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Philosophy and Social Sciences in a Securitological Perspective

Abstract: The inspiration of this text is the belief of the Pythagoreans that the roots and source of complete knowledge is the quadruple expressed in the "arch-four", also called as tetractys. Hence the hypothesis considered in this paper is: the basis of the philosophy of social sciences is entangled in these four valours, manifested in what is "general and necessary" (scientific) in social life, the first and universal as to the "principles and causes" of this life (theoretically philosophical) and "which can be different in it" (practically philosophical) and "intuitive". The quadruple appears with different clarity in the history of human thought, which seeks clarification and understanding of the things being cognised, including such a thing as society. It is exposed in the oath of the Pythagoreans, the writings of Plato and Aristotle, who applied these four valours, among other things, in distinguishing the four types of knowledge and learning about the first four causes and principles. This fourfold division seems to be experiencing a renaissance in contemporary theological-cognitive holism and can be treated as an expressive, a "hard core", and the basis of research not only of social but mainly of global society as a social system. This entanglement of the foundations of the philosophy of the social sciences leads to the suggestion of defining this philosophy as the knowledge of social being composed of "what is general and necessary" (scientific), genetically first, universal (theoretically philosophical) and "being able to be different" (philosophically practical) and intuitive.

Keywords: scientific philosophy, philosophy of social sciences, First Causes according to the Big Bang Theory, the first four causes, the four elements of the social system

Introduction

Both science and philosophy belong to the types of knowledge which, in Plato's metaphorical depiction, are based on and associated with sailing. It was used for movement, which in the times of the creator of the first Academy, was carried out with the use of sails and winds (forces of nature) or oars requiring human effort. Hence, the metaphor of science as the "first

sailing" and philosophy as the "second sailing". It is significant that sailing and sailing ship in Latin are associated with the words *navigare* and *navis*. It is found in the compositions of such names as, for example, an astronaut (sailing among the stars), a cosmonaut (sailing in the universe – outer space), and navigation (Latin *navigatio* "sailing" from *navigare* "to sail" and *navis* "a sailing ship" or "a ship"), and is a branch of knowledge dealing with determining the current position and the optimal path to the destination for people, ships, land vehicles, and other moving objects. Therefore, the metaphorical etymology of the name "science"[1] sometimes is associated with sailing, that is, the deliberate movement to the goal, which is knowledge. It can even be said that the meaning of science and philosophy is based on leaving the area of ignorance (including enlightened ignorance – Nichoals of Cusa, 2014) and moving to the area of knowledge (enlightened) as their goal. The manner of this movement differentiates knowledge into sensory-empirical and mental-rational. This diversity of knowledge and the metaphorical distinction between Plato's first and second sailing runs through the history of the development of not only scientific and philosophical knowledge in the culture of Western civilisation. Simultaneously, it is a history of disputes and unfinished discourse about which type of knowledge is more certain and true, "better", or even the "best" or the "most attractive": scientific or philosophical knowledge, or other. The other one, in the recognition of contemporary epistemology, may be revealed and mystical knowledge about the values of absolute and indisputable truths, or intuitive knowledge about the qualities of direct and indisputable conviction. The "hard core" of this distinction is to associate scientific knowledge with sensory cognition and sailing among facts, phenomena, and observable processes, and the knowledge of philosophies of physis with mental effort and sailing among abstractions, ideas and general concepts and supra-sensible imaginations, while mystical knowledge, with direct contact with a higher power revealing an indisputable truth, and intuitive knowledge with an inner conviction of the truth. These four "hard cores" seek to overcome modern universalism, metaphilosophy, and the philosophy of science, including the philosophy of social sciences with scientific, philosophical, practical, and volitional (intuitive) foundations, or the philosophy of social sciences as a comprehensive system encompassing the "first sailing", "second sailing", "third sailing", and "fourth sailing". This philosophy of social sciences was distilled by positivism in the nineteenth century, which traditional science and philosophy sought to replace first by scientific philosophy (generalising the results of detailed empirical sciences) propagated by August Comte, and later by philosophies of sciences (epistemology, logic, and general methodology of sciences), or metascience (Benton & Craib, 2003).

[1] Latin word *scientia* corresponds to the Polish words science or knowledge.

Traditional Types of Knowledge and Their Metaphors

In the traditional convention of cognition through opposites or analogies (similarities) (Leartios, 1988, pp. 186–187; Plato, 1988, pp. 412–416) and synthesis (combining), which has ancient sources, nowadays called as social sciences is distinguished and sometimes even opposed to the natural and technical sciences, and associated with a set of empirical sciences dealing with society and the activities of the individual as part of a group approached from different perspectives. Thus, the general object of social sciences is society, which is opposed or filtered from the more general of all existence, often called natural being or body, or all-reality[2]. In ancient philosophical reflection, this subject was probably most often considered from the perspective of the state as a form of organisation of society penetrated by practical philosophy including – in Aristotle's systematisation – politics, ethics, aesthetics, and economics. He situated this practical philosophy as one of the four basic types of human knowledge, implied from four types of thinking (scientific, theoretically philosophical, practically philosophical, and intuitive[3]). Hence, these are the basic types of knowledge, such as: (1) scientific knowledge, the object of which is "general and necessary things", (2) theoretical philosophy, the object of which is "first causes and principles" – hence its interchangeable name "first philosophy", (3) practical philosophy or human affairs, the object of which "are things that may have been otherwise", because they depend on the actions of people motivated by their will, (4) intuitive knowledge, which deals with the "highest principles" (Aristotle, 1996, pp. 196–200). At the same time, Aristotle in *Metaphysics* suggested that philosophy is not a science because it is the queen of all sciences, which, like the queen, rules over the subject but is not itself a subject. This royal position of philosophy is due to the fact that it penetrates the suprasensible world of metaphysical and abstract ideas. If such a world did not exist, Aristotle concludes, then the royal role would not belong to philosophy but to physics (the science of nature) describing motion and change and their causes.

The difference between scientific and philosophical knowledge is interestingly explained by Giovani Reale and Vittorio Possenti, who evoke Plato's metaphor about the "first sailing" (among sensical beings) and the "second sailing" (among conceptual, abstract, and ideal entities – Plato, 1988, pp. 444–451; Reale, 2012, pp. 78–85). At the same time, Reale

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[2]   It is well-known that in Plato's utterances, there is an assumption suggesting that the essence of the force of life (soul) in its structure is the same in man, the state (society), and all-reality (cosmos). Hence, his indication that the soul of man ("Little Man") consists of a rational, impulsive, and lustful part and a principle defining the relations between these parts, while the soul of the state (society and the "Big Man") consists of the rulers, soldiers helping them, and subordinate workers (farmers and craftsmen) and the principle defining the relations between them, while the soul of all reality ("Huge Man") consists of the "Same", the "Third", and the "Other" and the principle of their coerced mixing into unity, wholeness, and system.

[3]   Aristotle in *Posterior Analytics* states that "by rational intuition, I mean the primary source of unprovable knowledge, which consists in grasping a direct premise" (*Posterior Analytics,* 89a,b).

concludes that Plato's intellectual development ran from science to philosophy, Aristotle's, from philosophy to science, and that Christian thought followed the path of revelation by shaping the "third sailing" – sailing, which, on the one hand, in the reflections of St. Augustine, concerns "overcoming the sea of life with the cross of Christ", and on the other hand, it is most fully expressed in the realism of Thomas Aquinas (Possenti, 2006). In the diagnosis of Possenti: "...the "first sailing" was started by natural philosophers, and it was the study of nature that fascinated the young Plato. The "second sailing" was the work of Plato himself: pushed by the wind of natural philosophy (that is, philosophy dealing only with the sensory cause expressed by facts and empirical phenomena), which raised in him more questions than it gave answers, and not satisfied with the doctrine of Anaxagoras speaking of the ordering mind (*nous*), Plato travelled a certain part of the way with these philosophers (the "first sailing"). Later, however, when, after abandoning "physics", he progressed to discover the suprasensible cause and the science of ideas, moving towards metaphysics, he had to sail on his own (the "second sailing")" (Possenti, 2019).

So far, I have not encountered the term "fourth sailing", but in the cited book, Possenti criticises the wilderness of modernist thought of, among others, Arthur Schopenhauer and Friedrich Nietzsche, who focused their attention around the will (their significant works are entitled *The World as a Will and Representation* and *The Will to Power*, respectively). Sailing with the inspiration of this will can be hypothetically considered the "fourth sailing", which, for example, in Carl Jung's argument is associated with the dark side of our lives ("shadow") (Jung, 1993, pp. 207–208), and in Bohm's argument with the "hidden order" penetrating (as a quantum, will, power, and determining force) all existences; an order that seems to be even the "highest principle" (Bohm, 1988). It is significant that Plato, at the beginning of the dialogue *Timaeus* puts in the mouth of Socrates the question of where is the "fourth"? And since he did not exist and did not want to participate in the discourse presented in this dialogue, he somehow abandoned this issue and, focusing on the description of the structure of being, pointed to such elements constituting it as: (1) the "Other", which arises, develops, and rots – it exists in time and is perceived with the senses by people; (2) the "Same" denying the "Other", which did not arise, does not change and will not disappear – is eternal and perceived by the mind as eternal (universal) Ideas, Patterns, Models, and idealised abstract concepts; (3) the "Third" that arises in time but no longer perishes is a mixture of the "Same" with the "Other" (Plato, 1986, pp. 3–130). Undoubtedly, there are many indications that the "Others" from the *Timaeus* dialogue can be identified with the "first sailing" from the *Fedon* dialogue, while the "Same" with the "second sailing", and the "Third" with the "third sailing". This identification makes it reasonable to suppose that the "fourth sailing" is connected – as we read in the dialogue *Timaeus* – with: "Finding the Creator and the Father of this whole Universe (...). But when He is discovered, it is impossible to reveal Him to all" (Plato 1986, p. 35). For he, by forcibly combining the "Same", the "Other", and the "Third", obtained from the three substances (elements) a multiplicity of forms, "which consists of the mixture of the Same, the Other, and the third substance" (Plato, 1986, p. 42).

By associating Aristotle's distinction between the four types of knowledge and the metaphorical depiction of them by Plato and the adherents of this image, the thing can be represented as in Figure 1.

Fig. 1. Traditional Types of Knowledge and Their Metaphors
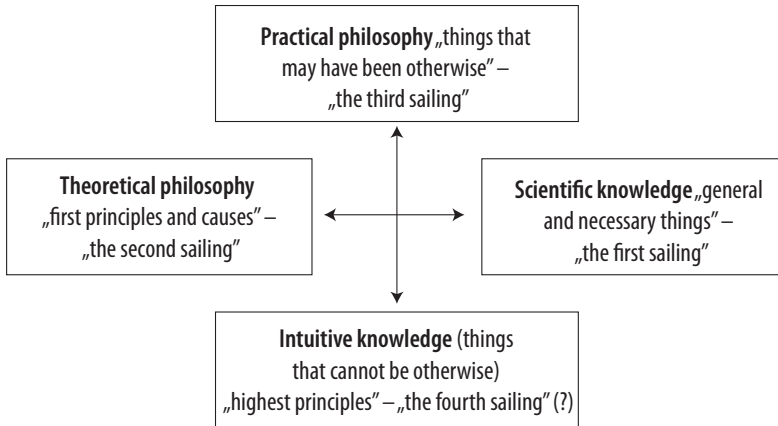
Source: Own study.

Undoubtedly, historically and theoretically, different types of knowledge and its various metaphorical types have been found in the relations of both overlap and dissimilarity, and the contemporary dispute over demarcation (in the philosophy and methodology of science) regarding the distinction between science and pseudoscience, philosophy and metaphysics, and religious beliefs, is still the subject of the intellectual discourse[4]. The problem of demarcation arises from the difficulty of answering the questions: what is science, what is its essence or specificity[5]. The answer to that question can be based on a holistic approach to the specified types of knowledge and their metaphors. Thus, scientific knowledge at its core is that which concerns what is perceived sensually and generalised into "necessary things", expressed in cause-and-effect relationships – determined relationships included in the laws of science. The generality and necessity of the laws of science led Aristotle to state that "there is no science of chance". From science as the "first sailing", among the facts and sensory phenomena, a separate philosophy and the "second sailing" were distilled, among the concepts and mental idealised imaginations. These concepts refer to what is cognisable by the "eyes of the soul" and the mind, and expressed in the universal "first causes and

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[4] The term *the problem of demarcation* comes from Karl Popper, but the problem itself is much older.

[5] According to a popular belief, science is a kind of knowledge whose species difference (specificity that distinguishes it from its other types) is still the subject of intellectual discourse.

principles" that determine what is sensual and manifested in facts, events, phenomena, and processes. It can even be said that while science in its core penetrates what is "general and necessary" and what is distilled from what is sensual and material, which is manifested in a multiplicity of beings, philosophy captures this scientific generality and necessity in imaginary and idealised, on the one hand, permanent Patterns, Models, and Ideas (Plato), on the other hand, the first four of both the principles and the causes (Aristotle) – universal laws. According to this statement, the real multiplicity penetrated by science and grasped into what is "general and necessary", in the idealisation of philosophy is reduced to the four brave generalities and necessities – the universal generality and necessity of the four "first causes and principles". Thus, philosophy (theoretical in the nomenclature of Aristotle and his adherents) appears as a distillation and reduction of the multiplicity of scientific knowledge, its generalisations into laws of a deterministic nature. On the other hand, philosophy (practical in this nomenclature) seems to appear as a synthesis of what is "general and necessary" (scientific and sensory-recognisable) with what is universal and related to the "first principles and causes" (theoretically philosophical) into what "can be done differently" and is useful thanks to the good and beautiful deeds of men – it is ethical, conducive to social life and justice, and beautiful. For Aristotle, life is ethical (virtuous and "better") if it maintains moderation (the Golden Mean) between excess and scarcity in this, as Artur Schopenhauer put it, between moral selfishness (self-care) and ethical altruism (compassion and concern for the suffering of others).

Undoubtedly, mainly based on practical philosophy (including, according to Aristotle, politics, ethics, aesthetics, and economics) and the "third sailing", social sciences have distilled and developed, which concern the synthetic approach to the thesis of what, on the one hand, "general and necessary", and is included in laws, correlations, and social dependencies, and on the other hand, "what can be different" in social life by improving it. Thus, the philosophy of social sciences seeks to find the first causes and principles of social life by distilling them, on the one hand, from what is "general and necessary" (scientific) in this life, and on the other hand, from what "can be different" through actions aimed at developing and perfecting this life, so that it is "in itself" and not be so, which "by itself should not be"[6]. And what "by itself should be" – Aristotle responds by outlining such areas of practical philosophy as politics, ethics, aesthetics, and economics. In terms of the area: (1) politics "should be of its own sake" perfect and aim at self-sufficiency; (2) ethics "should be" good and oriented towards a virtuous (better) life; (3) aesthetics "should be" beautiful and imitating nature, where it is perfect (harmonious, symmetrical, orderly, and proportional); (4) economics "by itself should be" just and aimed at giving everyone what is due to them. Thus, in the perspective

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[6] According to Bertrand Russell, the manifestation of human nature is rather emotional impulses and rationalised actions. In the ethical tradition, both impulses and desires are judged as good or bad. Russell proposes to regard as good that "which by itself should exist", and as evil, that "which by itself should not exist" (Russell, 1920, pp. 7–10; 2009, par. 4 and 5).

of these areas of practical philosophy, social life "by itself should not be" imperfect and non-self-sufficient, bad, and defective, ugly and disordered, and unjust.

Undoubtedly, there are many arguments for the fact that the "hard core" of the traditions of general social sciences is practical philosophy regarding what "can be done differently" or maybe "by itself to be [as] it should" and "by itself to be [as] it should not be". Thus, it seems reasonable to assume that the traditional object of these teachings is:

(1) the perfect and imperfect (self-sufficient and not) **structure** of social life manifested in the way social life is organised, the political system, and legislation);

(2) good and evil as the **agency** of this life (ethical and unethical behaviour of individuals, social groups, and communities of people);

(3) its beautiful and ugly **form** (orderly, symmetrical, proportional, and expressive or the opposite);

(4) its just and unjust **purpose** (expressed in giving or taking).

Assuming a fairly common belief, on the one hand, that at the basis of human social life is the principle of justice and, on the other hand, Aristotle's view that politics is a managerial science in practical philosophy dealing with man as a social being and by nature requiring participation in community life[7], it can be hypothetically illustrated by, as in Figure 2, the convention of the (natural) quadruple division. In this illustration, the "hard core" of general social sciences is the analysis and study of the organisational structures of social life, its

Fig. 2. The "Hard Core" of the Traditions of General Social Sciences and Their Subjects – Areas of Practical Philosophy – and the Basic Element of the Social System
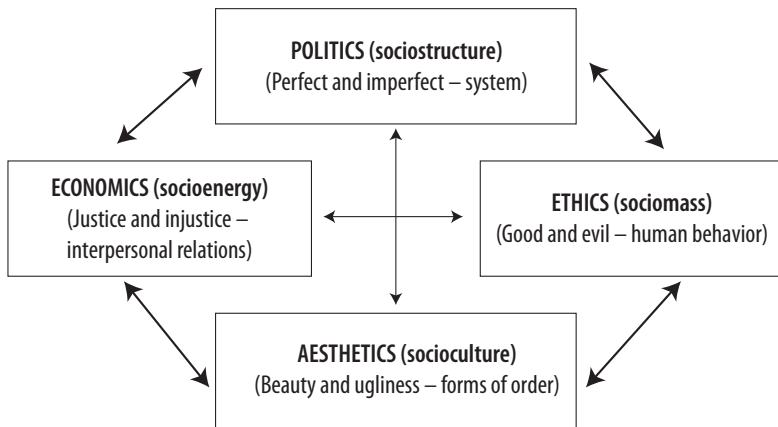
Source: Own study.

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[7] Aristotle in *Politics* concluded that a being who voluntarily lives outside of society is not a man, but is either a god or a beast. Will and natural inclination to community life results due to lack of self-sufficiency and the impossibility of individual fulfilment of all needs by a specific person.

agency and forms, and the purpose or goals. In the language of social cybernetics and securitology, it is the study and analysis of such basic elements of the social system as sociostructure, socioenergy, sociomass, and socioculture (Świniarski & Kawalerski, 2019).

Tendencies in the Development of Social Sciences

Reconstructions of the genesis of social sciences usually are based on sociology, which for two centuries and its conceptualisation by August Comte has the ambition to be a "real" empirical science with a methodology similar to natural sciences, and thus implied from the "first sailing", they keep coming back to theory and re-reading the classics, which quite commonly include Plato and Aristotle. This reading embeds the genesis of social sciences, on the one hand, in the continuation and deductive deepening of the problems undertaken in practical philosophy (including, according to Aristotle, politics, ethics, aesthetics, and economics) and the "third sailing", and on the other hand, in discontinuation and abandonment and taking in brackets these problems for the study of specific phenomena, events, and the processes and behaviours of people, to inductively derive from them the knowledge of society shaped by empirical, middle-range, and general theories, as it were, returning to the "first sailing", and from the third in bolding and enriching these problems by a kind of return to the "second sailing" and the deductive-inductive study of society as one of the complex systems, the difference in species of which is that they consist of people, and finally, the fourth, in search of what is hidden or "dark" and volitional in society and knowledge about it – intuitive knowledge related to the study of the motives of human actions and the "fourth sailing". Thus, in the reconstruction of the genesis and development of social sciences, it is possible to distinguish such main tendencies as:

(1) rational deepening of practical philosophy – social sciences grow out of practical philosophy;

(2) the empirical search for what is "general and necessary" through the inductive generalisation of social facts, phenomena, and processes – social sciences grow out of the analysis of empirical studies of specific facts, phenomena, and social processes;

(3) the systemic deductive-inductive study of society as a system – one of many in the world – social sciences grow out of the implementation of systems theory to explain the organisation and functioning of the complexity of social life;

(4) the intuitive capturing of premises influencing the shape of social life – premises embedded in the will, subconscious, and drives – social sciences grow out of an intuitive choice of always temporary theories and hypotheses explaining the functioning of complex life and community life.

The Tendency of Rational Deepening of Practical Philosophy

Proponents of the genesis of social sciences embedded in practical philosophy and the "third sailing" refer primarily to the works of Plato and Aristotle. They paid much attention to the problems of social life and its organisation into the state. They distinguished among the "things that may be different" from the area of state's organisation natural and unnatural systems, both good (i.e., those that "should exist by themselves"), which serve the safety of their subjects, and bad (i.e., those that "should not exist by themselves"), serving the security of those in power (Szacki, 2002; Marszałek-Kawa & Plecka, 2019). Moreover, they considered the basic functions and tasks carried out by the state in the perspective of happiness associated with the fact that citizens "are well", "good with living", etc. They indicated what is good and bad in the conduct of men and the beautiful and ugly in what is manifested in things produced (poietic), and the question of justice inspired them to recommend such an ideal system that would be consistent with the nature of people, and which is quite commonly considered a utopia.

Undoubtedly, this tendency is shaped by the development of such disciplines as politics, ethics, aesthetics, and economics or, in a different than traditional approach, such as politics, law, economics, and anthropology. The development of these disciplines is associated with the abandonment of extremely rational and idealised approaches to their objects, and the approach to more real and empirically confirmable approaches.

The Tendency to Empirically Seek "What is General and Necessary"

The initiator of the tendency to abandon the tradition of practical philosophy and the "third sailing" in the development of social sciences can be considered the renaissance view of Giambattista Vico laid out in his *New Science.* According to him, the true (scientific) knowledge of a thing is possessed by the creator of things. Since he recognises God as the creator of nature, he alone, as its creator, has true knowledge of it, while human knowledge of it is based on fiction or probability of certainty, or myth, prophecy, and vision – in a word: ideology. A man is able to achieve true knowledge about customs, law, social institutions, language, and literature because it is he who by creating them consciously (society in general), is able to simultaneously acquire true knowledge about what he creates, as opposed to the knowledge of what is not created by man – nature (Vico, 1966, pp. XX–XXI, 150).

It seems that a certain reference to the idea of "new science" as a science of man-made things not only in the area of social life can be found in the work of Francis Bacon under the significant title *Novum Organum*[8]. In it, criticising the general concepts of philosophy and its immanent ways of knowing it in history, he divided them into three epochs: Greek

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[8] The work of F. Bacon *Novum Organum Scientiarum* (a "new instrument of science" or a "new tool of science"), written in Latin and published in 1620, with the title referring to Aristotle's work entitled *Organon*.

(childish – nature), Roman (youthful – words), and modern (mature and experimental). In this work, Bacon, pointing to illusions (idols) in learning not only about society, but above all about the world, uses metaphors of "ants", "spiders", and "bees" or "silkworms". He expresses these metaphors as follows:

"Those who were engaged in sciences were either empiricists or dogmatists. Empiricists, like ants, only collect and use. Rationalists, like spiders, weave a thread by themselves. The bee, on the other hand, proceeds indirectly: although it collects material from the flowers of the garden and the field, it processes and shapes it with its own forces. No different is the true task of philosophy, for it is not based solely or particularly on the forces of the mind, nor does it assemble the material provided by natural history and mechanical experiments in memory in the raw state, but having previously changed and formed into reason (…). …ants only "collect and use", spiders "weave a thread by themselves" (Bacon, 1955, aph. XCV). Emerging from the re-evaluation of the research conduct of empiricists and dogmatists new philosophy, meaning experimental philosophy "(…) just as bees transform the nectar of flowers into honey, … draws on facts…, and then supports the intellect transforms these individual facts into general theories, into true philosophy" (Bacon 1955, aph. CIV).

These metaphors can be associated with the metaphors of Plato and his adherents as follows: (1) the "first sailing" is empiricists and "ants"; (2) the "second sailing" is dogmatists, rationalists, and "spiders"; (3 & 4) the "third sailing" and partly the "fourth sailing" are "bees" or "silkworms" and experimenters – trying to create new things, which generate progress, the growth of knowledge, and, through the application of technical inventions, the well-being of society. Thus, very mature, experimental, and progressive modern science, according to Bacon, will create the social well-being described by him mainly in *New Atlantis*. In this description, he points to prolonging life, restoring youth to some extent, delaying old age, treating diseases considered incurable, relieving pain, etc. (Bacon, 1995). Inventors experimenters, and explorers generating progress have been given – for a long time, as Bacon writes – "…divine honour; and those who have made a contribution in the political field (such as the founders of cities and states, legislators, savers of the homeland from long-term misfortunes, slayers of tyrants, and the like) worshiped only as heroes (…). For the benefits of inventors can apply to the whole human race, while political only to certain human abodes, the latter do not last longer than a few centuries, those first as if for eternity. And political reforms, rarely they take place without violence or riots, while inventions make us happy and bear witness without harming or distressing anyone" (Bacon, 1955, aph. CXXIX).

The difference and contradiction in the knowledge of nature and society was clearly pointed out by Thomas Hobbes, who recognised that what exists is a body, and bodies are of two kinds: natural environment (of nature) and artificial (natural). The latter are created by man. Among them, is the state, the genesis of which he associated with the social contract. For him, nature is the subject of natural philosophy, and society is the object of social philosophy, which he alternatively called political philosophy. Only August Comte – the creator of positivism – systematised sciences and initiated sociology as a new,

and therefore, the least true and most complex science of society, the name of which was to replace "social physics" propagated in his time, modelled on the dynamically developed Newtonian physics at that time[9]. The development of these physics oscillated around the concept of mass. This concept replaced the traditional concept of matter (building material) as one of the first four causes traditionally indicated in the teaching of Aristotle and his numerous adherents. The consequence of this was that while the abstract concept of matter was difficult to express in measures and weights and mathematical formulas, the concept of mass was the opposite. Because the mass, according to the paradigm established in physics, is the ratio of (measurable) energy to the measured and constant (absolute in the Universe) squared speed of light.

Since the middle of the twentieth century, the term "social sciences" refers more generally, not only to sociology, but to all sciences that analyse society and culture. These sciences programmatically dissociated themselves from rather abstract philosophical approaches – as was the case in antiquity and the Middle Ages – aiming at describing and measuring the concrete behaviour, action, and declared views by people. The transition to modernity, which prefers narration, measuring and weighing, as well as mathematisation and experimentation, is characterised by the necessary attributes of scientific cognition. An expression of this is the view promoted by August Comte that the most true and simple discipline of science is mathematics, which he considered paradigmatic for the postulated and emerging sociology. Hence the conviction characteristic of the development of modern knowledge that scientific is what can be measured, weighed, subjected to verifiable experiments, and has, above all, practical application – it serves the progress and well-being of people and their happiness. This conviction has influenced the development not only of sociology, but more generally, of social sciences and others. The development of these sciences has deepened their diversity, which is expressed in the separation of individual disciplines, the establishment of their methodological foundations, and the creation of their research programmes. It was during this period that social sciences formulated their scientific identity. In the process of this formation, it is important to distinguish between humanities (*Geisteswissenchaften* – literally, the sciences of the spirit, which study facts and unique phenomena, which are the products of the Spirit) and natural sciences (*Naturwissenschaft*en). He believed that natural sciences explain how nature (natural environment) is created in the elementary sense and tried to determine its hypothetical structure and the course of processes taking place in it, while opposed to them humanities were to understand reality as a product of the human spirit and develop them in an internal structure. Thus, humanities, being the creation of man,

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[9] Isaac Newton, in a paradigmatic work for modern physics under the title *Mathematical Principles of Natural Philosophy* (lat. *Philosophiae Naturalis Principia Mathematica*), presented the law of universal gravitation, describing the relations between the masses and the laws of their movement. This work in the English translation of Motte bears the title *The Mathematical Principles of Natural Philosophy* and was published in London in 1803.

can be understood by man (experiencing), or, in other words, the goal of humanities is to understand natural sciences and cognition. It is significant in this context that Bacon pointed to teachings that translate (interpret) nature, which "properly proceed from the facts", and "sciences that use anticipation and dialectics to gain recognition in their views and opinions" (Bacon, 1955, aph. XXVI–XXIX). The former are more difficult, while the latter are easier – "anticipations gain a consensus much more effective than interpretations", which "must seem hard and strange-sounding to human opinion, almost like the mysteries of faith" (Bacon, 1955, aph. XXVIII). These anticipations and interpretations give this science an ideological and relative character, as well as a gravitational character towards the temporariness.

Systemic Tendencies in Social Sciences

The initiator of the third tendency, to thicken and enrich social sciences and shape their identity through a kind of return to the "second sailing" with the continuation of the "first sailing", can be considered Edwin N. A. Seligman (1861–1939), who defined it as a set of empirical sciences, which deal with society and the activities of individuals and social groups from different perspectives. Therefore, it can be said that at least from the perspectives of three types of sailing. For when he formed the identities of social sciences, he divided them into:

(1) general (i.e., politics, law, economics, and anthropology),
(2) semi-social (psychology, education, philosophy) and,
(3) sciences on social outcomes (biology, geography, linguistics, medicine) (Wilkin, 2012; Seligman, 1930).

Fig. 3. The Identity and Structure of the Social Science System According to Seligman in a Holistic Metaphorical Embedding
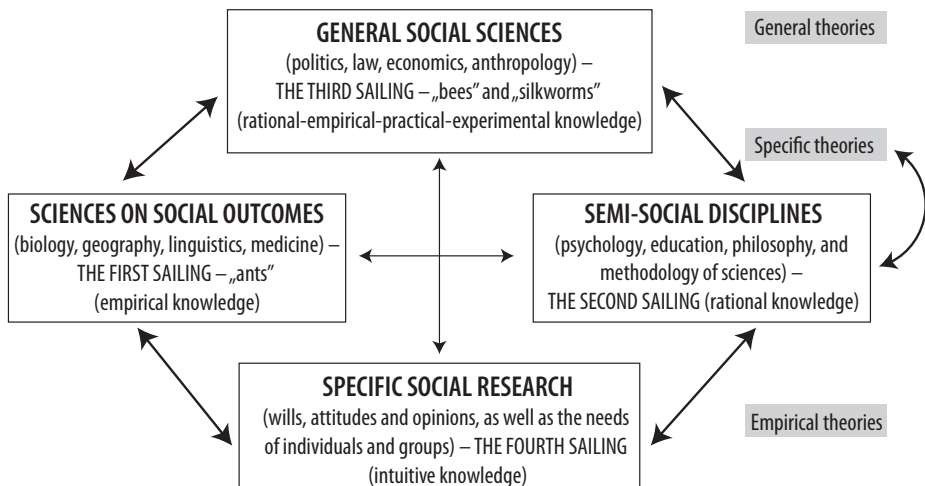
Source: Own study.

The ongoing dynamic development of social sciences means that it is impossible to give a definitive answer to the question of which social sciences they are. According to the Polish regulation, pursuant to the Regulation of the Minister of Science and Higher Education of 20 September 2018, a two-stage division into fields and disciplines was introduced. Social sciences in this regulation include such scientific disciplines as: (1) economics and finance; (2) socio-economic geography and spatial management; (3) security studies; (4) social communication and media studies; (5) political and administrative sciences; (6) management and quality sciences; (7) legal sciences; (8) social sciences; (9) education; (10) canon law; (11) psychology (*Rozporządzenie…*, 2018). In earlier conventions, Seligman's semi-social sciences (psychology, education, and philosophy) were classified as humanities, while nowadays, Andrzej Gałganek points to the "big six" of social sciences, namely: economics, psychology, sociology, anthropology, history, and political science (Gałganek, 2021, p. 347). Undoubtedly, the specification of disciplines in social sciences in the mentioned regulation shows a connection with the structure of the identity system of social sciences, according to Seligman, developed in Figure 3. It is illustrated in Figure 4.

Fig. 4. Comparison of the Identity System of Social Sciences with the Disciplines of Social Sciences in Poland

Social sciences system	Disciplines according to Seligman	Disciplines in Poland
General social sciences:	1. politics 2. law 3. economics 4. **anthropology**	(5) **political and administrative sciences** (7) legal sciences (1) **economics** and finance (6) management and quality sciences
Semi-social sciences (humanities):	5. psychology 6. education 7. philosophy 8. methodology of sciences	(11) **psychology** (9) education (10) canon law (8) **social sciences**
Sciences of social structures:	9. biology 10. geography 11. linguistics 12. medicine	(8) as above, e.g., sociobiology (2) socio-economic geography and spatial management (4) social communication and media studies (3) security studies*
Specific social research:	Disciplinary, interdisciplinary	Transdisciplinary, multidisciplinary

* If we consider medicine as knowledge about the health and diseases of people, then security studies can be identified with knowledge about a healthy and sick society. Erich Fromm, among others, aims at such identification, describing the health of society (biophilic) as functioning based on love, altruism, and respect for life. Securitology, as the newest security studies, promotes understanding it as a worthy form of existence that ensures endurance, survival, development, and improvement.

Source: Own study.

Immanuel Wallerstein, on the other hand, dealing with the theoretical foundations of social sciences and the sociology of knowledge, proposed a model of unification of social sciences with the intention of crossing the barriers between their traditional disciplines, such as sociology, political science, and philosophy (Flis, 1999). A chance for this is provided by such a science of society, which is a theory of world social systems. In his opinion, we need a theory of (all) possible social worlds that change dialectically only at times when structures are far from stable. He saw the essence of these changes in Ily Prigogine's theory of dissipation structure[10] and the study of self-organising systems irreversibly moving from chaos to order. This transition is manifested in the fact that societies are becoming temporarily increasingly orderly.

In some parallel with this theory is the cliodynamics[11] initiated by Peter Turchina, which seeks to explain dynamic historical and social processes, such as the rise and fall of empires in history, by building mathematical models and analysing huge historical and archaeological databases grouped into four basic ones, which concern: (1) population size, (2) social structure, (3) state power, (4) political instability (Turchin, 2022). This grouping of considerations can be considered in the perspective of its connection with the four and first causes of Aristotle's teaching, where: (1) the building (material) cause is the size of the population; 2) the formal cause is the social structures; 3) the causative cause is the power of states, 4) the deliberate cause is the political instability and chaos that lead to a new balance and a new order. Therefore, the development of social sciences seems to oscillate around what is "general and necessary" in social life and what "may be different", but aiming at what – one can say with K. Popper – what is *temporarily* "general and necessary" and *temporarily* "may be different", but nevertheless possible to imply from the first causes and principles and intuition.

In correlation with the theory of the world social system and cliodynamics is social cybernetics, which analyses and studies society as a system composed of four basic elements, namely: sociomass (expressed in the quantity and quality of people that make up a given social system); socioenergy (measured by economic measures, e.g., GDP); sociostructure (organisation of the studied social system, its legal and systemic regulations); socioculture (preferred values by the studied system and the people who make up it). It is significant that these elements of the social system, according to social cybernetics, can be associated with the first causes of Aristotle's science and the fashionable theory of the Initial Conditions of the Big Bang defining the elements of the universe existing for 14 billion years. This

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[10] The term "dissipation structures" was introduced in 1968 by I. Prigogine to determine the spontaneous ordering of thermodynamic systems far from equilibrium, to distinguish them from structures occurring in thermodynamic equilibrium. To define this ordering (from chaos to order) the term self-organisation in imbalance systems is also used.

[11] In Greek mythology, *Clio* is a muse of history, while dynamics is the study of how and why phenomena change over time.

binding seems to have the hallmarks of a temporary paradigm of the philosophy of social sciences – which seems to be the "best" and "simplest" today. Hypothetically, this embedding can be associated with different "similarity" of individual conditions, causes, and elements. There are many indications that such an Initial Condition of the Big Bang Theory as time seems to be the most tangential and somehow similar to the first cause called intentional, and they with such an element of the social system as socioculture, which is expressed in the preferred values, i.e., choices worthy of man, which in our Western civilisation are mainly: Good, Truth, and Satiety. On the other hand, such an Initial Condition of the Big Bang Theory as energy, seems the most tangential and qualitatively similar to the first cause called causative, and they with such an element of the social system as socioenergy, which is expressed in abundance and prosperity. In turn, such an Initial Condition of the Big Bang Theory as space seems the most tangential and somehow similar to the first formal cause, and they with such an element of the social system as sociostructure, which is expressed in Regime, Law, and the Rule of Law. And finally, such an Initial Condition of the Big Bang Theory as matter (mass) seems the most tangential and somehow similar to the first building cause (material), and they with such an element of the social system as sociomass, which is expressed in demographic measures, including procreation and education (the quantity and quality of people that make up a given social system). Such "similarity" and contact with fractal marks is illustrated in Figure 5. This illustration allows for a hypothetical statement, that the basis of the philosophy of social sciences is the critical study of a system composed of socioculture, socioenergy, sociostructure, and sociomass against the background of the Initial Conditions of the Big Bang Theory and Aristotle's teaching of the first causes, to interpret it or explain it in terms mainly axiological, economic, political-legal, and demographic.

Fig. 5. Hypothetical Planting the System of Social Sciences in the Quadruple Fractal Structures of the Dividable and Basic Forms of Existence

	Aristotle's teaching of the first causes	Initial Conditions of the Big Bang Theory	Elements of the social system according to social cybernetics	Measures, manifestations, and expressions
1	Deliberate cause	Time	Socioculture	Axiological
2	Causative cause	Energy	Socioenergy	Economic
3	Formal cause	Space	Socioculture	Political-legal
4	Building (material) cause	Mass (matter)	Sociomass	Demographic

Source: Own study based on Świniarski & Kawalerski, 2019, pp. 168–169.

Intuitive Tendencies of Capturing Premises Influencing the Shape of Social Life

According to modern findings and the philosophy of science, only scientific knowledge meets the strong principle of rationality, i.e., it is intersubjectively communicated, intersubjectively verifiable and justified, and intersubjectively recognised and applied. On the other hand, this principle is not fulfilled – according to the fairly common view of modern epistemology – by irrational knowledge (in which human reason does not perform any cognitive function). This fulfilment concerns the fact that scientific knowledge is communicated in reasoned affirmative and hypothetical sentences related to the explanation of perceived reality, sometimes divided into natural and social. The object of scientific explanation (scientific knowledge), as Aristotle states, are "necessary and general things", that is, determined and rather commonly perceived, but not incidental and accidental. However, nowadays, the conviction that "chance is an indelible element of the structure of the Universe is emphasized. The element of randomness is non-linearly integrated into the dynamic architecture of the whole. Moreover, chances are not a breach in the mathematical order of the Universe, they themselves are mathematical in nature and, as such, are an essential aspect of the "mathematicality of the world" (...) of what might be called the Logos of the Universe" (Heller, 2009, p. 11). The fact that they are not a breach in the mathematical and geometrically-illustrated world seems to be convinced, in the view of many, by the fractal[12] or "hidden order" theory proposed by David Bohm.

Traditional scientific explanation ("general and necessary") not only in social sciences in the distinctions propagated in modern literature includes: (1) causal explanation; (2) structural explanation; (3) functional explanation; and (4) a teleological explanation. At the root of these types of explanations is undoubtedly the Aristotelian concept of the quadruple division of the first (in the sense of universal or panhistoric) causes. For: "(1) for a thing to exist, it must arise from something (material cause); 2) in order for a thing to have a given shape, it must be formed (formal reason); 3) in order for a thing to change, something must set it in motion (causative cause); 4) in order for a thing to be in motion, its purpose, direction (purposeful cause) is necessary (Czajkowski, 2020, p. 45).

This quadruple division in explanations, interpretations, and translations (causal, structural, functional, and teleological) have been modified in the era of modern science.

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[12] **Fractal** (Latin *fractus* – broken, partial, fractional) in the colloquial sense usually means a self-similar object (i.e., one whose parts are similar to the whole). The creator of this name is considered born in Warsaw Benoît B. Mandelbrot, who used it to define mathematical shapes that are infinitely repetitive and whose tiny parts resemble a larger whole, are "self-similar". It seems that our reality is governed by a peculiar order, hidden under a mysterious concept of a fractal that makes even seemingly chaotic areas internally create a peculiar order. It is only known so far that the repeatability of these areas occurs literally everywhere – from simple forms of matter to space-time and potential dimensions of time. That is why some call fractals the «imprint of God», which, in the apparent chaos and randomness, introduces order, determination, and similarity between the forms (figures) of the micro and macro world.

In this era, scientific explanations have been reduced to a single cause, namely, mainly causative, confirmed by sense, empirically and experimentally, and somehow measurable (Krasnodębski, 1986, pp. 13–17). There are many indications that the cognitive theory promoted since the second half of the twentieth century resigns from this reduction in favour of, on the one hand, "establishing the best, most adequate, matching explanation from a set of known, competing hypotheses", and on the other hand, to formulating a "new, better explaining hypothesis", and finally, from the third, obtaining new empirical data that can cause "that the explanation adopted so far will lose its status as the 'best'" (Sagan, 2014, p. 46) and even the fourth, effective application of the chosen hypothesis (theory) – "always temporary knowledge". This "best explanation", as the philosophers of science emphasise, is the one that is "most likely" (*likeliest*) and "most attractive" (*loveliest*). While the "most plausible explanation" is the one that is best justified, the "most attractive" is the one that is the most understandable (Sagan, 2014, p. 46), and the "best" and "effective" is the one that gains confirmation in experiments and practice.

These "most probable" and "most attractive" explanations have been sought and probably are still being looked for the four great trends in the methodology of modern science, namely – according to Wojciech Sady (1996, pp. 79–93) – (1) methodological anarchism, (2) sociology, (3) elitism, and (4) rational reconstructions, and – according to Imre Lakatos (1971) – from the perspective of the history of science, such as: (1) inductionism, (2) conventionalism, (3) methodological falsificationism, and (4) methodology of scientific research programmes. These currents seem to be united by the belief that "all human knowledge is founded on a general conceptual scheme that we create ourselves" (Sady, 1996, p. 92). Therefore, says Wojciech Sady (1996, pp. 93), "rational philosophers of science should choose from the available schemes of the methodology of science..., in the context of experimental and theoretical knowledge of a given time – made in an intuitive way by the scientific elite". This choice – in the methodology of rational reconstructions (developed mainly by Karl R. Popper, Imre Lacatos, Larry Laudan, and others) – is based on the similarity to truth (*verisimilitude*) – truth, as the correspondence of thought (sentence) with reality. Thus, the sciences actually approach the truth, and their similarity to the truth is constantly growing (Sady, 1996, p. 90) by eliminating falsehood, the old "temporariness" and traditionally recognised (chosen by the scientific elite) beliefs, explanations, and understandings. Undoubtedly, this approximation disturbs the contemporary discourse promoting especially in the public media non-scientific knowledge, which consists of, in a synthetic approach of Małgorzata Lisowska-Magdziarz (2020), knowledge: (1) parascientific, (2) anti-scientific, (3) rhetorical, and (4) militant. Extracting this kind of knowledge and falsifying it is one of the ambitious tasks of science. However, falsification is particularly eluded by what is connected with intuition or the "hidden order" or "imprint of God", what escapes the senses and reason. And what escapes the senses and reason is recognised by many today as legitimate sources of our knowledge. In the metaphilosophy propagated by Janusz Kuczyński, we also find four types of "sailing". In his view, human knowledge and truth are based on

such pillars as: science, philosophy, religion, and art. In each of these pillars, there are true judgments, and the task of metaphilosophy as universalism and new thinking is to find them – to reconcile the truth (universal meta-truth) through active dialogue and discourse between scientists, philosophers, artists, and clergy. The truths of scientists are empirical-experimental, philosophers' – rational (based on critical thinking), artists' – intuitive, and clergymen's – mystical (Kuczyński, 1989). New thinking, on the other hand, requires the search for what is common in the judgments propagated by science, philosophy, art, and religion, which generate a kind of metascience and the philosophy of science. Simultaneously, the judgments generated by science overlap with the "first sailing", by philosophies with the "second sailing", by the religion with the "third sailing", and by art with the "fourth sailing". These types of knowledge coincide with the holism of cognitive theory, which considers empiricism, rationalism, intuitionism, and mysticism as the sources of knowledge, not only empiricism and rationalism – as assumed previously, especially during the period of the dominance of scientism. In this earlier approach, intuitive and mystical sources were treated as irrational, and thus for many, unscientific (Capra, 1987; 2019). *Fritjof* Capra, while promoting theological-cognitive holism, stated that while "physicists do not need mysticism, mystics do not need physics, but humanity needs both" (Capra, 2019) – people need both rational (empirical and abstract) and irrational (mystical and intuitive) knowledge. Therefore, the philosophy of science and metascience advocate the consideration of at least four kinds of knowledge as pillars of knowledge more certain and attractive, better approaching the truth, or attaining the postulated meta-truth uniting what is generated from empirical, rational, intuitive, and mystical cognition. While the first two sources were considered – using Jung's nomenclature – the "bright" side of knowledge (even obvious and simple – one can add after Descartes) consistent with the "order of reason", mystical, and intuitive (irrational) sources were situated as the "dark" side of knowledge, not obvious, complex, and hidden, consistent with the "order of the heart", not the mind (Pascal, 1989, pp. 245–246). Such recognition has been coloured in contemporary epistemological thought in the form of a dispute between empiricism and rationalism as scientific (anti-irrational) sources, which rejected intuitionism and mysticism as non-scientific (irrational) sources (Woleński, 2003). Today, many of those considered early in this scientistic controversy as non-scientific sources, do not reject. And not only in social sciences and the philosophy of sciences, intuition is the criterion for recognising knowledge as attractive, the best, and the most likely.

Towards a Temporary Basis for the Philosophy of Social Sciences in a Securitological Perspective

Undoubtedly, the term "philosophy of science" is commonly associated with modern science, i.e., developed since about the seventeenth century, based on the empirical-mathematical and experimental scientific method, clearly coloured in the first half of the twentieth century by the so-called logical positivism. First of all, thanks to it, traditional philosophy distinguish-

able from science, according to Aristotle's conviction that it is not science but the queen of all sciences, acquired the character of a scientific philosophy, which, as proposed by A. Comte, should systematise all sciences and generalise their results. It was to play the role of a queen who followed the set of detailed and experimental sciences discovering new knowledge and new and concrete laws of diverse reality to generalise and universalise them for the common benefit. This scientific philosophy proposed by Comte in terms of logical positivism took the form of a philosophy of science, which took as its subject the study of the philosophical foundations of science, its methods, structure, assumptions, and the differences between science and non-science (*Filozofia nauki*, n.d.). Thus, the subject of the philosophy of social sciences should legitimately be considered the study of the philosophical foundations of social sciences and their diverse disciplines, their methods, structures, assumptions, and the differences between social sciences and non-scientific knowledge of society and the activities of individuals and groups approached from different perspectives.

According to the view promoted by Comte, scientific knowledge emerged in evolution and is the result of its development running through the childish (theological) and youthful (metaphysical) stages to the mature (positive and scientific, based on facts and real relationships between them – Comte, 1961). It is what the "first sailing" was in Plato's metaphor. But for Comte, this "first sailing" was historically preceded by the "third" (theological) and then the "second" (metaphysical). On the other hand, in contemporary generally accepted definitions of science, they refer it to rationality (related to conceptual thinking and the "second sailing"), while definitions of rationality usually dictate that it should be based on scientific cognition (empirical perception). It means that modern epistemology does not agree on "which category is the original, i.e., whether the way of understanding science determines the way of understanding rationality, or whether, on the contrary, the way of understanding rationality determines what should be considered science" (Walczak, 2004, p. 353; 2006). Nevertheless, rationality is commonly recognised as an attribute and principle of science. Thus, what is rational, is science (and in terms of Plato's metaphors, rational is primarily the "second sailing" – philosophy – and in part the "first sailing"), and what is irrational, is not science (and metaphorically irrational is primarily the "fourth sailing" and partly the "third sailing").

It is true that ancient philosophical thought has recognised that human knowledge is diverse. One of the criteria for this differentiation is Plato's division into true, probable, and supposed knowledge, or Aristotle's rigorous and universal division into true and false knowledge. Undoubtedly, the results of human cognition are communicated in the judgments (sentences) and convictions that make up knowledge, which is – as many modern philosophers, including K. Popper – always temporary. Going beyond this temporality is facilitated by philosophy, which tries to be – as Władysław Tatarkiewicz put it – the most extensive, conceptually the most general, and axiologically the most important and the most valuable (Tatarkiewicz, 1968, pp. 13–14), which it tries to achieve – as K. Popper noted by (...) *critical speculation about the universe and our place in it, along with critical speculation about*

our cognitive powers and the power to choose good and evil (Popper, 1988, p. 47). The aim of this criticism, also in science, is to eliminate falsehood because in it, every statement is rather *always temporary*. Therefore, Popper writes, the wrong view of science is betrayed in the pursuit of rightness; for the scientist is not made by the *possession* of knowledge, an irresistible truth, but by a persistent and audacious critical *pursuit* of truth, and the old scientific ideal of *episteme* – absolutely certain, proven knowledge – has turned out to be a daydream (Popper, 1977). Therefore, the goal of science, according to Popper and his adherents, is not truth (it is unattainable by man and always temporary, even fluid) but the elimination of falsehood from the multiplicity of always temporary and hypothetical scientific explanations (it is man who can), which seem embedded – as Imre Lakatos argues – in the "hard core" of scientific research programmes (Lakatos, 1971). These explanations in science are based on empirical research – as Immanuel Wallenstein (2004, p. 190) emphasises. This distinction, exposed at the end of the eighteenth and early nineteenth centuries, in his opinion, is absurd, "because all empirical knowledge has metaphysical foundations from which it cannot dissociate itself, and no metaphysics is noteworthy if it does not turn to temporal reality, which means that it must have empirical features" (Wallenstein, 2004, p. 190). For this reason, it is necessary to recognise "that our truths are not universal truths, and that if there are universal truths, they are complex, contradictory, and there are many of them. It must be recognised that science is not a search for the simple, but strives for the most reliable interpretation of the complex" (Wallenstein, 2004, p. 191). While the search for the simple prefers the Newtonian model of science, the "science of complexity" initiated, according not only to I. Wallenstein by Ilia Prigogine "in place of the ubiquitous repetition, stability, and balance that make up the classical vision of science" introduces a new form of rationality that goes beyond the rationality of determinism, according to which the future is already decided (Wallenstein, 2004, pp. 200–201). This "trespass" "sees instability, evolution, and fluctuation everywhere, not only in the social field, but in most of the basic natural processes. Prigogine calls this transition from the geometric world to the narrative world, in which the problem of time is the central problem. Hence, nature and man are not separate beings, much less alien to each other. It is not because human behaviour can be described in terms of classical natural science but for the exact opposite reason, namely, that nature acts in terms of the description we have usually applied to humans" (Wallenstein, 2004, p. 201). This description indicates that the structures of nature and society reach exceptional and temporary equilibrium states because over time, all structures depart from the state of equilibrium. "The arrow of time is a common element of the universe. While time makes everything age, everything also diversifies. Evolution is manifold. Probability is not an inferior form of truth, a half-measure proper because we are ignorant. It is the only truth that exists. The probability is due to the fact that there are still new statistical solutions to dynamic equations. Interactions within systems are uninterrupted, and this communication makes processes irreversible, creating more and more interdependencies. Not only people, but also matter has memory" (Wallenstein, 2004, p. 201). In this memory concerning sociological and natural systems, we find

certain states of equilibrium and deviations from them associated with the relations between the elements of these systems. In the system of the universe known to us, these elements are – according to the Big Bang Theory – mass (matter), energy, space, and time, while in social systems, their distillation seems to be sociomass, socioenergy, sociostructure, and socioculture. Both the Big Bang Theory, considered by some a fantasy[13], and the elements of the social system distinguished by social cybernetics and securitology belong to temporary images (twisters) in the sense that they arose at some point in the development of science, although – as I have tried to prove – they have a hard core (perhaps of the Original) in the history of human knowledge development. It is the core of the philosophy of social sciences (presumably being a rather temporary Image of the Original) based on:

(1) Pythagorean quadruple division of nature and Aristotle's teaching about the first four causes and principles, which probably still "best" and "most simply" explain that what is (all existence);

(2) the fancy Initial Conditions of the Universe of the Big Bang Theory explaining scientifically, i.e., the conditions that seem the "best" and "simplest" of the accepted so far to explain all existence – being;

(3) the twist elements of the social system indicated by social cybernetics that explain equally "best" and "most simply" the structure of the social system or social being – the image of the complex social being;

(4) implied from these elements pillars, dimensions, manifestations, and values communicating the goals of necessary, useful, beautiful, activities, good for Europeans in the twenty-first century in a way that seems "the best" and "the simplest". Not only for them, the most important challenge seems to be: (1) to care for and control procreation and education; (2) an increase in abundance and prosperity (satiety); (3) improvement of law and political system; (4) strengthening the preferred morality and culture.

Undoubtedly, it seems that the most conducive to approaching the truth about community life in social sciences and the philosophy of social sciences is the holistic study of society as a complex system, reproduced in the fractal similarities of individual forms of existence as a model that appears repeatedly at different scales and sizes encompassing the quadruple division. Such studies of society as a system are most simply and probably also attractively and with a high degree of probability describe such axiological pillars

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[13] How Sir Roger Penrose put it (Nobel Prize winner), in modern physics, there are three or actually four theories of describing and explaining the genesis and the functioning of the Universe (being). He intuitively associated these concepts (perhaps too hastily – as he writes) with fashion, faith, and fantasy. The theories he called (1) fashionable – are the string theory; (2) faith – quantum theory (the dogma of quantum mechanics); (3) fantasy – it is the Big Bang Theory; (4) the author's fantasy – the twistor theory (as a newer alternative to the string theory) – trying to reconcile quantum mechanics with general relativity. According to the latter, we get to know the Image, which is only our imagination and a representation resembling the Original (Penrose, 2017, pp. 69–71 (figs. 1-3; 1-4), p. 564 (fig. 4-1)).

exposed by the philosophy of security, the philosophy of security studies and securitology, as: (1) Procreation and Education tangent with such an element of the social system as sociomass; (2) Abundance and Prosperity tangent with such an element of the social system as socioenergy; (3) Regime and Legislation tangent with such an element of the social system as sociostructure; (4) Freedom and Responsibility, preferred in Western civilisation, tangent with such an element of the social system as socioculture. These are pillars tangential to the first causes (general and necessary), a rather universally recognised fantasy (according to R. Penrose's term) concerning the initial conditions of the universe and the twist elements of the basic elements of the social system (being). These elements seem "the best", "the simplest", and probably "attractive" to accept temporarily, such as sociomass (the quantity and quality of the people of society), socioenergy (their level of abundance, prosperity, and satiety), sociostructure (their way of organisation – law and political system), and socioculture (their aspirations and preferred values).

References:

Aristotle. (1996). *Dzieła wszystkie*, vol. 1 and 5. Wyd. Nauk. PWN.

Bacon, F. (1955). *Novum Organum*. PWN.

Bacon, F. (1995). *Nowa Atlantyda i Z wielkiej odnowy*. Wyd. Alfa.

Benton, T., & Craib, I. (2003). *Filozofia nauk społecznych. Od pozytywizmu do postmodernizmu*. Wydawnictwo Dolnośląskiej Szkoły Wyższej Edukacji TWP.

Bohm, D. (1988). *Ukryty porządek*. Pusty Obłok.

Capra, F. (1987). *Punkt zwrotny*. PIW.

Capra, F. (2019). *Tao Fizyki*. REBIS.

Comte, A. (1961). *Metoda pozytywna w szesnastu wykładach*. PWN.

Czajkowski, A. (2020). Wyjaśnianie empiryczne i interpretacyjne działań politycznych. *Teoria Polityki, 4*.

Filozofia nauki (n.d.). https://pl.wikipedia.org/wiki/Filozofia_nauki

Flis, A. (1999). *Wyzwania wobec nauk społecznych u progu XXI wieku*. Universitas.

Gałganek, A. (2021). *Filozofia nauk o stosunkach międzynarodowych. Ontologia. Epistemologia. Metodologia*. Universitas.

Heller, M. (2009). Konieczność i przypadek w ewolucji wszechświata. *Zagadnienia Filozoficzne w Nauce, 44*.

Jung, C. (1993). *Archetyp i symbole. Pisma Wybrane*. Czytelnik.

Krasnodębski, Z. (1986). *Rozumienie ludzkiego zachowania. Rozważania o filozoficznych podstawach nauk humanistycznych i społecznych*.

Kuczyński, J. (1989). *Uniwersalizm jako metafilozofia*, vol. 1. Biblioteka Dialogu.

Lakatos, I. (1971). *Historia nauki a jej racjonalne rekonstrukcje*. https://sady.up.krakow.pl/filnauk.lakatos.hnracjrek.htm

Lakatos, I. (1995). *Pisma z filozofii nauk empirycznych*. Wydawnictwo Naukowe PWN.

Leartios, Diogenes. (1988). *Żywoty i poglądy słynnych filozofów*. PWN.

Lisowska-Magdziarz, M. (2020). Irracjonalizm w zmediatyzowanym społeczeństwie wiedzy. Ramowanie, słownik, retoryka, ikonografii. *Studia Medioznawcze, 21*(2).

Marszałek-Kawa, J., & Plecka, D. (Eds.) (2019). *The Dictionary of Political Knowledge*. Wydawnictwo Adam Marszałek.

Nicholas of Cusa. (2014). *O oświeconej niewiedzy*. Aletheia.

Pascal, B. (1989). *Myśli*.

Penrose, R. (2017). *Moda, wiara i fantazja w nowej fizyce Wszechświat*. Copernicus Center.

Plato. (1986). *Timajos Kritias albo Atlantyk*. PWN.

Plato. (1988). *Uczta, Eutyfron, Obrona Sokratesa, Kriton, Fedon*. PWN.

Popper, K. R. (1977). *Logika odkrycia naukowego*. PWN.

Popper, K. R. (1988). Jak widzę filozofię. *Przegląd Powszechny, 7-8*.

Possenti, V. (2006). *Trzecie żeglowanie. Filozofia bytu a przyszłość metafizyki*. Polskie Towarzystwo Tomasza z Akwiny.

Possenti, V. (2019). *„Trzecie żeglowanie" i rozwój metafizyk*. http://www.ptta.pl/zws/1/vpossenti.pdf

Reale, G. (2012). *Historia filozofii starożytnej, vol. II: Platon i Arystoteles*. Wydawnictwo Katolickiego Uniwersytetu Lubelskiego.

Rozporządzenie Ministra Nauki i Szkolnictwa Wyższego z dnia 20 września 2018 r. (2018, September 20). Dz.U. z 2018 r. poz. 1818. https://isap.sejm.gov.pl/isap.nsf/DocDetails.xsp?id=WDU20180001818

Russell, B. (1920). *Why men fight? A method of abolishing the international due*.

Russell, B. (2009). *The Elements of Ethics* (1910). In *Philosophical Essays*. Routledge.

Sady, W. (1996). Cztery wielkie nurty w metodologii XX wieku. *Filozofia Nauki, 4/2.*

Sagan, D. (2014). Wnioskowanie do najlepszego wyjaśnienia jako metodologiczna podstawa inteligentnego projektu. *Zagadnienia Naukoznawstwa, 1.*

Seligman, E. N. A. (1930). *Encyclopedia of the social sciences, vol. I*. Macmillan.

Świniarski, J., & Kawalerski, P. (2019). *Drogi i bezdroża securitologii*. WAT.

Szacki, J. (2002). *Historia myśli socjologicznej*. Wyd. Nauk. PWN.

Tatarkiewicz, W. (1968). *Historia filozofii*, vol. 1. PWN.

Turchin, P. (2022). *Wojna i pokój, i wojna. Jak powstają i upadają imperia*. Wydawnictwo WEI.

Vico, G. (1966). *Nauka nowa*.

Walczak, M. (2004). Wartościujący wymiar kategorii racjonalności nauki. *Roczniki Filozoficzne, 52*(2).

Walczak, M. (2006). *Racjonalność nauki. Problemy, koncepcje, argumenty*. Wyd. Towarzystwa Naukowe KUL.

Wallerstein, I. (2004). *Koniec świata jaki znamy*. SCHOLAR.

Wilkin, J. (2012). Komu potrzebne są nauki społeczne? Nauki społeczne w polskiej i europejskiej przestrzeni badawczej oraz w rozwiązywaniu problemów rozwoju. *NAUKA, 4.*

Woleński, J. (2003). Dwa racjonalizmy i irracjonalizm. *Roczniki Filozoficzne, LI*(1).