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An Innovative Methodological/Pedagogical Approach to the Comprehension of Hegel's Legacy

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Georg Hegel left an immense intellectual legacy that has the potential to change the life of mankind for the better. The article is based on speculative methods of research and aims to rethink the scientific efforts of scholars who were engaged in the study and interpretation of Hegel's philosophy and his concepts. The purpose of the article is to study the philosophical thought of Georg Hegel. The article was written using the analysis of scientific papers to identify the fundamental principles of Hegel's philosophy; the mental modeling was used to recreate the visual concept; the method of idealization was necessary to create a simplified implementation model of a particular phenomenon; induction and deduction methods were also applied. As the result, a more detailed concept of Hegel's four objective methods can be designated: ACA (the cycle of ascent from the Abstract to the Concrete and the subsequent descent to the Abstract), AAC (ascent from the Abstract to the Concrete), DCA (descent from the Concrete to the Abstract), and CAC (the cycle of descent from the Concrete to the Abstract and the subsequent ascent to the Concrete), as well as their meaning in practical and abstract cases. In the course of the study, the following conclusions were made: the logical, functional schematic design of the individual paradigm determines the transparency of understanding and visibility of the causal phenomena of the environment, which logically ensures harmonious development, an increase in the quality of life, and an increase in its duration.

Public Significance Statement

This article aims to study the philosophical thought of Georg Hegel and provide a more detailed concept of his four objective methods (ACA, AAC, DCA, CAC) and their significance. This research identified sufficient prerequisites for the modernization of the education system. The results offer insights into the transparency of understanding and visibility of causal phenomena in the environment, leading to harmonious development.

Keywords: activity paradigm, methodological tools, educational philosophy, self-identification, management decisions

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The year 2020 marks the 250th anniversary of the birth of the outstanding German thinker and philosopher Georg Wilhelm Friedrich Hegel. Oddly enough, all the tragedies that modern civilization is experiencing are due to misunderstanding and, accordingly, nonuse of his intellectual heritage. To put it simply, the idea of the absolute spirit,

some simple truth that constitutes the foundation of the universe, is a common theme of his works. It is encoded in a special way in all universal transformations, in every object of flora and fauna, in the genome of every organism, including humans. However, it is difficult to understand the simple, it is difficult to identify essential thoughts in a progressively increasing flow of multiformat and ambiguous information. The culture of preserving individual, personal portraits in general history has not yet developed. Civilizational criteria for systemic portrayal have not been developed and agreed upon. Nevertheless, it is obvious that the most important criterion is the fruit of human thought. And today mankind, especially honors, the memory of artists; poets; writers; philosophers; scientists; inventors; artists; and musicians who have captured their spirit, thought, word, and actions in their works. Many works have no time limitations, they are generally valid and extra historical, that is, omnitemporal (Bekh et al., 2020; Seok et al., 2021).

For example, the term globalization, which manifested itself in scientific circulation in the 1960s, is often used today, but due to the ambiguity of understanding, it began to be perceived in a negative way. Thus, the context of globalization is the rapidly developing world, where the leading role belongs to the permanent domination of economic and technological factors over other forms of society. Competition and the need to comply with the requirements of globalistics began to exert "a significant impact on both the reorientation and the displacement of individual states, and even entire regions to the periphery of the world civilisational space" (Baturin et al., 2019).

The Republic of Kazakhstan, which declared sovereignty after the collapse of the Soviet Union, still faces a dilemma: to accept and integrate into global sociocultural norms and programs for organizing social relations, or critically rethink, update the existing paradigm series, and design a more perfect path of development. Back in 2009, the first President of the Republic of Kazakhstan N. A. Nazarbayev stated,

> We still look at today's world, as well as at the future New World, through the lens of old thinking tools. But to begin a radical renewal, we need to renovate our thinking. Therefore, it is necessary to update all concepts, categories, theories, schemes, concepts of thinking, and terms denoting facts and phenomena of the new world. (Nazarbayev, 2009)

However, the question arises—how to update concepts, categories, theories, and so forth. G. Bashlyar noted that "the philosophy of 'what' was replaced by the philosophy of 'how,' but then the so-called philosophy of 'why not' appeared" Bashlyar (1987). Admittedly, modern philosophers have come to the probabilistic assumption of "why not" due to difficulties in unambiguous construction of answers to the question of "how," for example, how to pose and solve problems of social development, which is one of the key matters of practice. This study aims to investigate the philosophical thought of Georg Hegel, which provides for integrity, consistency of thinking, and firm conclusions.

Interpretation of Hegel's Concepts by Russian Scholars

The teachings of G. W. F. Hegel make provision for the integrity, consistency of thinking with subsequent unambiguous conclusions. In this regard, it is no coincidence that the philosopher paid special attention to the development of thinking abilities in the younger generation. The basis of holistic, systemic thinking should be laid precisely in education. According to G. Gadamer,

> it is Hegel that we owe to the meaning of the concept of education, which is used in modern scientific discourse. Interest in Hegel's research in the field of educational philosophy is undoubtedly due to his systemic vision of the historical process in comparison with the contradictory development of activities to educate people. (Philosophy of Education, 2019)

According to the figurative remark of Ilyenkov (2018), Hegel realized that

> the huge masses of people living in the 18th–19th centuries have only reached the cultural level the 3rd or even 4th century BC. They did not even grow to the level of the ancient Greeks but got stuck at the infant level of Moses and Christ.

In this regard, Hegel (2015, p. 570) noted that

> Man, as an individual, stands in relation to himself. He has two aspects: his individuality and his universal essence. His Duty to Himself consists partly in his duty to care for his physical preservation, partly in his duty to educate himself.

Thus, the common theme of Hegel's educational philosophy is the idea of the dialectical method of development, knowing which, a person becomes an active and full-fledged subject of activity.

The problem of "extraction," pedagogical application, and socialization of Hegel's legacy was studied by the Russian scientist O. S. Anisimov. Making his way through the cumbersome intricate texts of the philosopher, he not only understood the course, the logic of constructing thought, but also created the language of its visualization—the language of schematic images of pragmatic meanings (Anisimov, 2004a). At the heart of Hegel's creative thinking and texts is a universal, logical method of ascent from a simple (abstract) to a complex (concrete)—AAC. Thus, language of schematic images (LSI) is nothing more than a speculative tool for exteriorization of both thinking in the AAC logic and results—concepts, categories, and, consequently, all other mental constructions, norms of human activity. The LSI of pragmatic meanings is a reflection of aggregate factors that affect a person's life every day, in the form of graphic images with a sequence of such influence.

Let us assume that all procedures for agreeing on normative pragmatic texts will be accompanied by schematization of the parties' standpoints on external media. It is unknown whether this will help the organization of collective thinking, identify and correct inaccuracies, errors, logical justification of the correctness of conclusions, and finally, modeling, calculation, and forecasting the consequences of decisions made. Let us also assume that all the declarative texts regulating the activity will be applied visible functional and logical schemes of their implementation. However, it is not known whether this will help the subjects of analytical, pedagogical, managerial, or entrepreneurial activities in their practice.

If these are rhetorical questions, the significance of the dialectical method for the development of the AAC and the language of LSI for resolving all controversial issues on the scale of all countries and peoples is conceivable, since they have a suprasubjective, superhistorical, that is, objective nature. A paradoxical situation has developed—against the backdrop of endless social, economic, military, and other conflicts all over the world, total immersion of people's consciousness into the bottomless ocean of contradictory, false information, sources of high spirit and "pure" thought have survived and still exist. The dialectical confrontation of the conventionally "dark," malign and "light" forces is inevitable. Therefore, the role of the teacher increases immeasurably, and the socialization of all positive intellectual achievements of mankind is of paramount importance. When mastering the constructive LSI, the teacher becomes a social engineer, able to build and explain the socionatural world of activity.

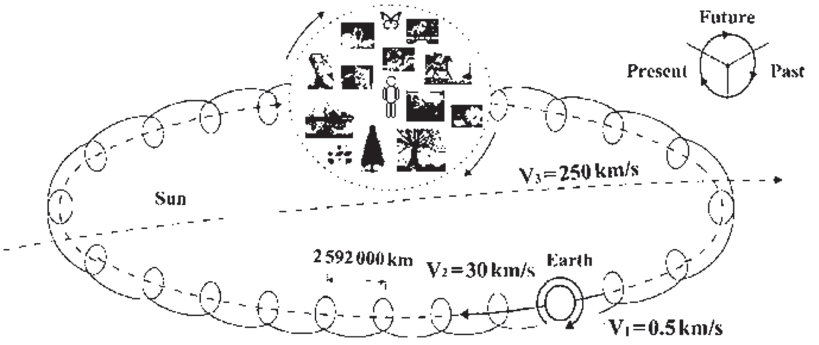
On the basis of the deductive method of AAC, pseudogenesis and the initial, basic "cells" according to Hegel, using the LSI, O. S. Anisimov set a new line of study—meta-analytics. It is a method for working with text, a methodological alphabet of 16 concepts, with more than 3,000 schemes of different types in different fields of knowledge, and so forth. Considering himself a Hegelian, O. S. Anisimov created a methodological and pedagogical school, conducted a lot of developmental organizational activity and organizational mental games (Anisimov, 2007). Here are some examples of the application of Hegel's ideas and the methodological tools of O. S. Anisimov in the analytical, consulting, and teaching practice of Kazakhstani scientists. Samples are presented in the form of questions from participants in seminars and activity games.

Self-Identification of Young People in Modern Conditions of High Uncertainty

The adequacy of a person's self-identification, first, depends on the chosen coordinates. A person needs general coordinates of the vital space, which are manifested in the process of understanding the holistic world picture. All micro- and macro-objects of terrestrial and cosmic nature are in perpetual motion, "boiling" energy broth, cyclically arise, change and disappear, creating temporary sets of numerous real worlds coexisting in different dimensions. In childhood, a person thinks in terms of space and time, predominantly resides in a "stationary" world of the environment. Due to the senses, an individual perceives the world in the form of specific images of observed objects. However, during the period of asking questions—why is it a day, night, why it snows, rains, why is there wind, moon, and so forth, a person is ready to perceive a simple holistic world picture, understanding which a person is able to answer their own questions. For example, it is possible to build a simple model of the trajectory of self-propulsion of the Earth and all objects on it (Figure 1).

The model can easily explain the category of time as the coordinate of the daily cycle of the Earth's motion around its axis and the annual cycle of motion around the Sun. The concept of time is specified by the categories of past, present, future,

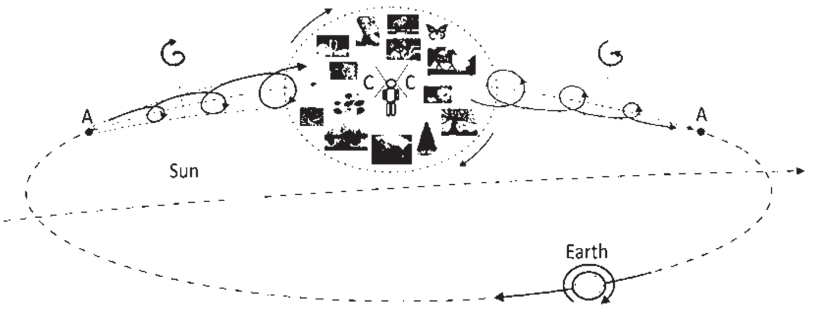
Figure 1
Trajectory of Self-Propulsion of the Earth



and by specific images of annual (winter, spring, summer, autumn) and diurnal (night, morning, day, evening) phases, conditional quantitative-digital division of unit cycles into subcycles (hours, minutes, seconds, etc.). The understanding of the law of cyclicality of all processes provides the realization of the relativity of the states of all objects and their names. In particular, the "origin" of such paired categories as whole–part, cause–effect, inhalation–exhalation, process–state, left–right, hot–cold, fast–slow, inner–outer, question–answer, practice–theory, and so forth. By asking questions on the basis of this picture (model), it is not difficult to lead children, students, to independently explain the logic of the Earth's rotation and the transformation of night into day, winter into summer, flora into fauna, and vice versa. Gradually, the integral picture of the "natural," particular worldview is refined and expanded. The main result is achieved—students begin to understand the logic, the basic principles of the origin, life, and interaction of all objects of nature, and to realize the place of a human in the world.

As the analysis of philistine thinking indicates, the difficulties in understanding are trivial in nature and are due to the so-called substitution of concepts by misunderstanding. For example, many people have a stereotype of "complex" behind the word "abstract," while "concrete" implies "simple." The abstract, in contrast to the concrete, often means incomprehensible. Therefore, the natural desire for certainty provokes a person's, in particular, a child's avoidance of "difficult" abstract words, questions, texts, the desire for "simplicity," being in a comfortable, understandable environment. Without realizing it, a person finds themself in a false concrete world of his own stereotypes. Conditionally standing on the trajectory of the planet's rotation around the Sun in the observer position, anyone can make sure that it has a spiral character. Figure 2 illustrates this model of perception of the abstract and the concrete and

Figure 2
Objective Manifestation of the AAC–DCA Methods



Note. AAC = ascent from the abstract to the concrete; DCA = descent from the concrete to the abstract.

indicates the allegory explaining about ascent from the abstract to concrete and descent from a concrete to abstract. When the Earth approaches the observer, the resulting trajectory manifests itself in the form of a diverging conical spiral AAC—ascent (A) from the abstract (A) to concrete (C), and when it moves away—in the form of a converging conical spiral of the DCA—descent (D) from a concrete (C) to abstract (A).

In the plane of convergence of spirals, an inversion is observed—for the AAC spiral of the Earth's motion, clockwise movement (from left to right) is characteristic, and for the DCA spiral, counterclockwise movement (right to left). According to the figure, it is evident that the abstract and the concrete are the names of the conventionally distant, blurred, and, alternatively, close, clear objects. Accordingly, abstraction and concretization are the names of the processes of removing and approaching an object to a conditional observer. Admittedly, the most abstract and simplest way is the point. The rest of the images are multipoint, that is, more complex formations. Therefore, the abstract should be understood as simple, and the concrete should be understood as complex. Human development, associated with the gradual knowledge of the world and the disclosure of intellectual potential, involves a gradual transition "from simple to complex." Consequently, students must master the method of thinking in the logic of the AAC, which is the basis of the teacher's organization of the "ladder of development from simple to complex" (Hegel, 2015, p. 593).

The laws of astronomy, mechanics, physics, chemistry, and biology discovered by man confirm the general nature of the movement of macro- and micro-objects of the universe along information-energy spirals in the AAC–DCA logic (Tsoi, 2008). All bodies are pulsating energy units of different densities, which together make up an infinite set of interconnected and similar in shape macro- and microspirals of a single typical spiral of the universe (Figure 3). For humans, this spiral, in fact, represents a universal coordinate system and a schematic language of the universe. The local points of self-determination of a person in this coordinate system are the concepts of the abstract and the concrete, and the tools are the four objective methods formed by them: ACA, AAC, DCA, and CAC. ACA is a method of cognition when an object is considered and gradually studied from an abstract idea about it to a more concrete one, with a subsequent deepening into the topic of study. CAC is knowledge in reverse—from concrete to abstract knowledge, but the study does not end there: It is important to return to concrete, different knowledge again. Studying natural science subjects, students can repeatedly realize that these methods are the basis of all information–energy–material transformations of matter as such.

The AAC and DCA methods, which form a single ACA cycle, are the basis of all global processes and represent universal forms of the rational organization of self-motion of all objects. In the world of activity, the AAC method lies at the basis of creative processes. The DCA method lies at the basis of destructive processes as the choice of significant parameters of the object under study is based on assumptions that may not always turn out to be correct and true, which will eventually lead to false analytical data and the formulation of a false theory. The spiral of the pulsating universe in AC coordinates can be used as a universal tool for the analysis, planning, and design of activities.

Figure 3
Methods of Pulsing Universe

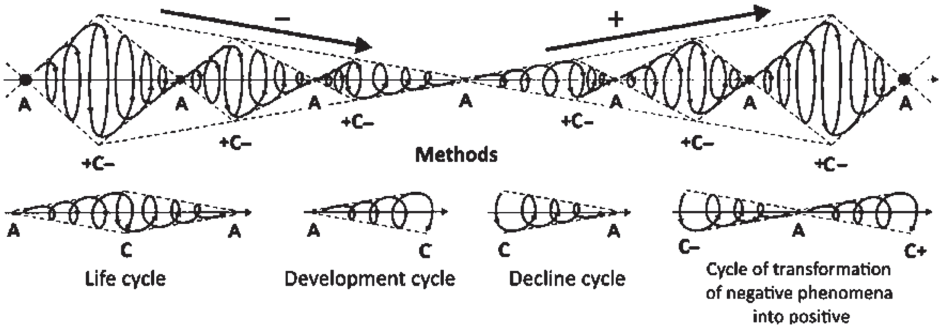
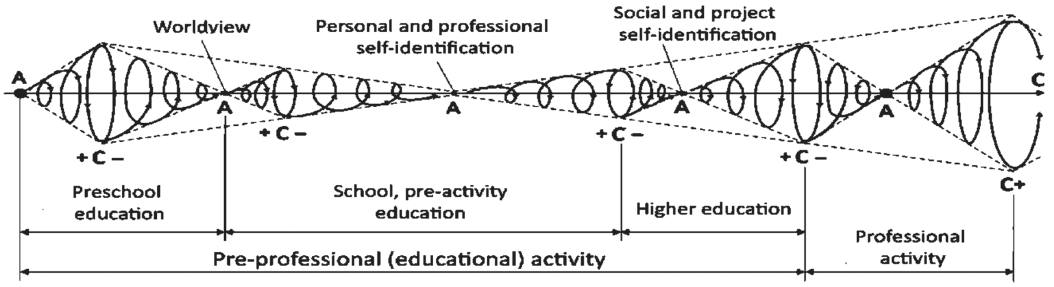


Figure 4

The Spiral of Disclosure and Fulfillment of Human Intellectual and Professional Abilities



As an example, Figure 4 shows a variant of the spiral-cyclic trajectory of the disclosure and fulfillment of the intellectual and professional abilities of a person.

Thus, the trajectory consists of alternating "ascent–descent" harmonics, which are outlined at each stage by cycles of norm-design and norm-realization.

Given the general nature of motion in the universe, hypotheses are quite legitimate:

1. Methods of ACA, AAC, DCA, and CAC should be considered as the main means of ideation "The spirit denies the appearance of nature, that it assimilates nature to itself and thereby idealizes it. This idealization takes on a one-sided form in the finite spirit, which posits nature outside itself. Here, the activity of our will, as well as our thinking, is opposed by external material, which, remaining indifferent to the change we undertake on it, thereby completely passively perceives also that idealization of it, which partially arises for it from these changes." (Hegel, 1986, p. 149)
2. All human-generated knowledge about the rational world of activity should be critically examined for possible reconstruction in the creative logic of AAC. Hegel sees his own task in creating a system of logic, and the system is not dead, but alive, unfolding, to depict the realm of thought philosophically, "that is, in his own immanent activity, or, what is the same, in his necessary development" (Hegel, 1986, p. 128). Hegel criticized "home-grown thinking," "an uneducated way of reasoning" when categories are used, without realizing that they "need to be subjected to critical examination before using them". "The system of logic is called upon to do this. In this system, all categories" must find their place" and be subject to "self-examination" (Hegel, 2015, pp. 128–130).
3. The entire activity paradigm should be presented in AC coordinates and brought into a single system.

Methodological Tools to Reduce the Risks of Making Incorrect Management Decisions and Operating Standards

The general old point of view on logic consisted, according to Hegel's characterization, in the understanding of logic as the study of thinking as a bare form of cognition. The other side of thinking—content—was understood by logic as given from outside. Therefore, the old logic has nothing to do with truth. The object is given as something ready-made, to which thinking is called upon to correspond, while even for truly cognizing thinking "the object remains otherworldly thinking" (Hegel, 2015, p. 430). Thought, according to Hegel, is not something belonging to the subjective sphere of the individual, it is objective. "This objective thinking is the content of pure science" (Hegel, 2015, p. 433):

> Logic, according to this, must be understood as a system of pure reason, as the realm of pure thought. This realm is truth, as it is without veils, in and for itself. essence before the creation of nature and any finite spirit. (Hegel, 2015, p. 430)

Simplifying, this can be expressed as follows: Categories, as the content of the realm of pure thought, are the forms of both cognizing thinking and being itself in its essence. They are forms or definitions of thought and being. In this

understanding of the categories, Hegel strongly disagrees with Kant. He criticizes Kant ("critical philosophy," as he usually puts it) for the subjectivization of categories. This philosophy "removed the forms of objective thinking, but left them in the subject," "she did not consider these forms taken by themselves … but directly borrowed them lemmatically from subjective logic" (Hegel, 2015, p. 442).

Hegel sees his own task in creating a system of objective logic, and the system is not dead, but living, unfolding, to depict the realm of thought philosophically, "that is, in its own immanent activity, or, what is the same, in its necessary development" (Hegel, 2015, p. 445). In this system, all categories "should find their place" and be subject to "self-consideration" (Hegel, 2015, p. 445).

There is a multitude of such tools, so the article will focus on the main ones. To make the right management decisions and select the norms of activity, it is necessary to use unambiguous logical criteria in thinking. These criteria, first of all, are understood as the general professional paradigm of thinking and activity—principles, approaches, concepts, categories, concepts, summarized in the logic of the AAC in the methodological theory of activity (Anisimov, 2007). Before disclosing the features of this paradigm, first, it is necessary to mention the language of its construction.

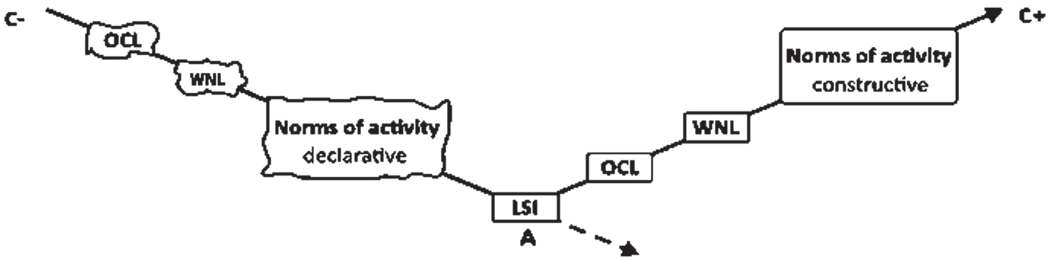
In the traditional practice of conciliatory procedures and the construction of paradigms of natural science, engineering disciplines, three types of language were used—the speculative LSI, oral, conversational language (OCL) and written, normative language (WNL). Due to this trilingualism, the entire artificial habitat was created on the Earth. When constructing paradigms of such social disciplines as economics, sociology, political science, pedagogy, and others, as a rule, only two languages are used—OCL and WNL. OCL includes about 7,000 national languages, with different sound combinations—phonemes. The element base of WNL is made up of alphabets (graphemes or letters), for example, Cyrillic and Latin. Due to the fact that all spoken and written languages have a conditional, contractual character, and undergo changes over time, they not only cause difficulties in the communication of speakers of different languages but also in most cases—the fundamental impossibility of adequate thought the communication and transmission of mental images, compiling unambiguously understood normative texts. Such texts, as a rule, are of a declarative nature, meeting with which, as Thomas Hobbes said, the mind loses its power (Figure 5).

Due to the visibility, constructiveness, and consistency of the diagrams, LSI performs the function of organizing, "discipline" in relation to the OCL and WNL. Thus, it is argued that the fundamental condition for unambiguous understanding and acceptance of common constructive norms of social interaction in all countries is the use of three types of languages—LSI, OCL, and WNL when creating all activity paradigms, norms, regulatory documents. What principles, apart from visuality and constructiveness, should the general professional paradigm of thinking and action meet? Proceeding from the need to build a socionatural world, that is, the world that harmoniously fits into the objective cycles of biosphere processes, then the required principles can be derived by any person from the properties and signs of harmony of natural objects. Such signs include movability, continuity, causality, proportionality, similarity, balance, symmetry, "golden mean," "golden sections and proportions," and "golden spirals" (Tsoi et al., 2020). Thus, the following "golden principles" of socionatural thinking and activity were derived: objectivity, functionality, morality, integrity, consistency, environmental friendliness, unity, organicity, interdependence, and mutual development. Accordingly, it is argued that the entire activity paradigm, all norms of activity must comply with these principles.

Nuzzo (1999) in one of his works focuses on the end of Hegel's work "Logic," because the philosopher included in this part of the work a discourse on the method of cognition. We are talking about speculative logic, which A. Nuzzo considers as a new version of metaphysics. A new science arises, called "its own metaphysics," in which Hegel departs from the criticism of Kant. The philosopher attributes to this logic a double systematic theory, due to which the Idea of Logic acquires an ambiguous relation to absolute knowledge.

The model and means of building or updating existing subject and professional paradigms is a methodological paradigm created by O. S. Anisimov, the units of which are also placed on the AAC vector (Anisimov, 2007). The initial, systemic concept is the cycle of individual human life activity, which lays the moral foundations for all other concepts. All concepts are represented by visible functional logic diagrams containing algorithms for their use. Each concept of the

Figure 5
Comparative Analysis of the Construction of Norms of Activity in the CAC Logic



Note. CAC = the cycle of descent from the Concrete to the Abstract and the subsequent ascent to the Concrete; OCL = oral, conversational language; WNL = written, normative language; LSI = language of schematic images.

theory of activity, derived from the AAC logic, meets the criteria of objectivity, functional integrity, causality, consistency, and morality.

Each concept of activity theory is a concise, organized, and relatively coherent text. Having a sufficient range of visualized concepts and categories, all activity texts can be composed in the LSI. With their help, it is possible to build the necessary models, strategies, and norms of socionatural activities of any scale—an enterprise, industry, region, country, and so forth. In the near future, it is necessary to update the key concepts of analytical, managerial, pedagogical, and economic activity using the above methodological tools. Mastering the updated paradigm will determine the development of systemic functional thinking and will contribute to an adequate personal, social, and professional self-identification of a person.

System Object and Its Understanding in Methodology

According to Hegel and Anisimov, the whole world of activity and any concept, in particular, should be deduced in the AAC logic from the whole, the universe, or, according to Plato, from the abstract idea of ideas (Anisimov, 2004a; Hegel, 1972). Schematically, it is denoted by a point—the simplest abstract form that contains everything. From it, when approaching the observer, the concept of something is derived. According to Aristotle, something, more precisely "each thing" has a form and morphology (Aristotle, 1976). And finally, in the next step of concretization, something is refined by the concept of a system object. Every object has its own idea, purpose, that is, its function. An object is a concretized something that exists formally and/or manifests itself in reality, with a certain organization, performing the function of self-preservation in changing conditions, subject to cognition and transformation (Anisimov, 2004b). Objects can be perfect and real. Ideal objects are forms, images, schemes. Diagrams, in contrast to images, are concrete—they demonstrate the sequence of processes, actions, the way of their implementation. Real objects are materialized ideal objects. The creation of real objects in activity requires the preliminary construction of ideal objects in the form of diagrams (drawings) containing methods of their creation.

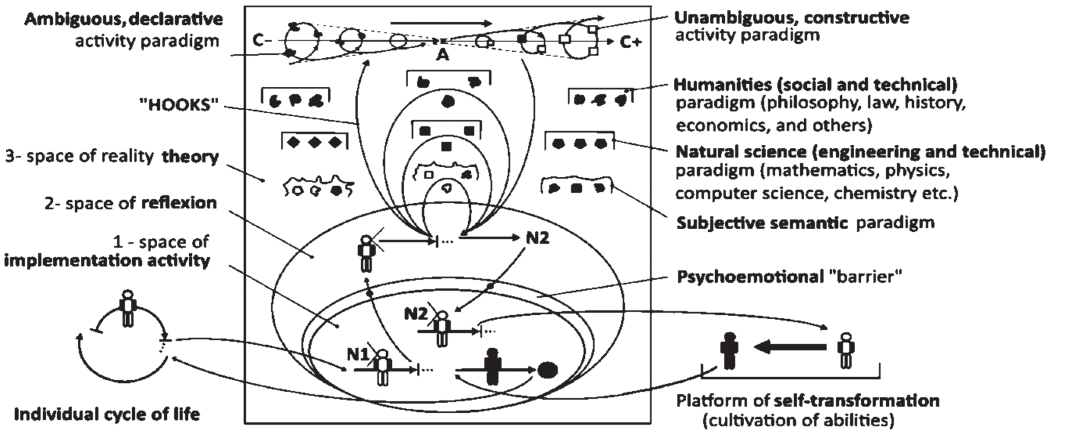
Objects can be structural and systemic. The structure is the result of organizational combination, synthesis of units within the framework of one or another unifying principle that generates the properties of "integrity" (Anisimov, 2004b). The system is a mechanism for the implementation of the functions of self-organization, self-sufficiency, and reproduction of the functional integrity of an object in changing conditions (adequate combination of form and morphology). The system defines the functional, content-formal essence of the object and organizes its nonaccidental emergence, establishment, functioning, reproduction, development, degradation, and disappearance (Di, 2020; Skalovski, 2020). All-natural organisms serve as an example of functional system objects.

The Use of CAC Method in Pedagogical Activity

The teacher must see and be guided, for example, by the following model (cycle) of disclosing the intellectual and professional abilities of the student (Figure 6).

Figure 6

Model of Disclosure of Intellectual and Professional Abilities



The creative activity involves the implementation of two ideas—functioning and development. The idea of functioning (reproduction) is revealed by the concept of an act of implementation activity. The idea of development is associated with human self-improvement—the subject's consistent overcoming of typical difficulties in three functionally related spaces: (a) the space of the practice of implementation activity, (b) the space of reflection (the practice of mental activity), and (c) the space of the theory of activity (Figure 6). These spaces are inherent in the corresponding actions and difficulties of the subject—in the implementation of the norms of activity, the construction of norms of activity, and the construction of norms of thinking. In the space of the theory of activity, four types of paradigms are presented: subjective-semantic, natural-scientific (engineering–technical), humanities (sociotechnical), and activity. Using these paradigms, a variety of information is systematized and reduced to specific scientific and educational disciplines. A person turns to the world of activity in order to create objects to satisfy the needs arising in individual life. If a person has a method, a norm (N1) for creating the necessary items of needs and corresponding abilities, they enter the space of the practice of implementation activity and become a subject.

The functioning of an activity involves the implementation of norms without difficulty. Meeting difficulties is a logical prerequisite for building new knowledge and revealing the corresponding abilities. Having met with difficulty, the subject moves into the space of mental activity and tries to renormalize—to build a different scheme, a norm (N2). However, difficulty can also be encountered in thinking, for example, due to ignorance of the rules of thinking—analysis, problem statement, design, and so forth. This forces a person to turn to theoretical sources, to move into the space of the theory of activity, to the corresponding paradigms. Having received the necessary theoretical guidelines, the subject returns to the space of reflection, changes, corrects the way of action, trying to overcome the difficulty in implementation practice, and achieve the desired result. According to Hegel,

> Created by each generation in the field of science and spiritual activity is a heritage, the growth of which is the result of the savings of all previous generations, a sanctuary in which all human generations gratefully and joyfully placed everything … that they found in the depths of nature and spirit.

And again: "Action is the clearest and most expressive revelation of a person" (Hegel, 2015, p. 686).

As can be seen, the development of activity involves the subject overcoming difficulties through reflection and correction of own actions, corresponding to self-change, that is, disclosure and implementation of the intellectual and professional abilities required in practice. Obviously, in this cycle, the subject's performance is determined not only by the quality of thinking but also by the quality of the paradigm used—the level of its consistency, constructiveness, and other characteristics. The least reliable is the subjective semantic paradigm, arbitrarily formed by the subject himself under the influence of heterogeneous information

coming from outside. The natural science paradigm (mathematics, physics, computer science, chemistry, etc.) is distinguished by the highest degree of formalization and corresponding unambiguity. In this regard, the implementation practice of engineers, designers, technicians, and others demonstrates high efficiency. The humanities paradigm (philosophy, law, history, economics, and others) is characterized by insufficient certainty and declarativeness, which generate ambiguous interpretations. Thus, for example, economists use a quantitative, digital paradigm, which allows fixing only superficial attributes of activity (cost, the volume of production, labor productivity, etc.). However, they do not possess an unambiguous, constructive paradigm that demonstrates the underlying causes of inflation, corruption, and financial crises. The looseness of the majority of pedagogical, analytical, and economic terms gives rise to declarative, opportunistic, and ideological management texts, which, as a rule, do not contain constructive mechanisms for their implementation.

In this regard, the development and application in the professional practice of the methods of AAC, CAC, the language of schematic images, and a constructive activity paradigm become relevant. Due to their use, all vague, ambiguous concepts, and categories of humanities can be transformed into functional and logical—constructive and unambiguous. Thus, the concept of development is associated with difficulties and a change in a person's thinking in connection with the paradigm being updated with the help of methodological tools. However, the presence of a paradigm is just a theoretical component containing methods, a necessary, but not sufficient prerequisite for making adequate decisions. A sufficient prerequisite is the thinking, reflective-criterial abilities of a person.

An Example of the Use of Methodological Tools in Analytical Practice or Design

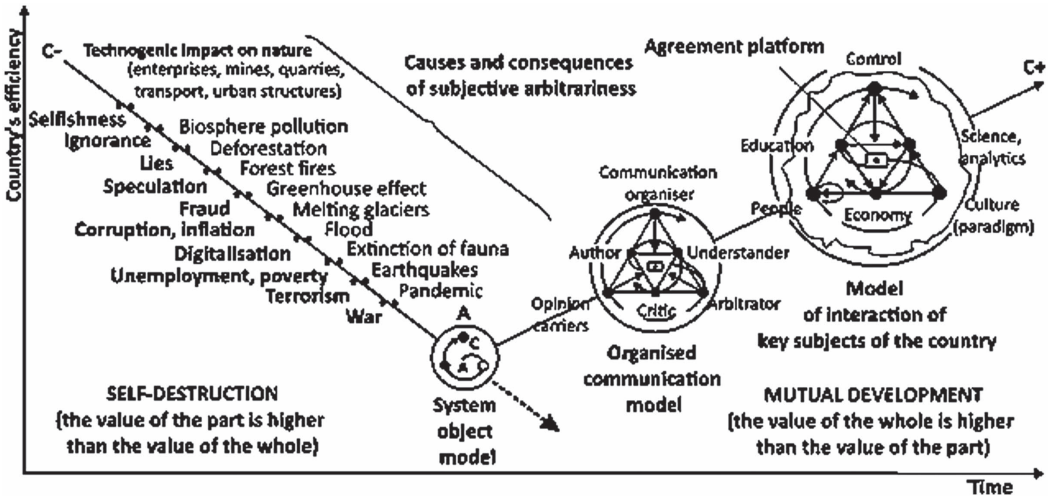
The provision of system analysis or design is achieved by simultaneously placing the object and the criteria used in the space of any coordinates. For example, Figure 7 presents a conceptual view of the transition from negative to positive scenarios of country development in terms of efficiency/time. At the same time, two vectors were applied—DCA and AAC, with the help of which, respectively, a decrease and an increase in the efficiency of the country's being are demonstrated.

On the DCA vector, in the logic of causal manifestations, characteristic signs of degradation, "social plaques" of a negative scenario for the existence of a typical country—selfishness, ignorance, lies, struggle, speculation, fraud, corruption, inflation, digitalization, unemployment, poverty, terrorism, war are located. Selfishness and ignorance, subjective arbitrariness of a person determine a negative technogenic impact on the natural world through enterprises, mines, quarries, transport, urban structures, and so forth—pollution of the biosphere, deforestation, forest, and steppe fires, greenhouse effect, melting glaciers, floods, extinction of flora and fauna, earthquakes, pandemic, and so forth. (Bardsley & Knierim, 2020). Strategic subjects taking responsibility for the whole do not possess the objective AAC method, which implies the obligatory subordination of any separate part to the logic of integral, functional–systemic interaction and development. The strategic subjects include, first of all, government officials, scientists, and analysts. On the other hand, the vector of the AAC of the country's development presents stylized functional models of a system object, organized communication, and interaction of key subjects of the country, between which the abstract–concrete relations are formed. An abstract model of a system object contains a functional triangle with nodes: form, morphology, combined state of form, and morphology. The model of organized communication derived from it contains an organizational–communicative triangle with functional nodes: organizer, carriers of opinions, and arbiter. This triangle is refined by a content-communicative triangle with functional nodes: the author, the understander, the critic.

The model of organized communication serves as the basis for constructing a model of interaction between the key subjects of the country, containing a civilizational triangle with functional nodes: culture, people, and management (Fernández, 2020). In turn, the civilizational triangle is refined by the activity triangle with functional nodes: education, science, design, and economics. All three models are also built in the AAC logic and, in general, represent functional navigational guidelines for the activities and interactions of the country's subjects. The models contain the idea of mutual development, which implies the obligatory functional subordination of any separate part to the development logic of the whole.

Figure 7

Conceptual Look at the Transition From a Negative to a Positive Scenario of the Country's Development

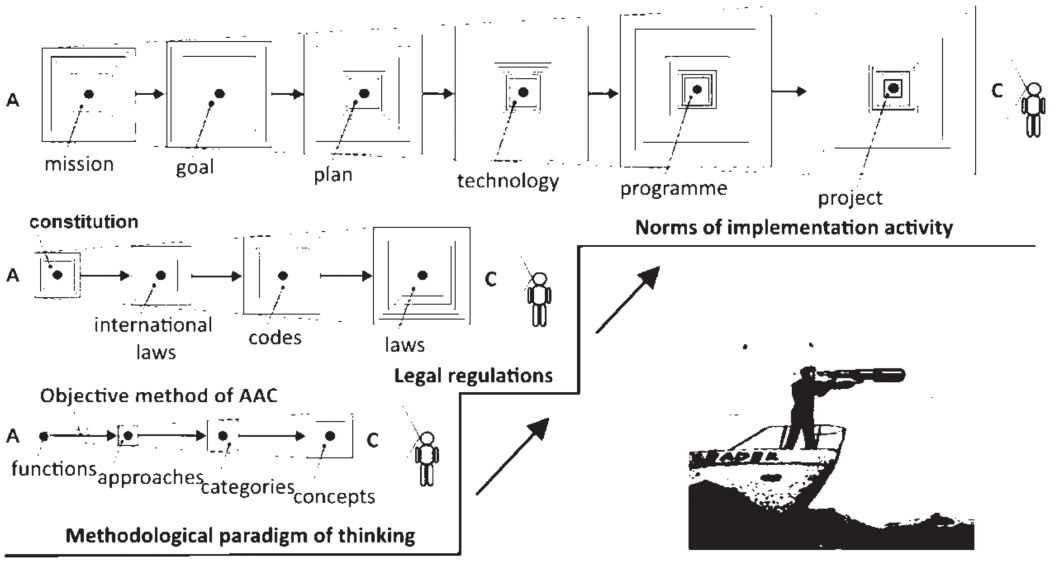


"The relation of the whole to the part passes into the following:—forces to its manifestation;—internal and external. (…) The truth of the relationship thus lies in the mediation" (Hegel, 2015, p. 256). Admittedly, the sustainable functioning and development of the country are conditioned by harmonized regulations and norms of implementation activities. A reliable and effective means of harmonizing norms is the methodological paradigm of thinking (Figure 8).

This paradigm sets a single functional and systemic logic for the development of regulations (constitutions, international laws, codes, state laws) and all norms of implementation activities

Figure 8

Framework Series of Norms of Thinking and Activity in the AAC Logic



Note. AAC = ascent from the abstract to the concrete.

(missions, goals, plans, technologies, programs, projects of activity) in the AAC logic (Green, 2020). The initial and target reference point of the developed norms is the cycle of individual human activity, which predetermines their moral character (Anisimov, 2007; Milojevic, 2020). The logical, functional schematic design of the paradigm determines the transparency, visibility of regulations, and all norms of activity, which become engineering-like navigational guidelines of multidimensional implementation practice (Tsoi et al., 2020). Thus, the necessary prerequisites have been created for the design of the country's normative-framework space, which logically ensures harmonious development, improving the quality and increasing the life expectancy of the people (Henshaw, 2019).

Sufficient prerequisites for development are associated with the modernization of the education system, in particular, with a shift in emphasis on the establishment in the education of a culture of functional and systemic thinking of strategic subjects of the country. The negative socioeconomic phenomena existing in society are mainly a consequence of their inadequate preparation. In pedagogical, managerial, engineering, and other vocational education, the priority of mastering innovative methodological means of socionatural thinking based on Hegel's philosophical ideas should be highlighted.

Conclusions

As a result of the study, it was concluded that the methods of ACA, AAC, DCA, and CAC should be considered as the main means of thinking, and all knowledge built by a person about the rational world of activity should be critically examined for possible reconstruction in the creative AAC logic. It is also necessary to represent the entire activity paradigm in AC coordinates and bring it into a single system. Since each concept of the theory of activity is a concise, organized, and relatively holistic text, then, having a sufficient range of visualized concepts and categories, all activity texts can be composed in LSI. With their help, it is possible to build the necessary models, strategies, and norms of socionatural activities of any scale—an enterprise, industry, region, country, and so forth. The study also identified sufficient prerequisites for the modernization of the education system, namely, a shift in emphasis on the development of systemic functional thinking based on the philosophical ideas of Hegel.

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