition of the legal phenomena is possible due to:

firstly, their interdisciplinary nature, due to the process of formation of synergetics;

secondly, the complex architectonic synergistic knowledge, including not only strict scientific knowledge (achievement of various theories aimed at identifying common laws of self-development systems), but also a wide ideological and cultural context, providing researchers with a certain interpretive model «mental scheme»;

thirdly, the basis of transfering synergetic development of natural sciences in the social and legal sphere, namely the image of «subject areas» synergetic knowledge — isomorphism (not analogy) — internal structural similarity in the behavior of systems of different nature.

Informative opportunities of synergetics are limited by observation of self-organizational processes (birth of «order out of chaos») in the development of complex, open, non-linear systems, the detection of mechanisms (regularity) of cooperation processes and co-evolution of the system in times of disruption (increased volatility). In this kind the

limit of application of synergetic provisions of s to cognition of the legal systems is that the latter are a kind of social systems and, therefore significantly and external influences on the organization of the process of development of systems.

The existing practice of application of the ideas of synergetics in the general theory of law can be characterized by the following directions:

- 1) statement of "expansion of the object" general theoretical legal science due to the inclusion of the elements of social policy that are directly involved in the control mechanisms and self-organization of legal life, thereby allowing to intensify the study of lawyers of the problems that had previously been on the periphery of legal research, or at all were not considered (accident, threshold, crisis state and etc.) [2]; revision of the object and the subject of legal science, respectively, the object it is self-organization of the legal system, and the subject it is the side of law as instability, complexity, nonlinearity, openness and etc. [3];
- 2) adjustment of the methodology and in this context, the identification of the degree of combination of a synergistic approach and the traditional means of legal cognition, thus expanding their informative opportunities by correcting epistemological core forming the basis for their use in legal research, such provisions as an alternation of periods of domination of the regularity or occasion to develop legal systems, alternative and unpredictable process of legal construction, property development mechanisms that contribute to the deployment of the potential inherent in the legal system, and to identify the requirements for them in the context of changes in the object of legal investigation in the light of synergetics [4, p. 10-11, 14-15];
- 3) presentation of a synergistic approach as one of the criteria of self-organization of general theoretical knowledge of the legal system and its elements: the rule of law, legal institutions, branches and sub-branches of the law; representation theory of law as a unique synergetic system, because it is objectively inherent properties that determine the self-organization and self-development; study the feasibility of using a synergistic approach in constructing the hierarchy of general theoretical knowledge of the legal system due to the combined effect of the various factors that determine the subordination of its leading members; introduction of the concept of «legal synergy» as a criterion of the ratio of regulatory systems in the legal framework, reflecting the material and spiritual needs of society, which is determined by the degree of deviation from accepted standards of community life and is characterized by a high, medium, low [5];
- 4) interpretation of the process of legal regulation, namely the consideration of it as a self-organizing process, the study of legality and law order as a factor negentropic legal regulation, research the concept of «legal entropy» (as opposed to the concept of entropy in natural sciences) and presenting it not as a measure of disorder and chaos but as itself the chaos and confusion, and their personification appears the uncertainty and disorder as the elements of the system and the whole system, the presentation displays it in the ideal (deviant forms of consciousness: legal nihilism and legal idealism, legal agnosticism, legal relativism)

and material (not offensive concrete results in the legal sphere or offensive, but the result of a mismatch stated purpose – not achieving a positive effect in the economic, political, cultural and other social spheres) forms [6];

5) study of the legislative process from the point of non-linearity, i.e. adopted laws may not only contribute to the alleviation of social bifurcation, but also exacerbate them, in cases of adoption of defective law (not merely the legal incorrectness, but not an adequate reflection of social needs and interests); recognition instability rooted in the very nature of the legislative process, which underscores its instability in terms of the quality of the final result – the law, and on the other – characterizes the legislative process (no predetermination with respect to whose interest in a greater degree will receive legislative consolidation) [6];

6) consideration of the implementation process of law from the standpoint of self-organization, namely the representation of the social context implementation process of law modeled behavior of party legislator result of social relations, that should bring the most beneficial effect in different areas of public life (economic, political, socio-cultural, etc.) and at the same «framework» freedom of action within the limits established to achieve it, and the actual process of specificity, which is in contact with an individual sense of justice through the use of regulatory control, application of the rule of law in the process of fulfillment of legally significant actions cause the self-organization process.

The use of ideas of synergetics in legal sectoral sciences is fragmented.

The constitutional law to use the methodology of synergetics observed in the study of complex phenomena – federalism, defining it as a complex self-developing system and attempts to identify patterns that are meaningful for improving federal relations in particular countries, to consider as a result of the reduction ideas of synergetics in the legal science of the doctrine of polycentrism (presence of many autonomous power authorities and their interaction on the basis of the principles of cooperation, competition and the desire for self-settlement of the conflict, the optimal distribution of powers, the maximum participation of public institutions and public authorities) [7].

Also, the idea of synergetics are used to develop an approach for the management of public authorities system, namely the consideration of the system as a dissipative use of the concept of «order parameter» — a social ideal, a change which determines the change of the system of authorities, the notion of «attractor», which determines the development path and other [8].

In *criminal law theory* application of the ideas of synergetics observed 1) for crime investigation, as a social phenomenon, a system to combat it, namely to simulate such complex open, unstable system as a crime (determining the order of the parameters characterizing the base system content, establishing a non-linear communication with the environment — a positive feedback), to determine its laws of development and the need for effective management of — the emphasis is not on the force, and with the correct configuration and architecture impact on the system and the envi-

ronment [9]; 2) when the criminal liability issues persons performing managerial responsibilities, namely the use of the idea of the weak, but successful impact on both counterargument against supporters of repressive measures against corruption-related crimes (particularly careful with the criminalization of certain acts), the use of the idea of varying degrees of state self-organization and society as an additional argument in favor of the criminal liability of differentiation, etc. [10].

In *environmental law*, the use of a synergistic approach observed in the analysis of environmental safety management, namely, consideration of socioand ecological humanity-environment as an unstable system, which is approaching a critical state and an increase in «synergism» phenomenon, i.e., mutual reinforcement of various factors and a supra-additive effect of increasing the total [11].

In labor law the idea of synergetics have been applied in the study of his system, for example, consideration of «the concept of labor law», as a form of self-organization of science, the use to explain the problem of structure of labor law ideas that emerging systems are internal (immanent) form of adaptation the environment, and what conditions cause imbalance «effect of corporate behavior» elements, which leads to a decrease in levels of freedom, i.e., streamlining, application ideas for the distinction between «system of law» and «system of lex» [12].

The land law in the light of the ideas of synergetics considered regulation of land relations, namely the designation of urgency to achieve «synergy effect», i.e., synergistic effect of law, biology, economics, sociology and others science, i.e. a vision in synergetics realization of the principle of multiplicity of alternative approaches of different sciences in land law, ways of cooperation and integration of different knowledge for the benefit of streamlining and rationalization of land relations, the study «antisynergetic» as cognitive activity of some scientist and practitioners, which is abstracted from the objective realities of life, the logic of accounting and analysis of situations, and is satisfied with the method of abstract design [13].

**Conclusions.** Application development of synergetics in the science of law allows to extend the scope of legal research by:

1) transfering of emphasis on the need to consider the factors of determination process of legal phenomena, the causes is not only natural, but also random;

In this context, the cognitive potential synergetics allows, on the one hand, to identify the particular species of legal regularity – regularity of evolution and self-organization of legal systems, which is an objective, necessary, important, recurring relationship (ratio) of a probabilistic nature, and manifests itself as a tendency, determining the direction of evolutionary development and maintenance of the process of self-organization of legal phenomena, and on the other – to reveal a significant role of randomness in their development, to understand its impact, especially on the internal structure of the legal phenomena [14; 15].

2) study the system of legal phenomena through the prism of their *self-organization*;

For example, a study of legal systems, taking into account the complex self-organizing orders at the level of functioning of its components in a consistent interaction under the influence of intra-determinants — of justice, predetermining the form of legal self-organization, taking into account «the effect of self-organization» in the legal system, the level of which depends on the different degree of self-organization of its component level and discovering its source in the social self-organization (the social context gives the system unstable controversial, i.e. determines the existence of all the conditions necessary for the legal self) [4, p. 9-10].

3) study the evolution of the system of legal phenomena, taking into account their specific conditions – *the state of «transition»*;

For example, the legal system in the light of the ideas of synergetics mediate «upgrade» in the form of a change of double order: a) the emergence of «transition type» of the legal system, observed by changing the typical qualities of the latter, due to the inability of the legal system developed within the former type of law (referred to certain legal family) due to the accumulation of its contrasting differences, forming a new evolutionary configuration; b) passing the legal system of «transitional» period in its development, where there is a change of its qualitative states, not entailing changes in the legal system of its typical accessories, that is related to a particular type of law (family law) and allow the system to evolve in the «main channel evolution» [4, p. 9-10].

These vectors of legal research should, in our opinion, make a palette of scientific and legal searches in the view of the increasing dialogue between the natural and social sciences and humanities.

### **References:**

- 1. Ветютнев Ю. Ю. Синергетика в праве / Ю. Ю. Ветютнев // Государство и право. − 2002. − № 4. − С. 64-69.
- 2. Шундиков К. В. Синергетический подход в правовой науке: проблемы адаптации / К. В. Шундиков // Правоведение. № 1. 2008. С. 145-156.
- 3. Музика І. В. Сучасні філософські підходи до визначення об'єкта і предмета юридичної науки / І. В. Музика // Часопис Київського університету права. № 3. 2006. С. 3-13.
- 4. Кривцова І. С. Методологічна роль синергетики у порівняльно-правовому пізнанні: Автореф. дис. ... канд. юрид. наук: 12.00.01 / Одеська національна юридична академія. Одеса, 2008.
- 5. Шишкин В. В. Синергетический подход в теории права: Автореф. дисс. ... канд. юрид. наук: 12.00.01 / Нижегородская академия МВД России. Нижний Новгород, 2007. 23 с.
- 6. Грунина В. А. Синергетические основы правового регулирования: Автореф. дисс. ... канд. юрид. наук: 12.00.01 / Владимирский юридический институт Федеральной службы исполнения наказаний. Владимир, 2006. 22 с.
- 7. Глигич-Золотарева М. В., Добрынин Н. М. Синергетика Федерализма. Часть 1 / М. В. Глигич-Золотарева, Н. М. Добрынин // Право и политика. № 11. 2006. С. 5-16.

- 8. Чепунов О. И. К вопросу о диссипативности системы органов государственной власти / О. И. Чепунов // Право и государство: теория и практика. № 9. 2008. С. 59-61.
- 9. Лесников Г. Ю. Синергетика и теория современной уголовной политики / Г. Ю. Лесников // Современное право. № 3. 2004. С. 27-31.
- 10. Егорова Н. Уголовная ответственность управляющих субъектов и синергетика / Н. Егорова // Уголовное право. № 4. 2003. С. 24-25.
- 11. Муравых А. И. Синергетический подход к управлению экологической безопасности / А. И. Муравых // Право и безопасность. № 3. 2004. С. 85-98.
- 12. Лавріненко О. В. Трудове право України як сучасна синергетична система (філософсько-правові та методологічні аспекти) / О. В. Лавріненко // Економіка, фінанси, право. № 5. 2006. С. 20-27.
- 13. Ибрагимов К. X. Синергетика и земельные отношения в земельном праве и агрономии / К. X. Ибрагимов // Право и государство: теории и практика. − № 2. − 2007. − С. 131-136.
- 14. Крывцова И. С. Синергетическая интерпретация закономерностей эволюции и самоорганизации правовых систем / И. С. Крывцова // Вісник Луганського державного університету внутрішніх справ ім. Е. О. Дідоренка. Науково-теоретичний журнал. Луганськ: РВВ ЛДУВС, 2007. Випуск 4. С. 57-63.
- 15. Кривцова І. С. Дія випадковості в правовій реальності: синергетичний погляд / І. С. Кривцова // Актуальні проблеми держави і права: Збірник наукових праць. Вип. 34 / Редкол.: С. В. Ківалов (голов. ред.) та ін. Одеса: Юридична література, 2007. С. 105-110.

# Кривцова І.С.

Національний університет «Одеська юридична академія»

# СИНЕРГЕТИКА У ПРАВІ: ПІДСТАВИ, МЕЖІ ТА МОЖЛИВОСТІ ЗАГАЛЬНОТЕОРЕТИЧНОГО ТА ГАЛУЗЕВОГО ЗАСТОСУВАННЯ

#### Анотація

У статті зроблена спроба визначення підстав та меж, пошуку можливостей застосування ідей синергетики у правовій науці, як на загальнотеоретичному, так і на галузевих рівнях. Зокрема, констатується «розширення об'єкта» правової науки, коригування методології правового пізнання, інтерпретація процесу правового регулювання, законотворчого і процесу реалізації права з позицій концепції самоорганізації. Аналіз існуючої практики апробації синергетичних моделей стосовно правової реальності дозволив автору зробити висновок щодо розширення області правових досліджень в світлі синергетики. Проведення правових досліджень з урахуванням ідей синергетики розширює палітру науково-правового пошуку шляхом перенесення акценту на необхідність врахування чинників детермінації процесу розвитку правових явищ, причин не тільки закономірних, але і випадкових; дослідження системних правових явищ крізь призму їх самоорганізації; розгляду еволюції системних правових явищ з урахуванням особливих їхніх станів — станів «перехідності».

**Ключові слова:** синергетика, право, правове пізнання, методологія, правова реальність, правові системні утворення, загальна теорія права, галузеві юридичні науки.

# Крывцова И.С.

Национальный университет «Одесская юридическая академия»

# СИНЕРГЕТИКА В ПРАВЕ: ОСНОВАНИЯ, ПРЕДЕЛЫ И ВОЗМОЖНОСТИ ОБЩЕТЕОРЕТИЧЕСКОГО И ОТРАСЛЕВОГО ПРИМЕНЕНИЯ

#### Аннотация

В статье предпринята попытка определения оснований и пределов, поиска возможностей применения идей синергетики в правовой науке, как на общетеоретическом, так и на отраслевых уровнях. В частности, констатируется «расширение объекта» правовой науки, корректировка методологии правового познания, интерпретация процесса правового регулирования, законотворческого и процесса реализации права с позиций концепции самоорганизации. Анализ существующей практики апробации синергетических моделей применительно к правовой реальности позволил автору прийти к выводу о расширении области правовых исследований в свете синергетики. Проведение правовых исследований с учетом идей синергетики расширяет палитру научно-правового поиска путем переноса акцента на необходимость учета факторов детерминации процесса развития правовых явлений, причин не только закономерных, но и случайных; исследования системных правовых явлений сквозь призму их самоорганизации; рассмотрения эволюции системных правовых явлений с учетом особых их состояний – состояний «переходности».

**Ключевые слова:** синергетика, право, правовое познание, методология, правовая реальность, правовые системные образования, общая теория права, отраслевые юридические науки.