

## ЕКОНОМІЧНА ТЕОРІЯ

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Pawel Bialynicki-Birula

Cracow University of Economics

27 Rakowicka St., 31-510, Cracow, Poland

E-mail: [bialynip@uek.krakow.pl](mailto:bialynip@uek.krakow.pl), ORCID: <https://orcid.org/0000-0002-1736-2003>SYSTEM PERSPECTIVE OF PUBLIC GOVERNANCE<sup>1</sup>

Steering social processes becomes more and more problematic, which implies the necessity to seek new, more sophisticated methods of public policy and forms of social coordination. The condition for their development and then their effective implementation is to learn nature and logic of action of complex social systems, the objective that can largely be met by using system approach.

The paper concerns possibilities to use virtues of thinking in system categories for conceptualization and projection of actions in public sphere. Reflection on the social complexity phenomenon and determinants of system approach application as a method to reduce such complexity, in order to capture the logics of social systems, represents a starting point. Key research issue is represented by deliberations on public governance expressed as steering complex social systems. A lot of effort has been devoted to self-organization phenomenon while making use of the scientific outputs of cybernetics and macrosociology. The conclusion is that in the conditions of complexity and high dynamics of processes, the efficacy of public governance depends on the abilities to use endogenous potentials of social systems.

Redefinition of government role in public authority area should be aimed at, through giving up top-down and narrowly defined interventions for exercising general supervision and active leadership. Thus soft forms of coordination should be opted for, such as *soft law*, with the possibility of further, *ex post*, specification of public policy goals, modelled after standards of contractual relationships. Public actions should have inclusive character, and the goals defined should be an outcome of public debate.

**Key words:** public policies, public governance, social complexity, complex adaptive systems, self-organization.

**JEL Classification:** A12, B4, D02, L50, P41.

Павло Бялиницький-Біруля

Краківський економічний університет

вул. Раковицька, 27, м. Краків, 31-510, Польща

E-mail: [bialynip@uek.krakow.pl](mailto:bialynip@uek.krakow.pl), ORCID: <https://orcid.org/0000-0002-1736-2003>

## СИСТЕМНА ПЕРСПЕКТИВА ДЕРЖАВНОГО УПРАВЛІННЯ

Керування соціальними процесами стає все більш проблематичним, що передбачає необхідність шукати нові, більш складні методи державної політики та форми соціальної координації. Умовою їх розвитку, а потім і їх ефективної реалізації є вивчення природи і логіки дії складних соціальних систем, ефективним інструментом чого є системний підхід. Він може бути успішно застосований як концептуальна основа для інтерактивного державного управління, що охоплює соціальну реальність у категоріях зацікавлених осіб, які створюють мережі горизонтальної співпраці.

У статті розглядаються переваги мислення в системних категоріях в ході концептуалізації і планування дій в публічній сфері. Відправною точкою є міркування про феномен соціальної складності і вирішальні фактори, пов'язані із застосуванням системного підходу як методу зниження динамічної складності і засобу «схоплювання» логіки соціальних систем. Багато уваги присвячено аналізу феномена самоорганізації з використанням понять та результатів досліджень кібернетики і макросоціології. Зроблено висновок, що в умовах складності і високої динаміки соціальних процесів ефективність державного управління залежить від умінь використовувати ендогенний потенціал соціальних систем.

Перевизначення ролі уряду в сфері державної влади має бути спрямовано на відмову від низхідних і вузько визначених утручань при здійсненні загального нагляду та активного керівництва. Таким чином, слід

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вибирати м'які форми координації, такі як гнучке право, з можливістю ex post уточнення цілей державної політики, що конструюються за стандартами договірних відносин. Публічні дії повинні носити інклюзивний характер, а поставлені цілі повинні бути результатом громадських обговорень.

**Ключові слова:** державна політика, державне управління, соціальна складність, комплексні адаптивні системи, самоорганізація.

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**Павел Бялыницкий-Бируля**

Краковский экономический университет

ул. Раковицкая, 27, г. Краков, 31-510, Польша

E-mail: [bialynip@uek.krakow.pl](mailto:bialynip@uek.krakow.pl), ORCID: <https://orcid.org/0000-0002-1736-2003>

## СИСТЕМНАЯ ПЕРСПЕКТИВА ГОСУДАРСТВЕННОГО УПРАВЛЕНИЯ

Управление социальными процессами становится все более проблематичным, что предполагает необходимость искать новые, более сложные методы государственной политики и формы социальной координации. Условием их развития, а затем и их эффективной реализации является изучение природы и логики действия сложных социальных систем, эффективным инструментом чего является системный подход. Он может быть успешно применен как концептуальная основа для интерактивного государственного управления, охватывает социальную реальность в категориях заинтересованных лиц, которые создают сети горизонтальной сотрудничества.

В статье рассматриваются преимущества мышления в системных категориях в ходе концептуализации и планирования действий в публичной сфере. Отправной точкой является рассуждения о феномене социальной сложности и решающие факторы, связанные с применением системного подхода как метода снижения динамической сложности и средства «схватывания» логики социальных систем. Много внимания посвящено анализу феномена самоорганизации с использованием понятий и результатов исследований кибернетики и макросоциологии. Сделан вывод, что в условиях сложности и высокой динамики социальных процессов эффективность государственного управления зависит от умения использовать эндогенный потенциал социальных систем.

Переопределение роли правительства в сфере государственной власти должны быть направлены на отказ от нисходящих и узко определенных вмешательств при осуществлении общего надзора и активного управления. Таким образом, следует выбирать мягкие формы координации, такие как гибкое право, с возможностью ex post уточнения целей государственной политики, конструируются по стандартам договорных отношений. Публичные действия должны носить инклюзивный характер, а поставленные цели должны быть результатом общественных обсуждений.

**Ключевые слова:** государственная политика, государственное управление, социальная сложность, сложные адаптивные системы, самоорганизация.

**JEL Classification:** A12, B4, D02, L50, P41.

**System approach as a method of cognition of social complexity.** Processes occurring in social world are essentially characterized by the following regularities: growth of diversity, deepening complexity and high dynamics of changes (Kooiman, 2008). The concept of diversity is associated with progressive functional specialization and division of labour. It shows the nature and scope of differences existing between social entities, which also represent significant source of innovation and change factor. Complexity, on the other hand, refers to social relations. Concerning the entirety of interactions, it reflects interdependence existing between actors. It also implies specified way of social organization, which structures the interactions taking place within its frames. Social dynamics, on the other hand, is associated with the flow of different types of streams (e.g. energy, information), in connection with structural tensions. The aforementioned phenomena are the source of uncertainty and change, while representing crucial difficulty on the way to govern (steer) social systems. They also stay in close relationship with each other, whereas their growing intensity reflects the impact of such factors as: knowledge development, technical progress or improvements in communication.

Particularly significant research challenge is posed by social complexity that escapes typical cognitive methods based on reductive thinking, which nowadays forms a basis of scientific view of the world. Reductive thinking is based on the assumption that all the phenomena occurring in biosphere can be described by the characteristics of the elements that constitute them. As a consequence, it employs analysis, used for deduction of properties of specified entireties from the

features of their components, as a basic cognition method<sup>2</sup>. Yet, the complexity that exhibits synergic qualities eludes the analytical approach. While characterizing the entirety, it creates its new quality, putting aside the constitutive elements in this respect. Thus the behaviour of complex aggregates that exhibit emergent properties cannot be explained by simple extrapolation of their components.

Therefore, reductionism fails as a method of studying the nature of complexity. Due to the specific character of complexity, alternative approaches are needed. Methods employing holistic thinking – in “holistic” categories – where cognition targets higher abstraction levels provide such an opportunity. Thus, the reduction of complexity or, in other words, its simplification, occurs not so much through “scooping” of details than through their removal from the observation field thanks to adopting wider perspective. Only putting aside numerous details, insignificant when viewed from the perspective of the whole, gives the opportunity to capture key characteristics, functions or tendencies of changes of such organized entirety. Thus, with respect to complexity, synthesis appears to be a useful method, marked by opposite to analysis direction of reasoning (from the entirety towards detail). Synthesis serves studying the properties or behaviours of the specified whole and only on such basis it allows reasoning as to the function and meaning of the components.

Social reality is an example of complexity based on diverse social interactions forming a ground for numerous streams of mutually infiltrating and determining processes. It is marked by high dynamics with significant degree of unpredictability. Relative stability of social system may be easily disturbed by unexpected events, which, on the other hand, may be substantially reinforced by feedbacks. Basically, two types of them are differentiated: positive that have self-reinforcing character and drive the change and negative (balancing) ones, which sustain stability. Due to feedbacks, relatively slight stimuli may in some circumstances lead to fundamental transformations, whereas in other ones, it seems, rationally planned and strongly oriented actions may bring barely noticeable effects or otherwise cause highly undesired outcomes. Social processes may eventually lead to the aforementioned emergence, that is, emerging of higher levels of organization e.g. through spontaneous order (self-organization). They may also prove discontinuous (non-linear) character of changes<sup>3</sup>.

As seen from the above, social life is governed by specific rules and cannot be reduced to individual interactions (not excluding physical or biological phenomena)<sup>4</sup>. To recapitulate, the following reasons for failure of analytical thinking in studying social systems may be indicated (Wadhawan, 2010): 1) difficulty of tracking interaction sequences, 2) overlapping and interaction of numerous processes (iteration), 3) emergence, through coming up of new properties or higher forms of organization of social systems, 4) existence of phenomena of an open nature, non-determined, which cannot be treated as closed or isolated; 5) unstable, and changeable in time, organization forms, in the shape of processes and not static objects; 6) rooting or ensconcing of processes in another ones of higher level, determining behaviour of lower levels. Furthermore, reductionism might be objected for it completely disregards the issues of social life's axiology, which frequently represents crucial factor of human motivation and activity (Kauffman, 2008)<sup>5</sup>.

Solution to the social complexity dilemma should rather be sought on the ground of holistic reasoning. Though already known in antiquity, holistic thinking in science was institutionalized only in the 1950s together with the introduction of, located in its scope, concept of systems<sup>6</sup>. In the simplest perspective, a system represents certain set of elements (e.g. things, parts, individuals) arranged to form specific entirety together with a totality of relations concerning them. Roughly, it may be

<sup>2</sup> In its radical form, reductionism holds that entire reality is nothing else than particles in motion. The essential objection against reductionism is that boiling the world down to action and interaction of particles does not leave any space for meaning, sense or values. Thus, social reality does not reflect assumptions of reductionism.

<sup>3</sup> Linearity of phenomena is specific of Newton's mechanics and, in accordance with its deterministic nature, means that specified change of a given factor inevitably leads to a result that can be precisely predicted.

<sup>4</sup> In mathematical terms, analytical approach may be applied only upon joint fulfilment of the following conditions: 1) lack or negligibility of interactions between the parts and 2) linear character of relationships describing behaviour of the parts. Therefore, the condition of summability must be met, i.e. the equation, which describes the entirety, has to be of the same formula as equations describing its parts. Then, overlapping of partial processes to receive holistic processes is possible. Systems composed of parts, which are interacting, do not meet the aforementioned conditions, and the systems that describe them, including linear differential equations, are unsolvable (Bertalanffy, 1969).

<sup>5</sup> The above objections imply the stance, which favours emergence. Phenomena occurring in biosphere, evolution in particular, are epistemologically and ontologically emergent with respect to physics. It does not mean that biology or social sciences breach the rules of physics and cannot be described by means of its notional apparatus (Kauffman, 2008).

<sup>6</sup> Started at the time by, inter alia, Bertalanffy, general theory of systems aimed at far-reaching universal status, with the ambition to cover different scientific fields with its principles, which faced strong opposition from their representatives. Despite rejection of its universalism, system approach after a wave of popularity decrease in the 1970s, now once again enjoys growing interest.

associated with specific structure that reveals: order, organization and purpose of the action (Skyttner, 2010). System approach serves to display properties that characterize entirety without the necessity to scrupulously go into the interactions of respective elements. It provides knowledge in the scope of logic of action (function), disregarding non-significant structural aspects. Therefore, on one hand it serves reduction (simplification) of complexity, and on the other – its complex (holistic) presentation. It allows, for instance, to explain properties of a system, determinants of its behaviour, as well as functions of respective elements<sup>7</sup>. It is particularly useful in the case of complex beings exhibiting emergent properties leading to higher forms of organization. It allows going beyond cybernetic concept of a black box, which acts based on stimulus-reaction principle, and performance of deepened deliberations concerning functions, actions or reactions of complex levels of social systems organization (Checkland, 2000).

System approach has universal character, which means that it finds application in different fields of knowledge. Essentially, in the theory of systems their three main types are distinguished (Chapman, 2004): 1) natural – specific of biology and chemistry; 2) engineering – in the area of technique; 3) social – related to human populations. Respective type of systems is associated with specified foundations, both ontological and cognitive. And hence, in technical sciences the systems are generally treated as real beings characterized by objective features. In biology and social sciences, on the other hand, the idea of subjective character of systems is dominant. Their construct or representation is considered to be only a rational and theoretical category, which, in the process of cognition, is “imposed” on specific, independently existing reality. The system concept may therefore have highly subjective and selective character. It is a researcher who, by adopting specific perspective, which does not exclude concurrent different capture of reality, constructs a system, e.g. through a prism of different objectives, functions or organization levels<sup>8</sup>. Regardless of the differences of ontological nature, it must be added that fragmentation of cognition is, by definition, so to say, inscribed in the system approach, which *summa summarum* is to represent simplification of reality. And as such, it is always determined by adopted research perspective. Bearing in mind the existence of many levels of organization, as well as functions they fulfil, one must realize that specified system usually represents only arbitrarily chosen piece of larger, hierarchically or functionally organized/composed entirety.

Our findings so far imply that the concept of social system should be referred to specified community of actors bound by relations, as part of which numerous interactions occur. Interactions are structured by commonly shared norms and rules of an institutional character, which constitute and form specified patterns of social organization while setting the tone for social dynamics. Since mutual conditionality of the elements, based on communication happening between them, forms the foundation for organization, the complexity remains in close relationship with the concept of system organization (Ashby, 2004). Organization thus represents emergent property of a complex system, coming to light as a result of interactions of its elements, being a consequence of their interdependence, essentially mediated in the process of communication<sup>9</sup>. Its existence and durability is determined by presence of specified structure, which ensures possibility of constant, repeatable and stable, to an extent, interactions. Thus, with a bit of approximation, social system complexity might be identified as its architecture, where specified institutional structure provides order and durability. It needs to be added that due to its dynamic character, a system is actually not so much of

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<sup>7</sup> Synthesis that forms methodological grounds for system approach may be identified with explanation and understanding, while analysis, opposite to synthesis, serves mainly to describe and gather knowledge (in the scope of construction/structure). System approach expands researcher's perspective by new functions or properties, while analysis reduces them. Analytical thinking focuses on static and structural properties, whereas systemic thinking targets functions and behaviour of the entirety. The analysis allows modelling of the phenomena through reduction of studied phenomena to their specified aspect (or limited number of objects), on the assumption that each of them exhibits specified fixed features that harmonize with predefined laws (Skyttner, 2010).

<sup>8</sup> According to the position of phenomenological tradition, reality cannot be perceived independently from meanings assigned to it by people. Furthermore, the representations should be referred differently to social world than to natural world. The first represents a world of inter-subjective culture and as such it is already structured, i.e. equipped with reasonability structure, which binds people living in it. As concerns the world described by natural sciences, here the existence of objects or phenomena is determined by respective theory (structure of concepts) applied by researcher. Objects exist only in his/her “observational field”, and this in itself is indifferent to observed physical particles. It is a researcher, who “creates” objects, imposing specified form of observed reality. Therefore, the accepted or assumed perspective determines the description and shape of the world. As a consequence no “bare facts” exist, since all that we observe represent a thought-construct created by the activity of our brain. It is always abstracted from wider context of the universe, within the framework of specified interpretation horizon. (Schütz, 1953).

<sup>9</sup> Since in social systems interactions between individuals represent the source of complexity, their intensification results in higher complexity. New information technologies substantially facilitate information circulation thus contributing to intensification of interactions. Information is a mediator of interaction, or it may represent a source of complexity and unpredictability itself.

a static structure than evolving or co-evolving modality, in which countless interactions occur (Hausner, 2013).

System perspective of governance is based on the idea that to exercise control over complex beings, usually the knowledge of key aspects of their functioning should suffice. Knowledge concerning all possible details is not only useless but also counter-productive. Hence the imperative is to focus exclusively on essential aspects of studied (social) phenomena, while disregarding details. Furthermore, due to the fact that variability and dynamics of social life quickly make the proposed solutions obsolete, the issues considered should be approached in individualized way (Skyttner, 2010). This, in turn, leads to the statement that specified decisional context always has significant meaning, and in the long run determines effectiveness of steering/governance of the system.

**Determinants of social systems governance.** Governance of social systems poses a specific challenge due to variability and modality of human interactions, structuration of which by institutional orders and systems of values has only a framework character. Due to their complex character systems represent a subject of numerous, impossible to be precisely captured, processes, the course and outcome of which is difficult to predict. As a consequence, there is no possibility to isolate single cause and effect streams from the whole of events taking place within a system. This represents major obstacle on the steering path, as it rules out an opportunity to predict, as well as assess, the effectiveness of the actions taken. Furthermore, it must be taken into account that systems in different contexts may react differently to applied stimuli and interventions made. The fact that a series of phenomena in social systems have self-activating/spontaneous character, occurring independently from the forms of coordination attempted, also has a significant meaning.

Due to the outlined determinants, it seems that understanding the essence of complex social arrangements, as well as the search for effective methods of governance, should be particularly associated with system approach. By reducing complexity it creates convenient opportunity to capture the logic of a given system, and, as a consequence, a chance to effectively implement steering instruments. Thus, it may be successfully used to overcome outlined cognitive barriers and problems.

Due to the size of the paper, the focus here will be on two groups of issues, particularly significant from the governance perspective: conceptualization of steering mechanisms and setting goals of systems, as well as prioritizing them.

In the scope of governing (steering) social systems, treated as *complex adaptive systems*<sup>10</sup>, two kinds of opposite approaches are in use today (Esmark, 2011): 1) classical – referring to the output of general theory of systems and cybernetics and 2) macro-sociological – drawing inspirations from autopoiesis, a phenomenon known in biology. In the first approach a system is assumed to act mechanically, and its steering is based on induction of automatic reactions according to predefined scenarios. System is steered based on servomechanism using feedback phenomenon. Automatically, and in a predictable fashion, it makes proper corrections to its functioning. So, it represents the logic of an automatic machine, and speaking precisely – homeostat capable of maintaining specified variables in certain defined boundaries. On the other hand, in the case of autopoietic system, there exist no direct reactions to external stimuli. Such system functions guided by its own logic and values, acting within boundaries it rigidly maintains. It thus has autonomous character in relation to its environment, reacting to stimuli coming from there only indirectly and “on its own terms”. In a nutshell, it acts in self-referential way, i.e. in a way specific to itself, while determining the boundary (distinction) between itself and external environment (Luhmann, 1996).

As far as governance is concerned, the difference between two types of steering is fundamental. Namely, a system reacting in a classical way is steerable, i.e. directly and reliably reacts to provided stimuli based on *input-output* principle. It has an open character and smoothly adapts to signals from external environment. The autopoietic system, on the other hand, is self-steering in a sense that it remains under control of values or predispositions exclusively encoded in

<sup>10</sup> It must be indicated that besides already discussed, complex character, social systems represent a special case of open and adaptive systems. For each open system two issues in particular are vital:

1) keeping/retention of system's substance, and 2) ensuring undisturbed performance of key functions. Generally speaking, it is about maintaining system's integrity and identity in the conditions of its on-going transformation in changing environment. Taking into account the dependence on variable environment and the entropy that characterizes animate world, three types of endogenous processes have significant meaning: reproduction, self-regulation and adaptation. Processes of the first type serve to maintain a system through its constant recreation, whereas the latter is about keeping a system in proper condition by absorption and transformation of stimuli coming from the outside. Processes of this type concern the ability of systems to adapt to new conditions, while maintaining integrity and identity. The final outcome of their impact is fluid evolution of systems, occurring in the conditions of dynamically perceived equilibrium.

itself<sup>11</sup> (Esmark, 2011, 94). Thus, it stands out for its closed character and, as such, is not steerable from outside. Influencing it is possible only indirectly, so to say, at a distance, through specific modification of its environment (Jessop, 2011). The outcome of such actions, however, cannot be fully predicted. From autopoietic perspective, systems are viewed as permanently closed, though constantly going into interactions with their environment. Their action is determined by internal, organizationally closed system that generates relationships.

It is noteworthy that complete closure of autopoietic systems is currently under question. It is assumed that despite not reacting on stimuli in a conventional way based on *input-output* principle systems nevertheless create, in a specific way, for it happens only in the process of reproduction, the answers to applied stimuli. Therefore, we can speak about dual nature of autopoietic systems that are operationally closed, while being cognitively opened. Systems adapt to the environment but with the characteristics known only to them, created and maintained by systems (Klijn, 2008). Therefore, in the case of autopoietic system the idea of steering from the outside cannot be completely ruled out, but it concerns not so much the entire system itself but its steering subsystem.

From the governance perspective, the idea of autopoiesis corresponds to self-organization (self-governance) concept. Self-organization represents an emergent order that has arisen through spontaneous fluctuations, which is then maintained by the system based on self-regulation and protected through evolution until with time a new form of organization has emerged<sup>12</sup>. From the public governance standpoint, the ability of social system to self-govern is perceived as its natural property, which represents a specific challenge to external (public) coordination. For it means that any state or event within a system is caused by a system<sup>13</sup>.

As concerns the importance of self-organization phenomenon for public governance, two opposite stances are possible. According to the first one, prevailing at the beginning, self-organization is perceived as a key obstacle in exercising authority (Kickert, Klijn, Koppenjan, 1997). In this approach, it is assumed that autopoietic system cannot be governed from the outside, or it can but only in a very imperfect way at best. It so happens, because any conventional influences on the behaviour of actors meet autonomic counteraction from endogenous self-steering mechanisms. Thus, any external interventions contradictory to values or preferences of a system are either effectively rejected or neutralized by a system. In extreme situations they may lead to its destabilization or even destruction. On the other hand, the opponents take a stance that natural potential of self-governance can and should be taken advantage of through competent "steering from a distance", i.e. influencing the environment of the system and making use of network governance tools (Esmark, 2011).

It seems that both perspectives: classical (mechanistic) and macro-sociological (autopoietic/biological) should, in the context of social systems, be treated in the categories, which are admittedly fruitful and inspiring, though used only as analogies. By means of them complex processes conceptualizing might be attempted, but we need to bear in mind that they are going to serve only as reality approximation. Assumption of any of the two not only represents specific way of world perception, but also certain ideological attitude. For the classical approach is associated with justification of effectiveness and reasonability of directive governance (direct public interventions), as well as acceptance of hierarchic forms of coordination (centralization). Autopoietic perspective, on the other hand, is closer to neoliberal trends based on respecting subjectivity of social actors, negatively perceived freedom and subsidiary role of state towards self-organizing reality. It justifies definition of only the framework for the action of empowered units by public authority, and decentralization and interactive forms of governance based on soft forms of coordination (e.g.

<sup>11</sup> In principle, the concept of autopoiesis assumes that a system represents its own *output*. Autopoietic systems are then self-steered, self-controlled and autonomous. Besides, they are recursive, i.e. they reproduce themselves in their own framework – events and operations occurring within a system are determined by endogenous factors, occurring as a part of recursive reproduction of a system.

<sup>12</sup> The essence of self-organization phenomenon is based on the fact that it represents the outcome of the process, as a result of which seemingly incoherent and chaotic arrangement transforms into ordered and coherent whole. Transformation of non-balanced nature occurs, which results in transition of a system from micro- to macroscopic scale. What is more, the emergence of self-organized entirety is impossible to be anticipated from the properties of individual elements. The condition for the occurrence of self-organization processes is system's situating itself in a point that is far from equilibrium (Batten, 2001).

<sup>13</sup> Biological perspective substantially contributed to development of concepts associated with self-organization (self-reference, self-steering). It implies significant reorientation as to the objectives of *self-governance* logic from now on understood as meta-steering or *second-order governance*. Perspective of autopoiesis indicates that social entities establish internal processes that serve reproduction and adaptation, where internal organization, key values and culture determine their identity (Chapman, 2004).

network approach). Due to deepening social complexity and dynamics as well as activity in public sphere of various empowered stakeholders, autopoietic analogy seems to be particularly valid today.

Moving to the issues of specification of objectives in the context of systems, it must be emphasized that these are problems inherently related to the governance issue. The questions then appear, what the issue of identification and prioritization of goals looks like in case of social systems, and how the processes, which are supposed to contribute to implementation of the goals, run.

It seems that in order to obtain answers to the above questions reference to the findings concerning the complexity should be made in the first place. As we remember, complexity is associated with uncertainty and impossibility to predict either future events or their consequences. In the context of complexity, two types of problematic situations are identified (Chapman, 2004): the ones in which reaching consensus as to the nature of the problem and possible ways to solve it (*difficulties*) is possible, and the cases, when there is no consensus as to placement of the problem, let alone agreement as to possible actions (*messes*). In the first case, although the objectives themselves can be identified, prioritization may pose a problem in the situation of competition between them. In the second case that takes place in the situations of deep uncertainty, it is difficult to say anything at all about precise identification of goals. Thus, it should be assumed that in the situations of complex social reality, possibility to set a straightforward objective is usually ruled out. Hence, the question of general nature comes up, whether we can, at all, in this case say about governance of social systems that may be associated with uncertainty that excludes the possibility to define a problem, let alone set objectives that contribute to its solution. It seems that two types of action methods may prove helpful, both within the frameworks of system thinking.

The first refers to so-called *soft systems* developed by Checkland and postulates to give up search for one, "obvious" to solve, problem for the concept of its definition as "problematic situation", which certain people, for different reasons, perceive as difficult (Checkland, 2000). Possibility of many interpretations of the problem is thus allowed, accompanied by the assumption that in complex situations numerous models of its understanding should be constructed, together with different ways of actions. Then, out of many possible interpretations, the final choice of objectives, which are cognitively most significant, should be made. The assumption is that their "working out" will happen through emergence in the course of debate between different actors. Proposed method is referred to as modelling of *human activity systems*.

Chapman proposed competitive approach, assuming the perspective characteristic of stability (homeostasis). Specification of objectives and their prioritization in this approach should depend on the distance of considered aspects of the system from their acceptable norms. Therefore, such actions should be taken until system parameters end up within boundaries considered appropriate. This is to imply that prioritization is determined by the context, and thus goals, as well as governance, to a large extent should consider circumstances of changes to such context (*driven by events*). At the same time, a tendency to focus on carrying out one, clearly specified and quantifiable objective should be eliminated. Such action is very likely to deform system functioning, the consequence of which will be its suboptimal operation. Thus, eventually, in complex adaptive systems the necessity to take on bundles of objectives should be assumed, with weights referred to the extent of deviations. Only end users (beneficiaries) of the system will be able to effectively assess reasonability and achievement of such objectives.

It appears that application of specific approach in public policy practice with respect to goals prioritization is determined by circumstances, and time pressure in particular. The first of the presented perspectives, which assumes a kind of deliberation, will be appropriate in the situation of some decision-making freedom, whereas the second one, will apply when decisions must be taken quickly. However, contemporary political thought indicates that in problematic situations, while acting under time pressure, decisions are usually made intuitively *ad hoc*, and only afterwards *ex post* justification for them is sought (Sabatier, 2007). *Implicit*, both approaches independently point to the significance of context in the scope of decision-making. It brings about a series of important consequences. First of all, changeability of the context results in the necessity of constant and fluid modifications in the scope of actions (decisions) taken. Therefore, the issue of learning comes to the fore. Constant adaptation to new circumstances requires adequate knowledge and reflective capability of internalization and application of such knowledge. Adaptive system must therefore be equipped by mechanisms that ensure learning. Secondly, situational variability rules out static conceptualization of decision-making processes that would assume a sequence of clearly separated

phases following one after another (Zaharadis, 2007)<sup>14</sup>. The processual character of decision-making, assuming intertwining of phases, streams and sequences of actions should then be opted for. This is definitely a dynamic vision, where there is no place for logically separated stages of decision-making process.

**Conclusion.** To recapitulate the observations presented herein, it must be said that system perspective provides valuable indications, which could form a basis both for theoretical conceptualization and practical actions in the scope of public governance. It seems that solving social problems in the conditions of complexity, viewed from system perspective, should first of all jointly respect the following issues: internal logic of specific systems and contexts of problematic situations. Certain degree of operating autonomy (closure) of complex systems, which may significantly limit or even disable effectiveness of direct interventions, must be taken into account. Thus the opportunity of hierarchic (mechanical) steering is strongly limited by factors related to autonomic character of social entities and high dynamics of social phenomena. Systems, as we established, may act, so to say, on “their own terms”, guided by specific logic, which, depending on a context, may result in different behaviour of the whole. Therefore, recognizing and respecting this logic, while allowing for various outcomes of the actions taken in different situations, becomes key.

The above implies that in the conditions of complexity and high dynamics of processes the effectiveness of public governance should first of all be based on using endogenous potential of social systems. It must be assumed that the goals, which essentially respect priorities of social entities and were developed in cooperation with them, will have higher chance of being achieved. Hence, if possible, public actions should have inclusive character, and defined goals should represent an outcome of public debate. At the same time, wide, to an extent possible, specification of frames of actions should be aimed at, through indicating boundary conditions, while leaving social entities specific range of autonomy and freedom as to the choice of ways of achieving generally set goals. Therefore, soft forms of coordination, *soft law*, should be opted for, as well as an opportunity should be left to further specify goals of public policy, *ex post*, patterned after relationship standards in contractual relations.

Taking into account determinants of public intervention, the situational context may not be disregarded in yet another aspect, namely the urgency of intervention. In urgent situations, top-down interventions should be allowed without question, though the possibility of either their limited effectiveness or/and occurrence of unexpected consequences must be reckoned with. On the other hand, in stable conditions long-term influence targeted at activation of “cognitive” properties of the social system, through acting not so much on the system itself but rather on its institutional environment (conditions of action), should be sought. It is associated with the necessity to change the perspective and give up the reasoning based only on simple definition of goals for stimulation of learning processes that may result in adequate modification of internal mechanisms of the system. Therefore, it is about application of process approach in the context of a given problematic situation. In this sense prioritization should primarily refer to possible directions of impact and envisaged effects.

It appears that system approach may be successfully applied as conceptual basis for interactive *public governance* that grasps social reality in the categories of empowered stakeholders who create networks of horizontal cooperation. Due to interdependence that characterizes them, they have a nature of *sui generis* complex, social subsystems. Networks on one hand are immunized to external interference and control, while on the other they are characterized by peculiar forms of self-governance. In their actions they are guided primarily by specific priorities, values and preferences. Communication amenities result in processes of network consolidation through reinforcement of interactions, and, as a consequence, lead to social complexity deepening. Hence, steering social processes becomes more and more problematic, which implies the necessity to seek new, by definition more sophisticated, methods of public policy and forms of social coordination. The condition for their development and then their effective implementation is to learn nature and logic of action of complex social systems, the objective that can largely be met by using system approach. Thanks to complexity reduction, it proposes valuable look on the essence and nature of social phenomena, while acting as an inspiration for politicians and public policies run by them. It should

<sup>14</sup> Political process is usually illustrated as a sequence of clearly separated and subsequent phases, covering at least: initiation, formulation, implementation and assessment of politics.

also invite to redefinition of government role in the sphere of public authority, by giving up top-down and narrowly defined interventions for the general supervision and active leadership.

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