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The Importance of the System Category in Security Studies

Znaczenie kategorii systemu w naukach o bezpieczeństwie

• **Abstract** •

Using qualitative methods of source analysis and tracing the process of scientific discourse, an attempt was made to answer the research question: What is the relevance of the system category for security sciences? The study provides arguments in favour of confirming the author's hypothesis that the category of system constitutes one of the universes of security sciences in terms of research object as well as methodology. In addition, the category is important for defining the identity of this scientific discipline.

Keywords: security sciences; security system

• **Abstrakt** •

Wykorzystując metody jakościowe analizy źródłowej i rekapitulując stan dyskursu naukowego, podjęto próbę odpowiedzi na pytanie badawcze: jakie znaczenie ma kategoria systemu dla nauk o bezpieczeństwie? Artykuł dostarcza argumentów przemawiających za potwierdzeniem postawionej przez autora hipotezy, że kategoria systemu stanowi jedno z uniwersów nauk o bezpieczeństwie zarówno pod względem przedmiotu badań, jak i metodologii. Ponadto kategoria ta jest istotna dla określenia tożsamości rzeczonej dyscypliny naukowej.

Słowa kluczowe: nauki o bezpieczeństwie; system bezpieczeństwa

Introduction

Security sciences, in a more or less deliberate way, are associated with security. It is worth noting, however, that they are most often combined in the sense of a subject-object relationship (what and whom does security concern?). This distinction makes it possible to refer to the concept of a social system as an empirical (real) category. Moreover, such a linking of subject and object provides an interesting

research object for the description and scientific analysis of the system as a category not only of analytical security science.

A theoretical category means "a specific type of concept, used in the construction of strictly general sentences that have explanatory power" (Pietraś, 1986, pp. 28–29), thus certainly the concept of system can be described as such a category. This is because it is a general concept with a large number of designators, playing a significant role in the study of security in the broadest sense, constituting the value and importance of the identity of this discipline (Gierszewski, 2022, p. 91). Treating the system as a central category of the subject of security science research may constitute one of its theoretical universes.

A fundamental problem in the application of the system category remains the fact of divergent interpretations of its meaning across different scientific disciplines.

The impetus for the research is the difficulty in defining a universally accepted object of research in security sciences, which makes it difficult to build an identity for this scientific discipline. The category of system may constitute such a universe. The security system as an organised whole, which becomes the object of study, is characterised by properties that distinguish it from its surroundings, while not being a simple sum of the characteristics of its elements.

Methodological assumptions

The paper answers the following research questions: What is the relevance of the system category for security science? What are security systems and how are they defined? What should be taken into account when studying a security system?

The research objective is to determine the significance of the system category in security sciences. It is important for the identity of the discipline to systematise knowledge about the category of the security system, to address its various meanings and its impact on the development of the discipline to date, and to identify new directions of development. Moreover, attempting to address this issue is also an opportunity to better understand the subject of research.

A critical analysis of the literature and the existing scientific discourse based on it was made the primary research method.

The hypothesis of this thesis is the formulation that the category of system, despite the development of competing categories on the grounds of different scientific disciplines, remains one of the universes of the scientific discipline, essential for the preservation of its identity. The author verifies this hypothesis by interpreting the

category of system as a specific conceptual category present in many research schools, referring to the ontology and epistemology of security research.

Jay S. Goodman, referring to international relations, has distinguished leading ways of conceptualising the category of system (see: Goodman, 1965). For him, a system is a category of description, explanation and method used.

There have been many interesting empirical and theoretical works in contemporary Polish security science that refer to the category of national security system (Kitler, 2019, pp. 7–9). The pioneering work of Waldemar Kitler and Andrzej Glen continues to provide a legitimate starting point for contemporary theoretical reflection in Poland.

At the same time, there is an ongoing theoretical debate about the identity of security science as a discipline. The author's observation is that there is no major debate in which there is no reference to the category of system. Therefore, it can be considered that the study of social systems using systems analysis is another one of the universes of this scientific discipline (Gierszewski, 2022, pp. 59–76).

In systems analysis, objectives, both of the system as a whole and of its individual components, are fundamental. Clarifying these categories is essential for security systems research. The security system was created as a result of specific objectives and is subordinated to certain interests, values and needs of the state. The achievement of objectives is one of the criteria for assessing the effectiveness of the system.

In systems analysis, the safety problem is addressed in terms of system equilibrium or acceptable threat level. Systems analysis can be used to study a selected category of hazards.

Thus, the priorities of the security sciences include the structuring of the research field of this scientific discipline, the clarification of the theoretical identity, the integrated study of the variability of security processes and the perception of these processes for the determination of an acceptable level of security.

The research tradition outlined above in terms of the conceptualisation of the security system category provides the essential inspiration for addressing this issue.

Security science has historically formed as one of the 'post-disciplines' of military science, namely as a discipline that studies military and non-military systems (Glen, 2011, p. 25). The development of contemporary scientific disciplines is based on the creative combination of notions and concepts of research fields (trans-, multi-, and interdisciplinary approaches). The lack of definition of a universe means that eclectic and post-positivist concepts (e.g., pragmatist and constructivist) are gaining prominence. Systems research itself is oriented towards learning about security problems and solving problems within the system. It can be assumed that the

so-called state security system became the object of study for the new discipline that security science was to become.

It therefore appears that an attempt to formulate the assumptions of the system category allows for a valuable structuring of this research field. It is therefore necessary to reflect on the category of system, as well as possible applications in the study of security problems (opportunities, challenges, risks, and threats).

System definition

The security system is a vague concept, defined in various ways, appearing in a variety of conceptual schemes.

In the study of social systems, it must be assumed that the social world is governed by different principles than the laws of science, as formulated in the natural sciences.

It is assumed that a system is an internally ordered arrangement of elements having a specific structure. Józef Kukułka assumes that a system is primarily a method of thinking about complex wholes (natural or social), based on:

  – presenting research objects as structures, with inputs, outputs and communication channels (a structure is defined here as a set of couplings between elements);
  – relating the observed elements: phenomena and processes, to the whole structure; concretising images of the studied objects as internally organised wholes (Kukułka, 1978, pp. 157–162).

Ziemowit J. Pietraś extended the understanding of the category of system, which he defined in two ways, ontologically and methodologically. This analytical division is very useful for security researchers. A system in the ontological sense is "an international system existing objectively in the world". A system in the second perspective, i.e., in the methodological sense, is a research tool, a conceptual model that makes it possible to analyse and explain international phenomena and processes (Pietraś, 1986, pp. 114–116).

The popularisation of systems theories is often present in the security sciences.

The category of security system plays an important role in the conceptual grid of the security sciences. The perspective on the use of the system category in security studies fits directly into the arguments about the object and method of study.

According to Waldemar Kitler, security system should have several important characteristics. These include:

1. a boundary marking the area and extent of distinctiveness from the external environment,
2. a common goal, and a sense of unity of structure not only of the individual elements, but also of the whole,
3. organisational agility, which is based primarily on values, principles and norms that regulate the activities of links and individuals in the processes occurring in the system,
4. the organisation of the system, i.e., the internal layout and the relationships between the links in the system,
5. the interaction of different organisational elements to ensure that a common goal is achieved,
6. the management that directs the functioning of the individual links that shape a particular structure (Kitler, 2019, p. 21–23).

Systems are wholes whose specific structures arise from the interaction and interdependence between their constituent parts. Systemic characteristics are destroyed when a system is divided (physically or theoretically) into isolated components. It is important to remember that, although parts can be distinguished in any system, the nature of the whole system is always different from the simple sum of its elements. An example of a concrete (real) system is a state with a defined territory, society, and sovereign authority.

In a state's security system, one can distinguish between areas that are often referred to as subsystems: economic, political, military, and social. Economic security is associated with the ability of the state's economic system to ensure an acceptable standard of living for its population through access to raw materials, services, markets, technology, or capital. The political subsystem sets goals for the entire system and has a wide range of methods and tools, including institutions, to achieve them. The essence of military security is to protect the needs and values of the state. The priority objectives are the preservation of the totality and integrity of the territory, the survival of the nation and the preservation of state identity, and the maintenance of sovereign power. Social security refers to individual social security and group cultural security.

The malfunctioning of any of the above-mentioned subsystems weakens the whole system. An inefficient state economic system affects social security, so dissatisfaction with social benefits causes social protests that can destabilise the social order in the state.

A systems approach refers to a set of interrelated and complementary concepts and theories that captures reality in a holistic manner. It is linked to the functionalist paradigm through the notion of system integration, understood primarily in terms

of functional coherence and by seeking to maintain balance in the system (home-ostasis). Homeostasis is the ability of a system to maintain a dynamic equilibrium with its environment.

The application of systems analysis to the study of politics was first addressed by David Easton, who pointed out the possibility of analysing the processes taking place in the state through the prism of the political system. The sociologist Talcott Parsons, on the other hand, can be considered the forerunner of systems research within the social sciences (Parsons, 1951). A social system must be able to adapt (economic subsystem), achieve goals (political subsystem), integrate (educational subsystem), and maintain patterns of action (subsystem: religion, medicine, counselling). This is the so-called AGIL model (Gierszewski, 2022, p. 61). The analytically necessary elements of such a system are also the categories identified by Parsons in the form of subsystems such as organism, personality, social system, and culture.

Authoritatively, the category of the security system can be defined as a set of complex principles, identified by researchers, which regulate the behaviour of authorities and institutions responsible for state security at different levels of its organisation established to ensure it at an acceptable level. In such an understanding, the state security system is an analytically distinguished set of general principles of this system in relation to the environment (internal threats) and the surroundings (external threats).

The security system is objective-subjective in nature and belongs to the sphere of social relations. Mapping the tangible and intangible threats that affect the security system and skilfully interpreting the actions of selected security institutions can be a fundamental task for security science researchers.

The need to apply the system category to describe the level and processes of security is particularly important, as virtually all security problems are systemic problems that can no longer be understood using fragmentary mechanistic methods. It can therefore be assumed that the main motive for the emergence of security science (on Polish ground) was to learn about security systems, to describe, explain and forecast them.

System components

The elements of a system are delineated in different ways by researchers. They may represent material, qualitative, quantitative value or institutions, their activities and the interactions between them. The elements of a system are integrated and coupled to each other, and cannot be subdivided unless they themselves constitute a system.

The idea of the biological origin of the system comes to the fore with the key belief that systems must ensure their survival (sustainable and reproducible existence) under conditions dictated by a changing and complex environment (Luhmann, 1982). This environment is only partially under the control of the system in question.

It is most often assumed, in accordance with the assumptions of the general theory of systems, that a system (including security) has a hierarchical structure, i.e., it is possible and justified to separate lower-level subsystems within it. In the state security system, systems can be distinguished – military and non-military. Within the military subsystem, further subsystems can be separated – armed forces, special services, diplomacy, etc.

Security system analysis can also focus on the internal sphere of the state (environment), and the study of the external activity of the state within the international system (surrounding). Accordingly, security system analyses can address the global, macro, meso, and micro and micro-micro levels. It should be emphasised here that the system's surrounding is everything that is outside the system's boundary and does not indirectly affect the system. International security systems for representatives of security sciences should be studied as the surrounding of the security entity, among other reasons, because they have several specific characteristics that distinguish them from intra-state systems.

System theories refer to the assumption of the existence and definition of a certain whole, or system. Fundamental to the functioning of a system are the relationships between its elements. These determine its distinction and characteristics.

The system under examination should be considered as a separate system. It can be a state, a security institution, or a set of security measures undertaken, such as a system for preventing domestic violence (Gierszewski, 2019).

There is a consensus in the security sciences in Poland in defining the national security system. It is not merely a deductive theoretical construct, as it refers to a state existing in time and geographical space. In doing so, it takes into account the numerous interrelationships that exist between different elements (institutional, axiological, social, economic, etc.).

The security system is close to the aforementioned concept of T. Parsons and is centred around the tasks of defence, protection understood as security and public order, and support related to economic and community (socio-cultural) security.

There are several widely accepted (universal) terms in the literature that refer to the national security system. To these should be added the command and executive system.

The leadership subsystem is a fundamental and essential element of the national security system. It consists of the institutions of public authority and managers of

organisational units that perform tasks related to national security, together with advisory bodies and administrative apparatus, as well as procedures and relevant infrastructure. A special role in the national security management subsystem is played by the President of the Republic of Poland and the Council of Ministers, ministers, the provincial governor, and local government administration bodies.

For the protection and defence of the state and its citizens, it is an important task to organise such a system that will ensure that the various institutions set up to deal with the various threats work properly.

The functions of a system are essentially determined by the overlap of two divisions. The first is the externality (surrounding)-internality (environment) relationship and the internal structure of the system itself. The second division, the instrumentality-objectivity dichotomy, is – in other words – the dichotomy between means and ends. It is the orientation towards some ultimate goal to be fulfilled by the system and, at the same time, the orientation towards the activities that make this goal possible.

The use of the category of system allows a tighter definition of the object of research in security sciences, while the category of system itself corresponds to other concepts such as system, set, or group. But the concept of system enables a more multidimensional grasp of social wholes in their problematic, because different from biological, complexity.
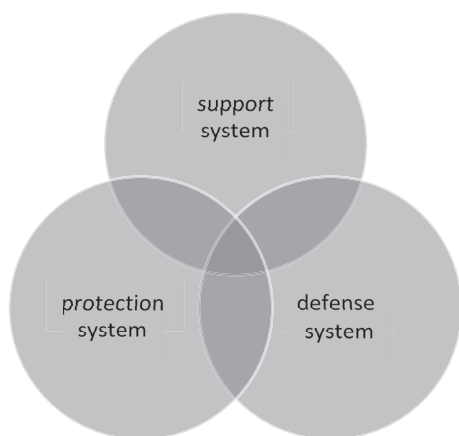

Figure 1. Examples of Elements of the State Security System

Source: Author's own compilation inspired by *The National Security White Paper* (*Biała Księga Bezpieczeństwa Narodowego RP*, 2013).

The state security system is often a normative and strongly valued concept. The concept of security, as already shown, is the realisation of the common good, which requires the establishment of a certain order (organisation) defining relations of superiority and subordination in the system. The establishment and perpetuation of these

relations requires, in turn, the creation of social devices in the form of institutions and procedures, which constitute the patterns of operation of a given system. These patterns are found primarily in security strategies and defence doctrines.

Thus, it can be assumed that the security system is made up of public administration bodies with their executive apparatus, economic institutions and non-profit organisations participating in state security activities in protection, defence and support systems, which are established on the basis of rules and legal norms governing their mutual relations.

The security system, both methodologically and ontologically (a set of facts and analyses), is the result of the selection and conceptualisation of data, forming structures – that is, syndromatic analytical constructs.

Table 1. Examples of Functions of the State Security System

Function	System	Functional subsystem	Lead institution
Protection of security and order	Internal security	Public security	Police
State border protection	Internal security	Public security	Border Guard
Fire protection	Internal security	General security	State Fire Service
Protection of the system	Internal security	Public security	Internal Security Agency

Source: Author's own study.

Another distinguishing feature of the security system is the interactions between the components of the system, i.e., the interactions between institutions that result from their statutory competences in the system. These are the components of the reality in which the system operates. These are usually challenges, opportunities, risks and threats, which, by means of their totality, create new features or characteristics of the system.

A security system boundary is an analytical concept that is used to separate a system from its environment. System boundaries are often conventional in nature. As such, they are dependent on the purpose of the study, which is undertaken in relation to the function and evolution and environment of a particular system. More figuratively, a system boundary can be depicted as the line of intersection of received and sent impulses ('inputs' and 'outputs') by the system itself (Gierszewski & Pieczywok, 2019, p. 19).

The surroundings of a system is that which is outside its boundary. In contrast, the concept of the environment of a system encompasses that which is within its boundaries and has a causal and coexistential relationship with it. The environment

and surroundings are therefore not without influence on the system itself and vice versa. Hence, the next analytical categories of the system are phenomena related to the interaction between the system, the environment, and the surroundings.

Intra-system conversion is the process of processing stimuli received by the system. These are most often threats of various kinds. Feedback, on the other hand, concerns the response to a threat that occurs in the environment or surroundings.

The analytical concept of the system formulated by Easton was a relatively simple yet effective way of depicting the phenomenon of the exercise of power and its processuality, based on relative, periodically received social support (legitimacy) and specific material and symbolic resources, defined as policy principles/values. The state security system, on the other hand, provides a framework for identifying security processes and values, needs and interests. In doing so, the very concept of the state security system does not remain an abstract, as it refers to a concrete political entity – the state.

Systems analysis

What can a security system analysis be? It can refer, for example, to a study of:
- – content or meaning of the system,
- – system development process,
- – the performance of institutions in the system,
- – system evaluation.

It can be assumed that the key functional elements of the system are: institutions, rules for the functioning of institutions, and norms defining the relations between institutions. On this basis, the analytical positions of the security system can be distinguished: institutional, behavioural, structural, functional and mixed.
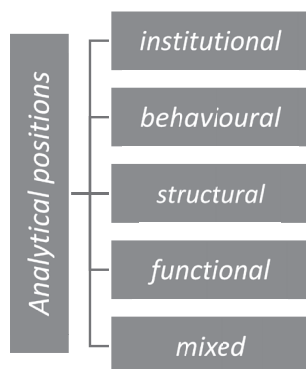

Figure 2. Proposed Security System Analysis Positions

Source: Author's own elaboration.

The institutional position is related to institutions, which in their tasks are supposed to provide security at an acceptable level in specific areas. Klaus von Beyme argues that specific institutions, systems of separation of powers and the organisation of governance are the most valuable mechanisms for controlling society (von Beyme, 2005, p. 87). In this sense, the security system can be identified with a system of governance dependent on political power constructing security policy. Hence, the security system is regarded as a process of two-way flow of information and energy between political power and security institutions. This process has three stages: input (issuance of a legal act, a political decision), processing (i.e., intra-system conversion), and output (effects of its implementation). Security institutions provide defence, protection and support to security actors.

System structures are a stable pattern of relationships occurring between system elements. The interrelationships interact on a feedback basis, providing (or not) an acceptable level of safety for the system as a whole. The security system in this case is primarily seen as a collection of elements, among which are the structures, the relationships between them, the rules and norms governing their operation.

In order to understand certain phenomena occurring in a system, it is necessary to grasp the structure in which they occur, or to build a model that explains their role in the system.

In statist terms, the concept of a security system refers to the systemic and institutional issues of state security. In this way, it ceases to be merely a deductive theoretical construct that refers to a state existing in historical time and geographical space and perceived through the prism of, on the one hand, principles, rules and constitutive features, and refers to – the interrelationships occurring between the various elements inherent to it (institutional, axiological, social, economic).

Figure 3. Systems Analysis Procedure in a Security Study
Source: Author's own compilation based on: Koźmiński, 1976, p. 38.

The behavioural approach, as applied to the issue of security systems, stems from the conviction that an analysis of the normative aspects of security leads neither to an adequate description of the system nor, still less, to an explanation of its theoretical basis of functioning, which should be the main task of science. Instead of analysing norms, behaviouralism proposes to study the expectations and behaviour of the security subject's attitudes (perceptions). It assumes that all organisms are shaped

by the environment. If a system is a product of the environment then it is possible to know the elements of the system that have shaped it.

The mixed orientation combines different analytical attitudes towards the concept of 'security system'. The most common is classical structuralism and a neo-institutional interpretation. It assumes that the structure has the character of an ordered system, i.e., that it is composed of such elements that a modification of one element causes modifications of the others. Institutions, on the other hand, are seen as the basis of the social order, which to some extent offset the sense of insecurity.

The functional cognitive stance of the system is based on the assumption that the most important functions of the system are seen on two levels: as a whole in relation to the environment, and the individual parts of the system in relation to other elements. Emphasis is placed on the goals and functions of the system.

Some researchers emphasise that the security system is a dynamic social process taking place within the different levels of state organisation. The essence of this process, in this case, is the transformation of threats into security actions and decisions. For other positions, the most important thing is the mechanism of functioning of the elements of the security system, regardless of their nature and characteristics. Still others emphasise the importance of the relationships taking place within the security system and between the environment and its surroundings (Piwowarski, 2020). Then the security system is understood as a certain whole, composed of parts (subsystems) interrelated with each other. The smallest, simple particles are the elements of the system, and the links between the elements form its structure. The system is characterised by variability over time; it also has its own internal dynamics and boundaries, separating it from its environment. It is oriented towards adaptation, goal achievement, integration, and conflict resolution.

The security system and its constituent institutions are a frequent field of research on which representatives of various knowledge disciplines focus their attention.

Similarly, systems analysis is a research method that is used in many scientific disciplines. It was initially used in the natural sciences and later became widespread in the social sciences alongside classical analysis.

If the question were posed: is security the result of consensus or conflict? – then the main motive of systems analysis would be directed towards learning about the security system based on one of these theories' description and explanation. Learning about the functioning of the system would be aimed at how the science is (or can be) used in practice.

Also to be resolved is the question of whether the object of study of security sciences is something distinctive or whether it is used by other scientific disciplines?

In shaping the identity of this scientific discipline is the undoubted fact that the majority of researchers are representatives of dispositional groups, and to a lesser extent of political and administrative sciences, legal sciences, or management and quality sciences.

Elements that make up the security system

Different types of relationships arise in a system. The first are unidirectional, asymmetric and fixed and reciprocal relationships, which have a system-forming value. Actions are related to different security actors. Values, principles and norms of a legal and non-legal nature, on the other hand, give the system an axiological dimension. At the core of the system are permanently organised structures: security bodies and institutions. They are the ones that give the overarching (state) system its content and basic direction and determine the shape of the applicable war doctrines and security strategies.

Within this type of relationship, one element is the sender and the other the addressee of its actions (unilateral coupling). The security of the subject depends primarily on the actions of the state (the sender), whose role is to ensure security in many areas of the activity of the referent subject (the addressee), e.g., protection from crime or guaranteeing the right to a decent life.

The systemic approach allows for the formation of a new view of security seen not only from the perspective of protected values, but a number of other elements

- security institutions (including bodies)
- security needs
- security values
- links and interdependencies (interaction) in the security area
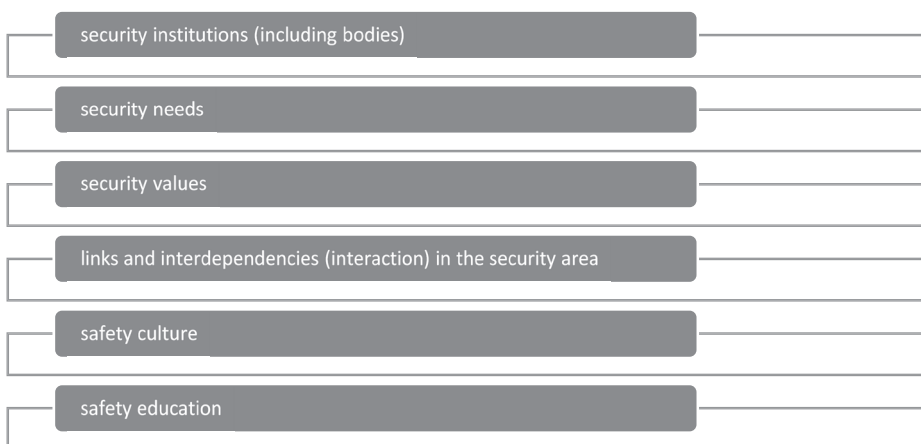- safety culture
- safety education

Figure 4. Relevant Categories of the Security System
Source: Author's own study.

that are interrelated. This introduces categories related to the various social systems created for the security of the subject, allowing for a broader analysis of the security phenomenon.

The security system is subject to change, i.e., evolving, although its typical tendency is to strive to maintain homeostasis. However, there are certain categories that are associated with the system. Thus, security institutions have been set up to perform specific tasks. These tasks derive from generally accepted norms and values important for state security (Gierszewski, 2022, p. 176 et seq.). The need for security is, in Abraham Maslow's terms, one of the primary human needs and belongs to the group of basic needs. From the point of view of state security, the values are survival, territorial integrity, and political independence. In assessing the effectiveness of the system, it is important to analyse the actions taken by authorities and institutions and the links and dependencies in the area of security interaction.

The security system can also be defined as the functioning structure of an institution to ensure an acceptable level of security, consisting primarily of elements such as:

– legislation,
– steering system,
– executive system.

The essence of systems research is:

(a) detecting the causal factors of the organisation of dispersed elements into a whole,
(b) describing the principles and relationships that characterise the whole,
(c) establishing regularities in the functioning and development of the system (Kuźniar, 1990, pp. 252–256).

The security system in its continuance is determined by political decisions, which are within the competence of those exercising political power. Given this regularity, the behaviourist and functional orientation seems to be the most useful for a systemic understanding, according to which the security system is equated with the process of transforming social impulses into political decisions and actions. It is worth noting at this point that this approach focuses on a phenomenon of fundamental importance – the 'behaviour' of the system, its pursuit of equilibrium, as well as the achievement of the fundamental goals of the system's operation.

Systematic inquiries in the form of security systems research should lead to answers to questions such as.

– What effects has the adoption of solution X had on the system?
– Which alternative solution X would be best for the functioning of the system?
– What impact has the threat Y had on the system?

Among the many issues related to the security system, perhaps the most important is the effectiveness of its functioning, especially the setting of criteria for this effectiveness. In the field of praxeology there is now a well-established regularity which can be reduced to the following finding: a security institution or a whole system functions effectively when, thanks to its actions, it achieves the objectives set by the management system.

For a security system to be called effective, a *sine qua non* condition is that it meets three criteria. Firstly, the system is capable of ensuring its own existence (survival), secondly, it must create the conditions for comprehensive economic, social and cultural development, and thirdly, it must guarantee social order within the state.

In contrast, systems analysis of security, depending on the subject matter, is divided into:

– macrosystem (covering the state security system as a whole),
– medium level (concerning the region),
– microsystem (focusing on localism and the individual).

The state's security system has to adapt to changing conditions, which is necessitated by the environment of the system in question. The process of adaptation is dynamic, which means that the security system undergoes permanent change. Disruption of homeostasis in the extreme case results in the collapse of the system, which ceases to exist. The adaptation process should be enforced and supervised by the homeostat of the system, i.e., the decision-making centre (steering system). This means that the absence of a decision-making centre in the security system or chaos in its operation translates directly into the adaptive capacity of the system as a whole.

Systems thinking about security occurs in parallel with a profound change in the values of security perceptions. Changes in security perceptions can be linked to anthropocentric instead of state-centric thinking (Gierszewski, 2018). With regard to the way of thinking about security, a shift in emphasis from a rationalist to a structuralist attitude, from a reductionist to a holistic attitude, from linear to non-linear thinking can be assumed.

Summary

The security system can be one of the universes of security science. As a major theoretical category, it denotes the essential structure within which the security subject is provided with an acceptable level of security. In other words, it is an essential element of the structure set up to provide security to the subject at different levels of state organisation and different areas (domains).

Within the operation of the system, the following categories can be distinguished:
- ontological, which should address what individual researchers consider to be particularly important in the operation of security systems in the ontological layer, i.e., the functioning of the system structure (what kind of entity is it?),
- epistemological, which should address the epistemological layer, i.e., what is considered to be the elements that raise the level of cognisability of the security system and tell what the limits and values of this cognisability are (with what methods to cognize it?),
- axiological, which should concern the axiological layer, which is the basis for the implementation of the search for values and ethical norms that should apply within the security system (what values should be protected?).

An analysis of the security system category can therefore be made under the assumptions that the bodies and institutions in the security system perform certain socially necessary functions – regulatory, normative, and cognitive.

Table 2. Selected Safety System Categories

Category	Category characteristics
Military security	System based on strength or cooperation
Political security	System based on power and legal status
Economic security	System based on access to goods, services
Social security	System based on social benefits and cultural relations

Source: Author's own elaboration.

As already proposed, the security system can be understood as an arrangement of institutions involved in activities to ensure the expected level of a certain category of security, as well as in the formal and legal solutions constituting the system in the form of legally regulated rules and norms, needs and values that define and regulate relations in the security system.

The category of system often refers to the networking and interdependence of institutions and security phenomena. The institutional approach reduces the security system to an intra-system process, where the main focus is on the functioning of the institutions that comprise it and the relationships between them (the leadership and executive systems).

The category analysed is used in two senses – methodological and statist. Methodologically, systems analysis is treated as a scientific method. It is then a research category, a theoretical abstract used in the analysis of the security category, treated in a holistic and structured manner. In statist terms, it refers to security institutions.

Hence, it can be inferred that the security system is inductive in nature. The security system is primarily a set of elements, among which are the security institutions (structures), the relations between them, the rules and norms governing their operation.

The structural-functional approach treats the security system as a process that focuses attention on the separation and characterisation of its components (subsystems). A security system is a real entity that manifests its existence through the synergistic interaction of these components. In complex systems such as the security system, the organisation (in the command and executive system) is hierarchical or heterarchical, where each subsystem is connected to a system (supersystem). Then the positive synergy of system activity is optimal. Each security system has the possibility to emerge with different subsystems, e.g., in the form of internal security or parts of it, such as public, systemic, or general security. The interactions flowing from the security environment or surroundings also constitute a set of systems: economic, social, or military. The internal sphere is mainly based on the preservation of social order and the external sphere on territorial integrity and interactions with other state or international systems.

In general, the security system is a complex system and, in addition, many of the phenomena within it are uncertain and sudden, such as crime or armed conflict.

Defining the role of the category of security system in security science should allow for a more conscious use of this category, and the constructed model of the concept of security system can make a modest contribution to reflection on the ground of Polish science.

Security system knowledge has formed the basis of reflection on state security problems for many decades. Having knowledge of this analytical category and the methods to study and create it can be of universal importance not only for the security sciences.

Often, system performance is assessed on the basis of incomplete and uncertain information. When this is the case, it is difficult to predict its behaviour and make accurate functional decisions – operational and strategic – of great importance to the functioning of the security system. The dynamic nature of security science makes it possible to outline broad perspectives related to the research of this scientific category. Contemporary Polish literature in the area of security systems counts several dozen monographic and collective positions, and the discourse developed in periodicals in recent years reveals a clear interest in theoretical and methodological issues of this scientific category.

References:

Beyme, K. von. (2005). *Współczesne teorie polityczne*. Warszawa: Wydawnictwo Naukowe SCHOLAR.

Biała Księga Bezpieczeństwa Narodowego RP. (2013). Warszawa: Biuro Bezpieczeństwa Narodowego.

Gierszewski, J. (2013). Model bezpieczeństwa społecznego na tle teorii systemów. *Colloquium*, *2*, 65–80. Retrieved from: https://bazhum.muzhp.pl/media/files/ Colloquium/Colloquium-r2013-t-n2/Colloquium-r2013-t-n2-s65-80/Colloqui-um-r2013-t-n2-s65-80.pdf.

Gierszewski, J. (2018). Human Quality of Life Security as a Cognitive Category in Security Sciences. *Kultura Bezpieczeństwa. Nauka – praktyka – refleksje*, *32*, 101–117. DOI: 10.5604/01.3001.0012.8095.

Gierszewski, J. (2019). Policja w systemie zapobiegania przemocy w rodzinie. *Studia Politologiczne*, *51*, 174–196. DOI: 10.33896/SPolit.2019.51.10.

Gierszewski, J. (2022). *Wokół uniwersum nauk o bezpieczeństwie*. Warszawa: Difin.

Gierszewski, J., & Pieczywok, A. (2019). *Społeczny wymiar bezpieczeństwa człowieka*. Warszawa: Difin.

Glen, A. (2011). Podstawy poznawcze badań bezpieczeństwa narodowego. *Zeszyty Naukowe Akademii Obrony Narodowej*, *2*, 9–32.

Goodman, J.S. (1965). The Concept of "System" in International Relations Theory. *Background*, *8*(4), 257–268. DOI: 10.2307/3013730.

Kitler, W. (2004). *Obrona cywilna*. Warszawa: Akademia Obrony Narodowej.

Kitler, W. (2019). System bezpieczeństwa narodowego RP – aspekty prawno-organizacyjne. *Wiedza Obronna*, *268*(3), 5–33. DOI: 10.34752/gy7c-tk94.

Koźmiński, A.K. (1976). *Analiza systemowa organizacji*. Warszawa: Państwowe Wydawnictwo Ekonomiczne.

Kukułka, J. (1978). *Problemy teorii stosunków międzynarodowych*. Warszawa: PWN.

Kuźniar, R. (1990). *System zachodni w stosunkach międzynarodowych. Czynniki sprawcze ewolucji*. Warszawa: Centralny Ośrodek Metodyczny Studiów Nauk Politycznych.

Luhmann, N. (1982). Talcott Parsons: The Future of a Theory. In: N. Luhmann, *The Differentiation of Society* (pp. 47–68). New York: Columbia University Press.

Parsons, T. (1951). *The Social System*. Glencoe, IL: The Free Press.

Pietraś, Z.J. (1986). *Podstawy teorii stosunków międzynarodowych*. Lublin: UMCS.

Piwowarski, J. (2020). Romb (kultury) bezpieczeństwa. Redefinicja środowiska bezpieczeństwa. *Kultura Bezpieczeństwa. Nauka – Praktyka – Refleksje*, *37*, 30–46. DOI: 10.5604/01.3001.0014.2814.