ISSN 1829-3824

WISDOM

1(21), 2022

Published by the decision of the Scientific Council
of Khachatur Abovian
Armenian State Pedagogical University

Department of Philosophy and Logic
named after Academician Georg Brutian

W I S D O M

1(21), 2022

WISDOM is covered in Clarivate Analytics' Emerging Sources Citation Index service

YEREVAN – 2022

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EDITORS' FOREWORD

The Editorial Board of WISDOM is delighted to present the 21st issue of the journal (the first one in 2022) to the scientific community. 2022 is the jubilee year for Khachatur Abovian Armenian State Pedagogical University (ASPU). The University was founded in 1922 in Yerevan. Since 1948, it has been named after the outstanding Armenian writer and educator Khachatur Abovian. During 100 years of its activities, ASPU has had thousands of graduates who have played an undeniable role and keep developing their activities in the fields of education and science, as well as various spheres of public and state administration.

Currently, the University has ten faculties (departments), more than 60 chairs, scientific institutes, laboratories and research groups developing their academic activities within the domain of 42 different fields of expertise. The University trains education and education management experts for schools not only in Armenia and the Republic of Artsakh but also for the schools of the Armenian diaspora all over the world.

The Editorial Board of WISDOM is delighted to congratulate our ASPU partners, colleagues, students and graduates of different years on the 100th anniversary of the University. We dedicate the present issue of WISDOM to the 100th anniversary of ASPU.

The current issue comprises valuable publications devoted to the questions of philosophy of education, social philosophy, philosophy of science, logic and epistemology, philosophy of language, religion, history of philosophy and, for the first time in the history of the journal, papers on practical philosophy issues. The authors represent the respective academic communities in Armenia, Chile, China, Kazakhstan, Russia, Spain, Thailand, Ukraine and Uzbekistan.

The positive feedback and the rising interest in the already published issues of the journal evidence the importance and value of the articles published so far and oblige the Editorial Board to gain new success levels, expanding the geography of the authors contributing to the journal.

The Editorial Board extends their sincerest gratitude to all the authors, reviewers, professional critics and assessors of the papers involved.

Given the significance of the underlying principle of pluralism over scientific issues and freedom of speech, we should remind that the authors carry primary responsibility for the viewpoints introduced in their papers which may not necessarily coincide with those of the Editorial Board.

PHILOSOPHY OF SCIENCE, LOGIC AND EPISTEMOLOGY

DOI: 10.24234/wisdom.v21i1.526
Olesia BARBANIUK,
Tetiana PETROVA

COGNITIVE SIGNIFIED AS MENTAL REPRESENTATION OF REALIA

Abstract

The article studies the conceptualisation of the worldview, where language, as the system of signs and, hence, a means of cognition, is of high importance. Understanding the sign as a unity of the signifier and the signified, the research is focused on the latter, since it is not limited only to the reflection of objects, situations of objective reality, but also to displaying the observed, experienced, various phenomena of the person's inner world and speech activity. Due to the nature of information, the signifieds can be classed in cognitive, communicative, evaluative, exclamatory, and relational, where cognitive is the most essential since it is the basis of the communication content, a cognitive model which contains the knowledge of the speakers about the classes of realia. Thus, the cognitive signified is studied in terms of cognitive semantics, which describes the meaning as a result of categorisation and conceptualisation of the world by representatives of a particular culture and covers the experience, feelings, which may not correspond to the real situation. Hence, the cognitive signified is the frame for reflecting objective and subjective reality, being the result of cognition of individual realia in certain forms of human thinking.

Keywords: linguistic sign, signifier, signified, cognitive, frame, cognitive model, objective reality, subjective reality.

Introduction

Topical linguistic issues have always been included in the philosophical structure of any epoch and school since language is an integral component of life, a means of interpersonal communication, reflection, and cognition. It is the language, from the times of antique philosophy, that has been the linking chain in the systems "man-world" and "man-man". All this accounts for the unquenchable interest in philosophical studies of language carried out in the last century by many outstanding researchers like D. Austin, P. Strawson, P. Florensky, G. Shpet, O. Losev, M. Bakhtin, and others.

Since ancient times, philosophers (Plato, Aristotle) have been the authors of numerous scientific works, where language, as a social formation, is regarded as a system of signs (Hlukhoman, 2006). Thus, a sign is a material, sensory object that enters the process of cognition and communication as a substitute (representative) of another item and is used to obtain, store, converse, and transmit information.

In the scientific paradigm, there traditionally exist two opposing views on the structure of the sign. Some researchers consider the sign a one-sided unit, claiming the sign possesses only a plane of expression. This group of scientists is represented by such prominent philosophers and linguists as R. Carnap, L. Bloomfield, L. Reznikov, A. Vetrov, V. Panfilov, A. Zinoviev, O. Losev, O. Melnichuk, T. Lomtev, V. Solntsev, Z. Popova and others. In their opinion, a sign is always associated with meaning, but the meaning is not included since it is a fact of consciousness, a perfect reflection of the phenomenon of reality. This theory of the sign is generally known as unilateral.

However, F. de Saussure, L. Abrahamian,

I. Narsky, Yu. Stepanov, V. Zvegintsev, V. Kodukhov, etc., consider a linguistic sign as a two-sided unit with the plane of expression and plane of content, i.e meaning. Due to these scientists, a sign without meaning loses its sense; a sign without meaning is not a sign. Hence, a sign is an organic unity of two parts; it is a union of meaning and its bearer (I. S. Narsky), that is, a concept and an acoustic image. The considered theory of a sign is generally acknowledged as bilateral.

In his fundamental work "Course in General Linguistics", F. de Saussure suggests that the sign has two components: the signifier (or "sound-image") and the signified (or "concept"). The signified and signifier, due to de Saussure, are purely psychological. They are form rather than substance. Nevertheless, contemporary researchers focus their attention on the ideas of L. Hjelmslev, who considers the signifier as material form (something which can be seen, heard, touched, smelled, or tasted) and the signified as a mental concept. So, a linguistic sign is to be regarded as a link between a concept and a sound pattern.

Following researches, aimed at investigating the linguistic sign proper, we can't but mention the works by outstanding American philosopher Charles Pierce (1985), who proposes his classification of the sign based on relations between the signifier and the signified. This typology emphasises the different ways in which the sign refers to its object. So, the philosopher distinguishes icons (physical resemblance to the signified), indexes (the connection between signifier and signified), and symbols (no resemblance to the signified). Such an approach establishes an essential relationship between the main semiotic categories from sign to symbol, where the sign is represented by a universal principle of perception and understanding of the world by man, and the symbol is understood as a unit of culture. Thus, the sign becomes included in all spheres of human life and a condition for the existence of not only a person but also the entire society as a whole, since the perception and understanding of the world by man occur through the sign.

The classification suggested by Pierce is the division of the signifiers, whereas there is no classification of the signifieds. So, the objectives of the article are to investigate the existing classifications of the signifieds, study their types and study how these types influence the cognition of the world.

The main research methods are determined by the objectives of the article. The general scientific methods applied – observations, induction, deduction, analysis, taxonomy – have contributed to comprehending the signified due to the nature of information expressed. The descriptive method has been applied for the general description of the constituents of the linguistic sign – signifier and signified. The methodological basis of the study is the dialectical approach (while considering the sign and its constituents, their interrelation as the basis for semiosis) and the anthropocentric approach, which presupposes the orientation of language on a person and his world view.

The Signifieds: The Informational Correlates of the Signifiers

The signifieds (in different conceptions – significations, designates, concepts, meanings, sense, semantics) of the linguistic signs in the broad sense are their meanings in the language system, representing various information about the objective and subjective reality, the speaker's attitude to it, aspects of speech acts and statements, that is, the signifieds are the informational correlates of the signifiers.

The signifieds of linguistic signs are very diverse and not limited only to the reflection of objects, states, situations of objective reality. They also display the observed, experienced, various phenomena of the inner world of any person and speech activity, which are no less important for a person and his communication than only objective reality.

It is well-known that the totality of all the sig-

nifieds in a language constitutes its semantic system, and the diversity of the semantic system of each language is traced in the formation of a new lexical sign, in particular in the selection of those features of its denotation that already have a sign (signifier) and serve as a motive for the nomination of a new lexical meaning (an internal form of the word). The internal form of the word, according to the observation of M. Shelyakin (2005), states the reason for the sound form of the word, demonstrating the correctness of the choice of a particular signified for the signification (p. 131).

The semantic system, as M. Shelyakin suggests, is specific for each language since it reflects the linguistic picture of the world of its speakers. However, this reflection in lexical meanings does not relate to the scientific picture of the world but reproduces the usual "naïve" everyday ideas of native speakers about the world around (Shelyakin, 2005, p. 132).

The semantic structure of language, the researcher suggests, is determined by the relationship between subjective reality and forms and processes of thinking and reflects the orientation of a man in the world, his knowledge, thinking, attitude to the world, self-knowledge, physical, physiological, emotional states, intentions, mental and speech processes, i.e. the structure and levels of subjective reality, processes and forms of thinking (Shelyakin, 2005, p. 132). The holistic structure of consciousness comprises structural levels (Shelyakin, 2005, p. 132), generalised phenomena of subjective reality, associated with various physiological mechanisms, to which M. Shelyakin includes:

- semantic, i.e. epistemological level that reflects certain phenomena and relations of objective and subjective realities;
- formal level, representing such forms of reflection as feelings, perceptions, ideas, concepts, judgements, emotions, dreams, aesthetic experiences, etc.;
- axiological, i.e. the level of truth/falsehood as a directive onto the adequacy of knowledge about reality; estimation of reality in terms of the "I" significance (positive, negative, indifferent);
- communicative-pragmatic, or the level of the activity-volitional vector (purposefulness, intention, projection into the future).

It should be noted that the semantic system of language reflects all these levels of consciousness.

In terms of the nature of information, expressed by the signified as a constituent of a language sign, M. Shelyakin (2005) distinguishes:

1. cognitive;
2. communicative;
3. evaluative;
4. relational (p. 133).

A cognitive signified, according to M. Shelyakin (2005), is "the basis of the content of any communicative information, since it reflects the classes of objects, phenomena, states, properties, relations, situations of objective and subjective realities, identified by certain features" (p. 133).

The correlate of a communicative signified is information about the communicative attitudes of the speaker and the nature of the information organisation of the message (the value of narrative, interrogative intonation, logical emphasis) (Shelyakin, 2005, p. 138). Such type of signified reflects the speech actions and behaviour of the speaker and does not mean the result of knowledge of individual realia in logical forms. By its nature, this is a special signified associated with the communicative activity of the speaker (Shelyakin, 2005, p. 138).

Another type of signifieds – evaluative – contains the evaluative attitude of the speaker towards the denotation.

In the semantic system of language (Shelyakin, 2005), there are also relational signifieds that reflect mental operations to establish connections and the relationship between the components of events and the events themselves. These include conjunctions, negative particles, etc., which are also not cognitive because they do reflect the operations of human mental activity.

Unfortunately, none of the domestic or foreign scholars has further developed Shelyakin's position on the differentiation of the signifieds in view of the information that they contain. In our deep conviction, such a classification enables us to understand the content of communicative information.

The Cognitive Signified as a Framework for Communication Content

Following the structural levels of human consciousness, reproduced by the semantic system of a language, considering the types of the signifieds of the linguistic signs and the actual nature of information, its worth mentioning that the meaning of any linguistic sign is the essence of language, which establishes the relationship between the word and the phenomenon, the subject. Consequently, the cognitive signified is the characteristic of the communication content.

The cognitive signified is revealed through the prism of frame semantics (cognitive semantic modelling of language) and makes it possible to model the principles of structuring and reflecting human experience fragments, knowledge in the meanings of language units, as well as to determine ways to activate general knowledge, which provides understanding in the communication process. Subsequently, in frame semantics, the meaning of a word is associated with a frame, which is used to denote different types of structures – frames, schemes, scenarios (Popova & Sternin, 1999, p. 3; Selivanova, 1999, p. 56; Petruck, 1996, 2013; Fillmore & Baker, 2009).

Following the traditional approaches, frame – is a system of correlated concepts, so that to understand any of them, you need to understand the whole structure into which this concept is included (Fillmore, 1987; Zhabotinskaya, 1999).

An outstanding scholar Charles Fillmore (1977, 1982, 1985, 1987), regarded the frame as a tool for describing and explaining lexical and grammatical material, arguing that between lexical units and frames, there is a connection. The researcher considers the frame from three points of view:

1. from the actual linguistic aspect as a choice of language tools associated with typical situations;
2. from the cognitive plane as a unified framework for knowledge;
3. from the cognitive-linguistic dimension as a cognitive structure, knowledge associated with concepts realised in words (Fillmore, 1977).

Based on the position of Charles Fillmore, the contemporary researchers suggest interpreting the frame as follows:

1. a unit of knowledge, organised around a concept, containing data about the essential, typical, and possible for this concept within a particular culture (Boldyrev, 2000; Dejk, 1989);
2. data structure for the presentation of stereotypical situations (Minskiy, 1978, pp. 249-338);
3. the type of cognitive model representing knowledge and thoughts associated with specific situations, the structure of knowledge connected to a large number of areas, associated with a particular linguistic form (Boldyrev, 2000).
4. cognitive structure existing in the phenomenological field, based on typical situations and on relations between real and hypothetical objects (Levickiy, 1998, p. 168).

So, the cognitive signified is a frame, where realia get their explication. The basic frames include subject, action, possessive, identification and comparative frames, representing initial, most generalised principles of categorisation and organisation of verbalised information concerning the objects of the world, their properties and relations between them (Zhabotinskaya, 1999). Frames reflect the world in a simplified form, being images of physical and socio-cultural reality, allowing the communicator to more or less adequately interpret people's behaviour. Propositions, which comprise different types of frames, are a particular form of knowledge representa-

tion, the basic cognitive unit of information storage playing an essential role in the generation and interpretation of speech activity.

So, a cognitive signified is a cognitive structure, a cognitive model since it contains the knowledge of native speakers about the classes of realia and communicative situations of reality, which form the lexical meaning of words, the syntactic meaning of constructions, the meaning of grammatical and derivational morphemes (number, tense, aspect, case, etc., verbal prefixes, noun suffixes, etc.) (Shelyakin, 2005, p. 133).

The signified of this type is the result of the cognition of certain realia of world around in specific forms of human consciousness (concepts, judgements) and processes (comparison, analysis, synthesis, classifications, abstractions, generalisations) by particular language speakers.

Thus, lexical signs of the cognitive type have signifieds and constant assignment to certain realia. The cognitive meaning of a language sign always captures certain features of the reflected realia that are revealed in its interpretation. It is a mediator of the independent nominative designation of the denotations proper, named not directly by a sign, but by a fixed meaning. Between the denotation and the cognitive meaning of the sign, writes M. Shelyakin (2005), there is no direct correspondence: the same denotation can have different cognitive meanings, highlighting its different aspects.

Thus, the linguistic sign of the cognitive type is related to the meaning of the corresponding denotation, and vice versa – the denotation in the language is reflected in the meaning and has its name, which corresponds to the name of the signified. This is represented in G. Frege's triangle (1977), the vertex of which is a sign, and its base is a line connecting the denotation with the meaning, where meaning (concept) corresponds to cognitive signified.

Cognitive signifieds, in addition to frame semantics, should be studied in terms of cognitive semantics, which describes the meaning as a conventional result of categorisation and conceptualisation of the world by representatives of a particular culture and covers the experience, feelings, the knowledge that may not correspond to a real situation (M. Johnson, G. Lakoff, C. Fillmore) (Selivanova, 2006, p. 263), i.e. with the help of concepts. As a unit of cognition of the world, the concept can have varying degrees of information content, remaining a holistic entity capable of replenishing, changing, and transmitting human experience.

We can graphically confirm our previous conclusion in the following figure:

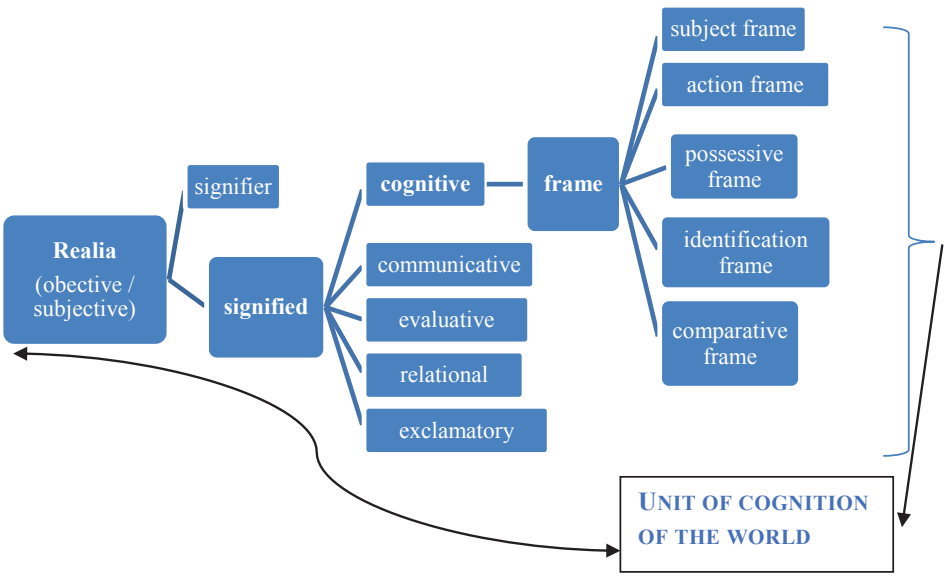

Figure 1. The model of mental representation of realia.

Conclusion

So, the signified of the linguistic sign represents various information about the objective and subjective reality, aspects of speech acts and statements, signified is the informational correlate of the signifier. Due to the nature of the information, the signified can be classified into various types, where the most important is cognitive. It is the foundation of communication content and can serve as a model to display human experience.

Consequently, the cognitive signified is a frame displaying classes of objects, phenomena, actions, situations of objective and subjective reality, separately isolated according to certain criteria (Figure 1). Signified of this type is the result of cognition of individual realia in certain forms of human thinking.

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DOI: 10.24234/wisdom.v21i1.593
Andrey GALUKHIN,
Elena MALAKHOVA,
Irina PONIZOVKINA

METHODOLOGICAL PARADIGM OF NON-CLASSICAL SCIENCE

Abstract

Scientific theories and methods developed within the framework of quantum and relativistic physics are the most representative paradigmatic instantiations of non-classical science. The profile of non-classical science is exposed through the analysis of a set of epistemic ideals and methodological principles. The adoption of the principle of operational relativity of phenomenal descriptions showed that a reference to the means of observation had become an intrinsic part of scientific description strategies. The transformation of the concept of objectivity can be seen in a specific combination of operationalism with interactional phenomenalism and constructivism. The introduction of the principle of complementarity marked the deviation from the standards of a monologic and linear description of the objects under study. This principle provides the operational basis for the integration of different parts of our knowledge with regard to non-trivial cognitive situations featured by the indeterminacy relations. Another prominent methodological trend is the reconsideration of the value of strict deterministic explanation strategies in favour of probabilistically oriented approaches. Scientists have encountered a new class of regularities that are typically analysed in terms of various types of statistical and non-causal determination. Nevertheless, it would be wrong to assume that any probabilistic account of natural phenomena implies indeterminism.

Keywords: non-classical rationality, operational relativity, complementarity principle, symmetry, indeterminism.

Introduction

"Non-classical science" is an umbrella term that is used for denoting various manifestations of a new type of scientific rationality, which dates back to the era of paradigmatic transformations associated with the revolutionary changes in natural sciences that were taking place during the first half of the 20th century. Due to the progress in the prominent areas of scientific research, specifically in thermodynamics, electrodynamics, atomic physics, cosmology and microbiology, the cardinal paradigmatic shifts in conceptual frameworks and methodological approaches occurred. The development of scientific research programs in those areas was accompanied by a growing recognition of the fundamental value of relativistic, quantum, systemic, probabilistic and synergetic ideas. This led to the crucial transformation of the methodological principles of scientific knowledge.

In this paper, the profile of non-classical science is articulated through the analysis of a set of epistemic ideals, norms and principles that form a unique methodological paradigm, representing a new type of scientific rationality. We take scientific theories and methods developed within the framework of quantum and relativistic physics as the most representative paradigmatic instantiations of non-classical science. The methodological paradigm of quantum and relativistic physics incorporated a set of principles that determined some new ways of describing, explaining and predicting natural phenomena in a set of

recently discovered physical domains. Among the principles, which represent the most typical characteristics of the method of non-classical science, are as follows: the principle of operational relativity, which requires to make scientific descriptions with reference to the features of experimental arrangement and implies the necessity to explicate the operational foundations of a physical theory; the complementarity principle, according to which in case of contradictory phenomena, specifically when the physical quantities cannot both have a well-defined value, the exposition of an object under study should be given through a combination of its' complimentary descriptions; the principle of symmetry which has gained a more comprehensive application due to the increasing value of mathematical constructivism and the growing acceptance of systemic approach; and a set of other principles that provided the basis for the development of some new models of explanation deviating from classical deterministic schemes. In this paper, we provide an analysis of some really innovative schemes of scientific description and explanation which have been introduced into science with the establishment of a new methodological paradigm incorporating these principles. The primary goal is to reveal epistemological implications of the most significant methodological norms which formed a regulative basis for the development of heuristic research programs in non-classical science, specifically in physics, and to show that they instantiate a rather specific type of scientific rationality which is different from the classical one.

Operational Relativity and a New Standard of Knowledge Objectivity

It would be worth considering the paradigm of cognitive attitudes to the world, which was instantiated in the ideals and norms of Modern age science. The classical ideal of scientific knowledge objectivity was specified by a set of principles implying the recognition of the universal value of the view, which could be categorised as 'the naturalistic object-centrism': "due to the universality of the discovered law, due to the integrity of the comprehended world, and due to the unity of the methods of research, science got rid of the presence of both an observer and observation instruments, and this was seen as a guarantee of its objectivity" (Romanovskaya, 1995, p. 105). The classical understanding of the principle of objectivity of scientific knowledge was based on a philosophically grounded combination of an abstract belief in the unrestricted cognitive powers of human reason with an 'object-centric view' of the structure of cognitive activity. This view suggested that there must be a reasonably strict distinction between an agent performing cognitive acts and an object which is accessible in its' naturalistic immediacy and can be transformed into the target object of the agents' cognitive intentions. The core of this classical epistemological paradigm incorporated the essential assumption that any account of the objectivity of scientific knowledge should be abstracted from the identification of the position of an agent, which meant that any scientific description should be given without explicit reference to the instrumental, procedural and situational aspects of agent's activity.

There was a crucial transformation of the concept of objectivity of scientific knowledge, which marked the establishment of a non-classical kind of scientific rationality (Horgan & Tienson, 1994). The principles of non-classical scientific rationality can be revealed on the basis of generalisation of the features of special research methods developed for the study of a new type of objects, specifically those that were identified and localised in the area of quantum-mechanical phenomena. In this area, objectivity (in the sense of a natural system's observable behaviour objectified 'before and independently' of that system's coming into interaction with the tools constituting experimental arrangement) "turned out to be a rather rough approximation and had to give way to more abstract ideas" (Markova,

1998, p. 78). The emergence of non-classical scientific rationality was marked by the introduction and consolidation of epistemic normative frameworks and methodological approaches associated with the embracement of some "new cognitive ideals, according to which a clear fixation of the means and operations of cognitive, specifically, experimental activity, is not an obstacle to objective description and explanation of natural processes (as it was supposed in classical natural science), but a necessary condition for the adequacy and completeness of scientific descriptions and explanations" (Stepin, 1995, p. 65).

Thus, what is common to methodological standards applied in non-classical, quantum and relativistic physics is a set of norms requiring the explication of the operational basis of theories; that means that an apparent reference to the means of observation and to the methods of measurement has become an intrinsic part of scientific description strategies. By these standards, not only the semantics of observational terms but also the ontological value of relevant theoretical constructs could not be determined without taking into account the specificity of measurement procedures and of instrumental constituents of real and virtual experimental situations.

Consider, for instance, the difference between the phenomenology of measurements in quantum mechanics and the way of idealising measurements in classical mechanics: "In classical mechanics, measurements are idealised as testing whether a system lies in a certain subset of its phase space. This can be done in principle without disturbing the system, and the test result is, in principle, fully determined by the state of the system. In quantum mechanics, none of these idealisations can be made. Instead: (i) measurements are idealised as testing whether the system lies in a certain (norm-closed) subspace of its Hilbert space; (ii) a measurement, in general, disturbs a system: more precisely (and in the ideal case) unless the state of the system is either contained in or orthogonal to the tested subspace, the state is projected onto either the tested subspace or its orthogonal complement (this is known as the "collapse" of the quantum state, or the "projection postulate"); (iii) this process is indeterministic, with a probability given by the squared norm of the projection of the state on the given subspace (the "Born rule" or "statistical algorithm" of quantum mechanics)" (Bacciagaluppi, 2013, pp. 304-305).

The principle of building the picture of reality concerning the means of observation, operational constituents and procedural factors of research activity was integrated into the regulatory basis of non-classical physical theories (Djidjian, 2016). This can be termed as 'the principle of operational relativity'. Methodological value and epistemological implications of this principle can be revealed concerning nontrivial cognitive situations that are typically characteristic of quantum-relativistic physics. In the physics of atomic micro-processes, for example, it would be impossible to give the proper interpretation of atomic events without taking into account the interaction of an object (or an atomic system) with a measuring device. As Niels Bohr (1963b) noted, "while, within the scope of classical physics, the interaction between object and apparatus can be neglected or, if necessary, compensated for, in quantum physics this interaction thus forms an inseparable part of the phenomenon. Accordingly, the unambiguous account of proper quantum phenomena must, in principle, include a description of all relevant features of the experimental arrangement" (p. 4).

Fixing the features of measurement devices that interact with atomic systems and making operationally valid complementary descriptions pertaining to the phenomenal states of the objects under investigation in quantum physics are the most typical instances of implementing the principle of operational relativity.

And what about the ontological implications of this principle? It is through the interaction between an object and the relevant experimental device that the cognisable reality is revealed, that is, the object is exposed on the "cut" of its actual

states and, therefore, the horizon of ontologically meaningful propositions becomes articulated: "the transition from thè possible' to the àctual' takes place as soon as the interaction of the object with the measuring device, and thereby with the rest of the world, has come into play" (Heisenberg, 1990, p. 21). Adopting the idea of the complex interactive-phenomenal nature of reality led to the further transformation of ontological schemes and assumptions underlying classical scientific research programs.

Methodological extension of the principle of operational relativity can be seen in a set of standards (Bryanik, 2019), which require to determine the operational value of the concepts used when elaborating theoretical models based on accepted idealisations (consider, for instance, Bridgman's operationalism and Smirnov's method of intensional and constructive interpretation of the empirical concepts). Scientists who shared the view that basic concepts should be formulated in the language of accessible experience encountered the problem of finding operational criteria for establishing commensurability of the macroscale of the experimental equipment and the microscale of the cognisable objects. Within the framework of relativistic physics, the applications of fundamental physical concepts for the description of a physical system is restricted by the principle which requires to take into account the relation of that system to the state of movement of the observer"; in terms of epistemological implications, "we are talking about the relativity of these concepts and quantities, meaning their relation to the means of their measurement... A similar situation, in general, was realised in quantum physics, which proclaimed the relation of the manifestations of wave and corpuscular properties of micro-objects to the means of their observation" (Zhdanov, 1995, p. 77).

So, in non-classical physics, the reformation of the concept of objectivity transforms the structure of cognitive intentions. The classical linear way of describing natural phenomena presupposed homogeneity of experience; it was established under deterministic assumptions pertaining to classical Newtonian physics. In non-classical quantum physics, "one must include the measuring device as an active participator in the measurement, not just a recorder of a fixed value" (Whitaker, 1996, p. 217). The constitution of atomic systems and their reactions to external influence are "fundamentally determined by the quantum of action" (Bohr, 1963a, p. 11).

The phenomenology of quantum interference imposes further limitations on the schemes of scientific description: that is because "we may obtain different recordings corresponding to various individual quantum processes for the occurrence of which only statistical account can be given" (Bohr, 1963a, p. 12). The structure of scientific descriptions turns out to be complicated due to the fact that any description would be incomplete without reference to alternative phenomenal dimensions in which the quantum system is exposed. Thus, the alteration of the concept of objectivity in quantum physics is correlated with the essential deviation from the principle of the linearity of description: the same quantum system can be identified as being in the superposition with regard to its possible states and under certain experimental conditions, this 'same' system exhibits different and even incompatible properties (consider, for example, the cases of wave-corpuscle dualism). This phenomenal heterogeneity presupposes contrasting pieces of evidence and stresses the need for alternative and complementary descriptions. The cognitive strategy, which allows for the irreducible complexity of non-linear description of the objects of the study, indicates that there are essential possibilities of alternative and variable cognitive perspectives of the world.

Complementarity and Non-Linearity of Scientific Descriptions

Dispositions to non-classical rationalisation of scientific knowledge manifested themselves in

those epistemological shifts that involved reconsideration of the classical standards of the linear description of natural phenomena and the subsequent acknowledgement of the value of the complementarity of different descriptions having divergent evidential basis.

The introduction of the principle of complementarity into the regulative foundations of science resulted from methodological analysis of those cognitive situations that appeared to be paradoxical from the classical point of view. As we have noted, the methodological paradigm of quantum physics was integrated on the basis of the general rule that objective description of atomic systems cannot be obtained without making explicit reference to the features of the experimental arrangement. However, in different experimental situations, atomic objects tend to manifest incompatible properties (e.g., the properties of a wave displayed by the atomic system under certain experimental conditions are incompatible with the properties of a particle displayed by the same object in a different experimental situation), and such an extraordinary mode of behaviour imposes restrictions on the consistency of the overall phenomenal description in a classical sense.

The search for an adequate mathematical expression for the incompatibility of a quantum object's wave and corpuscular properties was an essential part of the preliminary development of the apparatus of non-classical physical theory. The formulation of the uncertainty, that is, indeterminacy relations by V. Heisenberg, was one of the preconditions for the effective completion of this search. The indeterminacy relations principle was introduced as a heuristic device for giving formal expression to the relations between operators in quantum mechanics that do not commute: the problem is that "we cannot identify a function that would be an eigenfunction of both coordinate and momentum. As a consequence of the definition of the coordinate and momentum operators in quantum mechanics, there can be no state in which the physical quantities, coordinate q and momentum p, both have a well-defined value" (Prigogine & Stengers, 1984, p. 223).

In fact, the idea of indeterminacy relations was derived from purely formal mathematical developments of the apparatus of quantum mechanics. This idea was subjected to further explication and interpretation when indeterminacy relations were mapped onto the picture of the investigated reality.

On the one hand, the indeterminacy relations could be taken as being indicative of the phenomenal features of the objects under investigation. On the other, the whole situation in which indeterminacy relations are displayed could be interpreted in epistemic terms, that is, as a specific case of knowledge indetermination: "The knowledge of the position of a particle is complementary to the knowledge of its velocity or momentum. If we know the one with high accuracy, we cannot know the other with high accuracy; still, we must know both for determining the behaviour of the system" (Heisenberg, 1990, p. 17).

N. Bohr claims that in quantum mechanics, scientists encounter "a novel type of relationship, which has no analogue in classical physics and which may conveniently be termed "complementarity" in order to stress that in the contrasting phenomena we have to do with equally essential aspects of all well-defined knowledge about the objects" (Bohr, 1948, p. 314). In order to provide an adequate and complete description of such objects, one should rely on the evidence obtained by different, even mutually exclusive experimental arrangements and use "complementary" classes of concepts, interpretative frameworks and principles of representation. In other words, in order to develop an efficient methodological framework for scientific descriptions, one should take into account the features of experimental arrangement and include the reference to a specific operational structure of observation into the descriptive content, articulated in the interpretation of the variables of the quantal formalism.

Complementarity is the intrinsic feature of the method of building a paradoxically integral picture of the object under investigation. The complementarity of descriptions is relevant to the situation in which the absolute localisation of an object seems to be problematic from the classical point of view.

The complementarity principle can be considered a methodological principle with a relatively broad spectrum of applications. Thus, researchers quite often encounter situations in which the determination of the spectrum of possible states of a complexly organised system requires to take into account the complementarity of its' structural, functional and genetic characteristics, and this, in turn, implies that various complementary methods of its description should be used. Furthermore, probability function, insofar it is likely to include some additional variables, also tends to become more complex. The establishment of the principle of complementarity as one of the core principles of the non-classical methodology of science imposes significant limitations on classical reductionist-fundamentalist intentions: "The bottom line is that multilayered, polyfundamental variable systems cannot be conceptualised from any privileged positions. Complementarity from this point of view is a consequence of polymorphism, heterogeneity of the accepted ontology with its attributive potential" (Il'in, 1994, p. 76).

Among the possible specifications of the principle under consideration, there is one which assumes the complementarity of describing objects in parts and as a whole: "Such complementarity of a partial and holistic description pertains not only to accounting for the behaviour of micro-objects under the conditions of observation when a holistic macroscopic device is used, it is also relevant to approaching the more general problem of the relationship between reductionism and the systemic approach, as well as to recognising the advantages of the complementarity of the figurative form of intuitive ideas and the subsequent quantitatively developed theoretical model" (Zhdanov, 1995, p. 78).

This principle itself has become an object of epistemological analysis, which aims to determine the philosophical significance of the foundations of efficient methods of heuristically oriented scientific research programs.

In its philosophical value, the principle of complementarity can be interpreted as the principle of polyvariant organisation of a system of cognitive procedures, which is characterised by the intrinsic capacity of producing alternative sets of representations of the same object. The implication is that cognitive strategies should be developed in such a way that would enable scientists to take into account the relation of an object of inquiry to a set of complementary expanded conceptual schemes, experimental arrangements and methods of description. This perspective has very little in common with the object-centred essentialism and linearism of classical science. Philosophical analysis and epistemological interpretation of the principle of complementarity reveals the preconditions for the transformation of the knowledge about the features of the overall situation of observation into the evidence essential to obtaining knowledge about the object under investigation.

The establishment of a new standard for the objective scientific description and the subsequent introduction of the principle of complementarity of descriptions marked the crucial transformation of epistemological foundations of science.

Symmetry and Systemic Complexity

The principle of symmetry was integrated into the methodological framework of scientific research due to the need to develop a model for describing natural processes of varying complexity, which would be in accord with the general strategy of identifying invariants in a set of objective systems' transformations. The principle of symmetry also matters for the specification of a more fundamental principle of the causal unity

of the physical world.

The concept of symmetry comprises a set of postulates of physical theory that are explicated through a set of relevant categories, among which the most significant are the categories of *identity, conservation, invariance*. These categories are used in order to identify and qualify the symmetric form, which is manifested both in the structure of objects and in the transformative processes taking place in the physical world. The idea of symmetry is a really valuable device for making account of that which remains preserved throughout the changes in physical systems qualified by a group of transformations.

The considerations of symmetry come into play when scientists try to identify invariants in a set of transformations or to detect the transformational compatibility of a number of essential parameters of a system. In a broad sense, symmetry form is identified with the invariable elements in the evolution of spatiotemporal systems.

Symmetry can serve as a reliable indicator of regularities, specifically those that fall under the general category of the laws of nature. As Wigner (1964) notes, "there is a great similarity between the relation of the laws of nature to the events on the one hand, and the relation of symmetry principles to the laws of nature on the other" (p. 35). Wigner (1964) claims that the function of the invariance principles is "to provide a structure or coherence to the laws of nature, just as the laws of nature provide a structure and coherence to the set of events" (p. 36).

The generative effects of using the principle of symmetry on the development of conceptual schemes employed in physics are manifested in many ways. The most representative cases are as follows: the discovery of the law of the conservation of parity in strong and electromagnetic interactions (the concept of parity corresponds to the enantiomorphism of mathematical functions describing particles) – it involved the identification of a relevant symmetric form which corresponds to this conservation (the exception is the case of "tau" and "theta" particles); the explication of the concept of symmetry (in case of fermions - asymmetry) of the wave function concerning changes in the coordinates of interchangeable particles, and the use of Fermi-Dirac's and Bose-Einstein's statistical frameworks for the formal description and prediction of particle dynamics; and, finally, the application of the angular-momentum conservation theorem in quantum mechanics (Fano & Rao, 1996, pp. 41-46). Thus, "the gauge symmetry of classical electromagnetism can seem to be no more than a mathematical curiosity, specific to this theory; but with the advent of quantum theory the use of internal degrees of freedom, and the related internal symmetries, became fundamental" (Brading & Castellani, 2007, pp. 1344-1345).

The development of postclassical science, instantiated in heuristic theories of quantum physics and thermodynamics, led to paradigmatic shifts in ontological assumptions that determine the vision of the structure of reality (Stefanov, 2018). Insofar ontological assumptions were correlated with methodological principles, and scientists had to reconsider the idea of symmetry in a less stringent deterministic way. The idea of symmetry was placed in a new context and acquired an almost transcendental status: it was used as a heuristic methodological device for developing theories. The most exciting fact is that the idea of symmetry was integrated into the regulatory basis for selecting deterministic postulates. Thus, "for classical physics in general, symmetries - such as spatial translations and rotations - were viewed as properties of the laws that hold as a consequence of those particular laws. With Einstein, that changed: symmetries could be postulated prior to details of the laws being known and used to place restrictions on what laws might be postulated. Thus, symmetries acquired a new status, being postulated independently of the details of the laws, and as a result having strong heuristic power" (Brading & Castellani, 2007, p. 1347).

Innovative methodological trends resulted in the emergence of a paradigmatic orientation to-

wards the development and implementation of some complex conceptual schemes, which predisposed scientists to obtain a system-holistic, intrinsically multidimensional and dynamic vision of the object of study. Within this systemic framework, descriptive and explanatory methodologies of post-classical science have been formed. Furthermore, even nowadays, this systemic approach is employed in various disciplinary fields of science.

The methodological role of the principle of symmetry, combined with the principles of systemic integrity and complexity, is manifested in programs for the theoretical description of the behaviour of complex systems of the macro- and microworld. The methodological implications of the principles of systemic integrity and complexity are exposed in a set of standards that are best suited for an adequate description of integrated, structurally diverse and functionally heterogeneous formations, that is, systems that are characterised by the complexity of direct and inverse relations and featured by functional dynamics which cannot be accounted for in pure deterministic terms.

The recognition of the value of systemic approach by the scientists operating in various disciplinary fields raises the epistemological status of the principle of symmetry in the study of objects of a new type, specifically those that are subjected to investigation in physics and thermodynamics: when describing those objects as systemic, complexly organised in dynamic wholes and revealing their structural invariants, causal relations and functional dependencies, scientists are governed by the general idea of identifying universal symmetry groups, that is, they follow the course of determining the class of symmetric forms that meet the conditions for the systemic description of an object under investigation. The very idea of symmetry has systemic implications.

The epistemological value of the principle of symmetry has also increased due to some newly displayed methodological trends that are really characteristic of how theoretical knowledge is generated and developed in non-classical science. Consider, for instance, such trends, as the growing effectiveness of applying a broad class of formal-axiomatic constructions and quite a regular use of the method of mathematical hypothesis. The use of group-theoretical approaches has become an intrinsic part of those methodological strategies employed for constructing theories in various fields of scientific knowledge. Consequently, the concept of symmetry group has been adapted for theoretical work in physics. This concept has its own genealogy: it is related to the fundamental mathematical concept of the group, which was translated from the field of algebra and integrated into the conceptual system of theoretical physics: "In modern mathematised theory, the concept of a group, developed based on Galois ideas, has turned out to be an efficient means of theorising various fields of knowledge, because it is this concept which most accurately expresses the idea of conservation, which is so important in the theoretical constructions of physics" (Ovchinnikov, 1997, p. 138).

The further exploration of the relationship between the concept of symmetry and the conditions under which conservation laws operate (consider, for example, E. Noether's theorem) made it possible to explain the efficiency of using formal mathematical structures in the course of theory development and to determine the method of interpreting formalisms by relating variables to the theoretical models incorporating definitions of symmetry. One of the valid solutions to the question about the effectiveness of using mathematical structures and logical-algebraic methods in non-classical science consists of recognising the prominent role of the principles of conservation and symmetry in determining the design of theoretical models.

So, on the one hand, the principle of symmetry has been reconsidered in terms of a systemic approach, which has proved to be very efficient in various disciplinary fields of science, on the other hand, as we have seen, the idea of symmetry was explicated in correlation with the

development of mathematical ideas that shaped the methodology of constructive theoretical work in physics. It has become an intrinsic part of the fundamental methodological frameworks of non-classical science.

Probabilistic Elements of Scientific Explanation and Some Challenges to Classical Determinism

An intention to reveal the fundamental deterministic basis of all natural phenomena and to describe the world in terms of essential invariant structures and causal relations was one of the ultimate goals of almost every research project in classical science. Thus, F. Bacon intended to discover proper forms of a given nature employing a new method. "Through these forms, the natural philosopher understands the general causes of phenomena" (Kargon, 1966, p. 48). The elaboration of classical physical theories involved the development of standard explanatory frameworks centred on the idea of a strict causal-deterministic explanation of natural phenomena. The structure of cause-and-effect relationships involved in the mechanisms of causal determination was seen as the paradigmatic instance of the invariant law-like structure of natural processes. The idea of a mechanistic, deterministic explanation of natural phenomena had acquired a universal status in classical Newtonian physics. It was developed in line with general assumptions about the homogeneity of the properties and states of natural things and the explanatory reducibility of those states and properties to substantial elementary structures. The classical strategy of deterministic explanation was sustained on the basis of ontological assumptions, such as the belief that "the dynamic world is homogeneous, reducible to the concept of integrable systems" (Prigogine & Stengers, 1984, p. 72), characterised by the predetermined invariants of structure and motion. Such systems were capable of demonstrating quite a predictable behaviour. Besides that, a strict deterministic approach presupposed the equivalence of different points of view; that is, it assumed mutual consistency and translatability of various descriptions of the realms in which the laws of nature, denoted by the explanatory statements of deterministic theories, operate.

The development of a whole class of new theories in the fields of statistical physics, thermodynamics, quantum mechanics, etc., exposed the limits of classical deterministic approaches and necessitated novel solutions to the problem of an objective and unambiguous description and explanation of the relevant phenomena in certain newly discovered areas of research. As J. Earman and J. Norton noted, "there are many ways in which determinism can and may, in fact, fail: space invaders in the Newtonian setting; the non-existence of a Cauchy surface' in the general relativistic setting; the existence of irreducibly stochastic elements in the quantum domain, etc." (Earman & Norton, 1987, p. 524).

Relativistic theories revealed essential limitations of Newtonian mechanics, which was based on a combination of determinism with spatial absolutism and invariable space - time distinctions. General Theory of Relativity (GTR) accounts for the relation between space and time and the dependence of spatial and temporal properties of material systems on their motion and interaction. Yet, the most interesting fact is that there were cases in which GTR provided the theoretical background for articulating some challenges to determinism. Consider, for instance, The Hole Argument, which was initially developed by Einstein in 1913. This argument was introduced as a challenge to any "generally covariant" theory of gravitation. The argument "shows a certain sense in which general relativity – or really, any theory of geometric objects formulated on a manifold - might be said to be "indeterministic" (Weatherall, 2020, p. 79). Later, Einstein abandoned this view and developed his "point-coincidence argument" which, as he believed, could make the relevant implications of GRT immune to indeterministic conclusions. However, the Hole Argument was reformulated by J. Earman and J. Norton in the late 1980s. In

its' refined version, this argument was used for the purposes of criticism of the substantivalist view of space - time. Substantivalists (that is, realists) believe that unobservable spatial and temporal properties of matter are not reducible to observable relational properties of matter. Earman and Norton argue that a space - time substantivalist who believes general relativity cannot avoid facing the indeterminism dilemma which arises in local space - time theories of which general relativity is the best one. Specifically, Earman and Norton show that "the equations of these theories are simply not sufficiently strong to determine uniquely all the Spatio-temporal properties to which the substantivalist is committed" (Earman & Norton, 1987, p. 516). This can be qualified as an instance of *'radical local indeterminism'*.

According to Norton, "The Hole Argument begins by first considering an open region of space - time (the hole). One then takes advantage of the invariant nature of general relativity (GR) under diffeomorphisms by shifting all the objects within the hole to new space - time locations also within the hole. … In general, the point location of fields get all mixed up. And yet, all our physically measurable quantities remain the same: the cat on the mat remains on the mat since both the cat and the mat are similarly shifted by diffeomorphisms. The predictions of GR are independent of substantival localisation properties: where on the substantival manifold physical objects are located. The crux of the argument is that now, supposedly, we have an indeterministic theory" (Norton, 2020, p. 361). The argument shows that space - time substantivalism leads to a radical form of indeterminism, so there are two options for substantivalists: "either (a) accept radical local indeterminism in local space - time theories or (b) deny their substantivalism and accept "Leibniz equivalence", which is a hallmark of relationism" (Earman & Norton, 1987, p. 524). Nevertheless, it is worth being noted that in one of his recent works, Norton argues that the form of the original Hole Argument is unsound and that the notion of determinism used in the Hole Argument ought to be modified. Specifically, Norton insists on limiting determinism to scope over just those facts or properties of the world for which GR is a theory. This should prevent everything from falling prey to the Hole Argument. And since "substantival localisation properties do not belong to the physical content of GR, substantivalism no longer threatens GR with indeterminism" (Norton, 2020, p. 363).

The study of quantum effects of atomic systems in physics and the developments in thermodynamics, especially the study of the synergetic effects of complex and open systems, led to the revision of a number of fundamental positions of classical determinism. Reconsideration of the principles of determinism and the development of some new explanatory frameworks became apparent in relativistic and quantum physics and thermodynamics. In these fields, scientists encountered objects of a new kind, that is, the objects characterised by systemic complexity, structural heterogeneity and nonlinear dynamism. In general, scientists met with "regularities of a novel type, incompatible with purely deterministic analysis" (Bohr, 1963b, p. 2). The universal applicability of deterministic approaches for predicting the behaviour of physical systems was also questioned. Researchers revealed the limitations of the principle of strict deterministic explanation. Thus, for example, the interpretation of quantum formalism involved the use of the methods of statistical explication of objective uncertainties. Scientists had to consider the features of experimental situations, which demonstrated the relevance of the uncertainty (or the indeterminacy) relations. The uncertainty relations imply the impossibility of simultaneous and accurate determination of the initial conditions of particle motion (such as coordinates and momentum). So, the study of quantum systems obviously showed the inadequacy of the classical (dynamic-mechanical) form of causality for describing regularities inherent in the behaviour of quantum mechanical objects. As Niels Bohr

(1963b) noted, "in the quantal formalism, the quantities by which the state of a physical system is ordinarily defined are replaced by symbolic operators subjected to a non-commutative algorism involving Planck's constant. This procedure prevents the fixation of such quantities to the extent required for the deterministic description of classical physics but allows us to determine their spectral distribution as revealed by evidence about atomic processes. In conformity with the non-pictorial character of the formalism, its physical interpretation finds expression in laws, of an essentially statistical type" (pp. 2-3). There was an urgent need to map a new type of regularities to the methods of conceptual representation, which could be used to describe changes in the states of quantum mechanical systems. Classical stringent deterministic models were gradually supplemented or replaced by models based on statistical, systemic and diatropic principles.

The dispositions to the methodological elaboration of innovative ideas about the complexity of determination of the behaviour of complex dynamical systems had already been shaped in the classical period of physics (consider, for instance, the development of classical statistical mechanics, specifically, Boltzmann's statistical explanation of the second law of thermodynamics). The further paradigmatic shifts in the conceptual foundations of deterministic approaches occurred due to the transition of physics from the study of integrable mechanical systems, characterised by regularity, determinacy and reversibility of behaviour, to the study of systems of quite a different physical nature – the latter were characterised by structural complexity, superpositionality, indeterminacy and stochastic variability.

The introduction of probabilistic ideas marked the development of methodological approaches that deviated from classical strict determinism into the explanatory frameworks of physical theories. The use of statistical methods proved to be adequate for studying a wide class of phenomena and enabled identifying some new patterns of regularity in nature.

The concept of the probabilistic form of determinism underlies the statistical laws that have become a substantial part of a comprehensive account of experience in thermodynamics and quantum physics. The principle of operational relativity and the principle of complementarity both imply that a quantum system can be exposed through a combination of its' phenomenal states. Those states can be revealed with some probability, which depends on the specific conditions of interaction between the object and the measurement device. And one should also take into account a quazi-contradictory relationship between the wave description of the motion of material particles, obeying the principle of superposition, and the persisting individuality of particles. All these features of atomic systems behaviour, including a feature of wholeness inherent in atomic processes and the relevance of indeterminacy relations, impose obvious limitations on deterministic causal models of scientific explanation. Situations similar to those in quantum physics necessitated the introduction of a new paradigm of scientific explanation, which could be compatible with probabilistic considerations pertaining to the observable effects that are indicative of the evolution of a quantum state.

Yet, Earman argues against treating quantum mechanics as the paradigm example of an indeterministic theory. He rejects the view that "quantum indeterminism arises because the "reduction of the wave packet" is based on a controversial interpretation of the quantum measurement process". Earman (2007) claims that "in some respects, QM is more deterministic and more predictable than classical physics" (p. 1399). One should consider "a procedure for quantisation that starts with a Hamiltonian formulation of the classical dynamics for the system of interest and produces, modulo operator ordering ambiguities, a formal expression for the quantum Hamiltonian operator $\hat{H}$ that is inserted into the equation" (Earman, 2007, p. 1400). Earman claims that the quantum Hamiltonian opera-

tor can be essentially self-adjoint, and since it can have a unique self-adjoint (SA) extension, the evolution of the quantum state can be accounted for in deterministic terms. Though, of course, in many respects, quantum determinism is obviously different from the classical one. Thus, "quantum determinism surely does not require that all quantum magnitudes always have determinate values, for a similar requirement would falsify classical determinism" (Earman, 1986, p. 226). Furthermore, this view is quite coherent with the view of determinism as a doctrine about the evolution of set or interval-valued magnitudes, as well as about point valued magnitudes.

In general, the introduction and interpretation of non-classical ideas about the wholeness, systemic complexity, topological multidimensionality and stochastic variability of the objects under investigation determined the conceptual framework for many scientific theories, mainly physical and even physical biochemical theories. Ontological assumptions correlated with the models of description and schemes of explanation employed in these theories embrace a whole spectrum of various types of statistical and non-causal determination. The latter might be accounted for in terms of functional relations between essential properties of an object, or in terms of correlations between object's various states, as well as in terms of structural genesis processes, genetic propensities and systemic-synergetic effects (take, for instance, teleonomic synergism of biological systems). In some of the prominent research programs in contemporary science, the priority is given to the conceptualisation of the objects of the study as structurally polymorphic, functionally heterogeneous and dynamically variable systems, the behaviour of which can contain both deterministic and stochastic elements, and it no longer lends itself to monological rationalisation from predominant positions of classical causal determinism.

We can conclude that among the key indicators of the radical change in the paradigmatic foundations of natural science, there is a very special trend that consists of strengthening the functional status of methodological principles accumulating the explanatory potential of the models of the nonlinear world.

Conclusion

There is a set of methodological principles that are really indicative of the standards of non-classical science. The integration of those principles into the methodological foundations of heuristic research programs in physics imposed essential restrictions on the positions of fundamentalism, essentialism, object-centrism, reductionism and strict determinism.

The principle of operational relativity of scientific descriptions determines the relevance of procedural and instrumental factors to the referential framework of any descriptive account of what is observed or exposed in actual experience, and it requires explicating the relation of theoretical constructs to the operational structure of experience. It is the hallmark of non-classical cognitive situations that the object can be grasped only within the framework of a specific interactive-phenomenal continuum which involves inevitable determination on the part of the experimental arrangement. Insofar the observation plays a constitutive role in the events, and it has become a general requirement to take into account the procedural structure of experience and to include the reference to the methods of observation into the descriptive content of object representations (which is also essential to the interpretation of the variables of the quantal formalism in terms of statistical laws). These radical changes in the methodological foundations of research programs indicate the essential transformation of the very concept of objectivity of scientific knowledge.

The introduction of epistemic ideals and norms of non-classical science can be clearly seen in the deviation from the standards of the monologic-linear description of the objects marked by the development of alternative de-

scriptive and interpretative frameworks which presuppose the implementation of the principle of complementarity. On the one hand, the introduction of the complementarity principle is correlated with the recognition of the ontological complexity of the objects under study: thus, in quantum physics, scientists encountered the cases of phenomenal heterogeneity which transcend ordinary experience (e.g., a certain entity cannot at the same time appear as a particle and a wave), and became aware of the limitations on the classical methodology (consider, e.g., the incommutability of certain variables required for the definition of the state of a system). On the other hand, the relevance of the complementarity principle can be explained in terms of the complexity of cognitive tasks: the completeness of scientific descriptions is likely to be obtained on the basis of the systemic exposition of the same object through a set of its' complementary - structural, functional and dynamic characteristics. This can be accomplished by using alternative experimental arrangements and systems of concepts.

The developments in non-classical physics also revealed the limitations of standard reductionists approaches and deterministic schemes of scientific explanation. In some of the newly discovered areas of research, scientists encountered objects of a rather specific nature and recognized that the considerations of systemic complexity, structural heterogeneity, localization ambiguity and nonlinear dynamism were exclusively relevant to the study of those objects. The reconsideration of the value of strict deterministic explanation strategies in favour of probabilistically oriented approaches is one of the prominent methodological trends in non-classical science. The recognition of the prominent value of probabilistic framework for the description of physical systems dynamics can be clearly seen in the introduction of statistical laws in thermodynamics, as well as in the use of probability function for the appropriate description of quantum phenomena, that is, in the interpretation of the quantal formalism which is based on the use of the methods of statistical explication of objective uncertainties. Yet, it would be wrong to assume that any probabilistic account of natural phenomena implies indeterminism. Insofar quantum laws allow certain degrees of freedom and indeterminacy concerning physical quantities; they can be taken as giving expression to the regularities of a novel type. Nevertheless, we should acknowledge that in the case of these new regularities, scientists deal with a new – probabilistically reduced form of determinism. The development of explanatory frameworks that combine a deterministic account of phenomena with alternative views of the nature of regularities provides reliable indicators of the heuristic power of contemporary scientific theories.

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DOI: 10.24234/wisdom.v21i1.741
Miguel LÓPEZ-ASTORGA

STOIC LOGIC FROM THE THEORY OF MENTAL MODELS

Abstract

An essential point about Stoic philosophy is why certain arguments and rules are basic in their logic. That is the case of the *indemonstrables* and the *themata*. It has been proposed that assuming the theory of mental models, one can think that the five *indemonstrables* and two of the *themata* are easy to understand for the human mind. This can explain why those arguments and rules are essential components in Stoic logic. In addition, it is relevant because, given that the theory of mental models tries to capture the real way people reason, it can show that Stoic logic is closer to the manner individuals naturally make inferences than modern propositional calculus. The present paper is intended to move forward in this direction. It has two aims: one of them is to give an account from the theory of mental models of all of the *themata*. The other one is to argue that a simple schema that is correct in modern propositional calculus, and which, however, is not deemed as a true syllogism in Stoic logic, is difficult for people according to the theory of mental models. Those are further pieces of evidence that Stoic logic describes the way human beings think to a greater extent than modern logic.

Keywords: indemonstrables, Stoic logic, syllogism, *themata*, theory of mental models.

Introduction

The reason why the *indemonstrables* (ἀναπόδεικτοι) in Stoic logic are deemed as indemonstrable is hard to understand from modern propositional calculus. This is because only one of them (and they are five) is actually indemonstrable following modern logic. However, this problem can be resolved if modern propositional calculus is ignored and another framework is taken into account (see, e.g., López-Astorga, 2017). Furthermore, it has already been said that modern logic is not the best approach to interpret the Stoic system (Bobzien, 1996).

In this way, it has been proposed that, while Stoic logic does not seem to be consistent with modern propositional calculus, it appears to be coherent with some contemporary cognitive theories, for example, the mental logic theory (e.g., López-Astorga, 2015) and the theory of mental models (e.g., López-Astorga, 2017). This paper will focus on the theory of mental models. Its purpose will be to show that Stoic logic is even more compatible with that theory than what the literature has revealed. To do that, the paper will move forward in two senses. On the one hand, it will deal with the *themata* (θέματα). On the other hand, it will analyze an argument that, following Bobzien (1996), cannot be admitted as a real syllogism (συλλογισμός) in Stoic logic, although the argument is correct in modern logic.

The *themata* are important rules in Stoic logic. They help determine whether or not an argument is a syllogism. If the argument is an *indemonstrable* or can be transformed, employing an analysis (ἀνάλυσις) process, into an *indemonstrable*, it is a syllogism. The *themata* are essential because they are rules allowing making those analysis processes. It seems that the *themata* are four (De Lay, 1984, *Galeni De Placitis Hippocratis et Platonis* 114, 1-10) or five (there are two versions of the third one; see, e.g., Bobzien, 1996). However, only the first *thema* and the third one (its two versions) are preserved. Bob-

zien (1996) describes the *themata* kept and, in addition, presents a rebuilding of the missing ones. That reconstruction will be assumed here. Thus, the first point of this paper will be to review whether all of the *themata*, in the way Bobzien (1996) considers them, can be easily understood from the theory of mental models. The literature has already shown that with regard to the *indemonstrables* (López-Astorga, 2017) and the first *thema* and one of the versions of the third *thema* (López-Astorga, 2016), which is not the version Bobzien (1996) takes into account. So, Bobzien's reconstructions of the second and the fourth *themata*, as well as the version of the third one she accepts, will be addressed below.

The second point of this paper will have to do with an argument Bobzien (1996) also indicates. It is an argument sound in modern calculus. However, it is not admissible in Stoic logic. The reason for that is simple: it is not an *indemonstrable,* and it cannot be transformed into an *indemonstrable* by means of *themata*. Thereby, what the present paper will try to explain is that the argument is difficult for people within the theory of mental models. Accordingly, the accounts below can be further evidence in favour of the idea that Stoic logic is closer to the theory of mental models than to modern logic. This can mean that, if the theory of mental models explains how the human mind works, Stoic logic is also closer to the real way human beings reason than modern propositional calculus.

To achieve these goals, first, the paper will present the Stoic *indemonstrables* and the four *themata* rebuilt by Bobzien (1996). Then, it will explain some important theses of the theory of mental models. The third section will briefly comment on the accounts based on the theory of mental models in the literature about the reasons why the *indemonstrables*, the first *thema*, and one of the versions of the third *thema* were deemed as basic inferences in Stoic logic. Fourth, the other version of the third *thema* and the reconstructions of the second and fourth ones by Bobzien (1996) will be considered in order to show that they are coherent with the way people make inferences according to the theory of mental models. The last section will deal with the mentioned argument Bobzien identifies and argues that it is hard to accept following that very theory.

The Stoic *Indemonstrables* and Four *Thematha*

It seems that Chrysippus of Soli was the Stoic philosopher that first presented the *indemonstrables* (e.g., Sextus Empiricus, *Adversus Mathematicos* 8, 223) (Mau, 2011; O'Toole & Jennings, 2004). As said, only one of them is indemonstrable in modern propositional calculus (see also, e.g., López-Astorga, 2017). It is MPP (Modus Ponendo Ponens) (Marcovich, 1999, Diogenes Laertius, *Vitae Philosophorum* 7, 80).

MPP:

First premise: If p, then q

Second premise: p

Conclusion: q

An important point about MPP is that its first premise (λῆμμα) is a conditional (συνημμένον). This is relevant because there is a difference from modern logic here. Modern logic follows the view of the conditional Philo of Megara gave (e.g., Sextus Empiricus, *Adversus Mathematicos* 8, 113) (Mau, 2011; Mates, 1953). That view is known as 'the material interpretation of the conditional'. It provides that a conditional such as the first premise of MPP is true "…whenever is not the case that the antecedent is true and the consequent false" (O'Toole & Jennings, 2004, p. 479). However, Chrysippus of Soli, and, hence, Stoic logic, claims one more requirement: to be true, a conditional needs "…a certain relationship between the clauses. In particular, the contrary (ἀντικείμενον) of the second clause (λῆγον) must be inconsistent with (μάχεται) the first clause (ἡγούμενον)" (López-Astorga, 2017, p. 311). Therefore, the first premise in MPP is true if and only if the contrary of q fights (μάχεται) p. Undoubtedly, this makes Stoic logic very different

from frameworks such as that of Gentzen (1934, 1935). Likewise, it also removes paradoxes such as those of the implication (for a description, see, e.g., Orenes & Johnson-Laird, 2012). As it is well known, the material interpretation of the conditional allows inferring a conditional with any antecedent from any formula if this last formula is taken as the consequent of the new conditional. If, as in Stoic logic, a relation between the two clauses is necessary, a paradox of that kind is not possible.

The second *indemonstrable* is MTT (Modus Tollendo Tollens) (see Diogenes Laertius, *Vitae Philosophorum* 7, 80) (Marcovich, 1999).

MTT:

First premise: If p, then q

Second premise: Not-q

Conclusion: Not-p

Of course, in MTT, as far as the first premise is concerned, not-q must also be inconsistent with p.

MPT I (Modus Ponendo Tollens I) is the third *indemonstrable* (see Diogenes Laertius, *Vitae Philosophorum* 7, 80) (Marcovich, 1999).

MPT I:

First premise: Not-(p and q)

Second premise: p

Conclusion: Not-q

Another *indemonstrable* is MPT II (Modus ponendo Tollens II) (see Diogenes Laertius, *Vitae Philosophorum* 7, 81) (Marcovich, 1999).

MPT II:

First premise: Either p or q, but not both of them

Second premise: p

Conclusion: Not-q

The first premise in MPT II includes 'but not both of them' because disjunction (διεζευγμένον) is exclusive in Stoic logic (e.g., Cicero, Topica 14, 56-57) (Reinhardt, 2003; Bocheński, 1963). This is another difference from modern logic, in which disjunction is inclusive.

And MTP (Modus Tollendo Ponens) is the last *indemonstrable* (see Diogenes Laertius, *Vitae Philosophorum* 7, 81) (Marcovich, 1999).

MTP:

First premise: Either p or q, but not both of them

Second premise: Not-p

Conclusion: q

Obviously, disjunction keeps being exclusive in MTP.

Regarding the *themata*, only the descriptions of the first one (Pseudo-Apuleius, *De Interpretatione* 209, 12-14) (Thomas, 1970) and two versions of the third one (respectively, Alexander of Aphrodisias, *Aristotelis Analyticorum Priorum* 278, 12-14) (Wallies, 1883); Simplicius, *In Aristotelis De Caelo* 273, 2-4 (Heiberg, 1894)) are known. There are discussions about the problem of the *themata* (e.g., Mignucci, 1993). Nevertheless, the rebuilding Bobzien (1996) made will be assumed here. This is because that reconstruction can suffice to make a point of this paper. Bobzien's (1996, pp. 152-153) rebuilding is as follows ('T1', 'T2', 'T3', and T4' refer, respectively, to the first, second, third, and fourth *themata*; they are not axioms, and the reason for that is explained below):

T1: If [if (p and q) then r] then [if (p and not-r) then not-q]

T2: If {[if (p and q) then r] and [if (r and p) then s]} then [if (p and q) then s]

T3: If {[if (p and q) then r] and [if (r and s) then t]} then [if (p and q and s) then t]

T4: If {[if (p and q) then r] and [if (r and p and s) then t]} then [if (p and q and s) then t]

As said, Bobzien (1996) only assumes one of the two versions of the third *thema* (that in Simplicius, *In Aristotelis De Caelo* 273, 2-4). On the other hand, T1, T2, T3, and T4 are expressed above in a simplified way. For example, Bobzien (1996) also includes an 'expanded version' of T1. In that version, the first conditional, that is, (1), does not have two conjuncts in its first clause. It can have more conjuncts.

(1) If (p and q) then r

In addition, it is obvious that in T2, conditional (2) can have other forms such as (3) and (4).

(2) If (r and p), then s

(3) If (r and q) then s

(4) If (r and p and q) then s

Likewise, s can be replaced in T3 with a set of propositions such as (5).

(5) $s_1,...,s_n$

And these two circumstances can happen in T4 too. On the one hand, (6) could be substituted with (7) or (8).

(6) If (r and p and s) then t

(7) If (r and q and s) then t

(8) If (r and p and q and s) then t

On the other hand, s could be replaced with (5) in T4 as well.

Furthermore, although Bobzien (1996) does not express the *themata* as conditionals, but resorting to premises and conclusions, it is justified to express them as above. It seems that the Stoics admitted conditionalization, that is, the process by means of which the premises of an argument can be deemed as the first clause of a conditional, and the conclusion as the second clause of that very conditional (e.g., Sextus Empiricus, *Pyrrhoneae Hypotyposes* 2, 137) (Mau, 2011; O'Toole & Jennings, 2004). This does not make T1, T2, T3, and T4 axioms. The reason is that, as indicated, Stoic logic is not modern logic. So, the conditionals suppose relations between their antecedents and consequents which are not required in modern logic.

Thus, the way the *themata* worked was akin to this one:

Given an argument such as the following (which is taken from Bobzien, 1996, p. 153):

First premise: p

Second premise: Not-q

Conclusion: Not-(if p then q)

That argument can be transformed into MPP by virtue of T1.

The theory of mental models shows that all these components of Stoic logic appear to be natural for the human mind and easy to understand. This can explain the basic character of those components in Stoic philosophy. However, before describing the account of the *indemonstrables* and the *themata* that can be given from the theory of mental models, it is necessary to comment on some theses of this last theory.

The Theory of Mental Models as a Dual Process Theory

The theory of mental models proposes several explanations of human reasoning (e.g., Khemlani, Byrne, & Johnson-Laird, 2018). It is important to note that many of those theses move the theory away from modern logic (see also, e.g., Johnson-Laird, 2010). Nevertheless, the central thesis of the theory of mental models to make a point of this paper is that their proponents deem it a dual-process theory (see also, e.g., Johnson-Laird, Khemlani, & Goodwin, 2015). A dual-process theory (e.g., Evans, 2008) is a theory distinguishing two systems in the human mind. Those systems are usually named 'System 1' and 'System 2'. System 1 refers to intuitive processes. When using System 1, people do not spend much time drawing conclusions. On the other hand, when mental processes are more reflexive, individuals resort to System 2. In that case, they spend time and think in a more logical way. There are several dual-process theories (see also, e.g., Evans, 2009), but the manner this applies to the theory of mental models is explained below.

The theory of mental models claims that 'sentential connectives' lead people to consider the possibilities representing the situations that can be true for those connectives and their propositions (see also, e.g., Johnson-Laird & Ragni, 2019). If Stoic logic is addressed, the relevant sentential connectives are the conditional, exclusive disjunction, and conjunction. Given a conditional such as (9),

(9) If p, then q

Its possibilities are in (10).

(10) ◊(p & q) & ◊(not-p & q) & ◊(not-p & not-q)

(10) expresses a 'conjunction of possibilities' (see also, e.g., Espino, Byrne, & Johnson-Laird, 2020). '◊' stands for possibility. Nonetheless, it

does not work as the operator of the possibility in normal modal logics. In normal modal logics, (11) does not follow from (9).

(11) ◊p

This is because normal modal logics understand the conditional as Philo of Megara does. Thereby, (9) is false only when, as indicated, 'the antecedent is true and the consequent false'. Accordingly, if p is false, (9) is true even if p is, in addition, impossible. This is different in the theory of mental models. As (10) shows, (12) can be deduced from (9) (see, e.g., Espino et al., 2020).

(12) ◊(p & q)

As far as a sentence such as (13) is concerned,

(13) Either p or q, but not both of them

It also has a conjunction of possibilities. It is (14) (see also, e.g., Khemlani, Hinterecker, & Johnson-Laird, 2017).

(14) ◊(p & not-q) & ◊(not-p & q)

The theory of mental models is different from logic in this case too. In normal modal logics, the inference of (11) from (13) is not allowed either. The reason is obvious. (13) can be true even if (11) is false, that is, even if p is not possible. If the other disjunct, that is, q, is true, that already makes (13) true. However, as (14) reveals, one of the possibilities that (13) enables to deduce in the theory of mental models is (15) (see, e.g., Khemlani et al., 2017).

(15) ◊(p & not-q)

Lastly, conjunction is easy to capture in the theory of mental models. Conjunction such as (16) only expresses one possibility: (12).

(16) p and q

In this case, (12) cannot be really denominated 'possibility'. Given that there is only one possibility, (12) is a fact (see, e.g., Khemlani et al., 2017).

However, the most interesting point of the theory for this paper is that, as said, it is a dual-process theory. This means that the possibilities indicated for the conditional and exclusive disjunction are not always identified. To note all of them, it is necessary to use System 2. If people only resort to System 1, they can consider just what is true, ignoring what is false in the conjunctions of possibilities (see also, e.g., Byrne & Johnson-Laird, 2020).

Thus, System 1 only allows being aware of (12) in the case of the conditional. The other two possibilities in (10) are not taken into account because they refer to situations with p being false. So, they cannot be represented with just System 1 (see also, e.g., Johnson-Laird, 2012).

Regarding exclusive disjunction, what System 1 does not consider is the false disjuncts. Thereby, the resulting conjunction of possibilities is (17) (see also, e.g., Quelhas, Rasga, & Johnson-Laird, 2019).

(17) ◊p & ◊q

In the first possibility in (17), q is missing. The reason is that it is false, and System 1 does not pay attention to falsity. The same can be said with regard to p in the second possibility.

This framework makes it possible to account for why the Stoics deemed the *indemonstrables* and the *themata* as essential components in their logic. In fact, that account has already been partly given in the literature. The next section shows this.

The Theory of Mental Models, the *Indemonstrables*, the First *Thema*, and the Version of the Third *Thema* by Alexander of Aphrodisias

Actually, there are two versions of the theory of mental models. The description in the previous section corresponds to the second one, that is, the most updated version (for the first one, see, e.g., Oakhill & Garnham, 1996). This is important because, in the literature analyses of the *indemonstrables*, the first *thema*, and Alexander's version of the third *thema* based on the theory are to be found (for the *indemonstrables*, see López-Astorga, 2017; for the first *thema* and Alexander's version of the third one, see López-Astorga, 2016). Nevertheless, those analyses have been made from the initial version.

But, as far as the aims of the present paper are

concerned, this does not have significant relevance. The main difference between the two versions is just in the relation between the possibilities. The original version proposes that the possibilities are linked by means of disjunctions. In the second version, the links are by means of conjunctions since, as indicated, the proponents use the expression 'conjunction of possibilities' (e.g., Khemlani et al., 2018). This has no influence on the accounts of Stoic logic given from the theory of mental models. To remove any doubt in this way, this section will describe the explanations in the literature based on the initial version of the theory again, but using the machinery and terminology of the second version.

Regarding the *indemonstrables*, it is easy to note why they were deemed as basic schemata in Stoicism. The explanation resorting to the initial version of the theory of mental models for the five *indemonstrables* can be found in López-Astorga (2017). The following accounts are based on that explanation. However, as said, the present paper uses the updated version of the theory.

MPP is not hard because it only requires System 1. If the only possibility for (9) is (12), it is evident that in a scenario with p, q needs to be as well.

One might think that MTT is different. Given that its second premise is not-q, one might suppose that all of the possibilities corresponding to the first premise, that is, to a sentence such as (9), have to be taken into account. As pointed out, those possibilities are (10). Nevertheless, in particular, the necessary possibility is the third one in (10), that is, (18).

(18) ◊(not-p & not-q)

Possibility (18) is the necessary one because not-q appears in it. Thus, it reveals that not-q can be the case only if not-p is also the case. In fact, this is the usual argumentation from the theory of mental models to explain why MTT is often more difficult than MPP for people: individuals need to use System 2 and detect (18) (see, e.g., Byrne & Johnson-Laird, 2009).

Nonetheless, it is enough to remember Chrysippus' thesis with regard to the case in which a conditional can be true: the denial of the consequent has to fight the antecedent. This means that when it is known that (9) is true, it is known that (19) is true too.

(19) If not-q then not-p

Accordingly, given (19) and only resorting to System 1, the possibility identified is, again, (18). And, as indicated, (18) shows that the only circumstance in which not-q can happen is when not-p occurs as well.

The account for MPT I is also easy. The first premise presents a negated conjunction. The only possibility for conjunction is (12). However, in MPT I, the conjunction is negated. So, if the second premise is p, q needs to be false. This can be underlain to a greater extent with the possibilities that the theory of mental models assigns to sentential connectives when negated. When a proposition is negated, its possibilities are those missing in the set of that very proposition when affirmed. In other words, when a sentential connective is negated, its conjunction of possibilities matches the complement of the possibilities of that connective when it is not negated (e.g., Khemlani, Orenes, & Johnson-Laird, 2014). Therefore, the possibilities of a sentence such as (20) are (21).

(20) Not-(p & q)

(21) ◊(p & not-q) & ◊(not-p & q) & ◊(not-p & not-q)

In (21), p, the second premise, is true just in the first possibility, that is, in (15). Furthermore, in that possibility, not-q is the case.

The first premise of MPT II is an exclusive disjunction. Hence, if only System 1 is used, the conjunction of possibilities is (17). Given that the second premise is p, the possibility of q is eliminated. Thus, because the disjunction is exclusive, the second premise also reveals that q cannot happen. This leads to not-q, that is, to what corresponds to the first possibility of the conjunction of possibilities of exclusive disjunction when System 2 works. In other words, that leads to

(15).

Finally, MTP does not require a lot of effort either. It needs to use System 2, as the first premise is again a sentence such as (13). As explained, in the case of exclusive disjunction, System 1 only allows identifying (17). Nevertheless, the second premise of MTP is the negation of one of the disjuncts, which implies considering the possibilities System 2 can deploy, that is, (14). In this way, from the first possibility in (14), that is, (15), it is possible to conclude that, if not-q is true, p must happen.

However, although System 2 leads this process, it is not necessarily hard. The first premise is an exclusive disjunction. Accordingly, it is evident that one of its two disjuncts has to be true. If the information the second premise provides is that one of the disjuncts is false, the only scenario that can be thought is that the other disjunct is the case. Thereby, the possibilities of System 2 are displayed without a great cognitive analysis.

As far as the *themata* are concerned, as mentioned, the first one and a version of the third one (that of Alexander of Aphrodisias, *Aristotelis Analyticorum Priorum* 278, 12-14) (Wallies, 1883) have already been dealt with from the theory of mental models. That has been done in López-Astorga (2016). As in the case of the *indemonstrables*, the analysis was based on the old version of the theory. That analysis is reproduced again then. Nonetheless, as also in the previous case, the accounts here follow the updated version of the theory of mental models.

The analysis in the literature also resorted to the Stoic idea of conditionalization. Therefore, it presented the first *thema* and Alexander's version of the third *thema* as conditionals too (López-Astorga, 2016). Starting with T1, its first conditional is (1). Compound conditionals of this kind, with a conjunction in the antecedent, were not a problem in Stoic logic (e.g., Bobzien, 1996). Hence, they can be deemed as any other conditional. That allows making two points. First, System 1 leads to the possibility in which both clauses (the if-clause and the then-clause) are true, that is, to (22).

(22) ◊[(p & q) & r]

Second, (1) is a Stoic conditional. So, it also enables to detect the third possibility for conditionals in System 2 without difficulties. In this case, that possibility would be (23).

(23) ◊[not-(p & q) & not-r]

In this way, individuals know that not-r can be the case only if (20) is. Nonetheless, not-r is not the only component of the antecedent of the second conditional in T1, which is (24).

(24) If (p and not-r), then not-q

The antecedent of (24) includes p too. Accordingly, as explained for MPT I, (20), which is in (23), and p allow drawing not-q (remember that conjunction is truth-functional in Stoic logic; see, e.g., Bobzien, 1996). Therefore, as indicated in T1, given p and not-r, the conclusion is not-q.

As also mentioned, the version of the third *thema* that has been reviewed under the theory of mental models is not that Bobzien (1996) assumed, but the one coming from Alexander of Aphrodisias. If it is conditionalized, that version can be expressed as T3A.

T3A: If {[if (p and q) then r] and (if s then q)} then [if (p and s) then r]

Only using System 1, the possibility of the first conditional in T3A is (22). On the other hand, one of the second conditional, that is, (25), is (26).

(25) If s, then q

(26) ◊(s & q)

Possibility (26) reveals that, if s happens, q needs to occur as well. So, if the situation is that both p and s happen, which is what the antecedent of the last conditional, that is, (27), provides,

(27) If (p and s) then r

There is no doubt that q is also present. But, as (22) points out, if both p and q occur, r is the case too, which leads to the consequent of (27).

Nonetheless, the theory of mental models not only can explain why T1 and T3A were essential rules in the Stoic system. The theory can also show that T2, T3, and T4 have structures that are easy to capture. The following section is devoted

to this issue.

T2, T3, and T4 from the Theory of Mental Models

System 1 also allows understanding T2 without difficulties. The possibility of its first conditional, which matches (1), is again (22). Likewise, following System 1 as well, the possibility of the second conditional, that is, (2), is (28).

(28) ◊[(r & p) & s]

This last possibility reveals that whenever r and p are true, s is also true. Thus, by virtue of (22), if p and q are the case, r is the case too. However, by virtue of (28), if p and r happen, s happens too. Hence, what the last conditional in T2 expresses, that is, (29), is correct.

(29) If (p and q) then s

The case of T3 is very similar: it can also be understood by considering only System 1. The first conditional is once again (1), which leads to possibility (22). The second conditional, that is, (30), is linked, if only System 1 is taken into account, to (31).

(30) If (r and s) then t

(31) ◊[(r & s) & t]

This means that it is not possible the conjunction of r and s without t. Accordingly, the result is evident. Given a scenario in which, as in the antecedent of the third conditional, that is, (32), propositions p, q, and s occur,

(32) If (p and q and s) then t

If, as (22) shows, p and q are not possible without r, then p, q, and s necessarily imply t. This is because t must happen when r and s occur, and p and q cause r to be true.

Lastly, the first conditional in T4 continues to be (1), which means that, following System 1, its possibility is in this case (22) as well. On the other hand, if the only system working is System 1, the second conditional, that is, (6), is linked to possibility (33).

(33) ◊[(r & p & s) & t]

Possibility (33) expresses that when r, p, and s occur, t must also happen. Hence, when, as in the antecedent of the last conditional, that is, (32), p, q and s are true, t is true too. As said in previous cases, p and q lead to r. If, in addition, s happens, t happens as well. The reason is that p along with r and s lead to t.

Therefore, T2, T3, and T4 are also, according to the theory of mental models, easy rules for the human mind. That can explain their role in Stoic philosophy. Nevertheless, the links between Stoic logic and the theory of mental models can be seen even clearer if another argument is reviewed. It is an argument that is sound in modern propositional calculus. However, it is not a syllogism in Stoic logic.

A Sound Argument in Modern Logic that is not a Syllogism

The argument is the following:

First premise: If not-(p and q), then r

Second premise: Not-p

Conclusion: r

This argument (presented in Bobzien, 1996, p. 174) is correct in modern propositional logic: the second premise makes the antecedent of the first premise true. If p is not true, (20) is true. Therefore, r also has to be true. Otherwise, the situation would match the only case in which, following the material view, that is, Philo's view, the conditional does not hold. As indicated, that is the case in which 'the antecedent is true and the consequent false'.

Nevertheless, according to Bobzien (1996), the argument is not a syllogism in Stoic logic. It cannot be transformed into an *indemonstrable* by means of the *themata*. Nevertheless, this point brings Stoic logic even closer to the theory of mental models. This is because the argument is difficult under this last theory. If only System 1 is considered, the possibility of the first premise is (34).

(34) ◊[not-(p & q) & r]

Possibility (34) establishes that whenever (20) is true, r happens. Nonetheless, the problem with the argument is that unlike MPT I, its second

premise denies one of the conjuncts of the negated conjunction. Hence, the second premise does not make the truth value of the other conjunct evident. In this way, to note that the argument is correct, it is necessary to deploy all of the possibilities the theory of mental models attributes to negated conjunctions; that is, it is necessary to use System 2 and transform (34) into (35).

(35) ◊[(not-p & q) & r] & ◊[(p & not-q) & r] & ◊ [(not-p & not-q) & r]

Furthermore, the additional difficulty is that even (35) is not the complete result of processing the first premise of the argument by means of System 2. The combinations corresponding to the situation in which the antecedent does not occur would have to be displayed too. Thus, all the possibilities related to the first premise would be those in (36).

(36) ◊[(not-p & q) & r] & ◊[(p & not-q) & r] & ◊ [(not-p & not-q) & r] & ◊[(p & q) & r] & ◊[(p & q) & not-r]

Actually, (35) would suffice to note that, if not-p is the case, r is the case as well, whether or not q is the case. In (35), q is the case in the first possibility, that is, in (37).

(37) ◊[(not-p & q) & r]

And it is not in the third one, that is, in (38).

(38) ◊ [(not-p & not-q) & r]

However, both in (37) and in (38) r also happens. In spite of this, to come to (35) already requires a detailed and extensive analysis, that is, already requires to resort to system 2. So, it is difficult to infer the conclusion.

Conclusion

The theory of mental models not only can, as the literature shows, offer an account of why the *indemonstrables*, T1, and T3A were considered as basic components in Stoic philosophy. The theory can also give similar explanations for T3, T2, and T4. Likewise, its framework allows understanding why certain arguments, as in the previous section, were not accepted as syllogisms in Stoicism.

The fact that the theory of mental models is a dual process theory, and that, therefore, distinguishes the processes linked to System 1 from the processes corresponding to System 2, seems to be the key in this way. To assume the *indemonstrables* and the *themata*, only System 1 is necessary in many cases. In the cases in which System 2 should be used, individuals can come to this last system in a direct and easy way. Furthermore, regarding arguments such as the last one addressed in the present paper, which are not syllogisms, the circumstances are different: the analysis of possibilities needs to be exhaustive, and System 2 is absolutely required. Thus, the inferences are deemed as difficult arguments.

All of this leads to several conclusions compatible with those of other works relating to Stoic logic and the theory of mental models (e.g., López-Astorga, 2016, 2017). First, the Stoic framework seems to be more similar to the theory of mental models than to modern propositional calculus. This is important since the theory of mental models is a theory about the manner people reason. So, the conclusion appears to be obvious: if the theory of mental models is a correct proposal, Stoic logic is closer to the way individuals reason than modern propositional logic.

This last point is interesting, as it leads to research to what extent Stoic logic is also able to explain experimental results that the theory of mental models accounts for. An example in this regard can be the results in different reasoning tasks that are compatible with the predictions of the theory of mental models (see, e.g., any of the works supporting the theory cited here). There are already studies in this direction (e.g., López-Astorga, 2021). However, given that the results published in cognitive science and psychology are significant, maybe there is much work to do.

Acknowledgements

PIA Cognitive Sciences, Center for Research on Cognitive Sciences, Institute of Humanistic Studies. Fondecyt Continuity Fund for Senior

Researchers, code FCSEN2102, University of Talca (PIA Ciencias Cognitivas, Centro de Investigación en Ciencias Cognitivas, Instituto de Estudios Humanísticos, Universidad de Talca. Fondo Fondecyt de Continuidad para Investigadores Senior, código FCSEN2102, Universidad de Talca).

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SOCIAL PHILOSOPHY, PHILOSOPHY OF EDUCATION

DOI: 10.24234/wisdom.v21i1.686
Elina ASRIYAN,
Nare KARAPETYAN,
Anna SAMOKHVALOVA

COMPARATIVE ANALYSIS OF THE LEVEL OF PSYCHOLOGICAL WELL-BEING AMONG RF AND RA STUDENTS

Abstract

The rapid changes, crises, pandemics, and wars in the modern world introduce new requirements to a person and his/her adaptive resources. All these above-mentioned external factors in the form of separate stressors, and sometimes all together combined, have a complex effect on a person's psychological well-being. Taking into consideration the need to clarify the impact of various factors on PWB (psychological well-being), the authors of the article set a goal to study the PWB characteristics among the Republic of Armenia (from now on, RA) and Russian Federation (hereinafter – RF) students. The research hypothesis was that RA and RF students might have different levels of PWB expression. The correlation analysis has shown that the indicators of PWB of different ethnocultural groups acting in different social contexts have certain peculiarities of expression and are quantitatively comparable.

Keywords: pandemic, war, psychological well-being, students.

Introduction

The rapid changes, crises, pandemics, and wars in the modern world introduce new requirements to a person and his/her adaptive resources. All these above-mentioned external factors in the form of separate stressors, and sometimes all together combined, have a complex effect on a person's psychological well-being (hereinafter, PWB). The effects of various external factors on PWB have been studied by different authors. These studies have increased enormously, especially since 2019 when the pandemic broke out and spread. Particularly, the effects of the pandemic have been studied on PWB (Epishin, Salikhova, Bogacheva, Bogdanova, & Kiseleva, 2020). WB has been observed in the context of the development of negative emotions and distress (Park et al., 2021), in the context of isolation and lockdown (O'Connor et al., 2021), in the context of distance learning, organized at universities (Lukács, 2021) etc.

Due to the global pandemic, educational institutions worldwide, including Armenia, had to shift into distance learning, introducing new terms and conditions for students and faculty members' professional activities. In such situations, a person had to adapt to some new conditions at once, including social isolation, distance learning, reduced social contact, and fear of being infected. In the case of Armenia and the above-mentioned factors, furthermore, the 44-day war in 2021, its defeat, and the subsequent political instability were added. Obviously, under the long-term effects of such stressors, students' PWB is endangered.

Background: The main mission of science is the improvement of the quality of human life, his/her well-being in the healthcare, social, political, economic, educational and security spheres as well in the other major fields that are important for the society. It is clear that the human factor is at the centre of all these spheres, and very often, a person's PWB, personal and

professional characteristics and qualities can play an important role and contribute to the development, rise or decline of this or that field or sector. Therefore, among the factors determining the socio-economic well-being of the country, it is important and necessary to consider and observe a student's – a future specialist's PWB. Taking into consideration the need to clarify the impact of various factors on PWB, within the framework of this survey, the goal was to study the PWB characteristics among the Republic of Armenia (from now on, RA) and Russian Federation (hereafter, RF) students. The *hypothesis* is that RA and RF students may have different levels of PWB expression.

The present study on students' PWB is based on a contextual approach. In social psychology, context is considered a set of factors that influence a human's behaviour in a particular situation (G. Andreeva, D. Bivin, D. Dzhekson, E. Langer, A. Maslow, V. Frankl and others). According to contextualism (R. M. Lerner, D. Matsumoto, J. Caprara and D. Servon, D. Ford and others), the psyche is conditioned by a sociocultural context.

PWB is often considered a component of subjective well-being or of subjective happiness, and sometimes it is identified with them, and sometimes it is considered a separate phenomenon. According to E. Diener, subjective well-being (hereinafter – SWB) is the personal perception and experience of positive and negative emotional responses and global and specific cognitive evaluations of satisfaction with life. It has been defined as "a person's cognitive and affective evaluations of his or her life" (Diener, Oishi, & Lucas, 2003, p. 63).

The PWB description was introduced by N. Bradburn (1969) as a balance between positive and negative effects, which, according to the author, is a state of happiness. K. Ryff described a theoretical model of PWB that encompasses six distinct dimensions of wellness (Autonomy, Environmental Mastery, Personal Growth, Positive Relations with Others, Purpose in Life, Self-Acceptance) (Ryff & Keyes, 1995).

Methods: The following methods have been applied in our work to study students' PWB – K. Ryff's "Psychological Well-Being Scale" (*adapted by T. D. Shevelenkova and P. P. Fesenko),* which consists of six scales (Shevelenkova & Phesenko, 2005). The questionnaire identifies such features as Autonomy, Environmental Mastery, Personal Growth, Positive Relations with Others, Purpose in Life, Self-Acceptance.

The next is E. Diener's Satisfaction with Life Scale (SWLS) method, which consists of five points. The SWLS has been used intensively as a measure of the life satisfaction component of SWB. The questions are assessed according to a seven-point Likert scale.

The third method is D. Leontiev's Life-Purpose Orientation Test (hereafter LPOT), which has five sub-scales: Goals, Process, Result, Internal Locus of Control, and External Locus of Control.

The above-mentioned methods have been selected, taking into account the aim and hypothesis of the topic of the study. The methods have gone through all the phases of adaptation and contextualization; they are valid and reliable and correspond to the socio-cultural peculiarities.

Sample: 486 students participated in the study (n=486, out of which 186 were from Armenia, and 300 were from Russia): The sample consists of students living in different regions of Russia and Armenia and studying in different universities, whose age varies from 17 to 28. The average age of participants is 22,5. The participants were randomly selected, taking into account their country of residence and the type of their leading activity – learning. Each participant took part in the study once. In order to maintain the accuracy of the data, any incomplete or incomprehensible completed questionnaires were not taken into account (14 answers). The following criteria were included during the student data collection: the presence of romantic relationship, job, financial independence, owning a house/ apartment, and health condition.

Results and Discussion: The data were analyzed by the SPSS math. Statistical software package. The analysis revealed several similarities and differences, and correlations between the samples of the two countries, i.e. between the RA and RF students.

Table 1.

Life-Purpose Orientation Data (based on RA and RF sample)

Basic Scales	*The Average of the Russian Sample Range (M)*	*The Average of the Armenian Sample Range (M)*	*Maximum Possible Score*
Goals	29	27	42
Process	27,5	25.5	42
Result	23	19.5	35
Internal locus of control	20	15	28
External locus of control	29.5	19.5	42

As can be seen from *Table 1*, the results of the Armenian and Russian samples are different: The Armenian sample shows low rates in the Result scale, the Internal Locus of Control scale and External Locus of Control scale. It can be assumed that PWB level depends on cultural, social and psychological contexts.

The contextual approach enables us to consider distance learning and the post-war situation in Armenia as significant factors in the formation of students' PWB. From the contextual approach perspective, the Armenian sample's low scores in the Internal Locus of Control and External Locus of Control scales compared to the Russian sample may indicate both the socio-cultural and the post-war contexts. As a result of these factors, it reveals the lack of belief in organizing and managing one's own life according to their goals and perceptions.

Table 2.

PWB Scale (based on RA and RF sample)

Basic Scales	*The average of the Russian sample range (M)*	*The average of the Armenian sample range (M)*	*Maximum possible score*
Positive Relations with Others	*53.1*	27.6	84
Autonomy	*49.2*	24.7	84
Environmental Mastery	*47.9*	27.3	84
Personal Growth	*54.2*	29.9	84
Purpose in Life	*51.8*	27.5	84
Self-Acceptance	*48.9*	21.2	84
PWB	*305*	158.2	504

Table 2 reveals a significant difference between the RA and RF students' PWB data. The Armenian sample reveals an overall low PWB level, whereas, in the case of the Russian sample, the PWB is at the intermediate level. It is worth noting that the RA students have a below-average level for all the scales.

The pandemic and distance learning as stressors equally hit and affected students living and studying in Armenia and Russia. E Suh, E. Diener and F. Fujita (1996) found that in less than three months, the effects of many major life

events (e.g., being fired) lost *their* impact on Well-Being.

The study among students was conducted in March 2021, which means that distance learning (online education) had already been in progress for a year and the pandemic already existed for more than a year, and the war was the major negative factor that continued to affect the RA students and which was absent in case of the RF students. Besides, the low level can also be explained by the ongoing crisis for the Armenians and the continuing traumatization of the society.

The correlation analysis has shown that the indicators of PWB of different ethnocultural groups acting in different social contexts have certain peculiarities of expression and mathematical connections. Thus, the Russian sample data analysis revealed a significant connection between Life satisfaction and Environmental Mastery indicators (r=0.53; p=0.04). In the case of the Armenian sample, no such connection was found. However, in the case of the Armenian sample, there was a connection between Life Satisfaction and the Presence of Goal (r=0.14; p=0.05) and subjective happiness (r=0.42; p=0.01).

In the case of the Russian sample, subjective happiness is connected with Self-Acceptance (r=0.6; p=0.02); no such mathematical connection was found in the case of the Armenian sample. Whereas in the case of the Armenian sample, subjective happiness has a positive connection with the Positive Relations with Others (r=0.27; p=0.01).

Conclusion

The central research hypothesis which has proposed that PWB may have different levels (and levels of expression) among students, who live in similar conditions (such as the pandemic and distance learning) but at the same time live in different social contexts, and that PWB components may have significant connections to different indicators is confirmed by empirical evidence (proven true).

Acknowledgements

The study was carried out with the financial support of CL RA and RFFI (Project № 20RF-007, № 20-513-05005\20).

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DOI: 10.24234/wisdom.v21i1.621
Srbuhi GEVORGYAN,
Asya BERBERYAN,
Hermine BERBERYAN

SELF-ACTUALIZATION AND STRESS RESISTANCE: METHODOLOGICAL AND PRACTICAL ASPECTS OF STUDYING THE PERSONALITY OF STUDENTS IN THE PROCESS OF DISTANCE LEARNING

Abstract

The article considers the issues of studying the self-actualization of the personality by the representatives of various conceptual schools. We consider distance learning in the higher education system as a capacity for opportunities, as the implementation of an individual approach in learning, motivating the student to self-learn, freedom from rigid binding to the territory and a certain period of time, objective assessment of learning results. The study's goal is to investigate the connection between the self-actualization of the personality and the level of students' stress resistance in the process of distance learning.

Research methods: questionnaires and testing. Based on theoretical analysis, the methodological basis of the study was determined in relation to the self-actualization of the personality as the highest level of its development in the context of humanistic psychology, distance learning. As a result of an empirical study, the authors of the article revealed the correlation between the ambition for self-actualization and the level of stress resistance. The ambition for self-actualization correlates with the level of assessment of one's effectiveness in distance learning, and there are sex differences according to the criteria of the ambition for self-actualization and the level of stress resistance.

Keywords: self-actualization, methodological aspects, distance learning, student's personality, assessment of one's own effectiveness, stress resistance level.

Introduction

Relevance of the research topic. The interest in issues related to the self-actualization of the personality in modern scientific psychology is determined by the importance and significance of topics that refer to the study of the external and internal activity of the subject, the use of personal resources for full self-actualization and self-improvement of the personality in the process of its development. The concept of self-actualization is studied as a necessary condition for the development of individuality and the progressive development of society. Currently, the ambiguity and multivariance in determining the methodological approaches to studying the nature of the self-actualization phenomenon are reflected. While self-actualization is studied as "objectification-de-objectification" from the philosophical point of view, psychological science examines the essence and structure of self-actualization that dominate in this category, which allows stimulating and defining "interiorization-exteriorization".

The formation of a person is considered as the execution of a personal project in the dynamics of the implementation of ontological processes. Heidegger's idea of a world project is presented

in Binswanger's concept in detail: a person seeks to realize his own way of designing destiny, being open in accepting and disclosing his own possibilities. According to Binswanger, the content of the concept of the world project reflects the temporality of Heidegger's characteristic Dasein, which emphasizes the direction towards the future. The methodologically justified term "world project" transfers the emphasis from objectivity to the method of revealing oneself through transcendence.

The creative energy of the paradoxes of real life becomes the basis of philosophical faith and helps to overcome the pessimism caused by the inevitability of loss and the need to submit to merciless circumstances. Here, the key to one's own capabilities and freedom of choice is contained for a person. The personal world of the individual is considered by Jaspers as a concrete fact, taken in the empirical integrity and sociohistorical context of development. The objectively existing world provides a person with the space of social relations and traditions to build a path to his own personal world.

Both approaches are not so much a method of scientific research as a specific psychological (one might say more broadly - ontological) practice of working with people, instilling responsibility and freedom in them. The movement from empathy to direct comprehension of the ways of mutual understanding, from special feeling to intuitive cognition of another person due to the phenomenon of openness as the initial condition of their existence is also indicated. Understanding specific human behavior is based on identifying his specific relationship to his world, to the social-objective circumstances of the living environment. It is evident that the humanistic nature of the method contributes to the relevance and perspective of Daseinanalysis both in psychotherapy and in other spheres of human activity. The ideological attitudes of Daseinanalysis contribute to the more humane treatment of a person to a person and a more environmentally friendly attitude towards the world around him. The existential analysis allows correcting wrong attitudes and developing new attitudes, relations and intentions in patients in a humanistic spirit. The central questions are, "Can I trust my own feelings?" and "How can I know what I want?".

In the phenomenon of existential analysis, one can see two different methodological approaches: anthropocentric, i.e. taking a person as a reference point (a tradition associated with the names of Husserl, Sartre, Binswanger, Jaspers), and ontocentric, i.e. taking being as a reference point (line M. Heidegger - M. Boss). It is important to note the convergence of the positions of the two presented versions in the fundamental issues of humanistic psychology. Both versions actually serve as the basis for psychological practice, which is implemented in many spheres of life, particularly in education. In connection with this methodological division, we note that the anthropocentric direction of existential analysis is more promising to use in the research part of the educational process and the ontocentric one in the field of psychological and pedagogical practice (development of creative potential, ensuring personal and professional growth).

The topic of studying the self-actualization of the student's personality and its types becomes relevant and important since transformations in the social and political, economic, spiritual spheres of modern society lead to drastic changes in professional interaction, in the interests, values and behaviour of people. During the educational activity, students should execute adequate professional self-actualization and self-identification to determine the correspondence of personal qualities and psychological characteristics to the requirements of their chosen profession. In a pandemic, the extreme emerging situation associated with the value of health and safety, with the adoption of a critical decision, the perception and awareness of this fact poses the problem of the meaning of life, the ratio of self-actualization and the level of stress resistance to the individual.

Various conceptual approaches reveal conflicting positions: abilities personal potential are

considered either as a means of adaptation or as a process of consistent achievement of life goals, which cannot be adapted due to its complexity and is a function of individual consciousness, or as a desire for development. In the first two approaches, the personality becomes secondary. A person does not try to develop his talents and inner potential on his own. The contradiction is removed, in our opinion, provided that, when defining the self-realization of a person, it is emphasized that self-realization is expressed in the activity of the subject himself, in the interaction of internal and external factors. This leads to the understanding of self-actualization as a complex self-organizing system that cannot be forced to follow one way or another of its development. Consequently, we do not call any development of personality self-actualization, but only that development that presupposes the high activity of the subject.

Within the framework of the implementation of the education reforms, innovative teaching methods are required, based on Internet video technologies modern multimedia interactive technologies that ensure the effectiveness of the implementation of the higher education system (Ananga, 2020, p. 318). The requirements are primarily met by the distance learning form, the purpose of which can be a reasonable combination of the advantages of virtual and traditional forms of education. This topic is relevant for investigation nowadays when almost everyone in the world is isolated from each other. This issue is interesting to study since a person is protected from external stimuli of his psyche, stressors, how easy or difficult it is for people to overcome this situation.

Distance learning in modern science is in the spotlight of many scientists and researchers. Distance education contains the potential of opportunities, and the question is to what extent the education system, in particular, higher education system, allows to turn opportunities into real advantages that are more difficult to solve in traditional education: the implementation of an individual approach to the subjects of educational activity in learning, the use of active forms of learning, motivating students to self-learning, freedom from rigid binding to the territory and a certain period of time, objective assessment of learning outcomes (Ivanov & Yanitskii, 2004).

On a global scale, many universities of the world and the entire educational system have switched to a distance learning format because of the announcement by the World Health Organization epidemic of the new coronavirus pandemic. A drastic change in the format of training has become a forced experiment for the overwhelming majority of universities, which develops the higher education system in the perspective of digitalization. The main problem, in our opinion, is that distance learning has not become a general cultural practice. The transition to distance learning was performed in a limited time frame, exceptionally rigidly, without preliminary preparation, without training procedures for subjects of educational activity. It is definitely difficult to assess forced distance learning, dictated by the necessity of modern conditions. We can say with confidence that stress is one of the main problems of everyday life for a modern person. The list of negative factors affecting the human psyche is long. Nevertheless, unfortunately, it is necessary to state that life without stress is impossible, even if a person completely goes into social self-isolation.

Resilience to stress is an integrative quality, a personality trait. It is characterized by the interaction of motivational, intellectual, emotional components of educational activity, which determine the success of this activity and the development of self-actualization of the individual as a subject of educational activity. The studentship is crucial in the sense that a person acquires knowledge in the professional sphere, receives professional qualities, forms his place in society, determines his professional values and principles. Students socialize more and more and obtain their social status and social role. Stress resistance has a significant impact on all above-

mentioned, since change in the educational style, a new knowledge assessment system, a new social role can cause some stress.

General Concepts of Self-Actualization

In the philosophical and methodological aspect, the theory of personality self-actualization is presented in the works of L. I. Antropova, L. G. Bryleva, I. A. Vintin, N. L. Kulik, K. Ch. Mukhametdzhanov and others. In psychology and pedagogics, the theory of self-actualization is developed by A. G. Asmolov, E. I. Isaev, P. I. Pidkasisty, V. I. Slobodchikov, L. M. Fridman, G. A. Tsukerman and others. Acmeology, a whole scientific branch, is based on the theory of self-actualization - (A. A. Bodalev, A. A. Derkach, M. I. Dyachenko, N. V. Kuzmina and others). The ideas of the theory of self-actualization are actively implemented in practical humanistic and existential psychotherapy, logopsychotherapy (B. S. Bratus, N. L. Karpova, Yu. B. Nekrasova, and others). Most researchers consider the theory of self-actualization to be the central link of modern scientific, humanitarian knowledge consider the prerequisites and stages of this process at different age stages and in different conditions.

A significant direction in the study of personality self-actualization is the consideration of this process in relation to professional development (E. F. Zeer, E. A. Klimov, L. M. Mitina, N. S. Pryazhnikov and others). In addition to mastering the technological and activity components in this process, the spiritual-personal and motivational-value components play a significant role, implying the formation of social responsibility and the desire for self-realization in professional activity. The study by E. V. Smal and Yu. P. Povarenkov indicate that although self-actualization covers the entire system of an individual's life, it can be especially vividly manifested in professional activity, to which a person devotes most of his life. Considering the general and professional self-actualization of the student's personality in the process of studying at the university, E. V. Smal emphasizes that at some stages of professional development, professional self-actualization becomes decisive for the personality.

Representatives of various psychological schools have studied the self-actualization of the personality. However, there is still no single concept of self-actualization. The methodological side of the problem of studying the self-actualization of the personality consists of an insufficient definition of this phenomenon. At the present stage of developing ideas about self-actualization, it seems impossible even to classify this concept by form - whether it is a phenomenon, a process, a need, property or something else. Some researchers consider self-actualization a phenomenon caused by the inherent predestination of human nature to be a self-actualizing being, while others, denying this predestination, prefer to talk about procedural determination. The difficulty of studying self-realization also lies in the fact that we can observe only its procedural results (Abulkhanova-Slavskaya, 1991, p. 74).

Theoretical opposing ideas are also noticeable in conceptual and methodological issues that relate to the nature of self-actualization and the mechanisms of implementation, the nature of the conditions and the characteristics of those factors that affect its effectiveness. Important determinants of a person's self-actualization are psychological, pedagogical, physiological, and social. Cognitive mental processes, personal qualities and emotional characteristics act as psychological conditions that contribute to a high level of success of self-realization. Other factors that determine self-actualization are social determinants. Socialization institutions belong to that system. They provide role relationships and positions for participants to cause self-actualization of the personality; however, they sometimes prevent its manifestations. Self-actualization is manifested in the implementation of a humanitarian goal, a special mission, in the following areas:

social and economic, social and political, pedagogical, and other socially useful activities. Self-actualization of the personality stimulates spiritual growth, and it determines the disclosure of personal potential at the early stages, i.e. such traits as responsibility, conscientiousness, curiosity, purposefulness, sociability, diligence, initiative, creativity, spirituality, morality, etc. Consequently, the self-actualization of personality can be the basis for opportunities for regulating self-realization, which reflects its consistency, integrity, and content in certain manifestations.

Currently, in the conditions of modern reality, in the process of modernization of education and globalization transformations, it is essential to implement innovative educational methods and technologies in order to create and develop new social and pedagogical and psychological relationships that would create psychologically favourable conditions for self-actualization, self-realization, and self-improvement of students. Self-knowledge and self-actualization for a person is an assessment, reflection in relation to his own personality, including self-knowledge, and the ability to evaluate their own capabilities and qualities. The very fact of this assessment is due to the ability to be critical, self-criticism, demanding of his personality, his achievements and his success, as well as evaluating his unproductivity and failures (Leontiev, 2006). This, to a certain extent, has an impact on the productivity and effectiveness of educational activity and personal development in general. Self-actualization is a conscious and meaningful act of choosing, asserting a worldview position in problematic for a student situation (Korostyleva, 1997; Kudinov, 2007).

Self-actualization as an important personal category is such personal development that can free a person from the fear of the "Jonah" complex, that is, the fear of growth and from imaginary, invented by a person, not always conscious, spontaneously arising problems in his life, which can, in their turn, cause neurotic states. Self-actualization is not the absence of problems but the movement from transient or unreal problems to real problems (Kienko & Morozova, 2011, p. 249).

Conceptual approaches to the phenomenon of self-actualization. Self-actualization in psychology is interpreted in different ways depending on various conceptual approaches. All these conceptual approaches are divided into three groups.

The first group includes the theories in which human life is considered an adaptation to the internal and external world. This is a primarily behavioural and psychoanalytic theory and other concepts of biologization, which make this person utterly dependent on the control of the external world, events and stimuli that occur in it. Internal factors play a secondary role in this theory and are mostly ignored. Supporters of this theory reject the concept of an independent person guided by internal inclinations. For behaviourists, human development is a reaction to the environment.

While behaviourists are supporters of external influence on a person's self-actualization, the supporters of the psychoanalytic concept claim that a person's self-actualization is based on internal motivation. The core point of this theory was formulated by A. Adler. He was the first to speak about the concepts of "self-realization" "self-actualization" in modern psychological theories. In his works, he used the terms "ambition for perfection" and "ambition for superiority" as interrelated. Adler did not formulate the term "self-realization", but he recognized that since a person is a rational being, he can plan his actions manage them, realizing that all his actions will lead to self-realization. According to Adler's theory, a person can act independently as an individual. Since he has a creative Self, he can correctly analyze his ability to set a goal and choose ways to achieve it. Adler portrays a person as an inherently inferior being, striving for self-improvement and the fight against inferiority (Adler, 2013). The concept of psychosexual development is also based on a subjective predisposition. This concept was introduced by

S. Freud. Freud's psychosexual development is also an adaptation based on self-actualization, but it was not originally intended for this (Freud, 2003). It should be noted that modern researchers B. Klochko, E.V. Galazhinskii (1999, p. 4) think that this theory, to put it mildly, is not entirely justified.

Quite an interesting approach is the approach by E. Fromm, developed in the context of psychoanalysis based on humanism. In his concept of radical humanistic psychoanalysis, Fromm draws attention to the dual nature of man. According to Fromm, the whole process of self-realization for a person is an attempt to move from a lower stage to a higher one, to stop being an animal and try to become a human. This means that this is an internal struggle of a person between an animal and a person inside (Franken, 1998). Based on this, in behaviourism and psychoanalysis, self-actualization is used as an adaptation to the external environment, which is possible due to the self-realization of hidden human abilities and talents. That is, self-actualization is understood as a struggle for survival through adaptation. Human abilities are considered here means of adaptation. The personality becomes secondary. A person does not try to develop his talents and inner potential by himself.

The second group includes most cognitive and gestalt theories. Prominent representatives of these theories are J. Murray with the theory of needs J. McClelland with the theory of achievement motivation. These theories radically differ from the first presented theories since here, and a person is represented as a subject who wants to develop certain personality structures. At the same time, although a person is active, he has no ambition for self-actualization. The development of human potential occurs "in parallel" with implementing the main motivation (Ivanov & Yanitskii, 2004). This is how the authors think about the problem of development, self-actualization and self-realization J. Piaget, W. Dember, R. White, R. Earl, etc. This theory is based on the idea that people and animals are motivated by the existing need for successful interaction with the environment. One of the main growth theories is that people are imperfect and are not born with developed abilities. This theory describes the mechanism of motivation for growth and skill acquisition as a mismatch between how a person is developing at the moment and how he should develop for a more successful adaptation. According to the authors of the theory, such inconsistency leads to internal stress, which a person tries to relieve by developing new skills and abilities. The authors believe that mild negative stress is an effective condition, similar to unpleasant senses of hunger or thirst. Those feelings are the engine through which a person performs certain actions. With the help of words, a person performs several actions to create more or less comfortable conditions (Hjelle & Ziegler, 1992, p. 62). Other researchers, especially D. Shapiro, J. Schwartz, J. Austin, think that a person's ambition for control is the main need of a person. The ability of a person to manage the surrounding world is a necessary condition for survival, peace and successful adaptation in society. Without a sense of control, people lose self-confidence and cannot effectively cope with even minor problems (Hjelle & Ziegler, 1992, p. 575). Research by J. Rotter shows that a person has a sense of control at different levels. Rotter divides the human perception of control into internal and external. This means that people can achieve a higher or lower level of control during cognitive activity. According to the Rotter classification, control can be both internal and external (Elkonin, 1971).

R. Franken described that the management strategy and the strategy of self-actualization, self-realization of internal potential differ significantly in western and eastern civilizations. In western culture, people exercise active control: they try to change external circumstances to reduce anxiety. In eastern countries, people try to rely on self-control to adapt to external circumstances (Franken, 1998).

According to A. Bandura, a sense of control is

necessary for active human development, based on his research on self-efficacy. First, a person begins to evaluate whether his desire leads to what he aspired to. This type is called waiting for the result. The author shows that if a person is not sure that his actions will lead to a good result, he will not strive for this goal (Hjelle & Ziegler, 1992, p. 579). These conclusions are very similar to the opinion of A. Maslow, who claims that a person always chooses between security and development. Whoever chooses the path of development always takes risks. In this case, safe development is impossible. Bandura rightly notes that people choose development after a thorough analysis and are quite confident in manageability and lack of risk.

G. Murray emphasizes the need to achieve high standards, competitiveness, superiority over others, hard work and victory (Hjelle & Ziegler, 1992). He thinks that the attractiveness of achievements is not to find what you want but to develop and apply skills. In other words, the process itself is a motivation to achieve. J. McClelland proved that a person's desire to "do something better" is the main engine of self-improvement. Moreover, motivation for action is not a material or moral aspect in the form of remuneration or approval but simply the result of the process (Popova, A. F. & Popova, A. A., 2016). According to G. Latham and E. Locke, self-realization is the process of consistent achievement of life goals. The degree of correspondence between the initial and achieved levels of self-actualization, self-realization can be considered as satisfaction with self-realization at the moment (Ivanov & Yanitskii, 2004).

The third group of theories, including humanistic psychology, activity psychology, acmeology and others, considers self-actualization a separate phenomenon that cannot be adapted because of its complexity and is a function of individual consciousness. The modern concept of self-actualization is considered primarily from the point of view of these areas.

A. Maslow played an important role in the study of self-actualization, having conducted several extensive studies on the satisfaction of human needs and human development. Maslow used the term "self-actualization" to refer to the execution process. Maslow characterized these two concepts as necessity and process (Maslow, 1965; Chiang & Maslow, 1969). Maslow claimed that only psychologically balanced people could reach self-actualization. Maslow described a dilemma that any person faced: to choose security or development. And each person solves this problem for himself. To live in safety and not to move from a place or to choose development and to move forward. As a result of development, a person's capabilities, abilities, knowledge and experience expand. A weaker person is fixated on ensuring security. His neurotic nature of the character and many protective mechanisms allow him to feel fully protected. Such a person does not need development (Maslow, 1971, p. 89). Having analyzed the behaviour of outstanding people, A. Maslow identified several signs of self-realization. According to K. Rogers (1995): "Humans require acceptance, and given acceptance, they move toward self-actualization" (p. 9). According to Rogers' theory, the ambition for self-actualization is a process of realizing a person's potential throughout life to become a fully functioning personality. In an attempt to achieve this, a person lives a life that is filled with meaning, search and excitement. A self-actualizing person lives existentially, naturally enjoying every moment of life and fully participating in every moment of it. According to Rogers, every person is initially motivated simply by the fact that he lives and any special motivational constructs or specific drives to understand why a person is active are required. Along with a positive point of view on human nature, Rogers hypothesized that behaviour is inspired and regulated by a certain unifying motive, which he called the trend of actualization. "This seems to be inherent in the organism, just as we find a similar tendency in the human-animal to develop and mature physically, provided mini-

mally satisfactory conditions are provided" (Rogers, 1995, p. 63). Frankl defined self-actualization as "the fulfillment of the available possibilities, or potentialities, within the subject, one might well call it potentialism" (Pytell, 2015, p. 173). Thus, according to V. Frankl, self-actualization results from a person's fulfillment of his destiny. V. Frankl (1962) saw the idea of self-actualization as the search for and achievement of the meaning of life, which must necessarily be associated with something external to a person – either with love for another person or with the activity that a person is engaged in.

R. Assagioli (2002) proposed to add a new context of this phenomenon, which has a higher spiritual colouring – self-actualization as self-comprehension, experience and awareness of oneself as a synthesizing spiritual Center, achieved as a result of long-term spiritual practice (p. 55). The concept of "restlessness" in the theory of E. Erickson is close to the concept of self-actualization – it is a very broad concept that covers both parental relationships and most of what is meant by "productivity" or "creativity" (Erikson, 1994). It is close to the concept of self-actualization in the sense of striving to become as good as possible. That is, the personality ceases to grow and enrich itself to the extent that it is "calmed down". Erickson calls the latter "stagnation" (Erikson, 1968).

Thus, "biologizing" theories present self-realization as an ordinary adaptation to the environment but emphasize that it is unconscious. The theories that motivate a person to grow and self-educate pay special attention to the ambition for conscious achievements. They consider a person's life a process of gradual achievement of the goals. In humanistic theories, self-realization is considered a manifestation of individuality. Perhaps the most accurate definition of self-realization should be sought between the two approaches. As an autonomous mental mechanism, self-realization is provided by the mutual reinforcement of various needs (if we follow biologizing theories), it is strengthened by personal needs to do something better (in the theory of "growth"), a person understands his function (in the humanistic theory). Speaking conditionally, the ambition for self-realization is a sum of all motivations, in the basis of which three classical levels of the human psyche are described: individuum, personal, and individual (Hjelle & Ziegler, 1992; Frydenberg & Lewis, 1993).

Soviet psychologists (A. N. Leontiev, B. G. Ananyev, L. S. Vygotsky, S. L. Rubinstein) touched upon the topic of personal self-realization as an integral part of the concept of "self-determination", and this orientation was characteristic of Soviet science until the 1990s (Erikson, 1994). L. S. Vygotsky correlated the concepts "life" and "self-realization". He thought that a person who has created his own individual life philosophy is already capable of self-realization, which outwardly appears as a desire "...to reach his personal goals, passions and interests only in direct contact with the world" (Vygotskii, 1999, p. 128). According to the classical, cultural and historical theory of L. S. Vygotsky, the personality does not "mature" from internal prerequisites but is "formed", completed on the biological foundation of the system of social relations in which a person develops. Higher mental functions are not innate in a person from birth but are only laid down in the form of potential. In the process of socialization, due to the interaction of natural and social factors, there is a transition of the potential into the actual. The most important mechanism, in this case, is the interiorization of the cultural experience of humanity by a person. In this case, individuality is not just created but self-realized, self-developed. The process of development in this situation acts as a process of self-realization and is realized in the process of creative activity with the help of exteriorization (the transition of the internal into the external action).

In his works, D. A. Leontiev connects the problem of self-realization with the questions about nature, origin and character of a person's creative forces, while he understands creative

self-realization as one of the leading driving forces of a developed personality, which encourages and directs it in its activities. He identifies three levels of analysis of the problem of personal self-realization: sociological, philosophical, and psychological. At the sociological level, questions about the ways and methods of personal self-realization are determined and solved. Questions about the nature of a person, about the possibility of its exteriorization, about the essence of the process of self-realization are solved at the philosophical level. The object of the study is a person accepted as a generic being and humanity as a whole. At the psychological level, personal qualities and specific external conditions that allow this person to self-actualize successfully are analyzed (Leontiev, 2006, p. 73).

Studying the problem of self-actualization of the individual, S. L. Rubinstein used the concept of "the top of life". He wrote: "A person who has done something significant becomes, in a certain sense, a different person. Of course, in order to do something significant, you need to have some internal capabilities for this" (Rubinshtein, 1969, p. 246). Of great importance is the thesis of S.L. Rubinstein about the need to study the peaks in the activities of not only outstanding people but also an "ordinary person": "every person, every human personality has its own history. One can even say that a person is a person only because he has his own history" (Rubinshtein, 1969, p. 106).

The issues related to self-actualization in the teaching of students in the process of distance education are important for the purposes of the current research. Thus, here are the basic principles of distance education:

- Humanistic teaching principle. The point of this principle is that the educational process is addressed to the student in order to create the most favourable conditions for students to master the accumulated experience, which consists in the content of training, mastering the chosen profession, in order to develop and to show creative individuality, high civil, moral, intellectual qualities that provide the student with social security, existence in safety and comfort.
- The principle of interactivity implies both the contact of students with teachers, with the help of the means of new information achievements and students with each other. According to experience, students' contact with each other is more intense than the interaction between a student and a teacher.
- The principle of self-actualization. The main task of distance learning is to reveal the intellectual and creative potential of students.
- The principle of a personality-oriented approach means relying on the positive qualities of the student's personality, on incentive methods, and not methods of punishment in any form. This principle is especially important for distance learning (Berberyan, 2018; Berberyan, 2020).

In the educational system, a person who is capable of self-education is in demand. The continuity of education is a social order of society. Distance learning can provide a systematic educational development of the individual. Distance learning, in reality, is a personality-oriented form of learning (Tomassini & Zanazzi, 2014; Butcher & Rose-Adams, 2015). It represents the freedom of choice of the teacher (tutor) the selection of educational material depending on students' information needs. When comparing it with the correspondence form, the means of communication for distance learning are as operational as possible, and the training programs and courses are flexible and individual (Butcher & Rose-Adams, 2015; Garanina & Maltseva, 2016; Rastorgueva, 2014).

Methodology

In the course of the current study, three hypotheses were formulated:

Hypothesis 1. There is a correlation between the ambition for self-actualization and the level of stress resistance.

Hypothesis 2. There is a correlation between the ambition for self-actualization and the level

of assessment of one's own effectiveness in the process of distance learning among students.

Hypothesis 3. The ambition for self-actualization and the level of stress resistance differ depending on the student's gender.

The goal of the study is to investigate the connection between the self-actualization of the personality and the level of stress resistance in the process of distance learning among students.

The methodological bases of the current research are the conceptual foundations of the professional formation of the personality and activity by K. S. Abulkhanova-Slavskaya, B. G. Ananyev, A. G. Asmolov, S. D. Smirnov, the development of modern informational and communicational technologies (A. A. Andreev, E. S. Polat, M. Yu. Bukharkina, M. V. Moiseeva, etc.); the concept of stress by H. Selye. The absolute theoretical basis of personal and professional development is the research by the representatives of humanistic psychology on the problems of self-actualization: A. Maslow, C. Rogers and other scientists.

Research methods: questionnaires and testing, including:

1. Test to assess the level of self-actualization of the individual (SAMOAL) by E. Shostrom, in the adaptation of A. V. Lazukin.
2. Test "Self-assessment of stress resistance" by S. Cohen and G. Williamson.
3. The author's method for identifying the attitude of students to distance learning.

The empirical basis of the research. The participants of the research were 85 students from various universities in Armenia. The students represent various professional training directions, learning in the distance form of training. The respondents were divided into two homogeneous groups considering sex differences: 43 female and 42 male.

Results and Discussion

The method of studying the level of self-actualization (SAT) is designed to diagnose the level of self-actualization of the individual. This methodology consists of 14 scales, 126 points. The methodology has basic scales and additional scales, which include a block of values, a block of feelings, a block of self-perception, a block of human concept, a block of interpersonal sensitivity, a block of attitude to cognition. The average indicators of the components that fill the concept of "self-actualization" in two groups of subjects: in the group of females (group 1) and in the group of males (group 2) were compared. The analysis of "self-actualization" from the point of view of sex difference seemed interesting (Fig. 1). In general, the study has not shown significant differences in the level of self-actualization by gender.

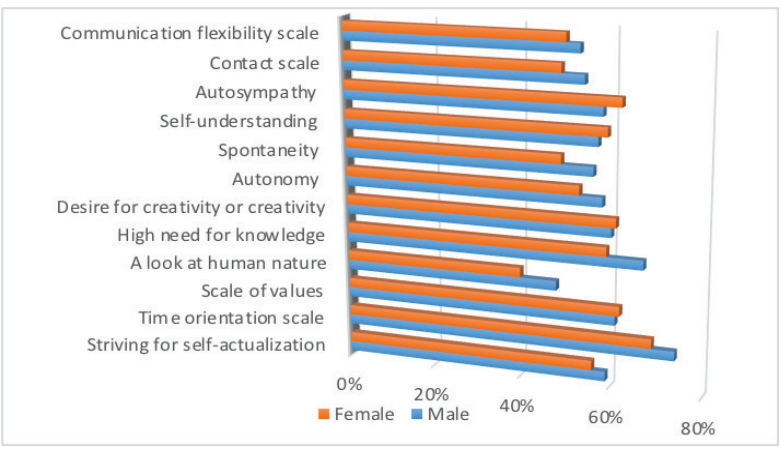

Figure 1. The results of the assessment of the students' ambition for self-actualization as measured by SAMOAL.

2. Studies of the student's stress tolerance were conducted using a self-assessment and stress tolerance test by S. Cohen and G. Williamson. With the help of this test, a complete and differentiated picture of the relationship of stress resistance was revealed. As a result of applying this technique, the following data were obtained, which show the self-assessment of students' stress tolerance (see Fig. 2).

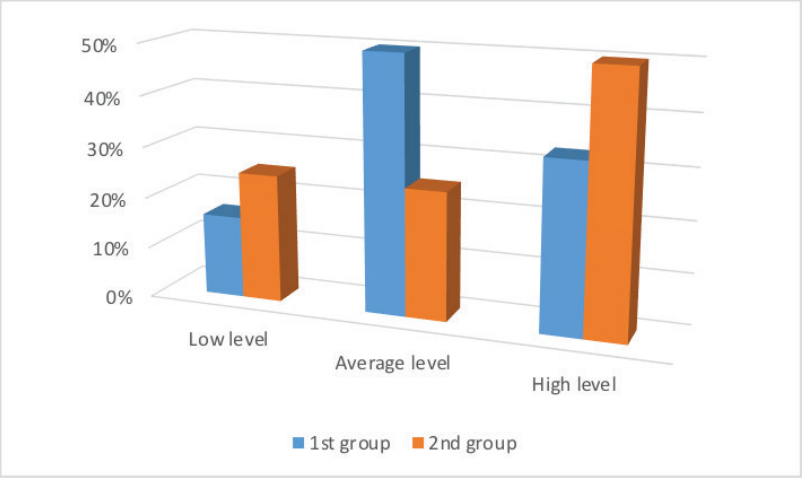

Figure 2. The results of self-assessment of the students' general stress tolerance.

Based on the results of the questionnaire:

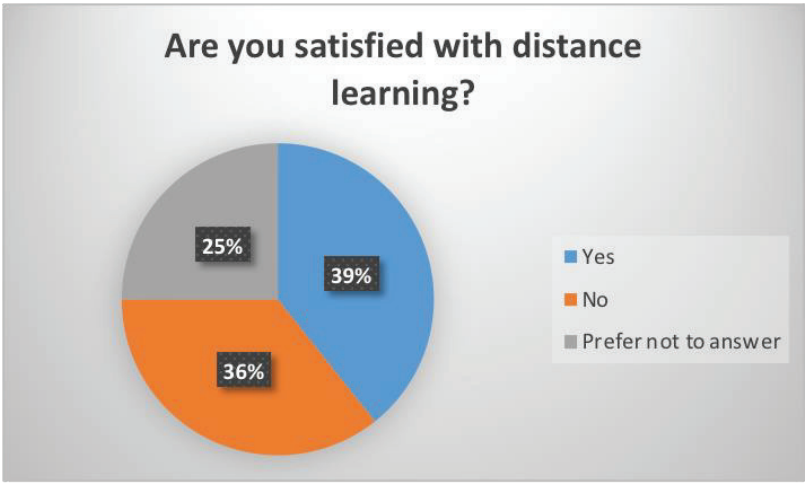

Figure 3. Results of the questionnaire on the question of satisfaction with the learning process in the distance format by students.

A very important question related to satisfaction with the online learning process: more than a third part of students noted that they are not satisfied.

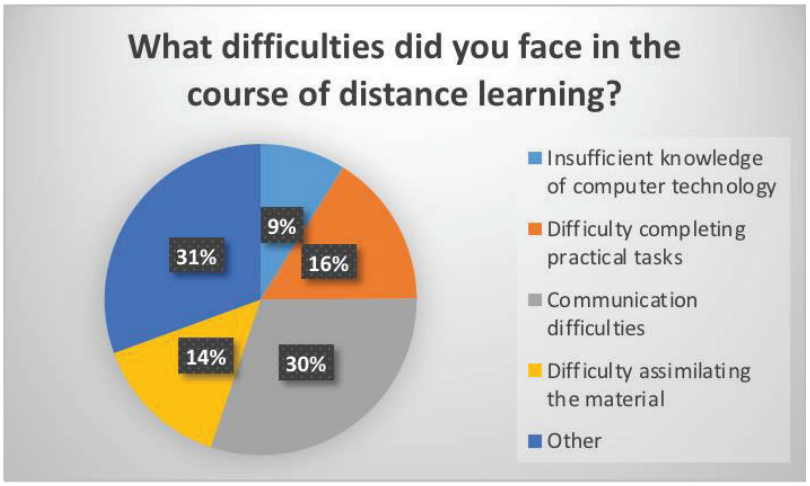

Figure 4. Results of the questionnaire on difficulties that students face in the process of distance learning.

The problems associated with the difficulties of learning online are assessed by students as follows: difficulties in communication (30.4%), the difficulty of performing practical classes (16.1%), difficulties in mastering the material (14.3%), the remaining problems are slightly expressed.

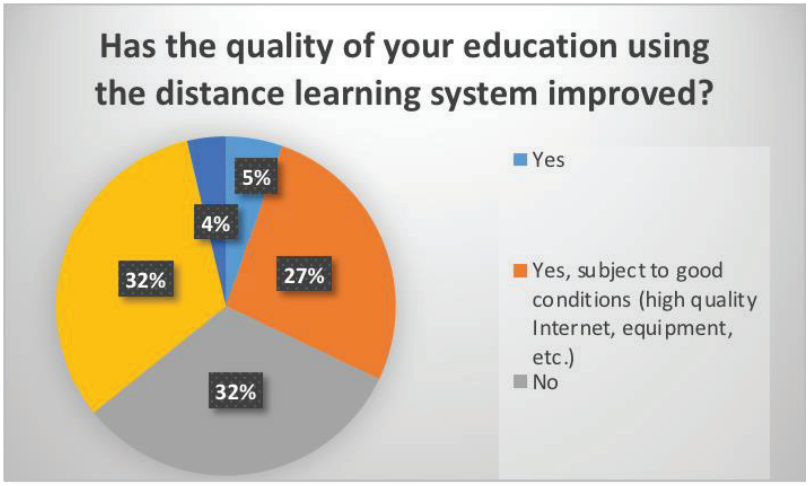

Figure 5. The results of the questionnaire on the quality of distance learning of students.

Students evaluate the quality of education using distance learning: doubts (32, 1 %), negative (32, 1%), positive (32, 1%).

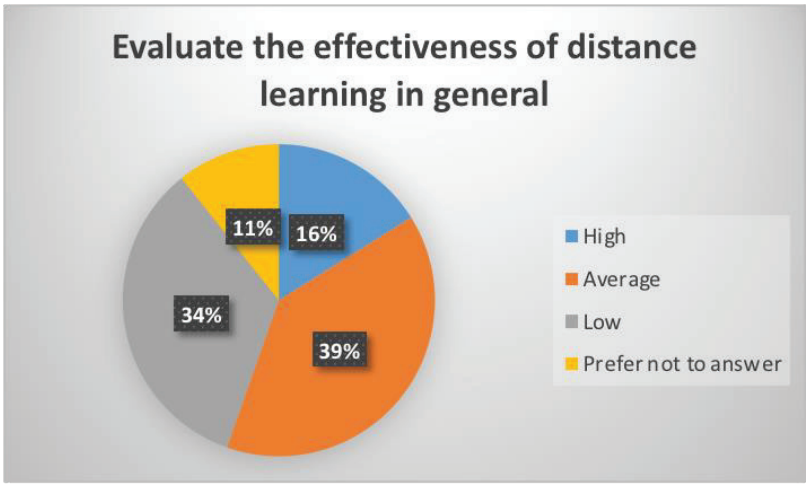

Figure 6. The results of the questionnaire on the effectiveness of distance learning of students.

Accordingly, the effectiveness of distance learning is estimated as average (39.3%), low (33.9%) among students.

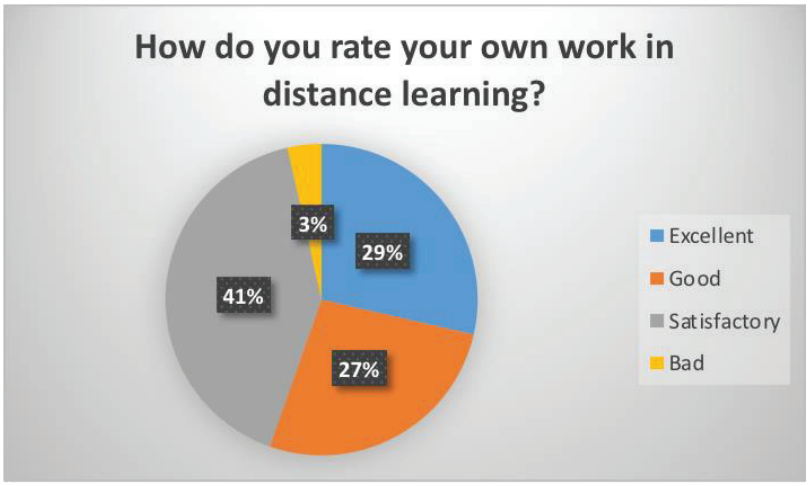

Figure 7. The results of the questionnaire on the issue of evaluating their own effectiveness in the process of distance learning by students.

Mathematical processing of the results of the empirical study was performed by calculating the Pearson correlation coefficient. According to the first hypothesis, a correlation between the ambition for self-actualization and the level of stress tolerance was estimated, resulting in 0.43, i.e., there is an average positive correlation. The hypothesis was confirmed.

According to hypothesis 2, the ambition for self-actualization correlates with the level of evaluation of one's own effectiveness in the process of distance learning (the correlation coefficient is 0, 51). According to hypothesis 3, it has been confirmed that there are sex differences in the criteria of striving for self-actualization and the level of stress tolerance.

The study of self-actualization scales has shown the following results. Male respondents have a predominance on the scales of *orientation in time, a view of human nature, autonomy, spontaneity, contact, flexibility in communication*. Female students have higher results on the

scales of *value, creativity, self-understanding, autosympathy*.

The 1st group's students assess their stressful situation perfectly. This suggests that students can objectively assess their stress state and cope with it (Selye, 1936). As a result of this study, the following results have been revealed: the 2nd group's students assess their stressful situation at an average level. This suggests that students can cope with stressful situations, excluding some specific cases.

The assessment of their own work in the framework of distance learning in half of the cases was satisfactory (41.1%), then the students were divided into groups: good (27%) and excellent (29%). Thus, the effectiveness of distance learning largely depends on students, as they themselves, in half of the cases, assess their work as satisfactory; the awareness of distance learning as a joint work would lead to the solution of many problems that arise in online learning.

Conclusion

The modern educational system is developing in the conditions of globalization and an ever-increasing amount of information necessary for a person who is able to operate with a huge array of knowledge in various fields of human activity. The education system includes a wide range of information, communication and virtual technologies aimed at using the powerful potential of students, deepening the content of education, expanding their knowledge, including implementing training in the aspect of individualization and differentiation. The formation of a student's personality his self-actualization is successfully carried out through interactive learning technologies, with active dialogue interaction of all subjects of the educational process in an information-communicative educational environment.

1. As a result of the theoretical analysis, the theoretical and methodological basis of the study was determined in relation to the self-actualization of the individual as the highest level of its development in the context of humanistic psychology, distance learning, the connection between self-actualization and stress resistance.
2. As a result of an empirical study, it was discovered that according to the 1st hypothesis, there was a correlation between the ambition for self-actualization and the level of stress tolerance – 0.43, i.e. there was an average positive correlation. Consistent with hypothesis 2, the ambition for self-actualization correlated with the level of evaluation of one's own effectiveness in the process of distance learning (the correlation coefficient is 0,51). Consistent with the 3rd hypothesis, there were gender differences in the criteria of striving for self-actualization and the level of stress tolerance.

Acknowledgements

The work was supported by the Science Committee of RA, in the frames of the research project № 10-2/21T-03.

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DOI: 10.24234/wisdom.v21i1.702
Sargis GRIGORYAN

ISLAMIC EXTREMISM STRATEGY OF "NEAR AND FAR ENEMY" (FROM THE 1980s TILL NOW)

Abstract

In the 1980s, the "Al-Qaeda" launched the tactics of the struggle against the "Near and Far Enemy". It found its ideological grounds in the Islamic extremism in the 1980-90s with practical implications, affecting the current geopolitical and global economic trends in the Muslim world and well beyond it. In the Islamic extremism ideology, this strategy also received textual-substantive justifications of symbolic perceptions, which, of course, influenced the behaviour of extremists. The present research attempts to investigate the peculiarities of the tactics mentioned, which were masterminded and enriched by the ideologists of Islamic extremism, becoming one of the motives of the activities of Islamic extremists starting from the 1980s up to the current developments and one of the grounds for targets of Jihad.

Keywords: Islamic extremism, "Near and Far Enemy", Abdullah Azzam, Usama bin Ladin, "Al-Qaeda", ISIS.

Towards the end of the 20th century, Islamic extremism was enriched with new ideas, one of them being the Struggle against the "Near and Far Enemy" (Gohel, 2017, pp. 54-67)[1]. The "Near and Far Enemy" strategy was also substantiated in fatwas, which were actively spread by theologians guided by Islamic extremism ideas during the period considered in the article. Fatwa is a formal ruling or interpretation on the point of Islamic law given by a qualified legal scholar, applying, in Islam, to all civil or religious matters (The Encyclopaedia of Islam, 1991, pp. 866-867)[2].

In this context, it is obvious that fatwa has a serious impact on Muslims, and that's why the fatwas are often circulated by Islamic extremist ideologues. The introduction of the phenomenon of alienation, familiar to Western socio-philosophical thought, can be observed in these texts too. These fatwas contain references to well-known sources (al-Qur'an, Sunnah), historical events, heroic episodes of the past, symbolic quotations and comparisons, which attract Muslims and force them to take action. It was actively spread by the Islamic extremism ideologists during the war in Afghanistan in 1979-1989, finding wider practical expressions in the Mus-

[1] These ideas were put forward by the leaders of "al-Qaeda", particularly by Ayman al-Zawahiri to ground the choice of the targets for Jihad by the Islamic extremists. The Islamic extremists considered the West (the western states or the western institutions in Muslim countries) to be the "Far Enemy". The "Near Enemy" comprised the faithless regimes and the circles, which fought against the ideas of the Islamic extremism in Muslim countries or in areas with a large Muslim population.

[2] Fatwa: opinion on a point of law, applying, in Islam, to all civil or religious matters. The conditions required by the classical doctrine for the exercise of the profession, or even for the delivery of a fatwa, are: Islam, integrity and legal knowledge, or the ability to reach, by personal reasoning, the solution of a problem. After the death of the Prophet Muhammad and in the first centuries of the formation of the Islamic Caliphate the need for legal advice was soon felt in Islam. The ever-increasing number of the adheients of the new religion, which governed, through its totalitarian character, the temporal as well as the spiritual aspects of daily life, and the survival of the laws and customs of the conquered territories, which had to be harmonized, in some way or another, with novel piecepts and integrated within the nascent Muslim corpus juris, necessitated a continual recourse to the opinions of competent persons.

lim world and beyond it. There was a need for reliable people to organize the fight against the Soviet Army in Afghanistan properly, to reach the military aid to the addressee and to use the financial means appropriately. They were to carry out organizational functions on the spot, as well. In this regard, Abdullah Yusuf Azzam and Osama bin Ladin distinguished themselves in the Afghan war. Azzam and Bin Ladin later founded "al-Qaeda" in 1988, which was responsible for centralizing Muslim fighters in military camps, providing them with military training and involving them in Jihad (Kepel, 2006, pp. 130-143).

The ideas of Abdullah Azzam deeply influenced the Islamic world. As a result, there was a rapid increase in the number of Arab fighters who were involved in the Afghani war. Moreover, the military, financial and other assistance which was provided by the USA, Pakistan, Arab countries of the Gulf to the mujahideen fighting against the Soviet troops in Afghanistan forced the Soviet authorities to reconsider the appropriateness of the decision to keep their troops in that country in the late 1980s. The withdrawal of the Soviet troops from Afghanistan in 1989 was viewed as a victory over the "Red Satan" (the USSR) through the God-blessed Jihad (Marranci, 2006, pp. 76-78).

Azzam and Bin Ladin were quite active not only in the fight against the Soviet troops, but they also introduced new concepts to the Islamic extremism ideas, including that of the Struggle against the "Near and Far Enemy". Bin Ladin was keen on the centralization, coordination and secrecy of the Jihad movement wishing to use the opportunities provided by the Afghani war and to unite the mujahideen involved in Jihad. At the start of the 1990s, a number of Islamic extremists who had participated in the Afghani war made up a group. Soon under the leadership of Usama bin Ladin and bearing the influence of his ideas, it developed into an influential Islamic movement which was directed by Bin Ladin masterfully (Kohlman, 2004, pp. 10-11).

In August 1996, the "al-Qaeda" led by Usama bin Ladin issued the "Jihad Declaration", which called to launch a guerilla war against the US troops deployed in Saudi Arabia (Declaration of War, 1996). In February 1998, Usama bin Ladin created "The International Islamic Front against Jews and Americans" (The 9/11 Commission Report, 2004, pp. 47-59). With this regard, a statement was adopted which proclaimed the personal duty of each capable Muslim to kill Americans and their allies, the military and civilians in any country possible (Al Qaeda's Second Fatwa, 1998).

The very Usama bin Ladin gave a universal nature to Jihad war ("Global Jihad") carried out by Islamic extremists putting forward the idea of the "Global Jihad" and thus prioritizing the struggle against the "Far Enemy".

In the time period from 1996 to 2001, the idea of the "Global Jihad" became real, taking a practical expression in many parts of the world through various terrorist acts organized by "al-Qaeda" and its adjacent structures. Nevertheless, among them, one should single out the unprecedented terrorist acts against the USA on September 11, 2001.

The first target for the allied forces which had joined the US fight against global terrorism following the events of September 11, 2001, was Taliban Afghanistan which had provided shelter to the al-Qaeda leaders. As a result of the fight against Afghanistan, the Taliban movement was removed from power in Afghanistan. Al-Qaeda, its structures, its leadership and financial resources sustained great losses as a result of the persecutions launched against the organization throughout the world (Bonney, 2007, pp. 359-364).

The above mentioned terrorist attack confirmed that the "Far Enemy" was targeted by "al-Qaeda" and was carried out within the framework of the "Global Jihad" outlined by Bin Ladin. Masterminding these terrorist acts "al-Qaeda" challenged the existing regimes, directly threatening the USA and the West meanwhile sending a message to the world that Islamic ex-

tremism is capable of affecting the world's developments.

In the context of these events, "al-Qaeda" transformed into a network structure. This implied certain changes in the Jihad strategy of Abdullah Azzam and Usama bin Ladin back in the 1980s. To some extent, it diverted the attention from "al-Qaeda" leadership since it implied the existence of self-regulating multi-centred branches which aimed to solve certain issues and were made up of independent groups (often temporary) and individuals. This also affected the tactics of realization of the Jihad struggle by Islamic extremists against the "Near and Far Enemy". Conflicts arose with Usama bin Ladin inside "al-Qaeda" over the issue of launching a struggle against the "Near and Far Enemy" (e.g. the differences between Usama bin Ladin and Abu Muhammad al-Masri over the issue of targets after September 11, 2001. If Usama bin Ladin's addressed were mainly devoted to the fight against the "Far Enemy", i.e. the USA and its allies and if only a small part of his addresses concerned the fight against the "Near Enemy", (Al-Shishani, 2011, pp. 7-8). Many of the contemporary authors of the Islamic extremist ideology (Sayf al-Adl, Abu Musab al-Suri and others), under current circumstances, paid more attention to the fight against the "Near Enemy" since only with the help of such tactics, Islamic extremism would be able to save the potential left (Al-Suri, 2004, pp. 56-97).

The state of affairs after 9/11 gave birth to new ideas about Islamic extremism. The latter gave preference to the Struggle against the "Near Enemy" and their theoretical grounds. These ideas were mostly observed in the works of Abu Musab al-Suri and Abu Bakr Naji, who were both quite popular among Islamic extremists.

Abu Musab al-Suri further developed the objectives of the practical application of the ideology of Jihad under the current circumstance, analyzed the Jihad struggle in different stages of history and illustrated its strengths and weaknesses. The 113-page work by Abu Bakr Naji, "Idārat al-Tawaḥush" (Management of Savagery), proved to be one of the ideological bases of the activities of Islamic extremism. It attempted to illustrate the setbacks of the Jihad fight. The author highlighted that the Islamic extremists needed to live through a period of cruelty that a number of Muslim states had already experienced as a result of the Jihadi war. The final goal of this sacrifice would be the proclamation of an Islamic state (Stern & Berger, 2015, pp. 20-24).

As mentioned previously, the concept of alienation also can be observed in the ideology of Islamic extremism. The concept of alienation identifies a distinct kind of psychological or social ill; namely, one involving a problematic separation between a self and other. The common philosophical basis of the various forms of alienation is that the subject, by his actions, brings to life something which becomes an opposite and hostile force to him (Harutyunyan, 2010, p 71). Interpretation generates alienation, and alienation generates violence. This is one of the reasons behind the brutal images that we frequently see these days, coming from Islamic extremists. They consider a stranger as an element that should be eliminated because he is outside their own world of meaning. The sense of purpose in the form of a sacred heart and mind of the individuals applied to the other due to founding a legitimate ground and justifying violence has become a routine for the individual actions (Aydin, Cicek, Artunay, & Certel, 2016, pp. 402-407).

It is worth mentioning that in its practical operations, the "al-Qaeda"-led Islamic movement never forgot the struggle against the "Far Enemy", either. This can be proved by the series of terrorist acts launched in Europe in the middle of the first decade of the 2000s. However, this was organized by "al-Qaeda", now a network structure that aimed to preserve the fighting capacity of its own sub-structures that acted outside the Islamic world.

The active engagement of Islamic extremists in the fight in Iraq made "al-Qaeda" leadership

pay attention to al-Zarkawi and the organization he led, which had been operating in Iraq since 2006 as an official branch of "al-Qaeda" named Islamic State in Iraq (ISI).

Different approaches and controversies have risen between Abu Musab al-Zarkawi and the leadership of "al-Qaeda" over the choice of the goals of Jihad and other tactical steps. ISI aim to fight against the "Near Enemy", i.e.the Iraqi government, Shiites and the opponents of the Sunnis and those who do not agree to their approaches. These tactics faced harsh criticism from the part of the leadership of "al-Qaeda". The latter held the belief that such a stance of Abu Musab al-Zarkawi threatened the fight of the supporters of Jihad in Iraq, which had a majority Shiite population (Zawahiri's Letter to Zarqawi, 2005).

The mass disturbances and demonstrations which broke out in Arabic countries toward the end of 2010 brought about the decline of authoritarian regimes in Tunisia, Egypt, Libya. Anti-government demonstrations were held in Algeria, Morocco, Mauritania, Jordan, Iraq, Yemen, Bahrain, Sudan, Lebanon. Kuwait and Saudi Arabia experienced hard times, and Syria and Iraq plunged into crisis. Islamic extremist organizations, especially extremist groups, played an active part in these processes in the Middle-Asia, North Africa, Central Asia and other regions.

Realizing the fact that they were far from the conflicts unfolding in the Middle Eastern and North African regions and understanding the importance of their active involvement in these actions, the leadership of "al-Qaeda" sheltering somewhere on the borders between Afghanistan and Pakistan issued addresses to its structures (particularly to the Islamic groups in the Middle East) trying to define the guidelines of their Jihad. This was observed in the developments in the Muslim world in the second decade of the 21st century where involving its branches, "al-Qaeda" tried to keep abreast with the changes in the Muslim world, once again stressing the importance of the struggle against the "Near Enemy".

True, singular cases of terrorist acts out of the Muslim world were recorded later; however, broadly speaking, at this stage, "al-Qaeda" gave preference to the struggle against the "Near Enemy" in its tactics which was most evident in the Middle East from 2011-2015.

Due to the further escalation of the Syrian conflict and the favourable conditions for the fight of the jihadists, the ISI was forced to review Syria as an expanding area suitable for the fight of the jihadists. Later, the leaders of the ISI Abu Bakr al-Baghdadi and Haji Bakr came to Syria and announced the creation of the new organization named the "Islamic State in Iraq and Sham" (ISIS) in April 2013 (Caillet, 2013). On June 29, 2014, ISIS announced itself an "Islamic State" (IS) (Withnall, 2014), engaged in the active military operations in Syria and Iraq, attempting to enlarge the territories and focusing on the struggle against the "Near Enemy". The IS founded its branches in certain territories of Syria and Iraq that were under its control, conducts fiscal programs, social programs and judgment in accordance with the Sharia laws, etc. There was an unprecedented influx of Islamic extremists into Syria from all over the world. The activism of Islamic extremists has caused tensions and clashes between the two main Islamic extremist camps, "Al-Qaeda" and the IS.

Ideological and propaganda activities were priorities for the IS. It turned to modern technologies in order to spread its ideas and to make them more attractive. The IS used high-quality advertising and informative video materials, engaged IT specialists, used the Internet, etc., which were never used at this scale before by any Islamic extremist organizations. The IS implied the further enhancement of the Jihadi war in Syria and Iraq, as well as directing the accumulated religious, ideological and military potential to the neighbouring Muslim countries (Al-Tamimi, 2014). Later, the organization managed to carry out the struggle against the "Far Enemy", organizing terrorist attacks in the western

countries.

Conclusion

Toward the end of the 20th century, the Islamic extremism ideas were enriched with new concepts, including that of the struggle against the "Near and Far Enemy", which found theoretical and practical implications by Islamic extremism ideologists Abdullah Yusuf Azzam and Usama bin Ladin during the war in Afghanistan from 1979 to 1989.

Abdullah Azzam attached importance to the fight against the "Near Enemy" in Muslim countries, particularly in Afghanistan, which was to pave the way to the establishment of an Islamic State, whereas Usama bin Ladin prioritized the struggle against the "Far Enemy" and later introduced the idea of the "Global Jihad". Bin Ladin believed that Jihad out of the Muslim world would provide an opportunity to achieve rapid victory in the Muslim world, as well. The image of the opposite-hostile force is created by the Islamic extremists' ideologues in their fatwas, statements and comments, substantiating the necessity and effectiveness of the "Near and Far Enemy" strategy.

In the 1990s, Islamic extremists gave preference to the ideas of Bin Ladin, which resulted in the terrorist acts against the USA on September 11, 2001.

The global fight against terrorism which was launched following the mentioned violent acts and pressures against "al-Qaeda", further escalated the conflicts among Islamic extremists. The representatives of the new generation of Islamic extremists came up with criticism of the "al-Qaeda" leadership for taking such rash actions against the USA. While, "al-Qaeda", which had turned into a network structure after the events of the 9/11 and the Islamic structures that functioned under its auspices, felt it necessary, at that stage, to preserve what they had and concentrate on Jihad in the Muslim world giving priority to the struggle against the "Near Enemy".

These tactics found their ideological grounds in the works of certain popular ideologists of Islamic extremism in the first decade of the 21st century. The Struggle against the "Near Enemy" was retained in the future tactic priorities of the "al-Qaeda", as well. Revolutionary processes related to the Arab Spring, which affected the Muslim world at the start of the second decade of the 21st century, offered favourable grounds for its realization.

In the current developments in the Middle East, the fight tactics against both the "Near and Far Enemies" can be traced in the strategic and tactical operations of "al-Qaeda" and other Islamic extremist organizations, like "Islamic State in Iraq and Syria" (ISIS) that has separated from "al-Qaeda" in 2013.

Starting from June 29, 2014, when ISIS announced itself an "Islamic State" presented its objectives openly: the establishment of a state for all Muslims in certain regions of Syria and Iraq, the enhancement of the Jihad war on the territories of Syria and Iraq under their control, as well as channelling the accumulated religious, ideological and military potential to the neighbouring Muslim, and non-Muslim countries, equally applying fight tactics against the "Near and Far Enemies" both in Muslim countries and in the West (terrorist attacks in western countries).

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DOI: 10.24234/wisdom.v21i1.747
Anahit JIJYAN,
Romik KOCHARYAN,
Nerses QOCHARYAN

SOCIOLOGY OF WISDOM: THE PRESENT AND PERSPECTIVES

Abstract

The article presents a new concept of sociology and social knowledge, according to which *the calling and truth of social knowledge are to become and improve as a thought that understands and interprets the truth of human interaction and interimpaction.* Therefore, social science and, in particular, sociology is rethought and improved as a *"sociology of wisdom"*.

Keywords: wisdom, truth, social knowledge, sociology, interaction.

Introduction

Not only in the philosophical concepts of ancestors but already in contemporary philosophy as well as in sociology and, in general, in studies of spiritual-social nature, one can notice an increase in interest in *wisdom* in regard to the goal of knowledge acquisition and personal development, which, in turn, gives rise to many discussions concerning the definition of "*wisdom*".

The concept of wisdom has become an integral component of the intellectual culture of mankind through the use of the term philosophy (love of philosophy) in Plato's dialogues. In the first philosophy of Aristotle (2004) (better known as Metaphysics), for the concept of wisdom and philosophy, many positive characteristics are used, such as "knowledge of the truth" (II, 1-993-b20), "investigating beings as such" (VI, 2-1026-a31), "the most worthy knowledge" (XII, 10-1075-b21). The highest wisdom in Christian theology is called "Holy Wisdom", "Divine Wisdom", and "Wisdom of God".

In medieval times, wisdom was considered a divine attribute, inaccessible to human understanding. During the Renaissance and Enlightenment, wisdom returned to the realm of human achievement in the work of R. Descartes, I. Kant and others. A new stage in the study of the phenomenon of wisdom begins with the development of implicit and explicit psychological theories. Paul Baltes and his colleagues at the Max Planck Institute for Human Development in Berlin (Baltes & Staudinger, 2000) presented wisdom as expert knowledge of fundamental life practices. Robert Sternberg from Yale University's most recent definition of wisdom stems from his "balance theory of wisdom". According to this theory, people are wise to the extent that they use their intelligence to seek a common good (Sternberg, 1990). In most modern philosophical encyclopedias and dictionaries concept of wisdom is either absent or occupies a disproportionately modest place.

In terms of researching the foundations of sciences and scientific knowledge, the main thread is contained in the relations of the concepts truth, highest truth and wisdom. Scientific truth concerns the outcome of the process of scientific inquiry and therefore bears the tint of finality, of something already established and to be assimilated by the scientific community. In contrast, wisdom is the embodiment of intellectual cognitive abilities. If we accept a certain classification of scientific problems according to the degree of their fundamentality, then it seems quite ade-

quate to interpret wisdom as a cognitive gift for solving the most general, most fundamental problems of science, thus, as a source, or cognitive "mechanism" of acquiring the most fundamental, in this sense "highest" scientific truths.

According to modern theories of scientific knowledge, the foundation of a scientific theory is presented by the system of its axioms. In the field of natural sciences, the system of axioms reflects the most fundamental and, at the same time, the most elementary properties of natural objects and phenomena. Such a form of constructing the entire structure of mathematical sciences as well as natural sciences seems to be a sufficient basis for moving up and revealing their true calling in our world.

Scientists who manage to reveal the essence and vocation of natural phenomena and the existing laws of the natural world win the laurels and unprecedented fame and are named by grateful humanity as great geniuses of science. Francis Bacon substantiated with amazing accuracy the incomparable role of great scientific and technical ideas in an era when discoveries and inventions took only the first timid steps: "For to the authors of inventions they awarded divine honours, while to those who did good service in the state (such as founders of cities and empires, legislators, saviours of their country from long endured evils, quellers of tyrannies, and the like) they decreed no higher honours than heroic. And certainly, if a man rightly compares the two, he will find that this judgment of antiquity was just. For the benefits of discoveries may extend to the whole race of man, civil benefits only to particular places; the latter last not beyond a few ages, the former through all time. Moreover, the reformation of a state in civil matters is seldom brought in without violence and confusion; but discoveries carry blessings with them, and confer benefits without causing harm or sorrow to any" (Bacon, 1620/2018).

Grateful humanity with an open mind pays tribute to the memory of the geniuses of science and of outstanding inventors. Their glory is well deserved and eternal. But did the eminent scientists understand the full depth of their discoveries? Being representatives of their era, even the most prominent scientists in the essence of the phenomena they discovered comprehend only things that were available to the worldview of their era.

The authors of this article focus just on the important circumstance of truth in terms of the correspondence of the idea of objective existence to its true calling, or in other words, the wisdom of truth (Kocharyan, 2006).

The rapid decline of morals and culture in the developed countries of West Europe warns that only by solving the problem of material production and distribution of income it is impossible to achieve social order and a hostel worthy of a reasonable person (Wolfe, 1991). It is an inner property of the existence and function of social science to be a twofold unity of the theoretical and practical. Social science studies and reveals possibilities of improving human life and realizes them aimed at achieving good orderness (Kocharyan, & Jijyan, 2020; Jijyan, Kocharyan, & Qocharyan, 2021)

Social Knowledge and Truth

Really, social knowledge and science *uncover the truth of human identity and life, of culture and of its influence and vital activity that is realized by studies evolving in it or/and by it* (Jijyan & Kocharyan, 2017). Of course, the tasks realized by social science are more extended than that of pure theory, and there are also practical components, and its whole and unified theoretical-practical realization is the revelation and fulfilment of possibilities of human identity and life, culture and of its spiritual influence and of vital activity and improvement. Thus, social science, by its subject and theoretical-practical realization, may be defined and characterized as the following:

Social science investigates and reveals the truth and possibilities of improvement of human

identity and life, culture and of its spiritual-vital activity - aimed at the fulfilment of good order.

Or in a somewhat shorter formulation:

Social science investigates and reveals the truth and possibilities of improvement of human identity and life, culture and of its spiritual-social activity - aimed at the fulfilment of good order.

The intelligent human soul possesses two mental powers - theoretical and practical. A human being exists in this world by these two theoretic-practical inner powers of his nature as an understanding and acting creature. Thus, human identity and existence as such, by the specificity of its nature, brings to existence and realizes the endeavour and striving for understanding and interpretation that have the calling and principle intention to reveal the *truth.*

Social science and, in particular, sociology studies, apart from all the existing things, including culture, creations of human soul and work, the spiritually-civilizational, in which also culturally and concretely socially, *significant and just the influencing* truth of the existence of all kind of events and actions as such that is *necessary and preferable* by this same significance compared to existing reality and by virtue of this *– the opportunities of establishing good order*.

The principle calling and truth of science, namely, the existence of science in accordance to his calling and therefore containing its truth in itself and not alienated from one's own truth, the true existence of science is to uncover the truth of the entirety of existing things as such (Kocharyan, 2018). It could also be said this way. The calling of science as such is to uncover the intention, forming and fulfilment of all the existence as such.

There is a social component also in the all-embracing problematic of science, namely,

- of the existence of the nature or of the identity of the human person as such,
- of its freely chosen personified lifestyle and general life order in this world,
- of the common way of life or coexistence with nature and other humans,
- of the truth of the existence of life culture and, in general, of spiritually-socially influential culture, involving not in some way possible and voluntarily established *a sort of orderness,* but just of the *properly good ordered or of the revealing good orderness* in its multi-layer, inner differentiated and still unifying structure.

The universal formula of thought is the statement that in all sciences, *scientific knowledge is the truth uncovering thought*. Really, a thought that clearly describes as the result of research by the external study of the "problem substance" the circumstances of a certain particular or general being and/or internally and in-depth understands and interprets its "truth" is called *knowledge* or *scientific knowledge*. The said applies identically also to the social science and to the contained in it scientific knowledge that studies the nature and functioning of the "social".

A) Social knowledge is the internally improving thought that investigates, understands and interprets the specific nature and function of the "social" (social life) aimed at its good ordering.

B) Social knowledge is the investigating-understanding and interpreting thought aimed at the possibility of improving the quality of human life and its good ordering.

Already by preliminary formulation, scientific knowledge and the "study subject" of social science are becoming *"the knowledge of truth"*. Thus also by preliminary formulation, all the sciences and the social science become *"the science of truth"*. Wherein "the truth" could be understood and interpreted in various ways. As the truth of "objects", "works", or just of "social science", could be preliminary understood even the *mere description* of their real and particular existences by which they appear in this life. And in this case, as knowledge is presented, that revealing truth thought which deals only with the visible and perceived by senses and just by this way (by sensual image) and this far (in sense dimension) described qualities. Of course, as the truth

of "objects", "works", or just of "social science", could be understood the causal and cause discoveries of the quality of their real and concrete being.

For all the importance of the observed quality of "things" and/or "works" of human life and/or because of the "power" and "order" of their being as such and their importance, nevertheless, the truth uncovering scientific knowledge is the thought that also embraces the *invisible* and *unperceivable by senses* and uncovers the *truth perceivable by mental power* only and even of a deeper layer – the council of wisdom. As an example and obvious demonstration of the above said, one can recall remarks by M. Veber and other prominent sociologists that sociology deals with *rational acts* and having the goal of uncovering motives of actions, in essence, investigates *the rationally conceivable truth* rather than that of sensually perceivable one.

Along with the considered not many cases of interpretation of the rich in its meaning concept "truth", we should fix that revealing the quality of an entity or work is equivalent to uncovering meanings or senses. Every science and concretely sociological science by theoretical function fulfilling its task – the revelation of truth – has to deal, in essence, with three possible alternative interpretations of the concept sense. Really, in regard to the essence of each entity or phenomenon, the revealed sense could be of three possibilities – incomplete, false, and true, the latter revealing the very true sense – the subject matter of scientific research and science. In social science, the revelation of the essence of the components of the "body" of human spiritual-civilizational life – defined only by sensual data – is only the means and *preliminary work* in the happenings or beings of human life for the fulfilment of the main and principle intention of understanding and interpreting the *very meaning and wisdom*.

Because social science studying the existence and functioning as well as possibilities of the fulfilment of human spiritual-civilizational identity, life and culture as such, taking into account also their causes, in essence, understands and interprets the truth revealing meaning and wisdom of the spiritual-bodily or sense-material twofold unity of all these.

Thus, the social studies aimed at searching, attribution and strict fixation of the purely material, bodily and factual, in essence, *are preparations* for understanding and interpreting of the *formed in the human life meaning* by which the human identity and life get the possibility for existence by being educated with wisdom and spiritual development and life endowing.

This type of studies cannot be self-aimed, containing the meaning and value of their existence only in themselves. So far, not being at all self-aimed and having their value just due to their actual existence, these studies are *preceding and preparatory procedures* for the understanding and interpretation of the meaning and wisdom formed in entire human life and in actuality *are produced and got their fulfilment for this preparatory work*.

Social studies having their *calling and truth and containing their truth in themselves, which means – by their true existence, can be present* only in the case when in choosing the "word" subordinate to their study and understanding accept as the *main and prospective task* and fulfil their self-understanding and intension towards the *twofold unity* of human life and culture – of the very intension of semantic-material ("spiritual-material" or "spiritual-bodily") existence – *and accordingly the uncovering of the truth and council of the wisdom of the formation and fulfilment.*

In the case of this form of self-understanding, social studies have the possibility of appearing by their true existence and already not by untrue existence – only in the extent and degree in which they understand and define their problematic – subordinated to the principle query of "understanding the truth", in other words, to the problem of "human spiritual-civilizational, in which also of social, and just of the truth reveal-

ing vital existence, and in that meaning – of the council of wisdom".

Summarizing the above said, one can fix that these sciences and studies could exist adequately to their calling if they by accepting as the closest problem and task and by fulfilling the revealed truth of the most human spiritual-civilizational "body" of life would never encircle and restrict the truth of the social science – accessible to human cognitive capacity completeness and perfection – by this form and degree of explication.

In all sciences and concretely also in social sciences, it is required and principally necessary and preferably useful to ascend from the "true knowledge", and hence from the "true science" to the "knowledge of wisdom" and just to the "science of wisdom". Wherein, "the knowledge and science of truth" by this quality of its ascent is not deformed and does not cease to be "the knowledge and science of truth" but rather becomes more perfect and in accordance with human capacities becomes more penetrating and acquires deeper insight (or possesses deeper knowledge) concerning the fundamental and all-embracing "truth" revealing council of wisdom.

When arises the question of the existence of the being as such, researchers study and disclose not the existence of beings in their various, quantitative and particular being – in their accidental, casual and non-essential variety of properties – but rather to study the general qualities that disclose their nature, compose, identify, establish, and principally differentiate from other entities and in this way explicate their essential, universal and specific- and general-properties.

Many theorists think that sociologists depend on customers who want to dominate and therefore manipulate society. Liberal sociology is forced to try to adequately understand the social problems being studied because, as N. Somin (2015) explains, "nobody needs obvious hackwork". But on the other hand, the status of a "servant" forces sociologists to profess a special morality, figuring out not "how it should be" but "how beneficial" customers are. Thus, the task of reforming and improving the modern world remains outside the field of interests of liberal sociology, which prefers to "largely engage in justifying the system that has developed on this sinful earth" (Somin, 2015).

In the light of the above discussions, let us turn to the problem of Christian sociology. By its calling Christian sociology, its essence could be expressed as follows: Christian sociology is a social science about the necessary and preferred form of good Christian ordering of society as a whole.

Here are two important points we have to take into account.

Firstly, for all Christian teachings, the central point and task is the aim of saving human souls.

Secondly, there are plenty of complex social problems in Christian countries. They make their solution an important part of the worldly existence of millions of Christians. This reality of our days makes it an important task to activate all resources to achieve the goals of social justice and equality.

Thus, we come to the following definition of Christian sociology: Christian sociology is a social science about the necessary and preferred form of good Christian ordering of society as a whole and of the way of life of individuals with the aim of saving human souls and activating all resources to achieve this goal (Jijyan, Kocharyan, & Qocharyan, 2021).

For true Christians, this kind of world order is utterly unjust and eventually requires considering the general idea of "economic justice" and "social welfare". How can a worker think up and concentrate on self-improvement if he is jobless and his children are crying from hunger? The Human should not live by bread alone. But he must have bread. To save human souls, Christian sociology must call people to fight hunger, to fight poverty, to fight inequality.

After Christianity became the state religion, a wonderful formulation was suggested that the union of the Christian church and the state raised humanity to the highest stage of development.

"This union," emphasizes Alfred Harnack, "for the first time recognized a person in a person and opened to historical development the goals to which it is now striving. True cosmopolitanism, the ideas of spiritual freedom, equality and fraternity for the first time gained strength on this basis, and the Christian idea of God was an inconspicuous but powerfully acting engine that determined the course of history and ensured for the human personality its spiritual dignity and, at the same time, responsibility" (Harnack von, 2001). In the fullness of the Christian life, Wisdom is acquired. Wisdom is needed in order to be safe from the influences of the world, from evil, and in order to choose the right path, to rejoice in the good and do good, to have a long peaceful life. Making his free decision, a person nevertheless listens to the promptings of God's word. Even with free will, a person remains in touch with his creator: "When God touches man's heart through the illumination of the Holy Spirit, the man himself is not inactive while receiving that inspiration, since he could reject it; and yet, without God's grace, he cannot by his own free will move toward justice in God's sight". These are words of truth and wisdom of social philosophy.

The greatest misfortune of modern societal life is its indifference to the needs and worries of other people. This total indifference to one's neighbour demonstrates a complete absence of Christian brotherly love and care, a kind of life without God's wisdom.

When the existence of an entity as such is questioned, certainly, it is necessary to study and explicate the things that really exist but to be principally unmistaken and not consider as truth its mixture of truth and non-truth but embark on searching and finding the principally necessary and preferable modus that is adequate to its calling, i. e. to explicate the truth of the existence of that entity by itself which is identical to the discovery of the Modus Vivendi adequate to the truth of its nature.

According to the general point of view of the authors of this article, the methodological, conceptual principle of the study aimed at the fulfilment of the analysis of philosophy, social science and all of the sciences is the following statement: all the events and affairs that express or have a relation to the human existence in the world significant by their good meaning life endowment should be studied not only in their real existence but also from the viewpoint of the possibility of their necessary and just preferable existence.

One should study events of human life together with *real existence* and just by the critical-comparative way, also taking into account the *necessary and preferable* (of the present and future) aspects. The above said means that each good event of human life significant in its life-endowing power should be analyzed as twofold unified truth, i.e. from the viewpoint of an existential and intentional unified concept.

Truly, cognizing and understanding certain event means being able to conceive the meaning that explicates its truth (defined as "knowledge of the truth") and then being able to reach by critical reasoning the council of wisdom contained in the same meaning, thus perfecting *"knowledge of wisdom"*. Science is truly a science as much as it has principle intention and fulfilment to understand and disclose wisdom thus by self-understanding and self-perfection becoming a science of heavenly and human events and/or revealing the meaning of the truth of a particular field of all the existing entities and becoming the science of wisdom. The science that contains in itself its truth and strives for perfection is the science of wisdom. The above said is true also in regard to social science (Jijyan., 2014; England, 1986; Samson, 2015).

If a science, and in particular social science, is not striving for wisdom and just is not a science of wisdom, then it does not know anything and does not know the truth and all that it claims to know it knows wrongly. Righteously, *if science, and in particular, social science, does not know truth and wisdom, then it does not know anything, and that what it thinks it knows, it does not*

know as it should have to know (Kocharyan, 2016).

From "Knowledge of Authenticity" to "Knowledge of Wisdom"

Thus, summing up the above said in regard to social science, it is essential to question, understand and interpretively explicate the meaning that reveals the truth of the existence of social science as such that contains and preserves the council of wisdom. The social science questioning the truth of intention for good-ordering and improving human life and coexistence is becoming a science of the truth of disclosing the meaning of the coexistence of human individuals aimed at improving the good-ordering of the society.

And then adding the fulfilment of its ascending progress by analytical discourse reaches the target point hidden in the same meaning the *knowledge of the council of wisdom*. One could fix that *the knowledge of council of the truth of social science is such a knowledge that thinks up not only the visually attainable or sensual but also in principle invisible and just supersensible and available only to reason and/or thinkable council of wisdom.*

Social science becoming in itself and/or in the acquired by its knowledge as "the knowledge of wisdom" ascends to his fulfilment and perfection – *social science aimed at wisdom and possessing the council of wisdom*. Similarly, the social wisdom and science becoming in itself and/or in the acquired by itself knowledge "the knowledge of wisdom" ascend to the identical to its calling truth of existence - *aimed at wisdom and possessing the council of wisdom social science and … just to wisdom.* And concretely, sociology becoming in itself and/or in the acquired by itself knowledge "the knowledge of wisdom" ascends to its fulfilment and just to perfection – *"sociology of wisdom"* (Kocharyan, 2016).

As it could be noted, the newly suggested definition of the fulfilment and perfection of "knowledge" in epistemology or theory of knowledge as "knowledge of wisdom" is presented, in general, as a new concept of social science – *aimed at wisdom social science* – and concretely a new concept of sociology – *"sociology of wisdom"*.

Defining the calling of the existence of sociology as such and, respectively, of its truth and its necessary and preferable presence and perspective existence by the concept *"sociology of wisdom"* do not we presume by that the completion and perfection of sociology? "The understanding of the calling of knowledge and/or science and by that - of the quality perfection – as of "knowledge of wisdom" and/or "science of wisdom" does not mean in any way that in this life the fulfilment of science reaching this degree of its completeness could have or imagine its finality since wisdom is principally infinite" (Kocharyan, & Jijyan, 2009; Kocharyan, & Jijyan, 2018; Kocharyan, & Jijyan, 2020; Jijyan, Kocharyan, & Qocharyan, 2021).

The above said is applicable also to social science and, in particular, to sociology. Really, if we re-interpret the completion of knowledge and science as "knowledge and science of wisdom", then respectively, we should re-interpret the completion of social knowledge and science as *"knowledge and science of social wisdom"*. Thus, the calling and, respectively, the truth of sociology should be re-interpreted and re-comprehended *"sociology of wisdom"*. And the social science aimed at wisdom and, in particular, the sociology of wisdom should be defined, characterized and brought to perfection as *the knowledge of the council of wisdom that reveals the possibilities of improving the good-order of human spiritual-civilizational life and fulfils them.*

The ascend of social knowledge and science to wisdom and, consequently, to the completion of the fulfilment of social knowledge and science as of "knowledge and science of social wisdom" just identically express the infinity of the fulfilment of "wisdom" and, consequently, the limitless ascent of the knowledge of the wisdom of

human life.

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DOI: 10.24234/wisdom.v21i1.658
Nattapon MEEKAEW

PRE-SERVICE TEACHER'S INTELLECTUAL VIRTUES AND ONLINE INFORMATION LITERACY

Abstract

Intellectual virtues and online information literacy are critical issues in education. This has a significant impact on the development of pre-service teachers' learning skills, as they will play an important role in transferring knowledge to students in the future. This article investigates the relationship between intellectual virtues and information literacy among pre-service teachers on an online platform. To collect qualitative data, in-depth interviews and focus group discussions were used. Thirty pre-service teachers from three universities in northeastern Thailand served as key informants. The philosophical analysis was used to analyze the data, along with phenomenological analysis. The results looked into the intellectual virtues that pre-service teachers needed to improve their learning skills. Curiosity played a role in encouraging pre-service teachers to improve their critical thinking skills when dealing with online information. Furthermore, intellectual thoroughness and intellectual attentiveness were helpful for pre-service teachers to improve information literacy skills. Improving pre-service teachers' information literacy through various instructional approaches was beneficial in allowing them to make rational choices when accessing online information. The article suggests higher education institutes providing more instructional practices to pre-service teachers to boost their critical thinking skills and information literacy on an online platform.

Keywords: critical thinking, information literacy, intellectual virtues, online, pre-service teachers.

Introduction

Information literacy was a relatively new concept in the field of library science (Borko, 1986; Froehlich, 1989). The concept was further developed to meet the interdisciplinary research that has taken more prominence in modern academics so that it can be viewed and applied alongside other academic disciplines such as sociology, philosophy, and education (Swanson, 2006; Budd, 1995; Fallis, 2000, 2002, 2008; Tollefsen, 2009; Floridi, 2002). Many interdisciplinary studies have used information literacy to address current social phenomena, particularly topics relating to individuals' access to information sources. As a result, it is necessary to clarify information literacy to understand and be aware of information access from various sources.

Online information is increasingly becoming a part of people's daily lives. It is possible to say that the majority of daily activities rely on online information. For example, searching for a travel route, daily news, or even communicating with friends via e-mail or social networks. All of these factors contribute to the acquisition or transmission of information from us to recipients via the Internet (Fuchs, 2007). The Internet is a tool that allows people to obtain information from a variety of sources, such as the Google search engine, Wikipedia, and a variety of other websites. However, there is a wealth of information on the internet that contains both true and false information. Individuals should have some means of validating and evaluating the trustworthiness of online information from websites (Sample, 2020). These abilities are regarded as informa-

tion literacy, which individuals should possess at this time.

Individuals should be literate in online information. Online information literacy has three fundamental components: 1) online information literacy is the acquisition of skills in the "age of information," 2) online information literacy is the cultivation of a good habit, and 3) online information literacy is a component of information-rich social practices. These three aspects bring a clear consistency between online information literacy and the formal and informal contexts in which people use and develop their own information knowledge (Addison & Meyers, 2013).

Human behaviour has been dramatically altered by technological advances in the twenty-first century. Human activities are influenced by the internet and information technology. The existence of the internet and information technology is known to the majority of the world's countries. Thailand, for example, has included a digital information technology development guideline in its National Strategic Plan (Wongkitrungruang, 2018) to capitalize on digital technology. Digital technology has been used to help the country's socioeconomic development, including education. In education, digital technology is used to provide equal access to all educational stakeholders, such as students, teachers, and other educational supporters. To carry out educational activities effectively, all educational stakeholders must improve their knowledge and skills in digital technology, as well as understand the effects of technology usage on education. Pre-service teachers are among those educational stakeholders who require strong information literacy skills.

This study focuses on pre-service teachers, who are senior college students who will be full-time teachers after graduation. Students who have received information literacy training are better able to deal with the rapid changes in educational technology. It is yet another way for them to develop digital citizenship skills so that they can effectively provide learning materials and learning outcomes to students. Some studies, such as Heersmink (2018), highlighted the importance of information literacy instruction and curricula for students in schools and universities. Learners at all levels should be literate in information by incorporating "intellectual virtues" as a tool in the learning process (Heersmink, 2018)

The virtue of responsibility is an important point raised in the article. This method stems from an individual's desire to learn something specific. This manner is not innate, but it is trainable and can lead to cognitive knowledge about information literacy skills (Heersmink, 2016, 2018). The virtue of responsibility is analogized to the eagerness or desire to continue studying regardless of whether the information received is correct or not. The purpose of this article is to answer the research question, "How do intellectual virtues improve online information literacy among pre-service teachers?" The study's implications include good instructional practices that improve online information literacy skills among pre-service teachers in higher education.

Identifying Issues with Online Information Literacy

Online information literacy is a valuable skill that enables students to actively search, interpret, comprehend, and evaluate information sources. However, improving students' online information literacy is a challenge for educators since there are limitations that obstruct improvement. Several studies have revealed limitations in improving online information literacy, particularly higher education students. It is critical for students to understand and be aware of how the internet links to the information patterns they receive (Lynch, 2016; Harkins, Rodrigues, & Orlov, 2011). The absence of critical thinking about online information resources is part of the problem with online information literacy (Allen, 2008). Many students make extensive use of online search engines, but many of them prefer to focus on the information that appears at the

top of the screen and opt to utilize it without questioning the source's legitimacy (Westerwick, 2013). Additionally, a lack of abilities in judging the reliability of online information is attributed in part to limits in teaching online information literacy, as well as a lack of knowledge of information's trustworthiness (Fernandez-Ramos, 2019).

Furthermore, diverse variables, such as instructions, and supportive learning resources like libraries, should be used to improve students' information literacy abilities (Varlejs & Stec, 2014). Several studies have highlighted the value of supportive learning resources that help learners acquire their online information literacy abilities (Williams & Evans, 2008; Johnston & Webber, 2003). However, some studies urge that the supporting learning resources have limits in terms of improving students' information literacy. In offering information literacy abilities to students, certain learning resources exhibit fewer linkages with teachers (Varlejs & Stec, 2014). For example, increasing the usage of online information on websites makes it simpler for students to obtain information, and they are more likely to trust the information without questioning it. Students look for information on Wikipedia, but the difficulty is that they are unable to assess the trustworthiness of online content on Wikipedia (Brailas, 2021).

There have been studies on online information literacy for Thai higher education students. Many students are unaware of the significance of information literacy in the digital age. Previously, the development of students' information literacy tended to focus on technical rather than cognitive knowledge, such as procedures for selecting information sources, accessing information, searching, and producing academic reports (Tuamsuk, 2013). Despite the fact that these strategies improve students' information literacy, they are nonetheless unaware of the information they are accessing. Furthermore, according to other surveys, many Thai universities make information literacy a priority for students. However, some universities still do not require it, resulting in students with lower information literacy skills at those institutions (Tuamsuk & Subramaniam, 2017). However, there are now attempts in educational management to improve information literacy skills, but numerous supportive mechanisms are still needed to improve students' awareness. Therefore, the focus of this research paper is on the study of online information literacy based on intellectual virtues, with the goal of developing a guideline for enhancing students' information literacy.

The Connection Between Intellectual Virtue and Information Literacy

The concepts of Intellectual Virtue (Baehr, 2015; Fallis, 2002) and information literacy (Welsh & Wright, 2010) are widely recognized in the modern academic realm. In Baehr's "Cultivating Good Minds" (2015), intellectual virtues are divided into three categories, each with three components.

Intellectual virtues for basic learning

Individual curiosity contributes to expanding the boundaries of knowledge. The key feature of curiosity is that people have an internal motivation to learn new things. As a result, people who possess this virtue are constantly inquisitive about everything around them. Curiosity, it can be said, is the true source of inspiration that exists within individuals (Watson, 2018a).

Intellectual autonomy can be defined as the freedom, willpower, or ability to think for oneself. Individuals with intellectual autonomy would be able to think for themselves. They have the ability to think and learn on their own. When confronted with an argument between existing beliefs and newly acquired beliefs, they would not immediately switch to a new belief. They would take their time to carefully consider their options before making a decision. It does not imply that they are obstinate, but rather that they have appropriate cognitive skills and accept reality (Baehr, 2015).

Intellectual humility is the recognition and acceptance of one's cognitive limitations, weaknesses, and errors. The individual is always aware of the need to improve and supplement what he lacks. They can effectively improve themselves if they are aware of their own limitations and the areas in which they need to grow. As a result, intellectual humility is another factor that allows people to gain proper knowledge (Snow, 2018).

Intellectual virtues for a proper learning process

Intellectual attentiveness: those who are attentive and committed to what they are doing will understand what they are doing, whether speaking, writing, or reading. Curiosity will be encouraged and implemented in any circumstance if they have enough attention (Baehr, 2015).

Intellectual carefulness is a critical virtue for individuals. It assists people in avoiding mistakes, misunderstandings, false beliefs, and ignorance. Individuals require this virtue when acquiring knowledge. Individuals would be able to consider the information before passing judgment if they were cautious. This is to avoid accepting false beliefs (Baehr, 2015).

Intellectual thoroughness: individuals with intellectual thoroughness are always eager to delve deeply into a variety of topics. As a result, they are often dissatisfied with issues that are neither profound nor ambiguous. This creates a strong determination to think deeply about a specific idea or issue until it can be grasped or understood seriously (Baehr, 2015).

Intellectual virtues for overcoming learning limitations

Open-mindedness is critical to being open-minded. For example, we have a set of traditional beliefs, but new explanations for those beliefs appear to be more accurate or well-grounded. This virtue will enable us to think about and accept new explanations. This is extremely beneficial to individuals because it will serve as a guideline for developing a new set of knowledge. This is not to say that people should not have strong beliefs, but they should be able to reconsider them with new perspectives. This allows us to see our knowledge's strengths and weaknesses. Therefore, when there is a new or better explanation for an old belief, we will be able to decide whether or not to accept it (Riggs, 2015).

Intellectual courage is required to instil confidence and transfer true knowledge, but this has always been fraught with difficulties. For example, Galileo's presentation of Dialogue Concerning the Two Chief World Systems caused him to resonate with the Christian perspective (Baehr, 2015).

Intellectual tenacity: persistence or perseverance are terms used to describe intellectual tenacity. Individuals with intellectual tenacity will not easily give up if they do not understand something. They will not give up if they do not seek knowledge. They continue to work toward their objectives to clarify knowledge. Normally, if someone is curious about something that has stuck with them, they will search until they have a clear understanding of it (Baehr, 2015).

According to the intellectual virtues mentioned above, it is useful as a starting point for learning about the information on the Internet. We must not only make simple judgments about the information we obtain from the internet, but we must also use these intellectual virtues to allow us to clarify in online information until a decision to believe is made (Watson, 2018b).

Information Literacy

Information literacy is a set of skills that a person uses when seeking information. It is the capacity to effectively locate, assess, and apply information. Information literacy is also a crucial basis for lifelong learning, and it is a skill set that is applicable to people from many disciplines, learning contexts, and educational levels (Welsh & Wright, 2010). Information literacy is concerned with personal characteristics such as being aware of the need for information, understanding that accurate and complete information

is the foundation for making informed decisions, organizing data for practical use, and combining new information with existing knowledge. In other words, information literacy refers to the ability to formulate research questions, evaluate results and abilities, and access various sorts of information to meet an individual's demand for information (Lenox & Walker, 1993; Webber & Johnston, 2000).

When addressing the concept of information literacy, library and information science experts say that the usage of information is a crucial aspect of both informal and formal learning. The basic concept is that people can recognize when they require information. They can recognize, point to, evaluate, and apply information to solve difficulties in their daily lives. Therefore, learners must be able to access a number of tools and resources, as well as extract and carefully pick information from a variety of sources. They require reasonable knowledge to make judgments across several dimensions. Furthermore, the emphasis of information literacy teaching is on raising awareness of the quality, authenticity, and reliability of information (Kulab, 2020).

International organizations such as UNESCO (Moeller, Joseph, Lau, & Carbo, 2011; Catts & Lau, 2008) has recently adopted information literacy indicators. The acquisition of information, information evaluation, information ethics, information innovation, information requirements, information communication, information awareness, information use, and information management are all components of information literacy (Zhu, Wu, Shi, & Yu, 2017).

Zhu, S., Wu, D., Shi, Y. H., and Yu, L. Q. (2017) discuss four main difficulties based on this definition: 1) Awareness and cognition; information-literate persons can perceive the need for information and decide the kind and quantity of essential information. 2) Scientific knowledge, like how knowledge interacts with fundamental information systems. According to Bruce (1995), information literate persons understand the structure of information and how to access formal information networks. 3) Creativity and application, such as the capacity to engage with data. And 4) ethics and legality, such as information-use operational principles.

In summary, definitions of four key issues of information literacy are addressed as follows:

1. awareness and cognition refer to an individual's perception of information, such as correctly understanding and interpreting information;
2. scientific knowledge refers to expertise in information theory, methods, and principles of information technology tools;
3. application and innovation refer to the ability to think critically, interact with information, and use the information to create knowledge; and
4. ethics and law refer to how to access and use information.

This article applies these definitions to formulate a conceptual research framework to find which intellectual virtues pre-service teachers need to cope with online information literacy.

Methodology

This article investigated the intellectual virtues of pre-service teachers by employing philosophical analysis and together with phenomenological analysis. The key informants of the study were pre-service teachers in higher education, 30 pre-service teachers in total. Pre-service teachers were selected by purposive sampling. They were senior students who were on internships at schools.

The qualitative data was gathered from three different sources: 1) documentation reviews, 2) in-depth interviews, and 3) focus group discussions. Data collection began with a study of documentation on intellectual virtues, online information literacy, and pre-service teachers' attitudes on online information literacy. Academic publications, books, and other forms of documentation were used to conduct documentation reviews. Data from documentation reviews were

used to undertake in-depth interviews with pre-service teachers in order to determine which virtues were effective for improving online information literacy among instructors and students in the local education context.

The findings from the in-depth interviews were then shared in a focus group discussion with the selected pre-service teachers in order to corroborate the findings and provide recommendations for improving online information literacy. The acquired data were triangulated and analyzed using philosophical analysis along with phenomenological analysis.

Results

Intellectual virtues and the comprehension of online information

To shape pre-service teachers into ones who are literate in many types of online information, intellectual virtue is required to improve their ability to interpret and understand information. Curiosity is an essential virtue for pre-service teachers to create awareness of online information. Zagzebski (1996), a virtue epistemologist, argues that a curious person is driven to ask questions about what they have seen, heard, or read. What types of questions, on the other hand, will elicit curiosity? Answers should be queries prompted by the questioner's suspicion. The questioner, for example, is unsure if the information obtained is comparable with other facts or evidence. This questioner's attribute is advantageous to them since it allows them to double-check the information they have received (Watson, 2015).

Pre-service teachers frequently struggle with asking questions regarding the information they are received. According to some evidence, pre-service teachers in higher education rarely raise questions about the information they are provided. They have a tendency to assume that information found on websites is reliable. This is a learning behaviour that interferes with their ability to learn in class. However, when they obtained information from the website, they only asked a few questions. It is intriguing to speculate as to why they fail to check or fully comprehend information before opting to use it. Some students, on the other hand, choose to bring online information to debate with their classmates outside the classroom. This demonstrates that collaborative thinking is still useful in the learning process, and it generates more questions than learning from specific information alone.

Questioning is an essential part of interpreting the information. Before interpreting the information, individuals must first question the source of information and then start searching for alternative sources to obtain reliable information. Once more information is sought, the information must be organized for the information to be interpreted and understood. For example, students discuss historical topics in social studies class. Their primary responsibility is to search for the information they have been given. Initially, they prefer to just investigate the information to share it and trust it. Nevertheless, it was later discovered that this information did not lead to any queries. So, they were persuaded to bring that information to discuss rather than just present it. Our students have become more sceptical in information as a result of this instructional style. They will constantly evaluate the information and think about it thoroughly. That knowledge will not make them believe it right away. This method also leads to democratic information exchange.

A crucial strategy to knowledge building and information literacy is to encourage students to ask questions. The deliberation will help assess the reliability of information more efficiently. The deliberation encourages pre-service teachers to have thinking habits, including critical thinking. Students can successfully exchange information with classmates both within and outside the classroom through collaborative dialogues. In addition, considering the information together promotes the acquisition of accurate knowledge of the information rather than considering it

alone (Hanson & Howe, 2011). Deliberation of information will assist pre-service teachers in making the best option when it comes to trusting information since it is a process that involves a variety of processes. It's a process of integrating information and extending arguments (Landemore, 2012; Min & Wong, 2018). Individuals are encouraged to ask questions and scrutinize others as a result of this deliberation. Furthermore, it is obvious that questioning and deliberation serve as tools for information interpretation since information interpretation must begin with questions and doubts.

After pre-service teachers have sparked their curiosity through questioning, they should look for more clear answers after class discussion. Attentiveness and thoroughness are key cognitive traits in finding answers (Baehr, 2015). Both attributes play a crucial role in knowledge retrieval since seeking information based on classroom recommendations requires concentration. Besides attentiveness, pre-service teachers should be intellectually thorough. They must be attentive to identifying the information when searching for it, which takes time to find the truth. One option is to instruct students on how to make comparisons of data. Pre-service teachers who perform extensive study about which they are interested are usually better at online information literacy than those who do minimal study. Pre-service teachers, for example, will use information from the website to supplement their lessons. By reviewing more practised comparing information, they must educate themselves to be more intellectually thorough. It can be shown that thorough attention to obtaining information can assist pre-service teachers in obtaining the correct information rather than the incorrect information. It's also a reaction to knowledge gleaned from reliable sources (Tatum, 2021).

It can be concluded that having the ability to interpret and understand information, pre-service teachers need three virtues which are curiosity, attentiveness, and thoroughness. These elements enable them to investigate information they have obtained on their own. Curiosity is an effective element for pre-service teachers to seek further information to check the trustworthiness of the information, as well as to carefully examine the information. Pre-service teachers employ deliberation to reach a consensus on the credibility of the material. It also encourages pre-service teachers to be receptive to different points of view. It reminds them not to trust anything unless you can prove it. The intellectual virtues enable pre-service teachers to self-examine the information they acquire by challenging it.

Levels of critical thinking and its implication in pre-service teachers' instruction

Critical thinking skills are essential for pre-service teachers and students in various fields. Critical thinking enables students to comprehend, interpret, and be aware of the facts contained in online information. Due to the large amount of online information available on the Internet, students who lack critical thinking abilities find it difficult to determine the reliability of the information. Curiosity and thoroughness are thus crucial components in comprehending and interpreting online information. Critical thinking is investigated via learning behaviour, according to Bloom's Taxonomy (1956). Pre-service teachers are able to perceive a wide range of information online, and they are able to thoroughly classify and comprehend the body of knowledge that is reflected in the perception of various information on social media such as Facebook, Twitter, Wikipedia, and others. They can utilize the knowledge they've gathered to discuss and share their thoughts with others once they've processed it. In universities, this cognition is practised via instruction. Students at the faculty of educational sciences can learn a range of teaching approaches. This enables the process of developing critical thinking to be applied in a number of circumstances. This point is considered an advantage for pre-service teachers over students from other faculties. For example, developing critical thinking through phenomenology-based learning or problem-

based learning. These teaching methods engage pre-service teachers in analyzing, arguing, and solving problems that result in effective learning outcomes. However, the development of higher levels of critical thinking, particularly abilities in information synthesis and evaluation, remains a concern among them. Several challenges, such as diverse curriculum structures at each university, restricted access to learning materials, or teachers' capacity to convey information, impeded the development of these learning practices. As a consequence, higher education institutions should focus on strengthening students' critical thinking skills in order to boost their ability to accurately determine the reliability of online information.

Discussion in topics above exhibits the function of intellectual virtues to deal with online information. Intellectual virtues are used to create pre-service teachers' ability to literate online information, which is critical thinking skills. Therefore, critical thinking should be raised as an essential cognitive attribute for pre-service teachers to examine online information, particularly scientific or other social science data, which is vital for giving teaching to kids in schools (Santos, 2017). The learning process to improve pre-service teachers' online information literacy is implemented in educational institutions in various ways: however, prioritising the way that leads to the same goal – to let students learn, access, explore, and evaluate online information. To complete all the learning phases, these processes need intellectual virtues to motivate pre-service teachers to gather knowledge, which eventually contributes to strong information literacy skills. Improving information literacy skills requires comprehension of the online information obtained. For example, when people acquire information from a free online source like Wikipedia, they should not immediately trust it but rather carefully consider it. This is an important process that leads to people becoming information-literate.

Conclusion and Discussion

Curiosity is a key starting point for developing pre-service teachers' online information literacy skills. Curiosity encourages them to inquire about something. Curiosity is a motivator for them to think that the information they get is incorrect or not. As a result, it may be better to make an attempt to continue searching for more information. Because we cannot immediately trust the knowledge we receive, our curiosity drives us to intellectual humility. These features motivate us to engage in a learning process to develop our information literacy skills.

The main aspect that has to be acknowledged is that online information is not something that should be denied instantly. Carr (2011) and Greenfield (2014) argue that the use of technical tools to obtain information on the Internet, such as searching for news and encyclopedias, has had an impact on people's biological memory. This argument is unfavourable because it implies that the internet user has less knowledge and makes fewer attempts to get information. However, according to this study, internet users are not individuals with limited information. They only require a few tools to collect and organize a large amount of information. One of the skills that requires intellectual virtue is online information literacy. Heersmink (2018) explained that, while using the internet to access information allows us to retain less information in our biological memory, such applications allow us to access a large amount of information in a broad range of locations, providing dependable and efficient access to information. If online information users utilize it wisely and adopt an epistemological approach, it appears to have an advantage over information rather than a negative (Heersmink, 2018).

In conclusion, this article argues that using the Internet to seek for information is not always incorrect. It is activated if the users have strong intellectual virtues and critical thinking skills.

The good virtues contribute to increased critical thinking, which is essential for pre-service teachers who need to practice selecting online information sources. We are all aware that pre-service teachers are those who are prepared to become teachers in schools, despite the fact that there are tons of learning resources available on the internet. Therefore, online information literacy may be a key skill for them in order to select the relevant learning material and utilize it to appropriately train students in the future.

Acknowledgement

This article is a part of research entitled "Factors Influencing Perceptions on Digital Citizenship among Pre-Service Teachers in Northeastern Thailand" This article was financially supported by the Young Researcher Development Project of Khon Kaen University. I would like to thank all pre-service teachers for the information.

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DOI: 10.24234/wisdom.v21i1.611
Adrian MIKHAILOV,
Alexey TIKHONOV,
Gevorg MARGAROV

THE VALUE POTENTIAL OF AN ENGINEER IN A HIGH-TECH ENVIRONMENT AND DIGITALIZATION OF THE ECONOMY

Abstract

The article examines the socio-philosophical aspects of the formation of value orientations of modern engineering personnel in the context of high technologies and the digitalization of the economy. We analyzed such philosophical concepts as: "value", "value orientation", "engineer", "engineering", "technical culture". Particular attention is paid to the consideration of the social functions of engineering in modern society. The mechanisms of the formation of value orientations of future engineers in higher education are considered. The conclusion is made that in conditions of high technologies, the functions of engineering activity change. In particular, the predictive function of the engineer is increasing, as well as the requirement for his social and environmental responsibility. The process of forming the value orientations of the future engineer is particularly influenced by social, humanitarian and philosophical education, which contributes to the interiorization of information about such values that are necessary for successful professional and civic activities: life, health, morality, peace, preservation of the environment, professionalism, communication, humanism.

Keywords: higher education, value orientations, engineering activity, high technology, digital economy.

Introduction

The evolution of technology is directly related to the growing employee, and, in this regard, the requirements for the professional and social activities of an engineer are changing significantly. In a high-tech environment, engineering tasks expand significantly and go beyond the traditional range of professional responsibilities. Today, engineering activities are directly related to the social sphere. In this regard, the successful solution of modern engineering problems requires certainty in value orientations from a modern specialist. Only then will he be a real professional in his field. It should be noted that a person becomes a professional not at the university but once they have already gained work experience. At the university, the social formation of the personality is especially active, especially its orientation towards preparation for specific work activities. Therefore, we can say that the value component of higher education can be one of the important criteria for establishing a correspondence between the training of a specialist and the requirements of modern reality (Kraev & Tikhonov, 2019). His future development as a professional depends on how much the future specialist will be focused on socially significant values.

The formation of value orientations of future engineers is experiencing a contradictory, sometimes opposite influence of social groups and processes. The activity of many subjects during the period of active development of the foundations of the worldview and professional activity leads to the fact that the level of risk of value disorientations significantly increases.

Value Orientations and the Essence of Engineering

The study of the problems of values and value orientations has a long history. The theory of values was the first to be developed by philosophers in the second half of the XIX century. The founder of axiology as a philosophical doctrine is Rudolf Hermann Lotze, who brought to the fore the concept of value in the field of logic and in metaphysics. G. Münsterberg made a significant contribution to the development of axiology, who revealed in the course of psychophysical analysis the fact of the universal importance of volitional states. Fundamental concepts and concepts of axiology received their in-depth development from the neo-Kantians of the Baden school - W. Windelband and G. Rickert. They believed that the further development of philosophy is possible only as a "critical science of universally binding values" (Windelband, 2011). Following them, the concept of "value" as a philosophical category was absolutized, and the representatives of the phenomenological direction M. Scheler, N. Hartmann, B. Hildebrand and others, substantiated the theological doctrine of values.

According to V. Windelband and G. Rickert, value is not an objective reality but an ideal being. Values are seen as independent of human desires. These include good, truth, beauty, which have a self-sufficient meaning, are goals in themselves and cannot serve as a means for any other purposes. Thus, value is not a reality, but an ideal, the bearer of which is "consciousness in general," i.e., transcendental subject. In addition, values are considered in this concept as norms that do not depend on a person and form a common basis for specific values and culture.

According to M. Scheler, values form the ontological basis of personality. But the values that are in objects should not be identified with their empirical nature. Just as, for example, colour exists independently of the objects to which it belongs, so values (pleasant, majestic, good) can be contemplated regardless of the things of which they are properties. Cognition of values and their contemplation is ultimately based on feelings of love or hate. The values are higher, and the more durable they are, the higher is the satisfaction we get from them. In this sense, the least durable values are those associated with the satisfaction of sensual desires and with material goods. Higher values are the values of "beauty" and "cognitive" values (Scheler, 1994).

In the modern sense, value orientations can be considered as the orientation of the subject (personality, group, society) towards goals that he perceives as positively significant (good, correct, high, etc.) in accordance with the standards adopted in society (community) and available life experience and individual preferences. This orientation is a set of stable motives underlying the subject's orientation in the social environment and his assessments of situations (Lukov, Val. A. & Lukov, Vl. A., 2008).

Analyzing the value potential of an engineer in a high-tech environment, it is necessary to turn to the essence of engineering activity and its role in modern society. For the first time, the word "engineer" in Russian-language sources occurs in the middle of the XVII century in "Acts of the Moscow State" (Fasmer, 2004). Etymologists believe that it came to Russia from Poland, which, in turn, borrowed from German and French – "Ingenieur", which goes back to the Latin "Ingenium" – "Ingenuity, witty invention", "Mind", "Talent", "Ability", "Genius", "knowledge". The word "engineer" was first used to denote a special kind of occupation in the ancient world, apparently not earlier than III century BC. Initially, this was the name of the persons who controlled the war machines, as well as the inventors of these machines.

A modern engineer is defined in a completely different way, in particular as a person capable of inventing, a scientist constructor (but not residential buildings, but other structures of various kinds), a specialist with higher technical education, etc. The above definitions are clearly differ-

ent, but they contain common features. In particular, O. V. Kryshtanovskaya notes that despite the expansion of the scope of interpretations of the concept of "engineer", what remained unchanged was what engineers were called educated technicians. These were specialists with technical knowledge, as a result of the application of which a variety of technical, i.e. man-made structures, were produced artificially (Kryshtanovskaya, 1989). The process of creating such technical structures can be divided into a number of stages, in particular: the birth of an idea (in the case of its originality, this stage is called an "invention"), its consistent material embodiment in a drawing, model or finished product (depending on the complexity of the idea, the degree of division of social labour, the level of development of production technology, etc.). It should also be noted that since ancient times, the most important function of an engineer has been the intellectual support of the process of creating technology. This is due to the fact that engineering activity arose only when the separation of mental labour from physical labour was outlined in handicraft production. The engineer himself does not create a material object but only develops a way to create it. Based on this, it is possible to draw a line between the professional groups that provide industrial production, namely, between engineers and artisans, workers. Engineering activity is associated mainly with mental labour, and the activity of a craftsman or worker is associated with physical labour. Thus, the purpose of engineering work is to develop means, methods and technologies for transforming the environment for the creation of certain technical structures - production. Based on the goal of engineering, one can single out its essential basis - the creation of technical innovations. It is the innovative activity that is one of the main driving impulses for the development of productive forces, without which scientific and technological progress, in general, is impossible (Tikhonov & Novikov, 2020). Since the XX century, this function of engineering activity was recognized by public opinion as the main, if not the only one. At present, it remains dominant in the minds of a significant part of engineers as well.

During all periods of its existence, engineering activity was closely related to the management function since any cooperative work requires a certain organization. In particular, the engineers of the Roman army not only created new technical means but also directed their operations. This activity included both the management of technology and the management of people (Shchedrovitsky, 1996). Moreover, before the emergence of the capitalist factory, the managerial function of an engineer was closely related to his technical function and did not exist separately as a separate type of labour. A significant contribution to the disclosure of the essence and social significance of engineering activity was made by P. K. Engelmeyer, outstanding philosopher of technology, the creator of the theory of technical creativity. He stood at the origins of the Russian automotive industry, and patents contributed to the development of Russian electrical engineering and technical education. P. K. Engelmeyer was the first to formulate the ideas of the humanitarian social and philosophical dimension of technology and engineering activity in an expanded form. In fact, he was the first to be able to reveal the true essence and social significance of engineering. He regarded the engineer as "the creator and leader of the economy", who in the modern state is given the "leading role". In his work "In defence of general ideas in technology", P. K. Engelmeyer noted the complexity of the training of engineering personnel. In his opinion, an engineer must prepare for a leading state role from four sides at once: technical, economic and legal. P. K. Engelmeyer noted that the training of engineers should not be limited only to technical knowledge. It should also include "factual knowledge of technology, economics, jurisprudence, politics, psychology and ethics". P. K. Engelmeyer (1912) viewed engineering activities as a kind of art. In his opinion, the engineer carries out creative and directing activi-

ties, and the technician carries out the execution. P. K. Engelmeyer developed the foundations of the science of creativity – eurylogy. In the book "Theory of Creativity", he considered various aspects of the creative process, not only in technology but also in science, religion and art. In this work, he proposed a theory of three acts, which consists of three stages: desire, knowledge and skill. In the first act, the invention is assumed, and everything begins with the intuitive appearance of a hypothetical idea; in the second, a plan is proved and developed (the invention is transformed into a logical representation); in the third, it is carried out. The third act is not directly related to creativity since the implementation of the plan can be entrusted to the appropriate specialist. In his opinion, in the first act, genius is manifested, in the second - talent, and in the third - diligence. Also, in this work, P. K. Engelmeyer offers his own version of dividing the arts into graceful (aesthetic) and useful (utilitarian). Based on this classification, he offers his own interpretation of the concept – "benefit". In his opinion, everything that facilitates the achievement of the intended goal and increases labour productivity is useful. In this regard, he notes that this is precisely the "function and main goal of technology, as a profession and as an art". As a result, he defines technique as art aimed at benefit and art aimed at beauty.

In work "Creative personality and environment in the field of technical inventions", P. K. Engelmeier formulates the main contradiction of the innovation process, considering the interaction of the environment and the personality as a struggle between two elements: "A creative person cannot be silent about what is obvious to him, but the mass cannot but follow the laws of inertia". In this work, P. K. Engelmeier also addresses the question of "healthy invention", that is, an invention that has "internal and external success", and a "sick invention" associated with "internal and external failure." He notes that an inventor is happy when the following conditions are met:

1. creative genius;
2. the necessary knowledge;
3. skill in handling matter;
4. commercial streak and knowledge of people;
5. luck.

In "Philosophy of Technology", P. K. Engelmeier considers such a concept as - technicism. In general terms, he defined it as the construction of life. Within the framework of the technicalism of P. K. Engelmeier proposed a three-act theory of creativity, the main provisions of which are as follows: a person creates an artificial world - culture, which, in turn, is divided into the material (material, external for a person) and spiritual (created by a person within himself). Due to the fact that human life is directly related to activity - technicism is teaching about human life. Generalizing the theory of creativity, P. K. Engelmeyer proposed the triune essence of a creative person: feelings, reason and will. He divided human activity itself into three acts: intuitive, discursive (rational) and reflex (Engelmeyer, 1912). The ideas of philosophers of the early XX century are still relevant today. Of particular interest is the fact that engineering activity is perceived by him as an organic combination of technical and humanitarian aspects.

Formation of Value Orientations of Students of Engineering and Technical Universities

Scientific research carried out over the past 30 years shows that in the minds of young people, including students, the significance of universal human values is growing, their interest in eternal truths and questions about the meaning of life, the essence of good and evil, conscience, justice, etc., that is, to humanitarian knowledge, which constitutes the foundation of the human person. The transition to a post-industrial society has led to the following: dominant production resource is information and knowledge; service sector has a priority development and prevails over the volume of industrial production and agricultural production; the most valuable qualities are the

level of education, professionalism, learning ability, personal qualities and creativity of the employee.

These factors put forward new requirements for the professional activity of an engineer, and its content is filled with socio-humanitarian meaning. The fundamentally new nature of the activity requires high-tech workers such qualities as the ability to make independent decisions, the ability to readjust to perform new tasks, responsibility, conscientiousness, the ability to quickly perceive and respond, etc.

In the professional activity of a modern engineer (regardless of the industry in which he is involved), high-tech products satisfy the ever-increasing needs prevail. The competitiveness of such products depends on the quality of development and the choice of the optimal number of required technologies. Moreover, nowadays, the sphere of technology includes not only the use but also the very production of scientific and technical knowledge technological processes. Obviously, a higher technical school is called upon to provide conditions for the formation and comprehensive development of the creative potential of future engineers, in which the intellectually-professional and social-personal qualities of a specialist are integrated (Schaer & Andre, 2020). According to Zh. T. Toshchenko, creativity is closely related to such a concept as technical culture, which is "an organic addition to the general culture of a person, a form of realizing the potential of an employee in the field of scientific and technical thought and at the same time an independent social reserve of labour that personifies the spiritual wealth of society" (Toshchenko & Tsvetkova, 2012). The emergence of technical culture is due to constantly changing requirements for the qualifications of an employee, scale of socialization of labour and economic efficiency. Technical culture largely determines the employee's compliance with the actual objective needs of the time, is the key to the successful development of production and the employee and is also an integral part of the know ledge economy.

It is obvious that higher engineering education should contribute to the improvement of technical culture. The training of modern engineering personnel should ensure the unity of knowledge, beliefs and practical actions of a person, as well as the coincidence of a person's abilities and the objective needs of social development in the field of used technology (Vorontsova, Arakelyan, & Baranov, 2020). Modern engineers must be ready to use and constantly update their technical knowledge. An engineer must also be able to see the benefits not from technology in general, but in relation to his work, to his life, to his work collective, etc. A modern engineer is not just a technical specialist who solves narrow professional tasks. He must know not only the basics of technology but also the technology of its management. A fundamentally new nature of engineering activity entails significant social changes, receives an assessment of a new level of civilizational development, becomes a factor in various social changes, and influences the development of social structures (Mikhailov, 2013).

This is its transformative function, the implementation of which requires the engineer, on the one hand, to have creativity, and on the other, to take into account social, environmental, economic aspects and constraints, as well as health and safety issues. In this regard, it is especially important for future engineers to develop an understanding of the social significance of their professional activities at the university. It is in the university that the younger generation faces the problem of a clearer awareness of their place in the system of social relations. During the period of study at the university, an idea is formed about the place and role of their future profession and professional achievements in human life, about the goals of professional activity and how to achieve them (Mikhailov, 2013). The mechanism for the formation of value orientations of university students is interiorization. The essence of this mechanism is the acceptance by an indi-

vidual of the information about the existence of a value and the conditions for its implementation (Lohbeck & Retelsdorf, 2021). The transmission of information about values is carried out, first of all, through social and humanitarian education, which in itself is heterogeneous and is carried out at the university through its humanitarian environment. The humanitarian environment of the university includes socio-humanitarian disciplines, faculty, extracurricular (educational) work of the university, student-centred learning technologies, etc.

At the same time, it should be noted that episodic impact is not enough for the effective formation of students' value orientations. It is necessary to use a systematic approach to the design and organization of the educational process. The system approach to the cognition and transformation of any object is the leading general scientific approach. The essence of the system approach is that relatively isolated elements of the system should be considered not just as independent components but in their interaction, development and dynamics. The system approach can be applied as a methodological basis to ensure the quality of the educational process in higher education (Issakova, Kaltayeva, Ibrayeva, Kudaibergenova, & Bakhtiyrova, 2021). The system approach allows isolating simple technological operations of the learning process from the complex processes of education quality formation, manageable, improve the stability of their functioning and, very importantly, find the problems in the organization of training that require a change in approaches or a fundamentally new solution. The purpose of the implementation of the proposed approach is the holistic development of students as future specialists with clear value orientations and high social responsibility for the results of their professional activities.

Discussion

The scientific novelty of the authors' developments consists in determining the methodological foundations for the formation of value orientations of students of technical universities in the context of the transformation of the social functions of engineering activities, as well as in the context of the constant evolution of engineering and technology. The results obtained by the authors suggest the use of a systematic approach, which will allow the formation of an effective model of the humanitarian environment of the university, which contributes to the successful internalization of socially significant values by students. Also, the identified methodological foundations create a basis for further research on the problems of forming the value orientations of future engineers, including taking into account the impact on student youth of social groups and processes not related to the educational process.

Conclusion

The most important regulator of a specialist's professional activity is his value orientations. A modern engineer must correlate existing knowledge with a system of value orientations and direct professional activity in accordance with a set of social requirements for it. In the high-tech era of the digital economy, the functions of an engineer are changing significantly. From a specialist who maintains the production process, he turns into a professional who designs, organizes, predicts and ensures its implementation. The predictive function of the engineer, as well as the requirement for his social and environmental responsibility, increase significantly.

The process of forming the value orientations of the future engineer is particularly influenced by social and humanitarian education, which contributes to the interiorization of information about the values necessary for a successful professional and not professional activities, in particular: in life, health, morality, peace, preservation of the environment, professionalism, communication, humanism. The importance of the listed value orientations for the engineer today is explained by the change in his functions in the

changing production the increased requirements for him, in particular, social and environmental responsibility. This, in turn, is due to the deteriorating state of the natural environment, humanization and intensive informatization of all spheres of life. Under these conditions, the tasks of engineering activities include not only providing comfortable conditions for the life and activities of people but also the comprehensive development of human potential.

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Elena MOROS

THE PLACE AND ROLE OF THE EDUCATION SYSTEM IN THE DEVELOPMENT OF MODERN SOCIAL RELATIONS IN THE RUSSIAN STATE IN THE CONTEXT OF NATIONAL SECURITY

Abstract

The purpose of the article is a socio-philosophical analysis of the conceptual and practical significance of the Russian education system in the consolidation of society on the path of its creation, development and resistance to modern social threats and dangers. The Russian education system is designed to form a high intellectual, strong-willed, creative-labour and protective potential not solely for the individual but also for all the citizens of the country. The potentials mentioned above should be formed in the modern education system, ensuring its crucial role not only in the development of the Russian state but also in ensuring optimum efficient social relations and purposeful organization of national security.

Keywords: education system, consolidation of society, public relations, national security.

Introduction

The works of many scientists, for example, A. Y. Mozdakov (2008), E. F. Moros, V. V. Goncharov (2020), N. V. Nalyvayko (2007), I. A. Pfanenstiel (2010), N. M. Churinov (2007), are devoted to the study of problems of Russian education and ways of their fruitful solution. Unfortunately, at present, there is not enough theoretical and methodological research on the importance of the education system in the development of modern public relations in the Russian state in the context of national security.

Education as a social institution is essential for ensuring national security and developing public relations. Its nature is twofold. On the one hand, the educational potential, as a necessary level of development of the country's population and civil society, coexists and interacts with all other potentials of the country (economic, political, military, socio-cultural, and others); on the other hand, it is an integral part of any other potential, since it is included into them in the form of the cumulative knowledge of specialists in a particular industry.

Education allows a person to respond competently to the increasingly complex requirements of society provides the intellectual protective potential of a person who has knowledge, skills and abilities acquired in the process of education, training, professional and civic socialization.

In other words, it is necessary to clearly define the goals and objectives of the development of the system of education and training, ensuring its crucial role not only in the development of the Russian state but also in ensuring optimal productive social relations and purposeful organization of national security.

Methodology

The study was based on the socio-philosophical principles and methods of cognition used in the study of social processes, as well as a systematic approach, which allowed to study the relationship between national security and the sphere of public education. This methodology allowed to identify the place and role of the education system in the development of modern public relations in the Russian state in the context

of national security.

Research Results

Education has been transformed from a factor that forms and develops the individual into a factor of social security of the state, a crucial condition for preserving the integrity of the nation, the sovereignty of the state, and ensuring the right of the people to a decent life.

Academician of the Russian Academy of Sciences V. I. Zhukov (2004) points out that "education is no longer a factor in the development of the individual, but an instrument for ensuring the integrity of the nation, the social security of the state, the determining condition for preserving its sovereignty and providing the population with the right to a decent life. He believes that in the new millennium, the world faces unprecedented changes when civilizational progress is measured in the intellectual and educational power of people. Social progress today is possible only through the accumulation of knowledge, while the intellect is used to eliminate all the obstacles that arise. In the internal development of states, the condition for social progress is also knowledge as the main prerequisite for the self-reflection of society, which determines the degree of development of a particular social system" (p. 12).

Education is not just about learning for children, young people and adults, but also about building the skills and competencies to build a better future. If you want justice and peace, financial security and work, if you want a fair and tolerant attitude of people to each other, then, as stated in the 9th World Education Monitoring Report, you should start with school (Danilov, 2018, pp. 74-78). It is a tool for improving life performance, strengthening understanding, human security, and social cohesion. There are no more reliable means on the way to the development of society, to the social cohesion of society, to peace, to the political stability of the state than education, on which depends whether the future of the country will be prosperous, peaceful, uniting all the people, or not. Therefore, education should be considered as one of the key issues on the broad agenda of world creation.

Probably, nowadays, it is difficult to find politicians and researchers who do not recognize the strategic importance of education in ensuring national security and do not include the task of preserving and protecting spiritual values, among the most significant problems. Ignoring them leads to the inferiority of any political functions and strategic doctrines.

The state of the spiritual sphere merged with practice, the nature and content of basic social goals, projects and values, moral and intellectual social potential, forms and opportunities for creative self-realization, and the spiritual unity of the peoples of the Russian Federation are systemic factors of national security.

Education helps a person to fully meet the increasingly complex demands of society. At its core, it should help to protect the individual by giving him some social capital, knowledge and skills in the process of socially useful activities, which will allow him to find his place in the world, having a clear understanding of the surrounding situation. Disorientation of the goals and objectives of the education system can lead to the dysfunctionality of the state and social systems.

The concept of state policy in the field of spiritual and moral education of children in Russia notes the need to take urgent anti-crisis measures in this area, without which the country in the historically near future may face the risk of disappearing as a single state that has failed to preserve its cultural and historical identity.

It is difficult to overestimate the importance of education in strengthening security in the following context: education plays the role of the environment for preserving and reproducing the national and state identity of society, individuals and groups that make it up. Identity is a natural process of individuals' awareness of group community and the formation of solidarity. The pro-

cess of its formation and preservation, updating and development is one of the most important tasks of the policy in the field of national security. Any nation seeks to protect its political, cultural and physical identity against the threat of external invasion.

The preservation of national cultural and spiritual identity is one of the main components in ensuring national security and involves optimizing the ratio of ethnic and interethnic aspects of cultural identity.

The loss of the goal here, according to Seneca, will lead to the fact that a ship that does not know the purpose of the trip, no wind will become favourable (Seneca, 1893, p. 110).

According to V. G. Tomilov (2014), national values become educational values only when one child is not opposed to another when they teach each of them to understand the national feelings of the other, to see the greatness and historical significance of the contribution of each nation to the culture and spiritual development of mankind. To paraphrase the scientist's idea, we can say that each nation should make its own contribution to the development of the global educational space by broadcasting its culture and spiritual values to the world, which are also reflected in the national education system. The refusal of the people to form their own educational space in the global structure leads to a decrease in the overall level of education in the world as highly cultural and spiritually valuable (p.113).

The author shares the position of the scientist, since the devaluation or blurring of its unique image, the substitution of national values borrowed from the outside, the loss of its identity, orientation in the direction of illusory prospects do not allow the country to equip its existence effectively and purposefully, to strengthen its position in the competitive international struggle, which can eventually lead to its disappearance.

Both modern life and the historical experience of Russia show the desire of forces of society and the state to form a political identity among Russians, citizens, in the past – patrials. Even during the Tatar-Mongol yoke, Metropolitan Peter, according to the legend, blessed Moscow as the church and state capital of the Russian land. According to V. O. Klyuchevsky (1995), "it was then that the church hierarchy consecrated the two main goals of the people, which became the basis for the independent political existence of the Russian people: the formation of an independent state and the unity of the peoples inhabiting it around the Russian people" (p. 132).

The Uvarovsky principle of the organization of the educational process in the country served to realize this goal. In a circular letter on his assumption of the post of Minister of Public Education from 1833, S. S. Uvarov stated that the basis of public education should be a combination of the spirit of Orthodoxy, autocracy and nationality (Parsamov & Udalov, 2010, p. 10).

Even at the end of the XVIII century, the Russian state realized the role of the education system as an instrument of state national policy, the purpose of which was to prevent the collapse of a multinational state. Over the next two centuries, there was an active search for organizational solutions that would make it possible to transform educational institutions with the indigenous peoples' language of instruction into an instrument for the implementation of national and political goals of the state.

Much has been done in this direction by the Soviet school. At a joint meeting of the Commission for the Implementation of Priority National Projects and Demographic Policy and the State Council, held on December 27th, 2010, Vladimir Putin, who served as Prime Minister, said that the Soviet government had managed to create "a certain substance" in the creation of interconfessional and inter-ethnic peace, which had a great positive impact on inter-ethnic and interconfessional relations. Based on the socialist idea, it was ideological in nature. Putin also noted that at present, it was not possible to find an equivalent to replace what was created in the Soviet Union (Verbatim report on the joint meeting of the State Council and the Commission for the

implementation of priority national projects and demographic policy, 2010).

Without a doubt, thanks to this, the peoples of the former Soviet Union were able to preserve their language and customs and gained cultural and political unity within the framework of a single state. In modern Russia, the traditions of diversity and spiritual unity of many nations make it an influential and strong multi-ethnic state. However, such a condition is not given once and for all. This unity is achieved as a result of the systematic daily efforts of all the authorities, the entire society.

Therefore, among the important tasks of the educational system, which is conditioned by the fact of the polyethnic nature of the Russian society, is to include among the priorities of education the upbringing of the spiritual consolidation of a multiethnic society into a single cohesive people. This is an important political task designed to ensure the internal stability of an ethnically diverse society, its formation into a co-citizenship, united by common basic values of civil society. Nowadays, each institution of the educational system should actively perform the functions of consolidating and system-forming factors for both an individual ethnic group and a multi-ethnic society as a whole.

At a meeting of the Presidium of the State Council of the Russian Federation on February 11, 2011, Dmitry Medvedev stressed that the work to strengthen interethnic harmony in the country should begin at school, at university, where the foundation of a person's worldview is taught. The way of thinking a person acquires during the educational process determines his worldview, his attitude to the world around him, the ability to listen to other people, respect other people's views and habits, and be guided by the rules of modern life (Meeting of the Presidium of the State Council on measures to strengthen interethnic harmony, 2011).

The complex multidimensional nature of the national composition of the Russian society poses two kinds of problems for the educational system. Firstly, the necessity to form a system of institutions that implement general education programs with a national-regional (ethnocultural) component. Meanwhile, teaching is carried out both in the native and in the national Russian languages, with the humanitarian component of education, which is based on the all-Russian culture (Gubarev & Mikheenko, 2010, pp. 90-95). Such institutions, providing equal education for young people satisfying ethnic and cultural educational needs, should be an integral part of the educational system, an equal element of the general Russian educational field in terms of their goals, structure and organization, and internal content.

Another problem related to the polyethnicity of Russian society is the need to take into account the spiritual consolidation of the peoples living in Russia among the main priorities of education. This is what ensures the stability of a politiethnic society, united in its fellow citizenship and unified by the values of civil society.

Consequently, in our opinion, while implementing educational programs, it is highly important to take into account the national and regional component, educational institutions that relay languages and cultures should objectively be a system-forming and consolidating factor for individual ethnic groups and society as a whole. This functional unity allows combining harmoniously the ethnonational aspects of educational policy and the objectives of the national policy of the state.

The role of education in the process of consolidating society is due to the fact that professional skills and education expand the horizons of people, increase the opportunity and need for expanding social ties, promote social mobility, thereby becoming an integral condition for ensuring social harmony and increasing the level of civic responsibility.

One of the articles of the Russian scientist A. A. Ovsyannikov (1999) is quite successfully, in our opinion, titled "Education of a new Russia through education in Russia". The educational

potential should be fully used to consolidate society, overcome social conflicts and ethnic and national tensions, strengthen a single socio-cultural space on the basis of equality of different faiths and national cultures, the priority of individual rights, and reduce social inequality (Ovsyannikov, 1999, pp. 73-132).

As a tool for the reproduction and development of society, which solves various tasks to ensure its own existence, secondary and higher schools both indirectly and directly participate in ensuring security.

In this sense, the school is a component of the national security system. There is no doubt that education is one of the key institutions that form the national and state identity of Russian society, which is the foundation of its unity and, therefore, the basis of the integrity, viability and stability of the development of the Russian Federation.

The active processes of unification of cultures and general globalization have brought to the fore the problems of a social nature that relate to the formation and preservation of a new Russian identity. In the list of positions that indicate the strengthening of Russia's national security, the National Security Strategy of the Russian Federation until 2020 states that Russia was able to resist the threats of separatism, international terrorism, and nationalism, preventing the discrediting of the constitutional system. It is noted that the country is experiencing a revival of native Russian ideals, a decent attitude to historical memory, and spirituality. Social harmony is being strengthened on the basis of such common values as freedom and independence of the Russian state, humanism, unity of cultures and interethnic peace between the peoples of the Russian Federation, patriotism, respect for family traditions, and interfaith tolerance.

In the context of the increasing information struggle, the defining role of education in protecting the consciousness of young people is due to the fact that it does not have equal knowledge, spiritual and organizing reality, comparable in its impact with the mass media, which is able to form stable information and cultural immunity and the ability to self-determination in the public and individual consciousness.

The formation of the state-national identity of citizens ultimately leads to the creation of a socially cohesive society that provides political stability, which a number of scientists, not without reason, define as the ability of the political system to self-preservation in conditions that threaten its existence.

Social solidarity, which is the basis of social cohesion, reflects a fairly high level of intragroup contact and intimacy, a general reaction to homogeneous phenomena, etc. A detailed analysis of the phenomenon of solidarity was once conducted by E. Durkheim (1995). Explaining its essence, he noted: "that the ties of individual segments of society are strengthened as a result of closer and more intensive development of collective forms of consciousness. All this is ensured by the system of equal access of the population to education. Otherwise, society is split along educational lines, and individual social groups cease to understand each other, accumulate different, sometimes opposite values during their lives" (p. 87).

It is equally important that a person, as a social being, is characterized by transpersonal values – humanism, independence and freedom of his country, patriotism, respect for family traditions, unity of cultures and interethnic peace in a multi-ethnic society. In our opinion, such transpersonal values can be combined with the concept of "collective values", which is more understandable for Russia. These shared values, as stated in the National Security Strategy of the Russian Federation until 2020, are the basis of public consent in the country.

Thanks to education, these values are embedded in the minds of people and become the motives for their actions. The Federal Law "On Education in the Russian Federation" states that it is designed to maximally promote cooperation and mutual understanding between people and peo-

ples, regardless of national, religious, racial, social or ethnic affiliation, and should ensure the formation of a citizen and a person integrated into modern society, who strives to improve this society; it should be aimed at promoting the self-determination of the individual, creating conditions for self-realization of members of society, and improving and strengthening the rule of law.

At the same time, we consider it important to supplement and expand this formula, noting a number of positions that define and reveal the role of the institute of education in the formation and strengthening of the social cohesion of Russian society.

The formation of social cohesion is impossible without close communication links between the individuals who make up society. Language is the most important means of communication. In such a multilingual and multinational country as Russia, the presence of a single language of interethnic communication is of fundamental importance. Without it, various groups will become alienated from each other, and the population as a whole will be divided by language principle. Historically, in our country, this function is performed by the Russian language. The widespread use of the language of interethnic communication does not by itself eliminate the causes of social stratification of society (polarization of positions and interests is possible even in monolingual groups) but nevertheless creates prerequisites for collective life.

In particular, O. A. Nesterchuk (2008), among the functions of the national educational policy and educational institutions, notes the following: preservation and development of a single language space, as well as mutual understanding between citizens of the state; unity of values; formation of skills of interethnic, tolerant, partnership interaction and the creation of favourable social and cultural prerequisites for this (p. 12).

Therefore, the multinational Russian school has the task to play an important role in the development of both Russian and native languages, to form an all-Russian self-consciousness and self-identity. Updated education should play a key role in preserving the nation's gene pool, ensuring the dynamic, sustainable development of Russian society with a developed household, professional and civil law culture, and a favourable standard of living. Through this prism, it is necessary to consider the practice of teaching Russian in Russian education and various projects aimed at reforming it.

At the joint meeting of the Council for Culture and Art and the Council for the Russian language in St. Petersburg on December 2, 2016, Russian President Vladimir Putin also notes that it is necessary to take care of the preservation and dissemination of the Russian language. (Verbatim report on the joint meeting of the Council for Culture and Art and the Council for the Russian Language, 2016)

Thus, the impact that education has on the security of the country is due to the extent to which it increases or decreases the level of awareness of group community by citizens as the basis of their solidarity. Ensuring the national security of the Russian Federation directly depends on the preparation with which the country's youth enters the social life of the second decade of the XXI century, what are its social values, political and moral ideals, the level of professional training and general culture.

The awareness of community is the foundation for solving socio-political and socio-economic problems. However, the coexistence and interaction of several types and bases of identities (ethnic, state, regional, religious, etc.) is fraught with the threat of a potential conflict between the Russian identity and any of the particular identities. Russian educational policy should be constantly aimed at ensuring the compatibility of multi-level identities, as well as at eliminating the threat of the dissolution of national identities in the process of federal integration.

Regarding the educational potential, as an integral part of the national security potential, in our opinion, it is necessary to note the following: history is not created by itself, but by living peo-

ple. In society, nothing can happen apart from the person outside of him. Most developed countries in the modern world rely on all-around growth in the quality and importance of education. In Russia, as well, there is a growing understanding that the most important factor in strengthening national security and forming new social relations should be an effective education system.

The emphasis of the development of modern society is shifting from the reproduction of physical capital to the reproduction and accumulation of human capital. Social progress and, as a consequence, the modernization of society, the revival of the country, the strengthening of its security have an inexhaustible resource, which is intelligence, and a constantly improving tool, which is knowledge and competence.

Conclusion

Thus, as a result of the socio-philosophical analysis of the role of the Russian education system in the development of modern social relations, it is determined that from a factor forming and developing a personality, modern domestic education can be transformed into a factor of preserving the integrity of the nation, the sovereignty of the state, ensuring the right of the people to a decent life. Education as a social institution is of crucial importance in ensuring national security and the development of public relations. The impact that education has on the security of the country is due to the extent to which it increases or decreases the level of awareness of group community by citizens as the basis of their solidarity. Ensuring the national security of the Russian Federation depends on social values, political and moral ideals, the level of professional training and the general culture of the people.

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DOI: 10.24234/wisdom.v21i1.626
Viktor OGNEVIUK,
Mariia MALETSKA,
Nataliia VINNIKOVA,
Vitaliy ZAVADSKYI

VIDEOGAME AS MEANS OF COMMUNICATION AND EDUCATION: PHILOSOPHICAL ANALYSIS

Abstract

The study is devoted to the philosophical consideration of specific features of communication and education through the use of video games. *The purpose of the research* was to consider the specific features of communication in the process of interaction within video games, to reveal their educational potential and the difference in their use for educational purposes. The analysis of videogame definitions has allowed focusing on their specific features, namely: interactive, rule-based nature and the need of the specific hardware. As a result, the possible types of dialogue within video games have been considered and, on their basis, the main types of interaction have been formulated for analyzing their use in education: interaction with no active player, player-videogame interaction in case of one-player videogames, player-videogame-player interaction and player-community-videogame interaction. *In conclusion*, the similarity of videogame playing and the learning process has been delineated in relation to the analyzed types of interaction. The authors state the further need for a comprehensive study of the specific features of each of described types due to the significant differences in the dialogue and educational potential of videogames belonging to them.

Keywords: videogame philosophy, philosophy of education, educology, game studies, interactivity, gamification, game-based learning, learning through videogames, dialogue.

Introduction

In human society and culture, games and non-game activities were long separated from each other. However, in the 20th and, especially, in the 21st century, the so-called "ludification of culture" (Raessens, 2014) has taken place. The play has entered the non-play spheres of life, which were earlier considered as "serious", i.e. which could not be combined with playful activities. Even such phenomena as work and play, which had long existed as polar concepts, began to interact in such a way that now we observe the interference of work and play or work/play interplay (Dippel & Fizek, 2017).

Ludification of culture in contemporary society is directly connected with the spread of video games and their implementation in different areas. Being a relatively new phenomenon, videogames, their use and their impact on human existence require proper study in all their manifestations. Despite the presence of more technical researches (e.g. Crawford, 1984; Salen & Zimmerman, 2003; Fabricatore, 2007; Schell, 2014) and works devoted to philosophical reflections on videogames (Juul, 2005), videogame culture (Shaw, 2010; Muriel & Crawford, 2018) and even video-ludification (Bruns, 2020), there are still many unexplored issues in the area of videogame philosophy.

One of such issues is the specifics of communication conducted in the process of interaction with video games. The complex study of the difference between the dialogue with the use of videogames and other media is especially relevant in view of COVID-19 pandemics, during which videogames have become not only the way of spending free time but also a means of everyday communication and interaction between people, which even lead to new acquaintances and subsequent real-life contacts (Barr & Copeland-Stewart, 2021; Zhu, 2021). Videogames have also been actively used to improve the educational process and enhance the online-learning (Favis, 2020; Khan, 2020). Thus, *the purpose of our research* is to consider the specific features of communication in the process of interaction within video games, to reveal their educational potential and the difference of their use for educational purposes. Despite such wide use and scientific interest, the specific features of the dialogue through video games have not been described properly. And namely, these features may be decisive in giving preference to the use of videogames in education, the process based on the dialogue between teacher, students and literary sources. The impact of videogames on communication and, therefore, education is usually given generally, without paying attention to different videogame types and genres, or, on the contrary, studies devoted to edutainment (Corona, Cozzarelli, Palumbo, & Sibilio, 2013), gamification in education, edutainment and game-based learning (Schmidt, Emmerich, & Schmidt, 2015; Pesare, Roselli, Corriero, & Rossano, 2016; Rabah, Cassidy, Beauchemin, 2018) can consider only a narrow range of genres, which leads to gaps in understanding specifics of peculiarities of the impact of videogames on education. To avoid this and reveal the specific features correctly, consequently, to achieve the stated purpose, we have distinguished the main issues important for considering and formulated *the following hypothesis*:

- The dialogue of subjects (players) within the videogame, their interpretation of the game and further usefulness of videogames for educational purposes differ in accordance with the level of available interactivity;
- The difference in communication and interpretation may depend not only on the number of players but also on a videogame genre, which determines gameplay mechanics;
- Some videogame genres are similar to the educational process in their nature; therefore, they are more useful for educational purposes.

Methodology

Although our study has an interdisciplinary nature and spheres of IT technologies and digitalization intersect with philosophy and educology, it is based on philosophical methodology, which is of great importance for a proper philosophical consideration of videogames and their impact on communication and education. Analysis, synthesis and further systematization, therefore, have been used to study the videogame definitions and distinguish the defining features of the videogame as a new phenomenon of contemporary society. This allowed us to separate video games from games and to focus directly on their specificity. To show the impact of video games on contemporary communication and changes in it within the videogame world, the hermeneutic methodology has been applied. The communicative approach made it possible to describe a videogame as a dialogue, therefore, to deeper analyze the educational potential of videogames as means of possible dialogue between teacher and students, students and learning sources etc.

To study videogames and the specificity of their use, both analyses of existing research and practical involvement in videogame playing have been used. This gave us the opportunity to apply a case study to the issue considered. Video games representing different genres and game mechanics have been studied as particular cases of communication and interaction, and their pos-

sible usefulness for educational purposes has been considered on examples of particular game mechanics.

Presentation of Basic Material

Being analyzed as (at least, partially) games, videogames are usually described with the help of defining features that J. Huizinga (1949) proposed in his study, namely: the fact of freedom of play; stepping out of "real" into specific temporal and spatial dimensions; limitedness and secludedness. The following characteristics are also mentioned to complement J. Huizinga's concept that has become fundamental for philosophical reflection on videogames: the importance of rules which define the game process, determine the goal and legal methods of its achievement (Abt, 1970; Caillois, 2001); some researchers also add obstacles (Mitchell, 2020) or conflict (Avedon & Sutton-Smith, 1971) as the centre of the game process and, therefore, the defining features.

Since the beginning of the so-called "game studies" (Nieborg & Hermes, 2008; Wolf & Perron, 2014; Horban, Martych, & Maletska, 2019), the interdisciplinary space of (video)game research, several definitions of videogames have been formed. However, none of them has become generally accepted due to the fact that the existing definitions do not cover the whole videogame phenomenon in its diversity. The defining process would be out of the purpose of our study. Therefore, we do not give our own definition of the videogame; however, describing the main defining features is necessary to substantiate the difference between the impact of videogames on communication and education. Thus, in our study, the features distinguished in the process of defining videogames by game researchers (Frasca, 1999; Konzack, 2002; Salen & Zimmerman, 2003; Tavinor, 2009; Sicart, 2009; Newman, 2012; Bergonse, 2017) have been analyzed in order to reveal the most common, which are:

- Rule-based system, which is fundamental for game mechanics and gameplay;
- Interaction with player(s);
- The need to use specific hardware/software for playing;
- Fictional world/context.

Despite the fact that many games also need special equipment (e.g. chess board and pieces), videogames cannot be played at all without the use of specific hardware (PC, game console, mobile phone). The equipment for games can often be hand-made, and it is too difficult in the case of video games. The difference between videogames and games lies not only in the existence of the need for hardware/software for playing, but even the nature of rules also differs due to the fact that in videogames, rules are not negotiable to the same degree as rules in classic, or analogue games (Mosberg Iversen, 2009, p. 32). This is proved by the analysis of rules in different games, beginning with simple make-believe play. In his research, C. Goetz (2018) illustrates four cases of work of rules to structure the play, and not all of them can be used for videogames. The first case (playing without the structural and material support) is possible only for make-believe play, which needs the use of internalized images of the object. The same thing can be stated about the situation when a player's imagination and actions go beyond the rules to create a new game space. In a video game, all actions beyond game narrative are still a part of the videogame space. However, it does not make videogame-specific cases of "games". Rules of game can be broken by players or arbiters. Rules of video games cannot be broken without breaking the whole game world. This changes even the so-called "magic circle" used to describe the limitedness of play (Liebe, 2008; Juul, 2008; Consalvo, 2009).

The difference also lies in the interaction between player and game/player and videogame. In the case of games, they are played, and there are not many cases when a game lasts without a player's support. Interactive novels can also hardly be considered a kind of an analogue game be-

cause the main idea of playing is lost here; however, they are video games. There are also not many games with more than one thousand simultaneous players, and in the case of video games, such a possibility is widely proposed. Therefore, we can state that video games and games have similar features, which are rules, the possibility of interaction and fictional context, but they are not identical. More videogames can be described as rule-based interactive systems, and it is proved by the existence of videogames that are not games in the broadest sense.

It is important to analyze the specific features of communication to consider the usefulness of video games for educational purposes. Communication and dialogue are the most important parts of education. They give the opportunity to reveal and know the "other" (Aleksandrova, Khrypko, & Iatsenko, 2020). Both pedagogical dialogue and dialogical pedagogy can be seen as necessary parts of the learning process (Elliott, 2017), and today, the second one is widely applied due to the necessity of increasing the level of students' interaction in the classroom and, especially, in conditions of online learning and technical improvement of education (Ognevyuk, 2018) which turns the dialogue between students and teacher from mostly "live" to "frozen" and "turn-based", that is more inherent in communication in social networks and on web sites.

According to M. M. Bakhtin (1981), a dialogue is the concept of complex relationships between subjects where they give and generate meanings to each other. These relationships are in a constant state of evolution, and it is constant conservation that can only grow in complexity – the longer it lasts, the more subjects of it are considered. Thus, there is a constant dialogue between all parts of the world. All texts, works and media are in a dialogue with each other to a greater or lesser degree.

The communicative theory is usually applied to in-game narratives and players' dialogue. However, even interaction between game rules and hardware which proceed these rules can be perceived as a kind of dialogue. As E. Barbosa Lima (2016) states, "Gameplaying, therefore, is only possible in the dialogue between both play and rules. In other words, gameplaying is the dialogue between these two forces. Without rules, the play does not proceed. It exists but cannot be acted on as it has no basis to act upon; play without rules is simply idealized action, free of constraints and/or labels; without play, rules are superfluous as they only exist to make playing possible" (p. 43). In the case of analogue games, this dialogue can also be observed. It occurs in the process of interaction between rules that determine the game process and the environment in which the game is played. However, in analogue games, this dialogue is almost impossible without the participation of players. In videogames, the role of the player consists in starting the videogame, and then the dialogue between rules and hardware begins, and it is usually hidden from players if there are no errors in the process of playing. On the other hand, videogame rules cannot be changed or omitted in the process of playing a videogame without specific actions (e.g. rewriting these rules on the level of a videogame code or creating modifications that transform the way that rules work). So, *the dialogue between rules and the hardware* is the main type of dialogue that is always present in video games. This dialogue is fundamental for the establishment of other levels of communication in the videogame space.

Another type of dialogue possible in video games is *the dialogue between a player and a videogame*. This dialogue can be compared with the dialogue between reader and narrative if we talk about the narrative present in video games. However, the greatest difference lies in the possibility of interaction with the videogame, the change in ways of perception of information given through the videogame and the possibility of the existence of various speeds of interaction, which leads to the presence of both "live" and "frozen" communication and their different mixes within gameplay. Considering such video-

games as "Sid Meier's Civilization" series, we can see that player communicates with the game both actively, while reading in-game information and deciding on units' actions, and passively, due to the fact that videogame is turn-based and the live communication occurs only inside of one turn. The videogame can also be switched off and resumed several days later, which also transforms active communication into passive. Some videogames do not give the player the opportunity to "stop the time" and postpone the decision-making. A striking example of it is "Longing", the videogame that continues even when a player is outside the game world, and the game is switched off. This example demonstrates that video games can continue the dialogue between rules and hardware even without the dialogue with the player. Therefore, the player has to participate in active dialogue with a game with no possibility to "freeze" it if he does not want to lose in-game events and influence on the videogame world.

Playing in multiplayer mode complicates the communication in video games and forms the next level of communication: *player-player communication*, performed through the in-game means and mechanics. This communication can also be active (e.g. in-game chats, gestures of characters) and passive (e.g. through in-game e-male, message boards etc.).

We can also consider in-game dialogue in terms of communication between *a player and videogame characters*. In videogames, an individual's subjectivity is constituted through both relationships with other players and such concepts of virtual worlds as player's avatars (Peach, 2003). Narratives in videogames are often revealed through the avatar (Suduiko, 2018), which is identified with the player and, therefore, creates the emotional connection with the player, the feeling of immersion into the game world. So, the player can communicate with other players, with so-called NPCs (Nonplayer characters) (Cade & Gates, 2017) and even with his own avatar. The dialogue with NPCs and avatars can be part of the narrative or game mechanics or can exist only as a decorative part of the videogame world. The dialogue and the further interpretation of the videogames changes depending on the complexity of the possible player's actions directed at his own avatar, NPCs and other players.

The fifth type of dialogue is the dialogue between *a player and a game designer*. In the case of other media, e.g. films and books, the dialogue between the author and the reader are spread over time, and the reader cannot influence the works that have already been written. New types of media create so-called "participatory culture" (Delwiche & Henderson, 2012), in which the reader becomes the co-creator of the culture products, and videogames are a striking example of it, especially when we talk about indie games (Best, 2011), which are developed by small studious or even by one person. Large studious also maintain contact with players. Therefore, video games appear as a dialogue both in case of conveying senses and further videogame development and changes.

The perception of the dialogue in video games also depends on the correlation between narrative and ludic parts of the videogame. Therefore, this dialogue may vary in different genres. Thus, in videogames, all three types of communication distinguished by M. Buber (1965) can be observed: genuine dialogue, technical dialogue and monologue. In the case of both player-game and player-player dialogue, videogames can combine genuine dialogue, which lies in gameplay interaction inside the game world, technical dialogue, which is especially relevant in the case of player-player in-game interaction and even monologue, which engages the player in the interpretation of some parts of videogames (e.g. notes and information about the game world, which is not used in the process of playing). The "I-It" and "I-Thou" models of the dialogue distinguished by M. Buber (1970) can also be applied to the analysis of video games.

Therefore, we can state that in video games,

several levels of communication and types of dialogues are combined. Such complexity makes the interpretation of videogames different from the interpretation of texts and media, which, in turn, changes their impact on the player and, therefore, the usability of videogames in education. To analyze this difference in interpretation, we have considered videogames from the point of view of hermeneutics.

Generally, videogame hermeneutics is based on H.-G. Gadamer's ideas. Being the first ludologist and considering the interpretation of games, H.-G. Gadamer (2004) was interested more in games themselves than in the player and his views, stating that: "The players are nor the subjects of play; instead play merely reaches presentation through the players ... The real subject of the game (this is shown in precisely those experiences in which there is only a single player) is not the player but instead the game itself" (p. 106). This statement describes games as subjects of interpretation that are at least partially independent from players (Saadanbekova, 2021, p. 86). Here, the similarity with the communicative approach to understanding video games can be seen: even games can unfold on the level of internal interaction and interpretation. However, in the case of video games, this becomes even more important for further studying because, in video games, rules are interpreted by hardware in the previously described dialogue between them.

From this dialogue, the first specific case of videogame hermeneutics arose – the so-called procedural hermeneutics. It is based on the procedural rhetoric (Bogost, 2008), which describes videogames as procedural systems ("procedurality" is derived from the function of the processor, which creates meaning through the interaction with the rules and interpretation of algorithms). Procedural hermeneutics has formed four main statements according to which videogames are interpreted: interpreting values in connection with context; the validity of interpretation is conditioned by compatibility with the ability of a player to interpret the videogame; understanding of videogames requires an understanding of the software logic; videogames are understood twice – through the so-called "narrative spiral" and "hermeneutic spiral", therefore, the classic "magic circle" is criticized (Salin, 2018). The last statement is of particular importance both for understanding the dialogue that arises in the process of playing a videogame and for its use as a means of education. Due to their procedural nature and the possibility to combine the narrative with the ludic part, game mechanics etc., videogames are perceived by a player at least twice – as a story told and as an interaction based on this story. In the case of education, it means that videogames strengthen the perception of the given information because it is understood not only as a text, a narrative; firstly, a player interprets information in the form of a story, history of character or videogame world etc., and, secondly, in general interpretation of the videogame as a complex of activities, rules and game mechanics.

However, this is not the only way to consider videogames from the point of view of hermeneutics. The second specific case of videogame hermeneutics is the so-called real-time hermeneutics (Aarseth, 2003). While procedural hermeneutics is focused on the procedurality of videogames, real-time hermeneutics considers the interaction between player and videogame as the central for sense-making and understanding. This approach is not a temporal approach due to the existence of different speeds and interpretations of the "real time" in videogames: "There are different speeds of interactive, which may still be seen as happening in real-time – just not very quickly" (Arjoranta, 2011, p. 7). In videogames, different concepts of time usually represent not the time itself but the quantitative criteria of interactivity, experience or perceived information. There are video games in which in-game time can be stopped or skipped and games where the time cannot be stopped or is synchronized with real-life time. In all these cases, the interaction and interpretation change, making the player-videogame dialogue different. It should also be mentioned that one

videogame can combine several options of interaction speed; for example, in "Heroes of Might and Magic V", players act simultaneously during one turn; however, after the intersection of the interests of two or more players, the options of simultaneous interaction within one turn disappears.

Both these approaches are based on the main difference between videogames and other media – they underline interaction and its features in the case of videogames as specific software. Videogame hermeneutic approaches consider players in their interaction, which is important for their following analysis as an educational tool. In education, we have communication and interaction between the teacher and students and, in the case of video games, this model can be broadened and transformed into both communication as a dialogue of a video game and a player aimed at learning through a dialogue between a teacher and students within a videogame. Thus, the combination of the given approaches makes it possible to comprehensively analyze videogames as software which, in the process of procedural dialogue between game rules and hardware, creates the space for real-time interpretation of the videogame, its rules and mechanics by the player.

To achieve the stated purpose and answer the question of the difference in the dialogue of subjects (players) within the videogame, their interpretation of the game and further usefulness of videogames for educational purposes, we have distinguished four main types of player-videogame (-player) interaction: interaction with no active player; player-videogame interaction; player-videogame-player(s) interaction; player-videogame-community interaction. In these types, the change in interpretation and subjects' impact on the communication within videogames can be traced along with the change of the subject's place and role in the process of playing.

The first type of interaction, therefore, is *interaction with no active player*. Games of this type turn players into observers, and the only player's role here is to start the game after that video game lasts without the player's interference and direct participation. In such video games, we can talk about inaction (Latypova & Lenkevich, 2020) rather than about activity and interaction. The central case of this type is the genre of so-called Zero-Player Games (ZPGs), which, in turn, can be divided into four categories: setup-only games, games played by AIs, solved games and hypothetical games (Björk & Juul, 2012). The classic example of setup-only ZPG is "Progress Quest", the videogame developed by Eric Fredricksen as a parody of the RPG genre. In this videogame, the player has only a few options on starting the new game, and after that, the game runs without any possibility of the player's influence. The further development of ZPGs leads to adding several options of interaction (the example of this is "Godville", where the player has particular commands to interact with the game world, the random result of these commands and the possibility to turn off the option of interaction and play in "classic ZPG"). Another category related to the minimization of player's interaction is the category of so-called "idle" games. Idle or incremental games reduce gameplay to a single repetitive action or even make it automatic, which also makes player's interaction optional (Deterding, 2016).

This type of interaction makes the rules-hardware dialogue the most important part of such video games. For a player, the work of ZPGs looks like a monologue, and, in particular cases, it can be transformed into a very limited dialogue. Thus, in this type of interaction, we can talk about the interpreter rather than about the player because the component of interaction is minimized here. However, even these videogames are different from other media, which is proved by the procedural nature and the fact that these games are not always repeatable; their random parts make each time of playing unique. These features can be useful in education, although researchers do not consider video games with no active player as possible means of teach-

ing. Despite the low level of interactivity, such videogames still can transmit values and reflect important information; their possible usefulness also lies in the fact that they can serve as a model of processes to illustrate the information given by a teacher. Thus, we can state that even videogames with a low level of interaction that are perceived as a monologue rather than dialogue have educational potential.

The second type of interaction is *player-videogame interaction in the case of one-player videogames*. This interaction can be generally described as a dialogue between a player and videogame content. In different videogame genres, from action games and puzzles to shooters and platformers (Lee, Karlova, Clarke, Thornton, & Perti, 2014), the level of interactivity can vary. For example, already mentioned visual novels and interactive movies, which both are videogame genres, give the player a short number of possible actions in the process of interaction with the game world. They are focused on the videogame narrative. In the case of interactive movies, such as "Life is Strange" series, the player has few options of dialogue with NPCs; the chosen options can change the narrative; however, these changes are previously directed, and the interactivity here lies only in the exploration of the game world and decision-making based on the limited number of options given. On the other hand, highly-interactive genres as platformers, shooters etc. can exist without narrative at all, and interaction here is central for the player. The videogames with this type of interaction can be focused on narrative part, ludic part or combine them in order to have a greater impact on the player, but, in all such videogames, the player interprets the videogame content and mechanics in connection with his actions.

Videogames with this type of interaction are usually considered tools for game-based learning. These video games are useful to motivate students. However, they can also act as models of different processes and a means of transmitting information and checking knowledge. Player-game interaction in one-player videogames makes it possible to build a videogame aimed at checking players' skills, so tests and practical works can be designed in such a form.

The third type is player-player interaction which is implemented through the game, in other words, *player-videogame-player interaction*. Here, two subtypes can be distinguished: player-player interaction, which is optional; player-player interaction, which is necessary to start the game. In the first case, we can mention many videogames that provide the opportunity to play with other players, for example, "Minecraft", "Grand Theft Auto" series, "Dark Souls", "Dying Light". Videogames with multiplayer mode can belong to different genres and be played on different platforms (PC, console, mobile phones and even cross-platform multiplayer), and they all can be played both with or without other players. There are also videogame genres built on the interaction between players. A striking example of such a video game genre is MOBA. MOBA is a subgenre of real-time strategy games in which two teams, typically consisting of five players each, compete against each other, with each player controlling a single character (Cantallops & Sicilia, 2018).

In both cases, not only the dialogue with video games but also the dialogue between players is interpreted by a player. In the first case, interpretation without considering other players is possible, while in the second case, interpretation is focused on other players' actions more than on a videogame itself. Such video games can be useful when competitive activities are needed in the education process. They also can be built for checking skills and knowledge, but they can facilitate studying through the players' interaction, which can consist in both helping and competing with each other. This can be profitable for learning because students, on the one hand, would have the possibility to see their mates' results and, on the other hand, these results would be perceived not as a failure, but as a temporary loss, which shows the need to study. Such video

games, therefore, teach students not to be afraid of mistakes but to cope with them in the process of learning.

The fourth type of interaction is *player-community-videogame interaction*. In this case, the interaction between a large number of players who are present in the videogame at the same time occurs. The difference between this case and the previous one lies in the fact that in such videogames, the player interacts with a big in-game community, in-game culture, economics etc., built on the basis of the videogame world and mechanics. A striking example of such interaction that can be effectively used for educational purposes is the so-called MMORPG genre. Massively Multimedia Online Role-Playing Games, or MMORPGs, are virtual online gaming platforms based on software that allows players to interact with a vast number of other players at the same time (Subirana, Cabañas, & Ortiz, 2007) in the virtual environment with its unique conditions. In MMORPGs, players can do quests, communicate with each other, have their own in-game space, receive awards, read in-game books that expand players' knowledge about the game world (as, for example, in the case of "The Elder Scrolls Online") etc. In such video games, the developed economy can usually be seen due to the existence of in-game currency. There are also in-game trade guilds, fight clubs and small parties which can be allies or foes and which form in-game politics. In the case of such videogames, the player's interpretation is conducted mostly through interaction with different representatives of the game community. It is possible to play alone to some extent. However, there are awards that can be received only with other players' help. These video games need so-called technical dialogue the most. Some of them are built on this type of dialogue.

The correlation of all described cases is illustrated by Fig. 1, from which we can see that there are cases on the edge of two interactivity kinds:

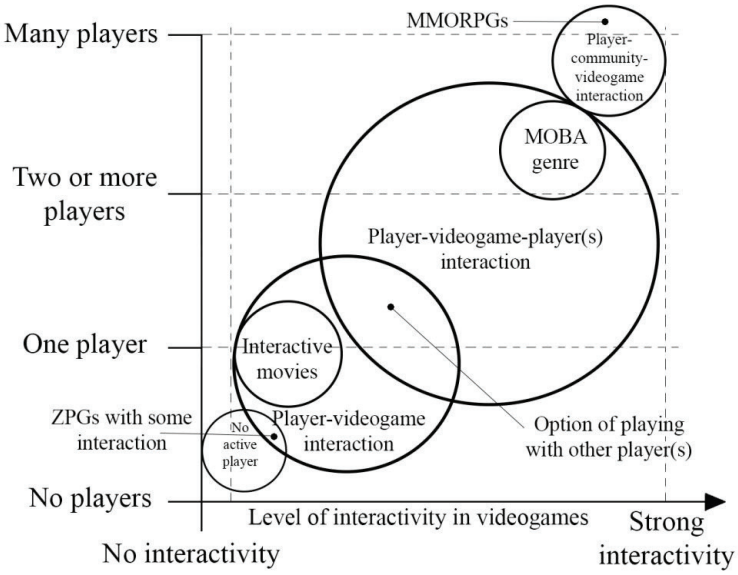

Figure 1. Correlation of videogames with different types of interactivity according to the number of players.

The highest level of both interactivity and communication existing in a videogame from the considered cases can be observed in MMORPGs. This type of videogames creates many opportunities for the establishment of virtual educational space, which can be much more

complex and interesting for students than existing e-learning platforms. MMORPGs can be used to create a virtual network of classrooms, models, in-game libraries and other virtual places useful for teachers. The attempts to create such multiplayer games can be observed. However, they are not widely used due to their limitedness of mechanics, which reduces them to multiplayer games with several players, but not MMOs. For example, "ClassCraft", an education game, is built on several features used by RPGs (character classes, in-game quests etc.), but it is played in teams of five players and gamifies the educational process instead of building it on the basis of videogame in its broader sense.

Not only MMORPGs but also other videogames can be integrated into the educational process wider than is proposed by researchers who consider the impact of videogames on education. In studies of videogames as a means of education, the following specific features and processes inherent in videogames are distinguished to demonstrate the sphere of the use of videogames in education:

- Videogames are considered through the prism of learning new approaches to the world; participating in social activities; preparing for new ways of learning and solving problems through specific resources; the active process of critical learning (Lacasa, Méndez, & Martínez, 2008);
- Such mechanics as choices and feedback are distinguished; additionally, videogames can motivate for learning (Kinzer et al., 2012);
- Videogames are interactive, practically-oriented environment, which creates the immersive experience (Mitchell & Savill-Smith, 2004);
- Videogames can be used as research tools; they attract participation, assist in setting goals and providing feedback, they are fun and stimulative etc. (Al-Azawi, Al-Faliti, & Al-Blushi, 2016).

However, most of these works do not consider such a fact that (especially with the growth of interactivity) videogames are built on teaching and learning, and this connection of videogame mechanics with learning makes them a tool for gaining knowledge more than all demonstrated features because many of them are based on this similarity. Because of underexploring this similarity, the use of videogames in education leads to losing the essence and attributes of interactive gaming activities by videogames; therefore, "videogames" used and designed for educational purposes become only a didactic means without playability (González Sánchez, Padilla Zea, Gutiérrez, Cabrera, & Paderewski, 2008). Learning through games is generally described as a process with active participation that provides immediate feedback (McClarthy et al., 2012), but it also does not reveal full specifics of game mechanics' similarity to the educational process.

This relationship, however, can be described with the help of understanding the gameplay as learning, therefore tracing similarity between education and videogames. Such similarity is briefly described by C. Fabricatore (2000), who reveals four stages of gameplay unfolding that are similar to learning processes. The first stage is collecting information about the game world. This information is usually related to the context of the game and game mechanics. However, there can be extra information that is useful not in terms of the game but in other cases. The second stage is the analysis of gathered information. After that, the player should make decisions based on gathered and analyzed information. These decisions are usually based on video game rules and the environment of the video game world. The last stage is the action itself, and this action is usually based on previous stages of interaction and interpretation of the videogame world. Not all video games can be described in such a way due to the fact that this internal learning process strengthens with the increasing level of interaction. In ZPGs, there is no need for decision-making; however, the player can still act as the interpreter of the monologue given by the game; and, in the case of MMOs, the described process is complicated by the need

to learn not only how to interact with the videogame world, but also how to communicate with in-game communities that constitute its important part.

The learning process usually consists of similar stages (collecting new information, analysis, synthesis and acting/decision-making during exams or practical lessons). In the case of videogames, in-game learning is even more important than in the case of classic games because, in a virtual game environment, the player should study not only game rules, which delineate winning and losing conditions, and possible in-game actions, which sometimes can be changed in the process of communication with other players, but also the ways of possible interaction with a videogame (e.g. which in-game objects can be used by player's character, which of them can be combined, which NPCs can talk to a player), which, on the one hand, limits the player "physically" in the framework of a videogame world, and, on the other hand, facilitates acquiring skills and perceiving the information received in the process of playing.

Conclusion

Through the analysis of videogames from the point of view of communicative and hermeneutic approaches, the specific features of videogames in communication and education have been distinguished. The hypothesis that the dialogue of players within the videogame, their interpretation of it and, accordingly, the further use of videogames for educational purposes differ in accordance with the level of interactivity has been proved through the consideration of different types of in-game dialogue and their impact on interpreting videogames. While different types of dialogue are combined in videogames, which leads to the complexity of communication within them, the interaction and, therefore, interpretation can be divided into four types: interaction with no active player, player-videogame interaction in case of one-player videogames, player-videogame-player interaction and player-community-videogame interaction. The last type, especially the particular MMORPG genre, has demonstrated high potential for further use in education. The dependence of the difference in communication and interpretation not only on the number of players but also on a videogame genre has been traced during the analysis of different cases of videogames within one type of interaction. The similarity of video games to the educational process has also been revealed through considering the stages of gameplay and learning. This increases the usefulness of videogames for educational purposes; such consideration of videogames not as separate units for increasing motivation and providing feedback, but as complex platforms with previously prepared tools and mechanics for learning may facilitate online learning and make it more complex.

It can be concluded that there is a need for a comprehensive study of the specific features of each of described types due to the significant differences in the dialogue and educational potential of videogames belonging to them, delineated in this article because trying to unify the approach to studying videogames, the important characteristics rising from this difference can be lost and videogames can be reduced to one type of interaction, which leads to the further misinterpreting this phenomenon of the contemporary society and culture.

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DOI: 10.24234/wisdom.v21i1.625
Ani STEPANYAN,
Eranuhi MANUKYAN,
Lia TEVOSYAN,
Marina ILYUSHINA

LEGAL REGIME FOR SCIENTIFIC WORKS IN THE DIGITAL AGE

Abstract

The modern technological age dictates a fundamental reconstruction of almost all spheres of public life, where new problems and difficulties are added to the existing ones. Such volumes of information innovation imply a fundamental reconstruction of social life, as the latter has a significant impact on all spheres of human activity.

The article is devoted to topical issues of legal regulation of scientific works copyright protection in the Russian Federation and the Republic of Armenia in the era of the development of digital technologies. At the current stage of the development of digital technologies, a unique environment has been formed, which implies over-concentration in the fields of economy, politics, propaganda, science, law.

Modern trends in the development of science and technology dictate the practice of applying new digital technologies, not only in various fields of activity but also in the field of copyright, where one of the key objects are works of science. The article presents some aspects of the legal regulation of the use of digital technologies in the field of copyright in order to create new mechanisms for the protection of scientific works.

Keywords: science, copyright, scientific works, digital technologies, legal regulation, digital economy, "blockchain" technology.

Introduction

Modern trends in the development of science and technology, as well as information technologies, have led to a noticeable increase in the number of published scientific works. However, on the creative path of creating scientific works, there are frequent cases of partial (and sometimes complete) reprints of the works of other authors, especially in cases of the existence of an exclusively paper form of the tangible medium. For quite a long time, such phenomena were outside the scope of the legislation, which cannot be said today.

In other words, in modern society, information has such a crucial role that it has become a precondition for a new type of society. Quantitative flows of information lead not only to qualitative but also to a change in lifestyle and rhythm. Such volumes of information innovation imply a fundamental reconstruction of almost all spheres of society - social, political, legal, etc.

Comparative Analysis of Legal Regulation of Philosophical Scientific Works in the RF and the RA

The digital age presupposes that the acquisition, processing, storage, transmission, dissemination and use of knowledge and information, which requires legal regulation, are essential in both Russia and Armenia.

From the point of view of legal regulation of scientific works, first of all, mention should be made of the Berne Convention for the Protection of Literary and Artistic Works (1886), according to which the objects of copyright are works of science, literature and art. The same reference exists in paragraph 1 of Art. 1259 of the Civil Code of the Russian Federation (Civil Code of the Russian Federation, part four, 2018, hereinafter - the CC of the RF) and in paragraph 1 of Article. 1111 of the Civil Code of the Republic of Armenia (1998, amended 2022) (hereinafter - the CC of the RA).

Regardless of the type, the scientific works are created to be used not only by a narrow circle of people - scientists of the academic environment but also in order to make them available to wider areas of the public. Unlike literary and artistic works, the specificity of scientific works is the fact that they are subject to publication or other communication to the public more often than other works. For example, in the Russian Federation, the writing of a scientific article or monograph is carried out in compliance with the requirements of scientific publications, and dissertations for scientific degrees (candidate or doctor of sciences) must meet the criteria established by law, namely, the requirements of the Government of the RF of 09.24.2013 N 842 "On the procedure for awarding academic degrees (Decision of the Government of the Russian Federation, 2013, amended 2021) "On the procedure for awarding academic degrees" (together with the "Regulations on awarding academic degrees") and in the RA - the Regulation (1997, amended 2019). On the order of academic degrees adopted in 1997.

When publishing a scientific work, the relationship between the author and the publisher is regulated, as a rule, by an agreement; however, the existence of an agreement is not always a guarantee that this work will not be available in the information and telecommunication network "Internet" (for example, the world's first project that opened a public and mass access to primary scientific sources[1]).

Due to the new technological advances, not only information products are created, but also new types of information services, in the presence of which all means of digital data collection begin to complement each other. The development of digital media is leading to major qualitative changes in almost all areas of society (Bell, 2002, p. 85).

This is especially true today, when, due to the Covid-19 pandemic, a lot of educational programs with distance and e-learning technologies have spread through the Internet, which makes it possible for everyone to use it without regard to citation rules. Such actions are a clear violation of the copyright of the creator of this work, including many cases of selling such works on the Internet for a certain amount (payment). An example is the site https://www.academia.edu/, where you can find freely available many books, articles, monographs of authors without their consent, and even more so without paying remuneration.

If earlier the copyright holders could get rich through the creation and sale of tangible media, and copyright, mainly, stood at the junction of protecting the interests of one entrepreneur from the encroachments of another, then in the digital era, users were able to cheaply (and sometimes free) copy information and exchange it with each other over long distances and in large volumes (Dmitrieva, Savel'ev, Cvetkova, & Chernysh, 2011, p. 3).

It is impossible not to recognize the fact that among the objects of copyright specified in Art. 1259 of the CC of the RF (Article 1111 of the CC of the RA), there is a significant difference between works of science and works of literature and art, it is not in vain that in most countries of the world, special requirements are imposed on works of science, taking into account the sectoral characteristics of these objects. It is difficult to imagine the level of development of this or that

[1] See https://sci-hub.se/.

state in isolation from the development of science, scientific and technological progress. This is revealed in the very concept of scientific work, stated in clause 3.3. Art. 3 of the National Standard GOST R 55385-2012 "Intellectual Property. Scientific works" (hereinafter referred to as the National Standard of RF), according to which a scientific work (work of science) is a protected result of intellectual activity obtained in the course of independent creative work of an individual (a group of persons) in the field of science, expressed in any objective form and containing new scientific knowledge. The types of scientific works are a scientific monograph, a scientific report, a scientific and technical report, a report on research, development, experimental and technological work, a report on patent research, a scientific article, a dissertation for the degree of doctor or candidate of science, a lecture, derivatives and composite scientific works.

In contrast to the RF, in the RA, although there is no legislative consolidation of the concept and types of scientific works, however, the analysis of "Scientific and scientific-technical activity" and "On scientific and scientific-technical expertise" stated in the laws of the RA, concepts "scientific and scientific-technical activity", "scientific and scientific-technical result", "a scientist" allowed us to formulate a new author concept of *"work of science" as a result of scientific, research activities in a particular area, containing new knowledge, provisions based on the analysis and synthesis of already existing knowledge, the solution of certain tasks fixed on any information medium meeting the criteria of scientific protection of copyright objects.* In our opinion, it is required to make changes and additions to clause 1 of Art. 4 of the RA Draft Law "On Copyright and Related Rights" (n.d.), fixing in it a new concept of scientific works, and we also consider it necessary to fix the types of scientific works, taking into account the draft law on Amendments to the RA Law "On copyright and related rights" (United Website For Publication of Legal Acts' Drafts), where in paragraph 2 of Art. 4 the following types of scientific works were proposed as works protected by copyright: scientific article, report, monograph, lecture, etc. We appropriate to amend this list and publish it in the following edition: "The types of scientific works comprise a scientific article; a scientific monograph; scientific, educational and research report; a lecture; a research work (labour); dissertations for scientific degrees of candidate and doctor of sciences; master's theses, etc.".

The legal and regulatory framework for regulating intellectual property is an extensive system including acts that are different in legal force, the territory to which they apply, and the circle of persons. In its most general form, it can be represented as follows: *international legal acts, agreements between individual states, national legislation* (Curikov, 2009, pp. 13-18). Among such agreements, we would like to highlight the "Treaty on the Eurasian Economic Union" ("Agreement on the Eurasian Economic Union") of 2014, to which the RA and the RF are parties, Section XXIII of which is devoted to intellectual property, and the clause 1 of Art. 89 refers to the granting of national treatment to persons of one member state on the territory of another member state with regard to the legal regime of intellectual property objects.

Among the bilateral agreements in the field of copyright, one can mention the "Agreement between the Government of the Russian Federation and the Government of the Republic of Armenia on the mutual protection of copyright" (Agreement between the Government of the Russian Federation and the Government of the Republic of Armenia on the mutual protection of copyrights, 1993), which is aimed at expanding cooperation in the field of mutual exchange of cultural values through the use of works of science, literature and art.

On the basis of existing international legal treaties and agreements between states in the field of copyright, published scientific works of citizens enjoy legal protection, however, the existing protection mechanisms are insufficiently

developed and require additional regulation in order to bring them into line with modern requirements of technological development of the world.

Depending on the types of scientific works, in certain countries, there are special procedures not only for the creation but also for the official recognition by the competent authority (Haritonova, 2018, pp. 15-21) of such works, which from time to time are subject to changes based on the norms of local legislation, which do not always follow the constitutional framework. Thus, the security seems to be rather shaky.

It is worth mentioning that nowadays already "the recognition of certain scientific works" falls under "the recognition of the presence or absence of scientific degrees, titles, etc.", which, in our opinion, contradicts the nature of copyright, since, in this case, scientific works should be protected upon creation, which does not require additional recognition procedures. In the field of science, the works of various authors are used primarily for comparative analysis, which in no way can depend on the recognition of the author himself. Article 1259 of the CC of the RF (Article 1111 of the CC of the RA) presumes the protection of scientific works *regardless of the merits and purpose of the work*. Establishing restrictions on the general regime of scientific works, depending on the "awarding or not awarding scientific degrees" to the author, is unacceptable since even if the author is not awarded one or another scientific degree, the dissertation research is protected as scientific monographs (and this is already a scientific work). Such an approach would contradict not only the norms of the Civil Code but also the provisions of paragraph 1 of Art. 44 of the Constitution of the Russian Federation and Art. 43 of the RA Constitution (2015), according to which everyone is guaranteed freedom of literary, artistic, scientific, technical and other types of creativity teaching. This norm establishes a prohibition on any discrimination in the scope of their rights among authors of scientific works.

This discrimination is not only in the field of law but in almost all spheres of society. In other words, the improvement of the information environment is mostly an external criterion, and in reality, digital civilization has polished the surface but modified or distorted the raw materials (Galbraith, 2004, p. 96). As digital data has expanded, the human being has become increasingly dependent on it, becoming such an attachment to technology, an easily changing screw, which casts doubt on his former creative activity.

Conclusion

One of the fundamental features of the digital age is its global nature, the formation of which also changes the nature of the world economy, making the market incomparably dynamic and competitive. The dynamics of such development dictates the creation of national information infrastructures for each state, which will allow it to be involved in the global information network.

The digital economy can be defined as a system of economic relations in which digital data is a key factor of production in all its areas. In the digital economy, economic activity is carried out using electronic or digital technologies (Vajpan, 2018. p. 12). One of the modern digital technologies can be called a technology "blockchain" (Bulgakov, 2016, pp. 80-88), which is a distributed database consisting of blocks of information and containing records of all transactions made by participants in this system, which was created to make payments between parties without the involvement of intermediaries (financial institutions or states) to eliminate the problem of double debiting of funds from accounts and their possible theft (Stepanyan, 2016, pp. 80-88).

The "blockchain" technology can be considered as one of the modern technical means of protecting scientific works in any placement of scientific works in the information and telecommunication network "Internet" by both publishers and editors.

As Vajpan V. A. rightly notes in his scientific

article, for the development of the digital economy in the Russian Federation, priority measures are needed to create a legal environment for the development of the digital economy. From this point of view, the introduction of the electronic (digital) residence of legal entities seems to be very promising (Vajpan, 2018, p. 13). This example represents the introduction of new mechanisms for the protection of scientific works from illegal uses without citation, applying new digital technology. Legislation should ensure the possibility of identifying subject-users of scientific works, as well as equipment, means of communication and other machines with which the work can be used in any technically possible way. In her scientific work, Haritonova Yu. S. (2018, pp. 15-21) also mentions the absence of mechanisms for fixing intellectual rights with the help of new digital technologies.

Thus, the need for the legal regulation of scientific works in the challenging digital era stems from the urgent need to ensure adequate copyright protection for a serious scientific community, especially taking into consideration the presence of a legislative gap in the regulation of both the concept and types of scientific works. This is the reason the authors of this work developed a proposal on amendments and additions to the current law of the RA "On Copyright and Related Rights", taking into account the comparative analysis of the legislative framework for the regulation of scientific works in the RA and the RF, taking into consideration the existing ties of active cooperation in the field of copyright on the example of concluded international agreements. And the turnover of the results of intellectual property, namely scientific works in the era of the digital economy, will significantly reduce the volume of their illegal use.

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DOI: 10.24234/wisdom.v21i1.720
Liudmila VASILENKO,
Nataliya MESHCHERYAKOVA,
Vitaly ZOTOV

DIGITALIZATION OF GLOBAL SOCIETY: FROM THE EMERGING SOCIAL REALITY TO ITS SOCIOLOGICAL CONCEPTUALISATION

Abstract

The purpose of the article is to consider three important issues from the point of view of synergetic theory: global digitalization of society, digitalization of public administration and sociology of digital society.

We consider that the new trend of informatization, which replaced computerization, internetization and networkization, should be recognized as digitalization as the creation of digital network platforms that have analytical and predictive functions.

In the process of studying the global digital society, two main questions will be asked: How is it different from the previous stage of information society? What problems of its development await us in the future? The authors reveal the last question with a scenario approach, denoting both a positive and an ambiguous perspective for the development of a digital society.

The authors point to the need for the purposeful formation of social institutions in a digital society due to the complexity of the ongoing self-organizing processes.

Consideration of the sociology of digital society begins with methodological problems associated with the study of a complex hybrid system due to the unification of real and virtual social spaces, the emergence of techno-subjects and some experience in the use of digital tools in sociology, allowing to work with interactive dynamic data.

Keywords: digitalization, digital society, complexity, the complex hybrid systems, sociology of digital society, public governance, e-governance.

Introduction

The evolution of the theoretical foundations of the study of society is swift. Industrial society was organized around the production and consumption of things and machines. Post-industrial society has made the transition from the production of things to the production of services related primarily to health care, education and management. The information society has put forward time as the most important value. During the formation of global communications, the synergetics (the theory of complex systems) and informational understanding of the world became the theoretical foundation of the sociology of informatization of public administration. This contributed to the separation of technocratic and socio-humanitarian approaches. The application of the principle of openness to the process of informatization in combination with constructive mechanisms of self-organization made it possible to more effectively implement the mechanisms of democracy.

Today, the theoretical foundations of Digital Society, Digital Economy, Digital Sociology, Digital Divide, Digital Humanities, Big Data, Digital Labor, Digital Education and others are being developed.

Methodology

We apply the explanatory powers of complexity theory of Nobel Prize winner Ilya Prigozhin (1980), Hermann Haken (1977) and Sergey Kurdyumov (1990) on the phenomena they study: fluctuations, feedback amplification, dissipative structures, bifurcations, reversibility, auto-and cross-catalysis, self-organization, etc. (Vasilenko, 2019). This vocabulary is close to the sociocybernetics of the famous scientist Felix Geyer. He was one of the first to understand how cybernetics challenges sociological knowledge. The growth of social dynamics and increasing complexity in the behaviour of social systems made the union of sociology and general systems theory inevitable. Geyer turns to second-order cybernetics, which is not so much interested in technical systems itself as in the interaction between them and humans. He systematizes the properties of such complex systems (Geyer, 1995).

The work used works by Russian scientists: in the context of philosophical rethinking of digital reality (Grimov, 2019), of the interdependence of harmonious human development and the sociotechnical processes of digitalization (Karpova, 2017), of new facets of information culture (Bannykh & Kostina, 2019), Artificial Intelligence and Big Data Technologies (Voevodina, 2019), the Sociology of Digital Society (Vasilenko & Meshcheryakova, 2021).

To confirm certain provisions and the conclusion of the work, we turn to the results of a sociological study conducted on the diagnosis of the potential of social networks. The survey was conducted in September-November 2020 year among the population of Moscow as a subject of the Russian Federation, which occupies a leading position in terms of the level of informatization of the region and the digitalization of public administration, as well as among the population of the Kursk region as a region that occupies median positions in terms of informatization indicators. The questionnaire was conducted both through a field survey and using the Google service. A total of 450 residents of Moscow and 440 residents of the Kursk region over 16 years old were interviewed. The sample was quota by sex and age. During the Internet survey, the achievement of proportionality of quotas of the general population was ensured by sending out personal invitations to respondents satisfying the sampling parameters. Diagnosis of the potential of social networks consisted in determining the current state of the socio-network space of public communications, the readiness of citizens to participate in cooperation with government bodies, the level of organization of the dialogue and partnership in solving socially significant issues, as well as the effective establishment of the established practice of interaction between authorities and the population in the socio-network space (Vasilenko, Zotov, & Zakharova, 2020).

Digitalization of Society

Modern digitalization processes differ from the previous processes of the global information society development. Informatization was associated with the system-activity process of mastering information as a resource for development and management using technical means and infrastructure. The new trend of informatization, which replaced computerization, internetization and networkization, should be recognized as digitalization. Computerization was a broad application of computer technology in the field of professional and everyday human activities. It had established a technical framework for the prompt acquisition, accumulation and processing of information. Global internetization (Web 1.0/Web 1.0) is the integration of computers into a single global network, the wide use of the opportunities provided by Internet sites for reading and obtaining information. Networkization (Web 2.0/Web 2.0) is a process of creating and penetrating sites that allow users who are registered on it to post information and communicate with each other, establishing social ties (relationships). And digi-

talization (Web 3.0/Web 3.0) is the creation of information-analytical (information-on-expert) platforms that have analytical and predictive functions. They are based on the interaction between actors and actants, which is realized not only due to the direct input of the information by a person into a stationary or mobile device but also information obtained from smart devices and sensors. Digital verification forms already holistic electronic platforms as a set of technical and technological solutions that ensure the maintenance of a register of users, the assignment of algorithms of their interaction and the storage of information about online transactions (digital traces) carried out by them. Note that global social networks (Facebook), state portals (State Services), commercial Internet portals and web services (Google) are already turning into information and analytical platforms that use hidden technologies that collect, aggregate and analyze large volumes of personal data and the knowledge about users to create their digital profiles.

At the next stage in the development of the global information society, digitalization is information technology transformation and the modelling of hybrid information-social systems (Tikhonov & Bogdanov, 2020). Hybridity is one of the qualitative characteristics of a digital society. The real social world and the artificial virtual world, built on the basis of computer technologies, which for some time existed in parallel, began to interpenetrate, creating the phenomenon of information-social systems. This is exactly what makes it possible to constitute a new stage in the evolution of post-industrial society into a digital one. Fundamentally new social practices are emerging. They include artificial intelligence agents, technosubjects in social relations (Ignatyev, 2019), as active mediators or participants in these relations. The phenomenon of hybridization is realized through hybrid people who value virtual and real relationships equally, and hybrid intelligence, which combines human intelligence with the "intelligence" of a machine to interact in solving various problems. Hybrid management practices appear. They are implemented in the global information-social space.

Global Digital Society

The digital society is a super-smart society corresponding to the fifth industrial revolution and the sixth technological order, in which the transgression of virtual relations into the real sociocultural world is carried out, the hybrid collective mind is accumulated and intelligently used.

The main sectors of the sixth technological order: nano- and biotechnology, nano energy, molecular, cellular and nuclear technologies, nanobiotechnology, nano bionics, nanotronics, as well as other nanoscale industries; new medicine, household appliances, modes of transport and communications; stem cell use, living tissue and organ engineering, reconstructive surgery and digital medicine.

The digital society has the following characteristics:

1. The main factor of production and type of ownership has become technological platforms, the owners of which are striving to monopolize advanced information technologies.
2. There is a transition from a vertical organization of management and activities to a predominantly horizontal, networked one, in which fractals of remote and distributed work of teams of employees intelligently use hybrid intelligence and reproduce themselves in business, science and other areas of activity.
3. The social structure is changing towards greater differentiation and exacerbation of inequality, which gives rise to the risks of the appearance in the society of surplus labour resources unclaimed by the economy, a crisis of the electoral and political systems, and a possible revision of the social contract.
4. Virtual relationships products become more real and define a person's life than real communications, which changes the nature of sociality.

The Sociology of Digital Society

Sociology is faced with the task of formulating a conceptual apparatus, theoretical and methodological grounds, methods of empirical research and measurements of digital society and digitalization as a process of its formation (Meshcheryakova, 2020). Classical sociology, with its huge number of theories, methods and techniques, is no longer sufficient for the cognition of objective reality, partially virtualized. With the emergence of modern hardware architecture, a technology stack for analyzing big data, the formation of sociological methods of cognition of this new hybrid reality, we can argue that the foundations of the sociology of a digital society are being laid together with the digital society. That is, we can say with confidence that the sociology of a digital society is built on a flexible combination of classical and digital sociology.

We see the following promising areas of development of the sociology of a digital society (see Vasilenko & Meshcheryakova, 2021):

- sociological analysis of complex social processes, of the formation of order parameters, the study of the dynamics and specifics of the spontaneous emergence of new information channels, networks, boundaries of information governance process:
- analysis of the pace and rhythm of interacting network processes, the study of their cooperative potential and antagonism, the intersection of networks of ideas, interests, principles, rules, real and virtual actions;
- the research the network activity of virtual communities, the social potential of social diffusion and the level of their entropy.

Virtual space is a global space of interaction and active communication through portals, sites, forums, social networks endowed with certain meanings. This is a place for expressing one's personal position with the possibility of forming a new view of social needs. The filling of social networks with meanings can become an indicator of the state of public relations. Virtual networks filter semantic values, determining the direction of information flows.

Digitalization of Public Administration

With digital networking platforms, the public administration system can make real-time decisions. Digital networking platforms are more sophisticated electronic tools that not only provide services but also enable citizen participation in decision-making. And if you use the direct meaning of the platform concept as a set of digital technologies focused on using a web application system on a single server for interactivity and personal participation, then modern public administration includes such technologies under the flag of "e-governance". T.O'Reilly's (2010) idea of a state as a platform is beginning to gain international support. In many countries, it began to find practical implementation and was the basis for a new round of administrative reforms.

The digital network platform provides a convenient basis for representing the state as a space for civil activity. In this regard, the idea of the state as a platform cannot be effectively implemented outside the socio-political context. Therefore, the methodological foundations of public management are transformed from the concept of New Public Management to the concept of Public value management. Here, public administration is based on the systemic interaction of stakeholders among themselves in order to organize a dialogue and resource partnership on a socially relevant issue of interest to them. F. Geyer emphasized the ability of systems to organize themselves a quarter of a century ago. Disappointment in the success of long-term planning has led to the realization that individuals and organizations are largely self-reliant. Long-term predictions are impossible due to the reflexivity of psychological and social systems. Knowledge at the moment of its acquisition changes the behaviour of such systems. In this

regard, social systems differ from many other systems, including biological ones. There is a clear two-way link between the self-knowledge of the system, on the one hand, and behaviour and its structure, on the other (Geyer, 1995).

Digital networking platforms create the conditions for combining the concepts of "e-government" and "e-democracy". The platform state has characteristics that contribute to the development of democracy in the broad sense of the word, including civic participation in almost everyday state activities and in-service delivery processes (Smorgunov, 2019). In this regard, the digital network platforms of the state become the basis for the network interaction of citizens, civil society and business associations with the state in various areas of public activity.

The need to make governance in a digital society public is formulated by the UN:

"Public administration is a complex of mechanisms, processes, relationships and institutions through which citizens of the state and their associations express their interests, exercise their rights and obligations and resolve differences. Governance can be carried out by all methods that society uses to distribute power and manage state resources, as well as resolving emerging problems" (Rondinelli & Blunt, 1997).

The subjects of power are authorities, citizens and their associations. Therefore, in the process of digitalization of the control system, the developer must provide for:

- special mechanisms for the performance of management functions by each subject;
- online tools for expressing the interests, rights and obligations of citizens in the governance institutions,
- mechanisms in place to deal with emerging disagreements.

We see the need to turn from "digital regulation" to "smart governance" relying on participation, partnership, coordination, "organizing horizontal connections and relationships between transformative power from above and spontaneous self-organization from below"...

Participatory governance provides for the full involvement of new political actors in public administration. Without this, the development of democracy is impossible. Participatory governance requires a clear agreement on a system of values, an agreed set of principles that reflect a system of views on the world, cognizable and perceived in the process of communication and productive interaction of citizens and authorities, determining norms of behaviour and relations in society.

But self-organizing institutions of the last century that regulate Internet interactions cannot cope with new information flows. Virtual activity has a reduced social responsibility. Social institutions that ensure social order and security in a global digital society have not yet emerged.

According to the results of our study, the respondents agree that the Internet sites organized by the authorities are needed to quickly convey information from the authorities to the population and vice versa. They are needed to collect citizens' opinions, put forward initiatives, and citizens' participation in the preparation of management decisions. Authorities are already using social networks to organize joint actions, to answer citizens' questions, collect critical information identify problems of the population, monitor the implementation of decisions, organize online communities loyal to the authorities (Vasilenko et al., 2020).

On the other hand, we see a contradiction that reflects the complexity of the digital world.

This is confirmed by the answers to questions about the activity of citizens on specialized Internet platforms of authorities (Active Citizen, crowdsourcing):

- 34.2% of the respondents answered "yes, I heard something about them",
- 42.2% have not heard anything about them,
- 11.6% are well aware of them,
- 10.1% are users of such a site.

The citizens' assessment of the usefulness of this tool is as follows:

- they only "collect information about the problems of the population" (46.7%),
- they "imitate vigorous activity" (42.2%),
- 17.6% do not believe in the ability of this tool to "solve socially significant problems".

Conclusion

We already live in a hybrid space.

In real space, there is a state, laws, social institutions, traditions, morality operating. We can improve it. There are no state borders in the global virtual space. People gather in network communities in accordance with their values, socio-cultural and biological characteristics, and social institutions have not been formed; there are no laws yet.

Technical platforms are in the hands of people who are not responsible for the security of society and the state. Techno-subjects are powerful technologies. They can also be in the hands of different subjects. The state is trying to regulate these processes with the same instruments that operate in the real world. But the nature of the virtual world is different.

Humanity faces a choice. The laws and social regulators of the real world are not adequate in the virtual world, and new ones are needed. Real-world power at this stage needs to be especially smart with smart feedback tools!

And here we must update the two problems raised by F. Geyer:

1. Should the behaviour of individuals and groups be planned from the top down so that society can survive in the long term? Or should the competence of subjects of a speech at all levels, including the lower one, be increased, thereby increasing their ability to manage the environment more effectively and participate more successfully in goal-oriented behaviour?
2. Given the above choices, what should be the role of science? Especially social sciences. Should social science primarily strive to provide useful knowledge for improving the management of the behaviour of social systems and individuals? Should social science strive to improve the competence of subjects at the grassroots level so that these subjects can govern themselves and their own environment with better results?

Acknowledgements

Research of the authors partially supported by grants: Russian Fond for Basic Research, grant 20-011-00694 Public Administration as Configuring of Relational Networks in the Public Space of a Digital Society.

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PHILOSOPHY OF LANGUAGE

DOI: 10.24234/wisdom.v21i1.598
Asiyat ABDULKADYROVA,
Khaibat KADACHIEVA

FIELD STRUCTURE OF THE VALUE CONCEPT "KINDNESS" IN THE ENGLISH LANGUAGE (BASED ON THE BRITISH MEDIA TEXTS)

Abstract

The aim of this paper is to structurize the concept of KINDNESS representing a part of the British value system. The research is conducted on the basis of media texts evincing the most dynamic source of creating and developing social values.

The analysis of language facts proves that the given value concept represents a complicated structure including nominative, informational and interpretative fields.

The nominative field is represented by the basic lexeme *kindness* and its synonyms. Semantic components acting as cognitive features of the concept KINDNESS form its informational field, namely in the British media texts.

Special attention is focused on the analysis of the interpretative field that consists of several spheres, among which most axiologically explicant stand out the utilitarian and evaluative spheres. The cognitive features of the utilitarian sphere of the concept are associated with the peculiarities of manifestation and goal-setting of kindness, while the evaluative sphere is determined by combinatory facilities of the lexeme *kindness*.

Keywords: value concept, axiological component, field structure of the concept.

Introduction

Spiritual life is the most important social and philosophical problem. It determines relationships between the world and society, where basic spiritual values play a key role. They reveal people's ideological and vital interests, satisfy their spiritual needs, direct and permeate human activity in all spheres.

Kindness is one of the major and universal spiritual values. It is considered as a spiritual and moral quality, desire and ability of a person to demonstrate his/her goodness (The Teacher's Encyclopedic Dictionary "The Fundamentals of the Spiritual Culture"). The latter is understood as a person's adequate attitude to his affairs, other people and the surrounding world (Koval, 1997, p. 280). As a psychological phenomenon, goodness is seen as something "good, pleasant and useful" and, therefore, valuable, done for the sake of another person in specific living conditions (Brazhnikova & Zuzya, 2011, p. 35), conscious activity and behaviour.

Kindness is a component of the value system, which is determined by mental representations of a particular nation. They are fixed in the language and realized in the discourse in the form of value concepts. The given concepts designate universal and specific features of communication and activity of the nation and reflect the gist of mental axiology (Erofeeva, 2010, p. 26).

Social and cultural values, new and traditional, are primarily propagated by media texts. They contribute to the national picture of the world and determine value priorities of the social, political and spiritual life of the nation. This research

is based on the material of more than 200 articles (900,000 p.c.) selected from the high-quality British newspaper "The Independent" (2018-2021) and English lexicographic sources.

Theoretical Framework

A significant part of the information about the surrounding world comes through the linguistic channel. We can say that we do not live in a world of things but in the world of concepts that we create to meet intellectual, spiritual and social interests and needs. Representing a micromodel of a culture, a concept creates it and at the same time is created by it. Being "a cluster of culture", a concept conveys extralinguistic and pragmatic information (Stepanov, 1997, p. 40), experience and understanding of the world, thus moulding the conceptual field of the human mind.

Nowadays, scholars are particularly interested in value concepts, considering them to be "keys" to the disclosure of living conditions, stereotypes, norms and rules of behaviour of representatives of national cultures. Value makes up the core of any concept employed for culture study, and culture is known to be axiologically biased (Kononova, 2010, p. 7). The value concept does not only exist in the human mind. In the process of speech communication, it is verbally transmitted by lexical and phraseological units, proverbs and sayings, sentences and texts (Ryabkova, 2012, p. 187).

Like any other concept, the value concept has a structure about which the opinions of scientists vary. V. I. Karasik, V. V. Krasnykh, S. G. Vorkachev, L. O. Cherneyko and others suppose that the concept structure is rather multicomponent and includes nominative, conceptual and axiological constituents. Y. S. Stepanov (1997), for example, considers the concept as a "layered" formation consisting of the dynamic, static layers and literal sense (p. 41).

Following Z. D. Popova and I. A. Sternin (2010, pp. 106-114), we understand a concept as a field structure having three basic structural components: image (perceptual and metaphorical), informational content (cognitive features representing the most important distinctive features of an object or phenomenon) and interpretative field, in which several spheres are identified – evaluative, encyclopedic, utilitarian, regulatory, socio-cultural and paremiological. This structure is rather flexible, as "any concept is functioning and being actualized in its various components and aspects, it constantly gets into connection with other concepts and derives from them" (Popova & Sternin, 2001, p. 58).

According to G. G. Slyshkin (2004), the axiological relevance of the linguocultural concept is determined by its actuality and evaluativity (p. 23). Actuality is realized in the number of language units actualizing this concept, and evaluativity presupposes the presence of an evaluative component in the meaning of the concept's name, as well as its combinations with evaluative epithets.

Methodology

The purport of this study is to reconstruct the value concept KINDNESS in the English language. This purpose and empirical data predetermine the complex research methodology, including methods of conceptual, interpretative and component analysis. With the help of the *continuous sampling method,* examples for further analysis of the value concept KINDNESS are selected from British high-quality media texts. By means of the *conceptual analysis in combination with definitional and contextual*, the reconstruction of the value concept KINDNESS is carried out.

The procedure of the conceptual analysis involves the identification and description of nominative, informational and interpretative fields. Within the framework of the nominative field, the basic lexical representatives of the concept and its synonyms are determined, and the cognitive features of the concept are revealed in the informational field. The overall image of the

concept KINDNESS is gradually reconstructed through the analysis of the interpretative field of the given value concept in the English media discourse.

Results and Discussion

In this research, KINDNESS is considered as a value concept, the nominative field of which is represented by the lexeme *kindness* and its synonyms. By the data given in the Dictionary by Merriam-Webster, synonyms of the word *kindness* can be classified according to the following specific meanings:

- *"an act of kind assistance": benevolence, boon, courtesy, favour, grace, indulgence, mercy, service, turn*;
- "*the capacity for feeling for another's unhappiness or misfortune*": *bigheartedness, charity, commiseration, compassion, feeling, goodheartedness, heart, humanity, kindheartedness, kindliness, largeheartedness, mercy, pity, softheartedness, sympathy, warmheartedness*;
- "*sympathetic concern for the well-being of others*": *beneficence, benevolence, benignancy, benignity, compassionateness, goodheartedness, humaneness, kindheartedness, kindness, softheartedness, tenderheartedness, tenderness, warmheartedness* (Dictionary by Merriam-Webster, n.d.).

In the media texts, *kindness* is identified alongside the following representatives of the nominative field: *goodness, generosity, charity, humanness, compassion* and *benevolence*.

Clawson stated that Mauller's act of kindness had inspired her children to follow in her footsteps and show compassion for others in their day-to-day lives (The Independent, 14.08.2018).

The data of thesaurus and encyclopedic dictionaries (The Premier Educational Dictionary-Thesaurus, Longman Dictionary of Contemporary English, Penguin Concise English Dictionary, The Webster's New Online Dictionary) enable us to deduce semantic components that act as cognitive signs of the concept KINDNESS and represent its informational field:

- the quality/ability to be kind;
- a kind act/action;
- a generous or charitable action;
- benevolent or obliging action;
- an act of kind assistance;
- a compassionate act;
- a consideration and caring act.

Let's investigate how the cognitive features of the concept KINDNESS are explicated on the basis of media texts describing various acts of kindness (the lexemes explicating the analyzed cognitive features are hereinafter given in a bold type).

The quality/ability to be kind can be explained as the ability and desire of a person to spend his time, emotions and vital energy on another person, be responsive and show his patience and compassion for others.

Disney research found 90% of British parents with young children believe kindness is the most important quality. "Showing kindness and having courage are qualities everyone hopes to possess and teaching these traits to children from a very early age and praising children when you see them is really important (The Independent, 30.04.2021)

A kind act/action. Every year, on February 17, the whole world, including Britain, celebrate Random Acts of Kindness Day. This is one of the recent initiatives of international charitable organizations which call to be kind to everyone perform kind, sincere and noble deeds. Newspapers give coverage to these examples of kindness to inspire people to do good things show humanity, tolerance and empathy.

Random acts of kindness day: 12 amazing stories of kindness that will warm your heart (The Independent, 17.02.21).

Clawson stated that Mauller's act of kindness had inspired her children to follow in her footsteps and show compassion for others in their day-to-day lives (The Independent, 14.08.2018).

A generous or charitable action. *Kindness,*

generosity and *charity* are interrelated virtues directed to help people. The difference between these concepts is as follows: *kindness* is the desire/ability to be useful, attentive, caring, friendly, etc. to other people; *generosity* is giving or sharing in abundance and without hesitation (Dictionary by Merriam-Webster, n.d.), especially giving things to people (Macmillan Dictionary, n.d.); *charity* is the giving of necessities and especially money to the needy (Dictionary by Merriam-Webster, n.d.). Therefore *generosity* and *charity* are kindness shown materially.

When nine-year-old Molly McGinley spotted charity workers helping the homeless in 2017, she felt inspired to do what she could to provide support for those sleeping rough on the streets of Manchester (The Independent, 17.02.21).

A benevolent or obliging action is defined as the ability to show a friendly and kind disposition to people, the willingness to help and being generous towards people (Macmillan Dictionary, n.d.). It improves both your health and the people around you, make yourself and them happier, give positive emotions in hard times.

If you want to be happy, Ricard says you should strive to be "benevolent," which will not only make you feel better but it will also make others like you better (The Independent, 12.09.2020).

"If your mind is filled with benevolence, you know – the passion and solidarity ... this is a very healthy state of mind that is conducive to flourishing," Ricard says. "So you, yourself, are in a much better mental state. Your body will be healthier, so [it] has been shown. And also, people will perceive it as something nice." (The Independent, 12.09.2020).

An act of kind assistance is physical and spiritual help given to sick and isolated people, children and women.

Kate Middleton tells the children ... to "spread a little KINDNESS" and encourages listeners to talk to each other and share their problems. "You can also play your part in helping others to feel better too, whether offering a friendly ear or helping someone in need. The Duchess asks the children: "What is KINDNESS?" to which one replies: "Sharing, that is KINDNESS" (The Independent, 17.06.2020).

Simple acts of kindness are more important than ever. Supportive phone calls, an empathetic ear and expressions of love do not just feel good – they can also bolster the immune system on a molecular level (The Independent, 06.94 2020).

A compassionate act. In the articles under consideration, a kind attitude is often accompanied by compassion or empathy – the ability to put yourself in other people's shoes, fully feel their worries and make a decision to help in any situation.

In the past month, the majority of us have been galvanised into the kinds of good deeds and shows of compassion; what's undoubtable is that kindness and compassion have a well-documented feel-good effect in the immediate. "If we are all working to be more compassionate towards one another, then there is a possibility that we'll change the world during this pandemic." (The Independent, 24.04.2020).

Here are six ways travel companies are doing their bit by spreading a little compassion and kindness, from offering hotels to key workers to repatriating Brits stranded abroad (The Independent, 24.03.2020).

On the basis of analyzed articles, consideration and caring act is defined as an act of kindness that doesn't have to be a grand gesture. It can be a small sign of attention and care, such as a compliment, a wish of a good day, a smile or an offer of help.

Acts of KINDNESS don't have to be grand gestures. Showing someone that you care could take something as little as paying for their coffee order or wishing them a good day (The Independent, 17.02.2021).

The study of British media texts showed that all the above-mentioned cognitive features are inherent to the value concept of KINDNESS.

In the interpretative field of the concept

KINDNESS, there are several spheres: encyclopedic, socio-cultural, paremiological, regulatory, utilitarian and evaluative. Without dwelling on all these spheres, let's examine in detail the evaluative and utilitarian ones as they expose the axiological component of the concept of KINDNESS.

The analysis provided on the basis of the factual material (media texts) revealed that the evaluation sphere of the concept is represented by cognitive features actualized in combination with adjectives having positive connotations: *good, incredible, powerful, beautiful, great, tremendous, exceptional, modest, true, disinterested, selfless, easy* and others.

'That is the most beautiful act of kindness,' one person commented (The Independent, 19.03.2021).

From selflessly giving to the homeless to honouring fallen heroes, *take inspiration from 12 of the most incredible acts of kindness* (The Independent, 17.02.2021).

Study of the concept KINDNESS designated some cases of combinability of nominative lexemes with neutral and even negative adjectives: *microscopic/ random/ tiny/ small/ viral/ contagious acts of kindness, uncommon kindness, unexpected public generosity, underrated generosity, inherent goodness, little compassion* and so on. As a result, negative characteristics shift to positive ones. It can be explained by the fact that the basic concept of KINDNESS is exclusively positive by its nature.

One clear message from the experts is to act small – performing what Simon calls "microscopic acts of kindness". …Continuing to support those nearby is a tiny but powerful act (The Independent, 16.05.2020).

*Kindness is contagious – and it makes both you and the person you got it from feeling great (*The Independent, 30.04.2021).

The utilitarian sphere combines cognitive features that express people's utilitarian, pragmatic attitude to the denotation of the concept as well as knowledge about its practical use (Popova, 2010, p. 112). This zone is openly exposed by various linguistic units possessing positive connotations:

1. combinations with adjectives *important, all-purpose, heartwarming, overwhelming, searching, critical, selfless* and others. They describe such a feature of good deeds as *selflessness*, when *good* is done without any benefit and self-interest, but only with good intent. The expectation of a subsequent reward devalues such an act.

   From selflessly giving to the homeless to honouring fallen heroes, take inspiration from 12 of the most incredible acts of KINDNESS (The Independent, 17.02.2021).

   Such sincere acts bear positive results and make people respond gratefully.

   "Many of you donate to charities on his behalf and mark the occasion by giving back or doing an act of service – all through the goodness of your hearts. You raise funds for those who need it most and continue to do so organically and selflessly. We remain incredibly grateful." (The Independent, 6.05.21).
2. word combinations: *improve depression; make feel great; have a positive impact; help in need; make smb feel valued; multiply and positively impact; inspire to follow; make a real difference to people's lives; cope better with stress, lessen the symptoms of depression and anxiety; minimize stress; improve depression; lower blood pressure; change the world; reduce our perception of pain and even help us live longer* and others.

   Kindness is shown to boost the immune system, lower blood pressure, lower cortisol, reduce our perception of pain and even help us live longer. Repetitive acts of KINDNESS also boost our mental health (The Independent, 24.04.2020).
3. set metaphoric expressions: *warm your heart; make someone's day; help restart their life; set the world in the right direction; build positive, healthy, strong relationships; switch off the threat response* and so on.

"These findings suggest that being kind to oneself switches off the threat response and puts the body in a state of safety and relaxation that is important for regeneration and healing," says Dr Hans Kirschner of the University of Exeter, first author of the study (The Independent, 07.02.2019).

Other studies suggest being kind to others can minimize stress, improve depression, reduce the risk of cognitive impairment and contribute to a sense of belonging, which is a key contributor to a healthy, longer life (The Independent, 18.02.2020).

As a result of factual data analysis, there have been stated cognitive features of the utilitarian zone of the concept KINDNESS, which are associated with the peculiarities of kindness representation:

1) positive impact on human health and quality of life;
2) causing a feeling of happiness;
3) strengthening of relations;
4) changing the world.

1) Positive impact on human health and quality of life. According to the research, the ability to treat people with kindness is a key point leading to a healthy life. It is explained by the fact that acts of kindness have a positive effect on the psychological state of a person; it reduces the feeling of stress, anxiety and depression, as well as positive, kind thoughts help to relax and feel safe.

These findings suggest that being kind to oneself puts the body in a state of safety and relaxation. Thinking kind thoughts about yourself and your loved ones can prove beneficial for your overall wellbeing, a study has discovered (The Independent, 07.02.2019).

Manifestations of kindness, support and compassion improve the immune system and physical health of a person and, as a consequence, extend his life expectancy.

Supportive phone calls, an empathetic ear and expressions of love do not just feel good – they can also bolster the immune system on a molecular level. Whether you are the recipient or the giver, kindness is good for your health. One of the most important things kindness can do is ease our reaction to stress (The Independent, 06.04.2020).

2) Causing a feeling of happiness. By good doings, we fill ourselves with joy and happiness, "infect" other people with these feelings and help them feel better.

"There was a study that found that even seven days of repeated small acts of kindness boosted levels of happiness. It's amazing because it's something all of us can do." (The Independent, 24.04.2020).

3) Strengthening of relations. Kindness also contributes to high-quality interaction and strengthening healthy and friendly relationships between people.

Kindness helps us to connect with friends and family – it makes them feel valued and builds positive, healthy, strong relationships (The Independent, 30.04.2021).

4) Changing the world. Kindness can improve the quality of human life and help start it over again, as well as change the whole world for the better.

If we all do one random act of KINDNESS daily, we just might set the world in the right direction (The Independent, 18.02. 2019).

"*The storyline illustrates how acts of KINDNESS, large and small, can multiply and positively impact the world ...* (The Independent, 13.11.2020).

The conceptual features of the utilitarian sphere, determined on the basis of the media texts, describe the concept of KINDNESS as one of the most important constituents of the value system: it positively impacts people's health, makes them feel happy, strengthens relationships and changes the world for the better.

Cognitive features as constituents of the utilitarian and evaluative spheres of the concept KINDNESS characterize it as a value improving human health and quality of life. It's worth noting that many scholars consider life as *the su-*

preme value (A. K. Rychkov, B. L. Yashin, V. M. Rozin, V. M. Talanov, V. A. Kuvakin and others), "something that is self-evident, beyond any doubt or discussion, and, consequently does not require any theoretical investigation" (Rozin, 2000, p. 2). Kindness is "*the most important, central and initial value" because it acts as the basic one for others* (Talanov, 2010), *helps to realize our humanity, all our positive qualities and virtues, all our values"* (Kuvakin, 1998, p. 157).

Drawing from modern British media texts, the interaction between the utilitarian and evaluative zones of the concept KINDNESS has been established, thus explicating it as a positive and valuable component of human existence.

Conclusion

The data obtained verify the structure of the value concept KINDNESS as a complicated multi-layered phenomenon consisting of three fields: nominative, informational and interpretative.

The nominative and informational fields of this concept are described in detail in the linguistic literature. In the given study, the nominative field of the value concept KINDNESS is diagnosticated on the basis of modern British media texts and represented by the basic lexeme *kindness* and its synonyms: *goodness, generosity, charity, humanity, compassion* and *benevolence.*

As a result, we established that the informational field of the concept KINDNESS is formed by the following cognitive features; *the quality/ability to be kind; a kind act/action; a generous or charitable action; benevolent or obliging action; an act of kind assistance; a compassionate act; a consideration and caring act.*

The interpretative field includes encyclopedic, regulatory, socio-cultural, paremiological, utilitarian and evaluative spheres. The results of the analysis of the interpretative field are very significant as they demonstrate fluctuations of the cognitive features caused by functional differentiation and subjective interpretation. Namely, utilitarian and evaluative spheres convey ethnospecific peculiarities of the concept.

The evaluation sphere designates combinatory facilities of the concept while cognitive features of the utilitarian sphere contribute manifestation of the kindness and its goal-setting: *positively impact on human health and quality of life, strengthen relations between people and make them happy, change the world for the better.*

Acknowledgements

The reported study was funded by RFBR, project number 20-312-90038 "The concept sphere of spiritual values in British and Russian linguistic cultures".

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DOI: 10.24234/wisdom.v21i1.614
Yuliia MELIAKOVA,
Ganna KRAPIVNYK,
Inna KOVALENKO,
Eduard KALNYTSKYI,
Svitlana ZHDANENKO

PERFORMANCE CONCEPTUALISM: FROM SEMANTICS TO BODY LANGUAGE

Abstract

The research focuses on the philosophy of performative actionism. It refers to the contemporary practices of installations, happenings, monstrations and flash mobs on different topics as to the concept of pure action. Performance is regarded as the relevant understanding technique to manifest the currently popular dynamism principle of arts and philosophical anthropology. The research aims to analyse the art experience of the subject's bodily actions to demonstrate their anthropological authenticity, social significance, legal value, epistemological activity, and political will. As a result, authors conclude that non-semantic silent performances reveal limited possibilities of modern human self-realisation despite having several rights, freedoms and technologies to improve their lives. Performance is viewed as a conceptual model of individual functioning in the polyontic reality. As an alternative to the linguistic one, self-representation through performance is a rather flawed but relevant means of showing the nature of the subject's existence in the contemporary social, legal, political and cultural environment.

Keywords: performativity, performance, agent, action art, body, corporeity, actionism, installation, gesture, presence.

Introduction

The essential kind of human activity today is, indeed, communication. However, the reset of cultural paradigms proves that communication acquires a different character, changes applied technologies and acquires new relevant formats. Human needs simplification and naturalisation of human needs lead to the segmentation and localisation of human ways of expression, higher activity, the increase of their mobility and the people's loss of their anthropological integrity. The biological body is at least as important as the emotional or spiritual state. Semantic discourse is separated from the performative act.

The existence of a person in a multi-level meta-environment demands non-institutionalised means of self-positioning and self-realisation. Reality undergoes hybridisation, transforming society. The very subject mutates, shifting from a profound transcendental person to a public but conspiratorial agent. The research interest in the possibilities of the agent's mind, psyche, and body and the alternative means of their activities has been increasing. These promote the development of new technologies and tools for human adaptation to the hybrid environment. Against that background, the methodological articulations become vital, with their performative acts and performance as efficient social and art practices of a person's self-realisation. Performance, lacking speech hermeneutics, acquires its value in the arena of global communication, being implemented in both live bodily forms (flash mobs,

socio-mobs, monstrations and installations) and via digital visual images (video resources on popular platforms, especially video streaming versus broadcasting).

The main goal of this study is to show that the creative action space makes it possible to realise the main conceptual ontological principle of our times – the disruption between physical and meaningful activities, actions and comments, acts and words, body and corporeity. A person cannot preserve their integrity in the stratified reality. Their verbal-symbolic essence is separated from the physical body since they present themselves and communicate autonomously and independently. Personal de-socialisation and fragmentation, along with the dominance of the virtual world, have led to the depletion in the repertoire and fragmentation of a number of human functions, particularly localisation of their speech and actions. Thus, performance is becoming an irreplaceable alternative form of self-realisation of the silent body. Meanwhile, language remains a person's way of existing as an agent of the information environment.

Methodology

The rapid development of the modern world finds its theoretical interpretation in the ontological concepts of hyper-modernism, virtuality, transgressiveness, dynamism, corporeity, and performativity. That theoretical discourse is accompanied by a growing number of creative human practices of cognition, comprehension, integration, self-expression, communication and self-realisation. Any area of public or private human activity, including social, legal, political, economic or artistic, has its own conceptual, technological and methodological features in the meta-modernism landscape, possessing a particular cultural logic of late capitalism. An essential feature of meta-modernism as a currently relevant paradigm and a methodological model is the trend to eliminate the extravaganza of post-modernist speech games, which carried away into its hyperspace of synthetic and illusory grammatology and discursiveness. Meta-modernist ontology sees real beings in the presence and dynamics of the bodies of the natural performance of life. Performance today plays the role of the leading ontological, epistemological, hermeneutic and anthropological category, one of the critical concepts of the post-non-classical philosophical and scientific methodology, as well as the leading progressive technique in art.

This thematic discourse unfolds within the framework of philosophical ontology, using the methods of phenomenological reflection, deconstruction, hermeneutic analysis and interpretation, correlations of social and virtual performances. The study is based on the theoretical principles of simulativeness, discursiveness, dynamism and performativity.

Meta-modernism has also changed the nature of subjectivity. Despite the metaphorical statement of his/her own "death", the author in post-modernism possessed absolute and unlimited power over the symbolic reality of the text. Arbitrarily generating senses and meanings of things, they literally created myths about reality, not striving for its authenticity and increasingly drifting away from it. The subject existed as a multi-layered formation of intersecting texts, already read and interpreted, though still capable of generating more and more new meanings and reactions in new contexts of the communicative field.

Thus, the discursive being of the postmodernist subject was not at all limited to the prototype of a symbol or sign and was not checked with it. The world-text existed as a universe of author's myths, whereas the anthropic nature of the subject manifested itself exclusively in their communication and mutual recognition of the mutual value of oneself and another, equal to oneself. Today, the apology of the text has been replaced by the triumph of the somatics, and the dynamics of narration has been replaced by the dynamics of objects. Currently, observed priorities are those of body and corporeity, naturalness, sensual presence, actionism, potentiality, natural law

and real action, suffering and satisfaction, participation and life.

Post-postmodernism has marked itself with the search for the "lost reality". According to it, "reality" should be understood as both the objective and subjective being of the person. New unique technological capabilities of interiorisation, visualisation, and increased physiological functionality of the subject's brain and body have dramatically changed the idea of reality itself (Meliakova, 2020, pp. 119-122). Today, it is not a semiotic simulacrum that "comes to life" through subjective interpretation, but an independent *action* open to perception, sensation, understanding, and participation. Modern subjects position themselves not through their language but through their active or passive *presence*. Speech acts are replaced with physical acts of self-expression. The speech and action ratio has changed, too. Signs represent themselves not in the text but in the performance. The emerging meanings are no longer regarded stable [for a specific cultural context] in their meanings, but they are upgraded, reloaded, re-defined repeatedly through presence and participation.

Within meta-modernist content, the category of "performativity" / "performative" has lost its classic meaning, suggested by J. Austin (1999) – "the efficacy of utterances" – and has acquired a slightly different, almost literal meaning: the technique of bodily representation. In this capacity, this term has firmly established itself in the methodological discourse of modern humanitarian knowledge, having originated in post-non-classical art. Performance as a modern method of self-expression, presentation, positioning, participation, understanding, and integration clearly expresses the new dialectic of action and meaning. The interpretation of all dimensions of reality today requires the final refusal from the linguistic technique for the sake of body language technique and expressive performative techniques.

In the simulated human world, prioritisation changes: semantic symbols yield to actionism, while verbal communication channels are frequently replaced with non-verbal ones. Linguistic symbols, carriers of stable meanings, filled the ideal being with more or less popularised myths. All horizons of a person's public existence – political, legal, ethical, labour, market, educational and cultural – were the sphere of combined myths, the skilful operation of which demonstrated the very *deconstruction* – a universal postmodernist method of understanding, cognition, interpretation, communication, and self-expression, popular in semiotics, logical semantics, post-structuralism, hermeneutics, epistemology, phenomenology and anthropology at the turn of the millennium. Skilful deconstruction raised its master to the level of an autonomous and independent full-fledged subject, arbitrarily creating precedents of meanings in the gaps of mythologies at the crossroads of semantic vectors, thereby provoking conflicts of contexts and generating the author's new meanings. It was deconstruction that guaranteed the identity of the subject. However, the space of discourse in which the author stayed made the identity dynamic and unstable, similarly to the discourse itself.

In fact, until recently, the discursive semantic field was the main meta-reality of communication and being, in general. Outside the discourse, the subject did not exist at all. Articulation practices therein contributed to creating new semantic connections and, consequently, an individual's self-creation.

However, recently, the concepts of subjectivity, individuality, self-expression and existence have undergone significant changes. Within the modern context, individualisation has no direct connotations with the individual. The individual as a term for someone holistic, deep, spiritual, existential, personal, and associated with the group no longer exists. There is a unit isolated from the whole, a fragment, an activist, an actionist, an agent, devoid of integrity, involvement, solidarity, kinship, mutual recognition, and context. Anthropism has been developing to-

wards the *agent* involved in network interaction in objective reality.

The issue of the difference and relevance of the two categories – "presence" and "availability" – equally characterises the agent's way of remaining debatable. While *availability* focuses on physicality and materiality, *presence* implies a spatial-bodily dimension, which includes both a virtual sensory corporeity and the biosocial body itself, in its role significance.

In neo-materialism, the physical body has become an object of increased research interest, along with the phenomenon of the crowd, gathering, genderism, performance, flash mob and various bodily practices. This is based on current trends in transhumanism, biopolitics and the genesis of somatic rights. The concept of the *body* was developed in the modern theory of *performative subjectivity*, substantiated in particular by the American philosopher J. Butler (2002; 2018), political philosopher J. Dean (2017) and sociologist G. Standing (2014). Their performative actionism is of political nature, and it is mainly revealed through the precarious activities as a legally vulnerable category of the population. The precarious body is a non-verbal way of their silent self-expression and compensation of the social deficiency. J. Dean also notes that the efficiency of a symbol as a communicative element in the communicative capitalism network falls. The *body* correlates with the *agent* of the performative/performance, that is, the act/action in which people-events participate and perform. In American "left" political theory, this concept is called "agent realism" (*agency* as the key notion) (Kovalenko, Meliakova, & Kalnytskyi, 2020, p. 97).

The choice of a performative paradigm in modern methodology is obvious and beyond doubt. Performative acts become a way of bodily communication, a manifestation of the individuality of agents, of creating a global dimension of the performative set, organising various kinds of situational, branch and consumer alliances. The performativity becomes a feature of mass culture and *being* for a human in the contemporary world. The body gains significance in any human activity, starting with art and finishing with market relations. There have long been scientific discussions about the body as the main substantive, productive, biological, intellectual and communicative resource. Pragmatic ideas of corporeality have been shaped within the theory of commodification of the human body, the concept of self-entrepreneurship and self-exploitation (Gorz, 2010). For instance, Italian philosopher A. Musio (2018), critically assessing human *biolabour*, where the body acts as an entrepreneurial resource, calls it an effect of the phenomenological revolution, which blurred the border between the time for life and for a professional career ("the concept of robbed time").

Performative acts involve each participant in the event and share responsibility for what is happening between them. As creators of an event, agents assign meaning to it, just as they assign the event itself. They incarnate themselves not in the language of symbols but in the language of the body, which is authentic self-expression, the revival of naturalness. The performative act actualises the corporeity, displacing the semiotic experience with the material-bodily one. The performative, which is of a potentially active nature, refers to the inherent principle of modern conceptual art: the intention is many times more important than execution. The purpose of such art is to convey the very idea, concept; it is a purely artistic gesture. As the famous American minimalist S. Levitt said in the 60s: "Conceptual art is designed to arouse the intellectual interest of viewers without affecting their souls" (The sculptural structures of Sol Levitt, 2009).

Within this methodological context, the categories "performative" – "performative act" – "performance" in the meaning of the provoked spontaneous self-developing action differ from each other only in their origin and applied accent, and, therefore, are equally appropriate as an ontological property of the public. While *perfor-*

mance originates in art, *performative* originates in structural linguistics. Yet, the main maxim of both categories lies in their indication of the unique situation of interaction as a *pure openness* of actions, meanings, the composition of participants, and their influence. The arbitrariness, variability, unintentionality, spontaneity and self-generation of the *performative/performance* guarantee the subject a more effective entry into communication than narrative, discourse, cento dialogue, or any semantic practices do.

Results and Discussion

The true ontological meaning of the concepts "doer", "agent", and "author" is expressively presented in art today. The principle of contemporary art (as well as any other productive field of activity – education, business, social, civic, media, digital, etc.) is: the author is not someone who has done something with their own hands, for example, painted a picture, and now needs public recognition of the results of their work; in fact, the author is the one who said: "This is art, because I, an artist, affirm it". As mentioned earlier in the analysis of performativity: the intention is many times more important than performance.

This principle of motivating an artist infinitely pushed the boundaries of 20th-century art. At the same time, both the subject (the author and the viewer) and the object (a thing and an art object) acquired new content in contemporary art. Conceptual objects are much more than just works: they manifest a new role for the artist, a new way of presenting work, and completely new content in the relationship between art and the viewer. They can be completely different in character and nature. The object of creativity, for example, can be a found thing, which the artist hardly touched (at least, did not violate its integrity), but only *designated* it as their work. It is believed that the first person to do it was the French artist, Marcel Duchamp, as evidenced by his readymades: a bicycle wheel screwed to a stool, a bottle dryer, or an upside-down urinal placed on the podium and called the "Fountain" (Andreeva, 2021).

Moreover, in installation art, the contemporary author does not even bother to show imagination in naming the work. As a rule, installations receive an extremely literal name, directly and unambiguously naming the subject: for example, "Bicycle Wheel" (Marcel Duchamp), "Piano" (Gunther Uecker), "Fur Tea Service" (Meret Oppenheim) (Andreeva, 2021). The literal name of the work eliminates any possibility of a gap between the thing and its legend, as well as the explication of this very legend and its independent existence. In this case, through its name, the thing declares itself directly. Any performative object, in the role of which both a thing and a living agent can act, exists in isolation from the mythological horizon of names, titles and meanings; it fills the space of interaction with itself, with its actions and intentions; the acts launched by them are capable of, as it were, silently "breathing out" a new reality.

For instance, the Russian school philosopher H. Petrovsky (2018) considers the concept of artistic image, suggesting the rejection of its aestheticism and transcendence for the sake of an emphasis on pure representation and demonstration of the sign itself. This reading leads to a dynamic, active, physical image – the "imprint of bodily encounters". Modern actionism as the action art makes the most of this technique of a dynamic sign, embodying not corporeity but the thing itself. Modern conceptual installations frequently contain living creatures in need of food, watering and productivity. This is called the "performance" of a work of art that "lives" and "breathes" (Johnson, 2020).

In this sense, Australian research is indicative. Based on the works of J. Deleuze, they theorise fashion as a means of modulating human subjectivity. Affecting bodies through the collision of matter, signs, practices and specific skills of coordination, fashion represents a special way of subjectifying bodies that exchange effects, mem-

ories, and sensations in spatial, temporal, material and emotional communication. A. Eckersley and S. Duff (2020) demonstrate this by the example of installations by Melbourne artist F. Abikar, reproducing the habits and memories of a dressed body. In turn, the Russian researcher Y. Kostinkova "reads" contemporary poetry in the interface of the urban landscape using the case study of artistic projects by the St. Petersburg group "Laboratory of Poetic Actionism". In her opinion, modern literature is no longer limited to the printed page but chooses urban reality, virtual, digital and transmedia content, natural and retro-cultural landscapes, or political-situational actions as a performative art space, thus entering into a dialogue with cultural memory and the synchronous, or horizontal, the context of life (Kostincova, 2018). Ukrainian philosophers Andrey and Yaroslava Artemenko also take an active part in the global discourse on visual art practices. They analyse the cultural logic of meta-modernism by demonstrating the loft style in the context of general trends in visual practices of modern art space (Artemenko & Artemenko, 2020).

A contemporary author, an artist, is not a creator, but, primarily, a manager, moderator, organiser, regulator, and administrator, setting up a new semantic zone – a creative space for self-expression and self-development – a workshop open for cooperation. They do it because they *are entitled to do so*. For their creative activities, contemporary artists (as well as anyone else) do not need recognition from the public, institutions, or connoisseurs, since they are absolutely autonomous, independent and, at the same time, restless. The viability and value of their works are determined exclusively by their own efficiency, competitiveness, and demand in the market for goods and services. Consequently, outrageousness and commercial success justify any creative initiative of the author. The key task of any kind of creation is to be effective.

The liberal value of the *legal autonomy* of the individual, as well as the value of *the author's will*, have become firmly established today not only in politics and art, but, to no less extent, in law, philosophy, ethics, entrepreneurship, education, economy, production, services, leisure and recreation, social and informational activity, and other areas of life. Self-determination and self-realisation of a person in the liberal-democratic world are based on the initial fundamental principle: *I have the right equal to another person's right*. This principle justifies any of the most daring intentions, initiatives and results. The fundamental and generative role of law in the active life of a person should be recognised.

However, the existence of *the right to act* presupposes, primarily, the choice of the *language of action* (in the sense of the way of self-expression and functioning). This "language" becomes an extremely naturalised semiotics – an authentic body language. In this case, the body is separated from symbolic speech, myth, and semantics and is an independent means of expression. Things, bodies, gestures, situations, events "speak" for themselves, devoid of any accompanying comments from the author or any mythological semantic context. This has happened not only since digital culture has made the digital way of verbal communication absolute, visualising the subject. Primarily, the dominance of *corporeity* (in the sense of pure consciousness, capable of feeling its own presence) triggered an intense search for the most lost part of *nature*, that is, the *body*.

The activity of a pure thing, direct body language, have become a natural behavioural reaction to the excessive virtualisation of reality, as well as to the dominance of simulative practices of self-expression. Actually, simulation as a priority way of existence has not disappeared; it has merely changed its subject: narrative and discourse – to corporeity and body. The oblivion of nature, or its deficit, due to the domination of digital reality (as J. Baudrillard (2004), S. Zhizhek (2016) and others have written), led to the "revival" of this very nature in all its inferiority, but self-sufficiency, especially since the individual chooses the method of "naturalisation", as

they *have the right to do so*. A successful illustration to this is the avant-garde work of contemporary artists in the genre of happening, environment, assemblage, installation, action or performance, that is, *the art of action,* as well as amateur practices of self-expression and communication, prevalent in social media, video hosting and in the form of messages, life hacks, challenges, and public acts of a socio-legal and political nature in the form of flash mobs, smart mobs, socio-mobs, political mobs, demonstrations and monstrations.

As such, in all its genres, the currently popular action art has a common goal – to blur the boundaries between symbols and reality, to express the acuteness of life itself. In contrast to the Renaissance one, contemporary realism does not create exact copies of reality; it *recreates* reality via its expressive means, the main of which is the thing, the body, and often the body of the artist themselves. It goes without saying that art is a semiotic space – a horizon of signs and meanings. It is unthinkable without symbolism. Here, expressive means (word, sound, movement, or form), which are always limited in their number, perform the function of conveying the concept of the work as much as possible. Accordingly, compensation for incompleteness occurs at the expense of simulated, symbolically reproduced missing aspects.

However, the realism of art does not lie in the naturalism of the signified but in the naturalness and authenticity of the signifier. The reproductive material, object, technique, craftsmanship, location, environment and much more details selected for this can eliminate the sophistication, refinement, elitism of courtly or, on the contrary, avant-garde symbolism. Thus, the most progressive contemporary art is not just crude and accessible, it is primitive and daring, but it is vulgar impromptu. Absolutely everyone can become its connoisseur since they encounter it in real life, participate, and independently endow it with sense and meaning. In *the art of action*, everyone is equal in their rights: the author and the viewer. It is increasingly resorting to body language, both living and virtual, because its essential property is interactivity. Digital culture further blurs the line between producers and consumers, leading to an open, democratic media environment.

The most voluminous and expressive categories that convey the concept of the art of action are *actionism*, or *action art*, as a creative art style that seeks to demonstrate not the result of the artist's work, but its process and *happening* (i.e. a case, an event, occurrence), which is a form of social and artistic self-expression, an act or action, characterised by a paradox and shocking character, designed for the improvisation of the participants. The artists themselves can take part in the happening, but they cannot control the course of events. Happening does not have a clear script; the audience can get involved in what is happening by having a glass of wine on the stage with the characters. This art's primary goal is to release absurdist energy since the flow of life is absurd, and its free and liberating flow should be maximally represented during this action (Elshevskaya, 2016).

Happening is a symbolic form consisting of momentary actions, fantasies inspired by life and based on archetypal symbolic associations. The same action will have different meanings and effects depending on its "reading" by the audience. In this regard, the Canadian playwright and theatre critic G. Botting is often cited, stating that the happenings rejected the plot and plot matrix for the sake of a full-fledged complex matrix of a random event, or a rhizome matrix as a vector of improvisation (Elshevskaya, 2016). Viewers' participation in the happening is its driving force. Therefore, happenings frequently aim at socio-political propaganda, mainly with an emphasis on protest (as in the works of J. Beuys and J.-J. Lebel), or simply shocking public morality. In any case, they are designed to "blow up" the stereotypes and myths of the language. Therefore, they must be "eloquently" mute.

The environment is a kind of happening, which is less active, not intrusive towards the

viewer. The participant can enter it entirely unconsciously. A "Wikipedia" example of the environment: life-sized white sculptural figures in New York by J. Segal, depicting gays and lesbians hugging each other. The sculptures are seated on the benches of the city alley; passers-by sit next to them, thus making an integral art space of living and plaster figures. This is a non-spectacular art that is so unnoticeable that the viewer enters its works without knowing it; this is symbolism, which is diffused in reality, ecstatic unpredictability. They are called a monument to the LGBT Liberation Movement, which, in turn, speaks of their eloquence and demonstrativeness, regardless of their delicate form (Dyachenko, 2009).

Nevertheless, the popularity of the very concept of *happening* has lowered, being replaced with the related terms of *action* and *performance*, where the artist acts on his or her own behalf (not in an incarnation), often putting their own body at risk. *An action* may be limited to the artist's pure *gesture*, his/her declaration, explanation, proposal, offer, and a public statement (e.g., to regard all Amsterdam shoe shops as their works of art, which was once declared by the Dutch conceptual artist Stanley Brown). *Performance*, in turn, implies a specific planned artist's *action*, where he or she participates physically or using their memory, biography, or less often – as a director who organises other bodies. *Performance* as avant-garde art is generally of "epatage" nature. Its extreme shocking samples are well-known, e.g. involving the author who tests his extreme physiological capabilities along with viewers' feelings and emotions. These include the performances, reminding of sacred rituals accompanied with the cruel and ruthless slaughter of animals and desecration of their corpses, personal self-harming, masochism, vampirism and even public suicides (Elshevskaya, 2016). An essential aspect of actionism is in the fact that the happening and recording (e.g. video records) actions, being broadcast on the news, shared and viewed in social media, rumours, stay in popular memory and create a variety of absolutely different senses.

Actionism is implemented not only in art but also in popular socio-cultural practices of communication and solidarity, e.g. in *flash mobs* and и *smart mobs*. A *flash mob* is a mass event planned via digital communication when a large group of strange people do certain provisionally agreed activities in a public place, and then they walk away also spontaneously. The concept purpose is to be effective for passers-by, triggering their emotions of surprise and absurdity; to destroy conventional ways of behaviour, expected reactions, logic strings and social stereotypes by demonstrating a daring gesture of free will. The principle here is to be spontaneous, autonomous, depersonalised, anonymous, rejecting from the promotion (coverage in mass media and advertising), as well as non-profit.

A *smart mob* is a type of flash mob. The term was coined in 2002 by the American sociologist and critic G. Rheingold to name a new form of self-organisation of people in the 21st century as a result of "another social revolution" (Rheingold, 2006). Smart mobs consist of people able to act in agreement even without knowing each other. People in smart mobs cooperate in an absolutely innovative way owing to their mobile devices that serve as a means of communication and calculations.

Currently, many trendy types of performances are called popular or folk. For instance, political mobs (or *socio-mobs*) are mass events with a social, legal or political goal, expressing public discontent, protest, a critical view on the social and political activities of the governments or public activists. They are considered a smile, operative, legitimate and safe way of expressing a public opinion or drawing attention to certain problems than meetings and demonstrations. Examples may include the practice of burning a politician's toy, silent destruction of advertising materials with the slogans of a certain party or populist newspapers, throwing small coins at the building of Parliament in response to the rise of public

transport fares, or famous flash mobs *Kiss-in* against homophobia and in favour of human rights, which were popular in the 1980s in the American LGBT movement, when the participants expressed their protest as kisses.

Monstration is a performative practice, conceptually similar to a socio-mob but having its specific features. Therefore, it is referred to the varieties of happening (a game action), but not a smart mob (scenario planned action). This is a mass art action organised as a demonstration, accompanied by absurdist slogans and banners, which declaratively lack any sense, in particular, political sense. Its potential participants preliminarily know only the date, venue and exact time, whereas the rest is their improvisation. The concept of these actions is to be unique, absurd, public, open to multiple interpretations, multi-layered and, what is most important, to be communicative. The objective of monstration participants is to silently interact with viewers, with each other, self-express, implement art imagination, position oneself and one's opinion on the environment.

For example, Novosibirsk (Russia) has traditionally held monstrations, gathering five and more thousand people, annually on 1st May since 2004. They are organised by the community of free artists and creative youths as a symbolic alternative and a paraphrase to the traditional May demonstrations that used to be held in the USSR. These monstrations show new relevant interests, hobbies and issues of the contemporary youths, their world outlook, humour and general knowledge that replaced the Soviet ideology. One of the initiators and organisers of the annual Russian monstrations is the artist and director Artyom Loskutov (2010), clarifies the origin of the very term *monstration* by the deliberate clipping of the Latin prefix *de-* in the word *demonstration*, which brought some negative connotation, denial, harm and destruction. The growth of the number of the same-name events in dozens of Russian cities today and their mass nature show the relevance, popularity, and demand for this technique of social interaction. In this respect, the Siberian centre of contemporary art coordinators notes that as a form of public art, a monstration is within the space between art activities, social activities, and a political gesture (Loskutov, 2010).

A gesture is that very *myth* of Barthes' structuralism, not semantic but visual; a *myth-gesture*, which expresses, points, refers but not voices openly. A monstration is a shrewd travesty to *serious* political demonstrations. It does not just mark the line between civil liberties and the initiatives but pushes these boundaries, becoming a school of solidarity, collectivism, legal freedom and activity in the new performative form. Therewith, it is to be borne in mind that any mobs (flash, smart, socio mobs or monstrations) as a formally organised community features a high level of the conformism of its agents. They are usually susceptible to suggestion as a group, emotionally infected, and tending to mimic; they are convinced, relatively unanimous, reluctant to resist, powerful as a unit, anonymous, and having suppressed the feeling of personal responsibility. Still, participation in a flash mob is regarded in contemporary European psychology and education as a creative and quite effective way of human physical, cognitive, social and emotional development (Cuellar-Moreno, Antonio Cubas-Delgado & Caballero-Julia, 2018). A flash mob is characterised as a generally positive, adaptive and motivating practice, encouraging self-governance and self-confidence.

Nonetheless, it is worth returning to the action art where life and creativity are fused. Its most shocking and heroic form (at times, it is expressly political) is called *living art*. Its ruthless, painful and epatage manifestations include, inter alia, radical actionism: from a series of years-long actions by the Taiwan artist Tehching Hsieh (Krylova, 2011), who has been enduring many hardships, physiological and psychological limitations, to the experience of Russian artist Oleg Mavromatti (Radical Actionism in Action: A Showcase, 2010), where the final action (*Friend*

or Foe) implied his potential death online while broadcast by Bulgarian television (online voting could result in a lethal current discharge), as well as a *living art* notorious performance by the Pussy Riot band, who brazenly performed a protestant song for packing a video in the Orthodox Christ the Savior Cathedral (followed by two-year imprisonment).

Yet, the revealing nature of public performative practices most often raises criticism from the traditional semantic culture, public norms, standards and ruling structures, which again confirms the restrictions to actions in a typical liberal-democratic landscape. For example, O. Mavromatti's radical conceptual art was heavily criticised by the Russian public and the Orthodox Church. That is noted by Russian philosopher D. Filippova (2020), and she concludes the synthesis of the Orthodox Church and the state patriotism within the culturally resonating religious tradition, which indicates that the Russian public space is sacralised.

The opposite side of art radicalism may refer to the creativity of *absolute absence*, with the absence of material and body, let alone the work itself. This is a cognitive energy practice of pure inducement to using imagination. In this regard, in New York, there is The Museum on Non-Visible Art (MONA), which shows its visitors *naked* walls or, at times, painting frames on them. Viewers are provided with an opportunity to imagine the works of art by themselves within the powers of their imagination. The maximum facilitation may be given in brief guidance or names of the *masterpieces* placed on the plates by artists. In that case, the artist appeals to the implied context of the viewer's subjective art background. Clearly, art is not in the perfection of forms but in the very *idea*, capable of influencing viewers' feelings. Furthermore, the means of communication chosen by the artist are not essential. The process of the symbol interpretation shifts here to the deeply internal, private space of the person's imagination.

This kind of sign removal shows the absolute triumph of the pure *significatum*. The sign-independent *significatum* refuses from the primitive simulative explanation of Self-using artistic means, instead opting for remaining the original intact nature that has a chance to be subjectively interpreted. This is the production of phenomenological corporeity without digital technologies. Only consciousness may guarantee a free, unfastened and continuously developing living image of art. It is also to be noted that a viewer is rather independent, too, since he or she no longer depends on the artist as a result of their communication with art. The viewer here takes the main part because he or she stops being a connoisseur but becomes a creator. While pure classical actionism shifts the emphasis from the creativity effect to its process, the *non-visible* art shifts the focus from the effect and process to the very idea of creativity and the imaginative message. This true action art makes the viewer produce the works and their senses, which, undoubtedly, broadens the scope of freedom as well as the degree of activity and responsibility.

It may be suggested that this kind of exhibition of *non-visible* art also play the role of precious locations for creative cooperation and communication among individuals. These art zones serve as *workshops* for the fruitful interaction of co-thinkers; they implement the hype trend for *networking* (*co-working, creative incubators, hubs and anticafés*) as creative zones for the synergy of art, business, civil activities and personal interests. These are the locations to generate ideas and lobby human creative development. These social spaces are highly multifunctional, and they feature highly efficient group interaction; their participants are active and independent; they are accessible for sharing expertise and personal experiences; they are characterised by a bodily and live presence, democratic nature, and, what is essential, the equality of all participants. Currently, the popularity of these actions and events is soaring, as they serve as the valuable alternative to the network and social media communities based on texting, video hosting and

video blogging through web resources.

In any case, the key concept of the performative practices is the positive interaction and reconciliation via intimate self-expression. In this context, British and American researchers made an analogy between the public art dynamism and the sectarian rituals in Northern Ireland, based on their synthesis in the cathedral mega-installation presented in 2015 (Downey & Sherry, 2020). The event aimed at the interaction between the hostile communities in their esthetic modality. It was notable that the prolonged opposition and collision of the agents, defined by the authors as *traumaturgy*, eventually acted as the means to reach an inter-community sense of belonging.

However, alternative social networks (including Twitter, Facebook, Instagram) and such file-sharing services as Like or Tik-Tok are still the priority form of solidarity in modern society. Therefore, the method of performance has been implemented there in various online actionism manifestations. One of the brightest examples of the virtual performative is a *message* (meaning an address, a note, a declaration or a signal). It is an explicit or implicit video address. Another popular kind of online flash mob is a *challenge* (an argument, a competition, a challenging task to be fulfilled), which is a genre of internet video blogging, or vlogging, where the agent demonstrates the so-called "viral task" or a life hack offering to reproduce it as close to the original as possible. The challenge is considered an effective tool of mass communication since it is built based on the dialogue between the author and the viewer, thus equaling their rights. Though the challenge genre is entertaining, it is still conceptually designed for the equal status and trust present in any game. According to analysts' assessments, challenges encourage overcoming the barriers of cross-cultural communication, and they draw the attention of the wide international public; this is an innovative tool, penetrating different culture media and uniting people worldwide. Challenges establish social (though online) interaction, which a person might be afraid of in real life.

Its common topic unites the participants of a challenge, and they perform their creative interpretation. A case study may be in the Middle East video game called *Middle East Gaming Challenge,* which is played by the children of the two hostile communities – Jewish and Arabic. Therewith, they are educated in different educational systems. Thus, organisers make an attempt to encourage their overcoming traditional prejudices of the Arabic and Jewish school students in Israel and to free children from the conventional stereotypes. Experts consider a game challenge in these conditions as the first positive experience gained with the peers of the other, hostile religious and ethnic environment (Novoselova & Kurbanova, 2017, p. 286). Naturally, the central concept of a challenge is rather simple: visualisation, brightness, extraordinariness, originality, passion, laconism of time and words, the emergence of the spirit of freedom and creativity. However, the name of the game is that the challenge is based on the *action*, that very action art, returning us to the paradigmatic significance of performance in contemporary culture and social practices.

Performative techniques of bodily presence find their innovative manifestation in the popular culture of memes. Owing to the popularisation of the Internet, memes (simulative units of cultural information, according to R. Dawkins (2016)) have entered a new favourable medium and generated a particular social phenomenon – internet memes, which are the references, hashtags, text metaphors, smileys, emoticons, pictures, syntactic symbols, speech patterns, video gestures, challenges, flash mobs etc. They are applied by the users in social media, blogosphere, forums, electronic mail and text messengers, i.e. in the online environment as symbolic units of special communication. Internet memes, as well as the mass media viruses that appeared afterwards, have become an integral part of modern popular culture.

In this respect, as early as 2012, Russian phi-

losopher Yu. Melamed wrote about the human regressive activity in the Facebook verbal structures. Addressing the followers with the slogan *Say "No" to SMILEY! ... Stop smiling*! Be for the Renaissance of meaning in the printed text! No more text profanity! Relearn to convey the fine details and emotions in words and not in brackets!" the moralist received "0 likes, 0 comments" (Melamed, 2012, p. 13). The proof of human existence should now be found in media, where life has actually moved. A *celebrity* has become fully autonomous towards the content. If you do not get likes, you do not exist (Melamed, 2012, p. 14).

Thus, as a rather widespread concept, a meme includes various patterns of the performative mass culture and action art considered above. A performative act is not inborn natural human activity, but it is a complex form of human behaviour gained as a result of social simulation and mimicking. At the same time, all ultramodern bodily communication practices are potentially memetic by nature, similarly to rituals, as the sources of genetic, cultural senses manifested in an advanced contemporary form (Alexander, Giesen, & Mast, 2006).

Significant transformations of the modern person's social and symbolic anthropic nature, including self-expression practices, are determined by the rapid virtualisation of all the areas of human activities. Contemporary anthropology regards a person in the diverse and uneven ways of his/her being (Latour, 2013). Virtualisation is understood as the process of replacing institutionalised practices with simulations. The field of simulation expands, inter alia, owing to the innovative technological resources, changing space and time, or at least their experience. In the 1990s, the French ethnologist and philosopher M. Auger (2017) analysed the anthropology of hypermodern and laid the foundations for a new philosophical concept of "Non-Places". M. Auger (2017) defines *non-places* broadly: as the facilities, ensuring the fast freight and passenger turnover (motorways, hubs, airports, and terminals), means of transport, and large shopping malls and places of a long stay, sheltering refugees globally (pp. 20-21). An example of a non-place may be a famous lively crossroads of Shibuya in Tokyo, which during the rush hours is crossed by about two thousand people within two minutes. These are areas of comfort and alienation, transfer zones, emerging in our social life without any clear existential content (e.g. in the case of the conventional places, memorials, and heritage sites). They are ruled by the setting of *here and now*, and everything is subject to the importance of the current moment. They lack the place itself, its history or its personality. Non-places standardise people, turning them into anonymous passengers and service consumers.

Our identity cannot fill the non-places with at least rudiments of personification in any way. A standard *transit passenger* shows the minimum of his or her individuality, though seeking their privacy, leading to the total representation crisis (Bavilsky, 2018). Being freed from their conceptual determinants (faith, traditions, ideology, ethics, relations, patriotism and historicity) and entering no-places, an individual agent merely plays the role, being provisionally identified by the customer's plastic card, identification card, QR-code, bank account number, pass, identification document, driver's licence, biometric data, etc.

In non-places, people do not stay, and they are present there symbolically – using their simulation avatar. In non-places, their steps are highly active, determined, predictable and planned. Their behaviour, as in the role simulation, is expectable and understandable. A person moves according to the rules established in that environment: signs and traffic lights, duties, restrictions, indicators, signals for drivers and pedestrians, for passengers, visitors, users, buyers, viewers, consumers, customers, subscribers, clients, etc. Non-places do not require self-expression from individuals in their existential meaning. They require their elementary activity, enabling them to follow the algorithm of the func-

tional zone and, being identified, move ahead. Their self-identification in these mazes and smart mobs does not involve emotional speech or indifferent citations. It is enough for them to be there bodily and silently and to understand the code of access to the system of non-places. Non-places direct giant performances of silent agents, implementing their unconditional rights to access, use and consumption. That is a true triumph of rational utilitarianism and consumer culture.

Conclusion

In the view of the aforesaid, it is possible to make the following conclusion. Any performative practices – happenings, flash mobs, monstrations and challenges – carry their socio-legal semantic load as the means of expressing the will by the subject of the contemporary sociopathic society. A vivid example of the performative expression of the civil position, social claims, a form of fighting for their rights is street picket lines in the environment of the capitalist realism. Body language always functions as a means of protesting. This is a silent "outcry" for help, repentance, attention deficit; it is an ultimatum, challenge, intention, as well as a desperate attempt to point to the obvious things, which is much more eloquent than the perfect means of semantic and audio-visual expression. The logical shift in technological modes, cultural epochs, and global political models irreversibly modify people, their habitat, and self-realisation opportunities. The latest prospect of the artificial intelligence era is in cyberpunk. The oblivion of democracy and refusal from economic liberalism may entail cyber rule and the deficit of somatics. In these conditions, the clear relevance is in the performative practices of the human bodily self-expression and the semiotics of a visual gesture. However, the expansion of actual individual rights is very relative. The shift from the linguistic-hermeneutic paradigm to the performative one has encouraged replacing the semantic discourse with body communication via a silent performance, act, and action. Actionism is a new connotation of stable senses; the body language as a means of expression, impact and interaction, which is a logical effect of the existence in the digital content.

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DOI: 10.24234/wisdom.v21i1.620
Oksana KUSHLYK,
Liudmyla SMIENOVA

TERM-FORMING CAPABILITIES OF THE UKRAINIAN EQUIVALENTS OF ORIGINAL COMPUTER VERB TERMS

Abstract

The article outlines the term-forming potential of the Ukrainian (translated) equivalents of computer verb terms. It is noted that taking into account verb-centricity as a defining feature of the grammatical system of the Ukrainian language, verb terms are essential elements of terminology in a particular field, including computer language. They play a significant role in shaping the thought, in achieving the accuracy and univocality of the information it carries. The proposed study aims to determine the potential of translated original computer verb terms of the equivalent type in terms of their terminological capabilities in the Ukrainian language. It was ascertained that the creation of the Ukrainian verb term begins with translating the original English verb term. The type of translation (equivalent / non-equivalent), in its turn, determines the way of creation (for the equivalent type) and the way of translation (for the non-equivalent type) of a Ukrainian verb term. Translated verbs (or verbs of the equivalent type) serve as a source for forming terms via semantic derivation with its main mechanisms – terminologization and trans-terminologization. This is conditioned by the part of speech category of the studied terms, the particular importance of verb semantics in the Ukrainian language.

Keywords: verb term, computer terminology, donor language, recipient language, translation, translation equivalent, semantic derivation, terminologization, trans-terminologization.

Introduction

The current stage of scientific and technological progress, which became striking in the late 20th – early 21st century, determines the development of various fields of science and technology. The development of these fields of science and technology is associated with the evolution of professional language used in the communication process. The concept of *professional language* (or *language for special purposes*, LSP (Hoffman, 1985, p. 53), or *sublanguage* (Hoffman, 1987, p. 298), or *specialised language* (Faber & Lopez-Rodriguez, 2012, p. 9)) first appeared in the 1960s and 1970s. The German linguist L. Hoffman (1985) defined it as a set of all linguistic means used in a professionally limited communication sphere to achieve understanding among all sphere representatives (p. 53). H. Picht and J. Draskau (1985) also offer their definition of professional language: "LSP is a formalised and codified variety of language, used for special purposes and in a legitimate context – that is to say, with the function of communicating information of a specialised nature at any level – at the highest level of complexity, between initiated experts, and, at lower levels of complexity, to inform or initiate other interested parties in the most economical, precise and unambiguous terms possible" (p. 3) or "subset of ordinary or general natural language, often with some additional specific features absent from ordinary language. …language intended to be used for narrow professional purposes…" (Ryan, 2000, p. 31). Despite some minor differences in the definitions of professional language (or *language*

for special purposes), all world terminologists advocate the logicality and consistency of such interpretations of professional language, but add that the determining factor in the functioning of any professional language is established terminology as the basis, the foundation of this professional language (Kyiak, Naumenko, & Ohui, 2006, p. 28; Faber & Lopez-Rodriguez, 2012, p. 9; Cabre, 1999, p. 7).

One of the representatives of modern young professional languages in Ukrainian linguistics is the professional computer language, which is currently evolving (Bulakhovskyi, 2010, p. 90; Nikolaieva, 2002, p. 1; Havrylova, 2017, p. 190; Filiuk, 2007, p. 6). This is proved by its different quantitative composition, the presence of several doublets to denote the same concept (phenomenon or process), non-codification of many units, an ambivalent position regarding its belonging / non-belonging as a representative of a separate terminological system to modern Ukrainian literary language, etc. The formation stage is confirmed primarily by its lexical level, represented along with other strata (professionalisms and jargonisms) by relevant terminology as the main stratum and as an indicator of the state of the entire language system of this field. Among the major reasons why the Ukrainian computer professional language is at the stage of formation are: young age of the branch itself; rapid development of this branch in the world due to a growing public demand for *the modern digitalisation of society* (one of the demands was caused by the COVID-19 pandemic, which led to a revision of strategic priorities towards creating necessary technologies to facilitate remote working, make it as effective as from a stationary workplace), and also too short a period (attributable to the rapid development of the branch) for logically motivated, nationally justified standardisation and codification of nominating necessary scientific concepts. These conditions are related to the fact that computer terminology has a distinctly English colouring (both the computer industry and the vocabulary to denote relevant concepts originated in the USA – in the conglomerate of Stanford, Santa Clara, Los Altos, Mountain View, Sunnyvale (California), known as Silicon Valley), so the first stage in the formation of terminology in other languages was the translation of a term from the donor language to the recipient language. Later, depending on the translation mechanism, the term underwent various semantic and structural changes, determined by the specifics of the recipient language and its laws, which requires a more extended period.

Another reason for a long course of adapting a particular English computer term is the way it enters the language. If it is direct, it takes less time, and such terms better fit into the language in which they are adapted. If another language mediates, it takes more time for necessary terms to enter the language terminological system. Furthermore, such an indirect way of entering the language encumbers the very entering process with additional features of the intermediary language, which have to be overcome later, as they often do not comply with the norms of the recipient language. And this leads to an increase in the adaptation time. For instance, for a long time, terms expressed by nouns dominated in specialised dictionaries of the Ukrainian language – both for nominating objects, phenomena, facts, which is considered an immanent feature of nouns and for naming process, action, state or quality, properties, characteristics, i.e. objectification of these realities. This situation results from the influence of an intermediary language – Russian. Until recently, words were borrowed, including from the computer sphere, whose grammatical system is characterised by more substantivity (Selihei, 2014, p. 37). Until recently, the principle of objectification in the naming process, action or state was firmly established in Ukrainian term-formation. However, now there is a clear tendency to denote process, action, or state in Ukrainian professional texts in a more natural way for the Ukrainian language – by verbs, thus making the utterance more dynamic, natural, and semantically transparent. Another

evidence of a mediated introduction of a term is the use of word-forming elements (prefixes, suffixes, etc.), characteristic of an intermediary language, in the process of adapting the original term. For example, the Ukrainian computer terminology makes use of both cognate verbs formed with the suffix *-yzuva- / -izuva-*, which appeared under the influence of the Russian language, and the suffix *-uva- / -yuva-*, characteristic of the grammatical system of the Ukrainian language, cf.: *aktyvizuvaty* and *aktyvuvaty* from Eng. *to activate*, *aproksymatyzuvaty* and *aproksymuvaty* from Eng. *to approximate*, *buferyzuvaty* and *buferuvaty* from Eng. *to buffer*, *klasteryzuvaty* and *klasteruvaty* from Eng. *to cluster*, *katalohizuvaty* and *katalohuvaty* from Eng. *to catalogue*, etc. However, there is an increasing tendency to supersede the terms with the suffix *-yzuva- / -izuva-*, which highlights the mediated way of transition of a term to the recipient language and the entrenchment of the terms with the suffix *-uva- / -yuva-*.

Therefore, the object of the proposed study is Ukrainian (translated) equivalents of original computer verb terms. The aim is to determine the capabilities (ways, mechanisms) of Ukrainian verb (translated) equivalents of original computer verb terms in the codified nomination of computer notions.

Objectives of the Study

1. Systematise all factual material considering the presence/absence of a translation equivalent to two types - verbs of equivalent translation and verbs of non-equivalent translation.
2. Determine the main ways and mechanisms of forming verb terms motivated by verbs of equivalent translation.
3. Elucidate the possibilities of further developing the semantic structure of the terms formed in the Ukrainian language (based on the analysis of definitions in various dictionaries).

The illustrative material is selected from scientific texts of mostly external professional communication (articles in popular science journals, instructions for users of various devices, instructions for installing equipment, textbooks, manuals, etc.) (Mishchenko, 2013, pp. 34-37), which are created for non-professionals; therefore their complexity level is lower and relatively more straightforward to be understood by the target audience.

Literature Review

The problem of adapting English computer terms has been repeatedly raised in the studies of well-known foreign researchers, in particular M. Matsolek – on the peculiarities of the Polish language (Maciołek, 2013), N. Kübler, P.-Yv. Foucou (2003) – French, P. Wellburn (2005) – Spanish, Abdullah A. Khuwaileh (2010), A. Khuwaileh, T. Khwaileh (2011), Alomoush, Al Faqara (2010), Cr. Solimando (2017), D. Suwais (2005) – Arabic and others.

This issue is also topical in Ukrainian linguistics. Authors S. Yenikieieva (2001), O. Kalnik, O. Vorobiova, A. Symonenko and M. Oleshko (2019), A. Sydor, R. Nanivskyi (2019), O. Fil (2013, 2014), V. Kyvliuk (2017), I. Kuchman (2005) and others clarify the specifics of translating computer terms from the donor language (or producer language), i. e. English, to the recipient language, which is Ukrainian or Ukrainian and Polish. It is noteworthy that, while the mentioned authors focus on the translation of noun computer terms (both simple words and compounds), L. V. Smienova (2021) researches into the peculiarities of translation with subsequent word-formation changes or adaptation of computer verb terms in the Ukrainian language. However, only the first steps have been taken towards an in-depth study of the peculiarities of adapting originally codified verbs-terms used in the computer terminology vocabulary of the Ukrainian language. This has determined the relevance of the problem.

Methodology

Consideration of the problem involves analysis of factual material in the systemic and structural aspects. The generalisations made on this basis determine the use of both general and special research methods. *General scientific* methods (analysis, synthesis, modelling, abstraction, generalisation, induction, deduction) facilitate a close, thorough consideration of computer terminology, its qualification as the primary stratum of computer vocabulary, which forms the professional computer language. *Linguistic* methods include descriptive (for determining the body of factual material, its classification and determination of characteristics) and structural with component analysis techniques (for determining the semantic structure of the analysed terms), vocabulary definitions (for establishing the semantic continuum of the realities denoted by terms), distributive analysis (for identifying the syntagmatic environment of a term), analysis of direct components of the word-forming structure (for highlighting the word-forming derivative of terms and the word-forming means as an expression of a specific derivational meaning). The use of these methods ensures a coherent, consistent analysis of verb terms regarding their formation based on English verb terms.

Results

The number of nominative concepts in computer terminology is quite extensive. Taking into account verb-centricity as a defining feature of the grammatical system of the Ukrainian language (Kushlyk, 2015, p. 5), names of the process, action or state, expressed by verbs, are essential elements of terminology of the various fields, including the computer field. In Ukrainian, depending on the presence or absence of an equivalent when translating a verb term from a donor language (English) to denote a process, action or state, translated verbs are grouped into two types – verbs that have an analogue in the recipient language (equivalent verbs), and verbs that have no such analogue (non-equivalent verbs). To describe various processes of computer term formation in Ukrainian, it is also essential to distinguish equivalent verbs by origin – borrowed or native. The belonging of a translated verb to one of the two types determines the ways and mechanisms of computer term formation.

Verbs of the first type usually serve as a source for forming terms through semantic derivation, represented by two mechanisms – terminologization and trans-terminologization. Terminologization is a shift of words from common vocabulary to a certain terminological system and, accordingly, acquiring characteristic features of terms. Four mechanisms of terminologization are usually distinguished:

1. metaphorization;
2. metonymization;
3. expansion (generalization) of meaning;
4. narrowing (specialization) of meaning (Paul, 1960, p. 5; Smienova, 2021, p. 11; Ponomarenko & Liakhova, 2014, p. 92).

However, verb terms are formed mainly due to the narrowing (specialisation) of the existing meaning and metaphorization. Moreover, the borrowed equivalent most often undergoes a narrowing of meaning, while the native equivalent undergoes metaphorization.

Verbs of the first type, which are translated by a borrowed equivalent, includeing, *avtoryzuvaty* (*Eng.* to authorise), *adaptuvaty* (*Eng.* to adapt), *aktyvizuvaty* (*Eng.* to activate), *anuliuvaty* (*Eng.* to annul, to cancel, to annihilate), *bifurkuvaty (Eng.* to bifurcate), *eksportuvaty* (*Eng.* to export), *emuliuvaty* (*Eng.* to emulate), *identyfikuvaty* (*Eng*. To identify), *importuvaty* (*Eng*. to import), *indeksuvaty* (*Eng*. to index), *katalohizuvaty* (*Eng*. to catalogue), *koduvaty* (*Eng*. to code), *masshtabuvaty* (*Eng*. to scale), *reiestruvaty* (*Eng*. to log), *filtruvaty* (*Eng*. to filter), *veryfikuvaty* (*Eng*. to verify), etc. These verbs for defining a scientific concept may or may not undergo semantic changes in computer vocabulary terminology. Accordingly, they can be divided into three

groups. The first group consists of verb terms, which have the same meaning both in computer terminology and in general usage (*aktyvizuvaty* (*Eng*. to activate), *anuliuvaty* (*Eng*. to annul, to cancel, to annihilate), *bifurkuvaty* (*Eng*. to bifurcate), *kombinuvaty* (*Eng*. to combine), *komparuvaty* (*Eng*. to compare), *masshtabuvaty* (*Eng*. to scale), *modyfikuvaty* (*Eng*. to modify), *prohramuvaty* (*Eng*. to program), *rezervuvaty* (*Eng*. to reserve), *synkhronizuvaty* (*Eng*. to synchronise), *standartyzuvaty* (*Eng*. to standardise), etc.).

For example, general explanatory dictionaries of the modern Ukrainian language define the verb *modyfikuvaty* as 'to subject to modification (transfiguration of an object or phenomenon, which is characterised by the appearance of new features, properties while preserving its essence); to modify'[1] (Busel, 2009, p. 683; Rusanivskyi, 2014, p. 396). Specialist dictionaries provide the same meaning of the term *modyfikuvaty* (Glossary of computer technology, 2000, p. 148) and, accordingly, it functions with this meaning in relevant texts, e.g., *logical (time) bombs are programs that use different methods to delete or modify* (modyfikuyut) *information at a particular time or under some condition* (Redko, 2007, p. 189).

In the semantic structure of the second group of verbs, an apparent narrowing, concretisation (specialisation) of meanings is determined by the computer sphere ((*administruvaty* (*Eng*. to administer), *blokuvaty* (*Eng*. to block), *indeksuvaty* (*Eng*. to index), *katalohizuvaty* (*Eng*. to catalogue), *komponuvaty* (*Eng*. to compose), *konfihuruvaty* (*Eng*. to configure), *reiestruvaty* (*Eng*. to log), *filtruvaty* (*Eng*. to filter), etc.). For example, the verb *administruvaty* (*Eng*. to administer) with the common usage semantics 'to manage an institution, organisation, business, etc.' (Busel, 2009, pp. 12-13) later developed another meaning associated with the computer sphere – 'to control and manage the functioning of information and computer system, network' (Rusanivskyi, 2010, p. 132), e.g: *The Linux server can and often should be installed* (installyuvaty) *without a monitor and administered remotely, because with this style of administration it is not exposed to such threats as with local administration* (Ostapov, Yevseiev and other, 2013, p. 461).

Other verbs underwent similar changes. The verb *emuliuvaty* (*Eng*. to emulate) narrowed the general meaning 'to reproduce the functioning of the whole system).' (Busel, 2009, p. 350; Rusanivskyi, 2015, p. 637) to the meaning 'to make one computer behave like another different type of computer so that the imitating system can operate on the same data and execute the same programs as the imitated system' (Proidakov & Teplytskyi, 2005, p. 188), e.g.: *If there is no particular font in the PDF file, Acrobat will automatically try to emulate* (emulyuvaty) *it* (Sushytska, 2005, p. 112); the verb *filtruvaty* (*Eng*. to filter) – from the general meaning 'to pass a liquid, gas, etc. through a filter to clean and remove unwanted particles // to pass or trap electric currents, electromagnetic or sound waves of a certain frequency, etc.' (Busel, 2009, p. 1537) to the meaning 'to limit the access of unwanted signals, materials, information' (Proidakov & Teplytskyi, 2005, p. 211), e.g., *It is crucial that a modern firewall filters only inbound traffic and does not filter* (filtruie) *outbound traffic, which is very dangerous* (Borian, 2019, p. 134).

The third group was formed by verbs, the terminologization of which may be concomitant with further development of the semantic structure of the motivator. These are, for example, *avtoryzuvaty* (*Eng*. to authorise), *veryfikuvaty* (*Eng*. to verify), *eksportuvaty* (*Eng*. to export), *importuvaty* (*Eng*. to import), *koduvaty* (*Eng*. to code), *marshrutyzuvaty* (*Eng*. to route), etc. In particular, the "Great explanatory dictionary of modern Ukrainian language" records the verb *importuvaty* (*Eng*. to import) with only one meaning – 'to bring goods from abroad' (Busel, 2009, p. 493); while "Slovnyk ukrainskoi movy"

[1] The article presents its own translation of both the definitions recorded in the lexicographical works of the Ukrainian language and examples of the functioning of the analyzed word in the text.

– with two: 1) 'to import goods, services, etc.; the opposite to export' and 2) 'to import files, data, etc.' (Rusanivskyi, 2015 p. 482). Specialised dictionaries specify the definition of the term *importuvaty* (*Eng*. to import) with two semantic positions – 'to open a file or document in the program window in a format different from the default for this application', and 'to bring an object, file or document stored on disk in another file format into some file or document' (Proidakov & Teplytskyi, 2005, p. 263), which indicates the development of the semantic structure of the computer verb term *importuvaty* (*Eng*. to import), e.g.: *Thanks to the built-in translator … Excel 2003 is able to import (read)* (importuvaty) *data from files created with other types of programs…* (Kurbatova, 2004, p. 196) *and Excel worksheets can import* (importuvaty) *information from various external sources, which saves a lot time by avoiding unnecessary data entry* (Kurbatova, 2004, p. 195).

Transterminologization is the transfer of a term along with its semantic continuum from one branch's terminology to another. There are functional and semantic trans-terminologizations. The functional trans-terminologization is the transfer of the semantic continuum without any noticeable changes. Among such verb terms are *ahrehuvaty* (*Eng*. to aggregate), *aproksymatyzuvaty* (*Eng*. to approximate), *heneruvaty* (*Eng*. to generate), *imunizuvaty* (*Eng*. to immunise), *inkremenuvaty* (*Eng*. to increment), *instaliuvaty* (*Eng*. to install), *konvertuvaty* (*Eng*. to convert), etc.). For example, the chronology of recorded definitions of the word *instaliuvaty* (*Eng*. to install) in various dictionaries allows us to trace the semantics of this word. Among the sources, which record the meaning of the word *instaliuvaty* (*eng*. to install), there is primarily the "Great explanatory dictionary of modern Ukrainian language" – 'to carry out installation (1) various installation works, structure erections, lighting network, etc.; 2) $_{\text{inf.}}$ a) putting a software product onto a personal computer; b) one of the restrictions on a software product in case it is sold by a firm)' (Busel, 2009, p. 507). "Slovnyk ukrainskoi movy" records this word with the meanings: 1) '$_{\text{art.}}$ to make an installation (a work of fine art in the form of a structure, construction, etc., using various objects)'; 2) '$_{\text{inf.}}$ to perform the installation (the process of installing software on the end-users computer)' (Rusanivskyi, 2015, p. 537).

As indicated by the definitions of the verb *instaliuvaty* (*Eng*. to install), the first source provides a general interpretation, not linked to a particular area – based solely on the translation of the English verb *to install*, which means 'to position, locate, fix.' However, it is more accurate to refer this word to art terminology since the very installation technique (performance resulting from spatial and semantic contexts of arranging objects and materials) and, accordingly, the names of accompanying actions appeared in art in the era of postmodernism (from late 20$^{\text{th}}$ century). The seme 'to fix, set up, assemble' is also conveyed by the term *instaliuvaty* (*Eng*. to install) in the computer terminology system, formed as a result of transterminologisation, i. e. most likely, the transfer of a name with a semantic continuum from art terminology to computer terminology, e.g., *Microsoft recommends installing* (instalyuvaty) *Service Pack 2 as soon as it is released* (Yarmush & Redko, 2006, p. 125).

The verb term *kvantuvaty* (*Eng*. to quantise) primarily used in physics with the meaning '$_{\text{phys.}}$ to divide into quanta (portions), to express any value in the form of consecutive links of its values, according to a certain law' (Rusanivskyi, 2015, p. 823) has also undergone functional trans-terminologization. Having preserved the seme 'to turn into a smaller part of something, a part of something', it developed the meaning 'to turn the amplitude of an analogue signal wave into a digital signal' (Proidakov & Teplytskyi, 2005, p. 415), or 'to compress a large set of values to a smaller set to reach a single quantum value in digital image processing' (Pivniak et al., 2010, p. 363), e.g., *Then the samples obtained at discrete moments of time are quantised*

(kvantuyutsya) *in the DAC block (Digital-to-Analog Converter) by level, i.e. they are converted into a digital binary code* (Chemes & Yampolskyi, 2008, p. 72), *and When constructing a compression algorithm, there are two possibilities: to analyse and quantise* (kvantuvaty) *each sample signal separately or together with other samples, combining them into a vector* (Parkhomei & Tsopa, 2020, p. 33).

In contrast, semantic transterminologization is accompanied by semantic reinterpretation of the term, sometimes with adding a certain semantic connotation. Examples of such terms are the verbs *inkapsuliuvaty* (*Eng*. to ncapsulate), *klasteryzuvaty* (*Eng*. to cluster), etc.). General dictionaries record the verb *klasteryzuvaty* (*Eng*. to cluster) with the meaning' special. to combine several homogeneous elements into a cluster; to generalise by gathering together' (Rusanivskyi, 2015, p. 130). The amount of information and the degree of prevalence in different fields, laid down in this definition, reveals the concept *klaster* (*Eng*. cluster) – 'combination of several homogeneous elements regarded as an independent unit with certain properties' and used, as outlined in "Slovnyk ukrainskoi movy" data, in eight areas – information, mathematics, astronomy, linguistics, physics, chemistry, music, economics (Rusanivskyi, 2015, p. 129). In the computer sphere, the term *klasteryzuvaty* (*Eng*. to cluster), while retaining the integration seme 'to combine', has developed the meaning – 'to connect two or more servers in order to provide high system availability and scalability' (Pivniak et al., 2010, p. 371), e.g., *To cluster* (kvantuvaty) *with redundancy means that one of the servers takes over the entire computational load, while the other remains inactive, but ready to accept calculations when the main server fails* (Berezovskyi, Potiienko, & Zavadskyi, 2009, p. 332).

Given that the computer industry is the youngest branch of science and technology, its terminology is mostly recipient, i.e. a term from another sphere of use is transferred to the computer sphere. Most often, we can observe a transfer of meanings within computer-related fields, including mathematics, economics, and occasionally others - biology, medicine, art, etc.

Translation equivalents, which serve as motivation for computer terms and also belong to the first type, can be native verbs, in particular: *vbuduvaty* (*Eng*. to incorporate), *vydalyty* (*Eng*. to delete), *vydilyty* (*Eng*. to allocate, to select), *vyity* (*Eng*. to exit), *vyrivniaty* (*Eng*. to justify), *vyterty* (*Eng*. to delete), *vidnovyty* (*Eng*. to regenerate, to restore), *zavantazhyty* (*Eng*. to download), *zamostyty* (*Eng*. to tile), *zarazyty* (*Eng*. to infect), *zatrymaty* (*Eng*. to delay), *zberehty* (*Eng*. to save, to store), *zchytaty* (*Eng*. to read), *nazvaty* (*Eng*. to name), *obnovyty* (*Eng*. to regenerate, to retrieve, to refresh, to redisplay, to renew), *ochystyty* (*Eng*. to clear), etc. As in the case of borrowed words, the main way to form terms using native common words is terminologization. However, the main mechanism of terminologization here is metaphorization of meaning, i.e. a reinterpretation of semantics based on analogy or association. It should be noted that metaphorization of verb semantics has its own specificity implying that it is not the action or process named by verbs but the entities marked by this action or process that undergo reinterpretation.

Typically, linguists distinguish analogy by 1) formal similarity; 2) functional similarity; 3) external and functional features. The functional similarity is relevant for verb metaphors as means of creating terms on the basis of metaphorization.

Metaphor-forming processes involve the actualisation of various semantic features of base words conveyed by the corresponding semes.

Native verbs as translation equivalents of original computer verb terms can belong to two groups. The first consists of native verbs terms. The analysed terminology have one more synonym – a borrowed word (internationalism), the second – of native verbs terms that have no such synonym. The first group includes verb terms *vbuduvaty* (*Eng*. to incorporate), *vydozminyty* (*Eng*. to modify), *klatsaty* (*Eng*. to click), *vidno-*

vyty (*Eng*. to regenerate, to restore)*, vstanovyty* (*Eng*. to establish, to set, to install)*, zarazyty* (*Eng*. to infect)*, peretvoryty* (*Eng*. to convert)*, rozpiznaty* (Eng. to recognise), *roztashuvaty* (*Eng*. to place)*, spriamuvaty* (*Eng*. to direct), etc. Foreign equivalents may denote the same. For example, the verb *zarazyty* (*Eng*. to infect), according to explanatory dictionaries, expresses the meaning: 1) 'to pass an infection to someone, something // to saturate the air, water, etc. with something harmful to health'; 2) '$_{fig.}$ to make someone have the same emotion, feeling, to convey an inclination to something, to get someone interested in something' (Busel, 2009, p. 417; Rusanivskyi, 2014, p. 463). Formed as a result of metaphorization based on the similarity of the described processes, the computer term *zarazyty* (*Eng*. to infect) means 'to introduce a virus (a specially written, small-sized program, i.e. program code) into a computer system that can "adapt" to other programs, create its own copies and embed them in files, documents, computer system parts, etc., and perform various unwanted actions on the computer' (Redko, 2007, p. 186). The verb *vbuduvaty* (*Eng*. *to incorporate)*, according to general dictionaries, means 'while building, to insert, fit an object, part, etc. into something' (Busel, 2009, p. 114; Rusanivskyi, 2012, p. 79). Metaphorization resulted in a computer term meaning 'to insert information from the source file fragmentarily or completely into the recipient file for further use as an integral file' (Rytsar, 2006, p. 71).

However, borrowed equivalents often serve as a means of recognising a particular lexical-semantic variation. For example, English verb computer terms *to restore, to resume*, *to regenerate* are translated in the recipient language primarily with the native equivalent *vidnovyty* and borrowed – *reheneruvaty*. To denote computer industry realia, the verb *vidnovyty* is more often used. Its general usage meanings are:

1. 'to render a new or previous appearance to something by fixing, replacing, etc.';
2. 'to restart interrupted action, work, etc.';
3. '$_{fig.}$ make new, revive, enliven';
4. '$_{fig.}$ to reproduce in memory; to recall;
5. '$_{chem.}$ to conduct restoration (the process of joining electrons by an atom of a substance, with a reduced degree of oxidation of its elements)' (Rusanivskyi, 2012, p. 701).

The given English terms differ in their meanings in the donor language. This distinction is preserved in the definitions of the computer term *vidnovyty* formed as a result of specialisation of the general meanings (first and second) in explanatory dictionaries:

1. 'to return to the previous place, to the previous state' (Proidakov & Teplytskyi, 2005, p. 431), which is more equivalent to Eng. *to store*;
2. 'to return with the continuation of further actions, i.e. to continue the task from the point where it was stopped' (Proidakov & Teplytskyi, 2005, p. 431), which is equivalent to Eng. *to resume*;
3. 'to replace part or all of the screen (periodical overwriting) with an output of new graphic data for prompt display' (Proidakov & Teplytskyi, 2005, p. 425), which is adequate to Eng. *to regenerate*. Another synonym of the verb *vidnovyty* - internationalism *reheneruvaty* - refers only to the third shade of meaning.

The semantics and components of the pair *rozpiznaty* (*Eng*. to identify) – *identyfikuvaty* (*Eng*. to identify) are also differentiated. General explanatory dictionaries give the verb *rozpiznaty* with the meanings:

1. 'to identify something by certain signs, tokens // to perceive, to distinguish something with the senses // to discover, recognise someone, something as familiar; to identify';
2. 'get a fuller picture of someone or something; to evaluate someone, something accurately by learning more deeply';
3. 'to figure out, to find a difference, a distinction between someone or something due to some signs, tokens; to distinguish' (Busel, 2009, p. 1256).

The specialisation of the first and second meanings given in the general explanatory dictionaries led to the formation of a verb computer term with definitions:

1. 'to make this or that computer program suitable for further use by activating special operations';
2. 'to recognise in someone, something the user or other objects, the data about which were previously entered into the program';
3. 'to get a fuller picture of the object whose parameters are to be analysed; to evaluate something correctly by learning it more deeply' (Proidakov & Teplytskyi, 2005, p. 422).

The borrowed verb equivalent *identyfikuvaty* can be used to denote some of these definitions. However, in other dictionaries, the above definitions tend to explicate the semantics 'to recognise in someone, something a user or other objects, the data about which were previously entered into the program' through the verb term *identyfikuvaty*.

The second group is formed by native verbs terms that have no borrowed doublets. Among them are *vvesty* (*Eng*. to input), *vybraty* (*Eng*. to select, to choose), *vyvesty* (*Eng*. to display), *vydalyty* (*Eng*. to delete), *vydilyty* (*Eng*. to allocate, to select), *vyrizaty* (*Eng*. to cut, to excise), *vyterty* (*Eng*. to delete), *vidvidaty* (*Eng*. to visit), *vidkryty* (*Eng*. to open), *vidnovyty* (*Eng*. to regenerate, to restore), *vstavyty* (*Eng*. to insert), *zaboronyty* (*Eng*. to forbid), *zavantazhyty* (*Eng*. to download), *zadaty* (*Eng*. to set), *zakryty* (*Eng*. to close), *zamostyty* (*Eng*. to tile), *zapamiataty* (*Eng*. to store), *zapysaty* (*Eng*. to write, to record), *zapustyty* (*Eng*. to start), *zakhystyty* (*Eng*. to protect), *zberehty* (*Eng*. to save, to store), *zghortaty* (*Eng*. to collapse), *zchytaty* (*Eng*. to read), *ochystyty* (*Eng*. to clean, to delete), *peredaty* (*Eng*. to transfer), *pereity* (*Eng*. to jump), *peremistyty* (*Eng*. to move), *peretiahty* (*Eng*. to drag-and-drop), etc. All these terms arose as a result of terminologisation of common words. Metaphorization of the meaning of the base word remains the main mechanism of terminologisation. It is noteworthy that metaphorization is more characteristic of the semantics of verbs that explicate an action, particularly a specific physical action, intellectual activity, movement transfer, etc. For example, the verb of specific physical action *vyrivniaty*, used to translate the English computer term *to justify*, has the following meanings in general explanatory dictionaries:

1. 'to make something flat, without deepening or protrusion // to make straight, straighten, smooth something bent // to make it even';
2. 'to make the position of someone or something equal vertically or horizontally';
3. 'to place, put in a straight line (row, column, etc.)' (Busel, 2009, p. 148; Rusanivskyi, 2012, pp. 413-414).

The second recorded lexical-semantic variant ('to make the position of someone or something equal vertically or horizontally') served as a basis for linking this meaning with the computer sphere – 'to make all lines written in a document such that they have the same length, begin and end at the same level' (Proidakov & Teplytskyi, 2005, p. 288), or 'to place text lines evenly along the left and right margins, inserting extra space between words in each line' (Rytsar, 2006, p. 98), e.g., *Word allows opening multiple windows for simultaneous work with several texts, as well as to split one active window horizontally into two and align* (vyrivnyaty) *them* (Bakushevych & Kapatsila, 2007, p. 139).

The verb of intellectual activity *zapamiataty* (*Eng*. to store, to memorise) has the following meanings in Ukrainian explanatory dictionaries:

1. 'to store, keep in memory';
2. '$_{\text{rarely}}$ to lose in memory, forget';
3. '$_{\text{special}}$ to record information (about special devices)' (Busel, 2009, p. 410; Rusanivskyi, 2014, p. 396).

The third lexical-semantic variant' $_{\text{special}}$ to record information (about special devices)', which developed as a result of transferring the meaning 'to store, keep in memory' (by similarity to the action denoted by the base verb), represents the

definition of the computer verb term, e.g., *Office365 does not require you to remember* (zapamyatovuvaty) *correspondents' email addresses - just know the recipient's last name…* (Lytvynova, Spirin, & Anikina, 2015, p. 8).

The verb of movement *pereity (Eng*. to jump), according to dictionaries, expresses 13 basic meanings:

1. 'when going, to cross something or move to the other side of something';
2. 'to pass some space, some distance, etc.';
3. 'the same as *prokhodyty*';
4. 'when going, to move from one place to another // to change one's place of residence';
5. 'having left someone or something, to join another or others // to change denomination, adopt a new religion';
6. 'become the property of another, to be at the disposal of another';
7. 'to pass (about time, events, etc.)';
8. '$_{coll.}$ to stop, to cease (about precipitation)';
9. 'to exceed something';
10. '$_{dial.}$ to cease fermenting (about the dough)';
11. 'having left or finished something, to take up something else, to turn to something else';
12. 'to change the line of action, start acting differently';
13. 'by gradually changing, to turn into something else' (Busel, 2009, p. 934).

Special computer dictionaries record the verb term *pereity* with the meaning 'to move from one web page to another' (Rytsar, 2006, p. 97), which evolved due to the transfer (by functional similarity) of the meaning 'when going, to move from one place to another', e.g.: *In this situation, you can press F 8 and go* (pereyty) *to the advanced boot options menu (safe mode, etc.)* (Shekhovtsov, 2005, p. 515).

The verb of movement *zsunuty* (*Eng.* to displace) explicates the semantics:

1. 'by shifting, pushing something, to move to another place';
2. 'by moving individual objects, to bring them closer to each other, gather in one place, together // to bring closer to each other; to bring together' (Busel, 2009, p. 481; Rusanivskyi, 2015, p. 385).

Metaphorization of the second meaning with accompanying concretisation contributed to the formation of the definition intrinsic to the computer term - 'to move an object one pixel at a time' (Rytsar, 2006, p. 115), e.g., *Each time you need to extract a bit, all bits of the shift register are shifted* (zsuvayutsya) *to the right by 1 position* (Ostapov, Yevseiev, & Korol, 2013, p. 141).

Discussion

The study results allow us to highlight several scientific problems, the consideration of which is gaining in importance with the development of professional computer language in different languages in general and Ukrainian in particular.

Firstly, the origination of the computer industry in the USA and, due to this fact, the English origin of computer terms determine the need to translate the original term into the language that borrows it when conveying the denoted concept in the computer terminology of other languages.

Secondly, a significant role in outlining the trends regarding possibilities, ways (methods, mechanisms) of conveying the information embedded in original computer terms is played by the part of speech category of the term and features of the grammatical system of the target language.

Thirdly, the formation of terminology in a particular field, including computer, should reflect the national specifics of the language of translation, which is extremely important for achieving an appropriate degree of accessibility, professionalism, high culture, identity, and adequacy of scientific concepts.

Fourthly, verb terms are essential elements of computer terminology for denoting action, process, or state in both the donor and recipient lan-

guages. They ensure the accuracy, transparency, and dynamism of the information they carry.

Conclusion

The process of creating computer terms in the Ukrainian language is at the stage of formation, on account of the young age of the computer industry, the rapid development of this industry and, concurrently, a considerable retard of both the formation of professional language in this field and lexicographic practice that would certify the standardisation and codification of terms used to designate computer concepts. This state of affairs is currently caused by the absence of a single glossary of computer terms, the presence of several doublets to denote the same concept (phenomenon or process) and their arbitrary selection, non-codification of many units, constant changes within the system attributable to the displacement of borrowings in the presence of identical equivalent, elimination of language clichés of the intermediary language and search for the best specific equivalents, etc. However, the intensity of the ongoing processes in the industry itself, the speed of changes in the terminology of this industry, and the fact that computerisation covers all spheres of social life, give grounds to conclude about the self-sufficiency of this language system on par with the professional languages of other branches and the appropriate level of representation of scientific concepts in this terminology. This is facilitated by various ways and mechanisms of conveying original computer terms in the Ukrainian language. Within the verb system, the ways and mechanisms of conveying scientific concepts are determined by the belonging of the translated verb term to one of two types – verbs that have a translation equivalent and verbs that have no such a translation equivalent (non-equivalent). The primary way to form computer terms from base translation verbs of the first type is a semantic derivation with its main mechanisms – terminologisation and trans-terminologization. The terminologization of borrowed words occurred mainly due to the narrowing of the semantics of the base word – with or without much change in the semantic structure of the term, while terminologization of native words – due to metaphorization, based on analogy (functional or visual) to a phenomenon or association with specific ideas.

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PRACTICAL PHILOSOPHY

DOI: 10.24234/wisdom.v21i1.721
Oleg GABRIELYAN,
Elizaveta VITULYOVA,
Ibragim SULEIMENOV

MULTI-VALUED LOGICS AS AN ADVANCED BASIS FOR ARTIFICIAL INTELLIGENCE (AS AN EXAMPLE OF APPLIED PHILOSOPHY)

Abstract

It is shown that the creation of artificial intelligence systems, gradually approaching human intelligence, cannot be limited by binary logic and the classical interpretation of the category of truth. The nature of human thinking is variable, which requires the use of flexible algorithmic platforms that operate with multivalued logic. It is shown that the existing approaches to the interpretation of the essence of intelligence, going back to the Turing test, are not consistent. More adequate is a criterion built on the ability of the intellect to lie, including creative particulars. It is shown that using multi-valued logic is a promising tool for constructing the algorithmic basis of artificial intelligence. It is shown that the use of just such logic is of interest from the point of view of studying self-organization processes in a telecommunication environment, resulting in the appearance of "spontaneous intelligence", too. An analogue of such intelligence, for example, is the phenomenon of bureaucracy. It is shown that the question of the essence of the intellect is a prerequisite for the further development of non-trivial logical systems since the functioning of the intellect cannot be reduced to the operations of classical formal logic.

Keywords: artificial intelligence, multivalued logic, informational self-organization, Galois fields, the law of the excluded middle, bureaucracy, transpersonal structures.

Introduction

The further development of artificial intelligence systems, which no one doubts, poses and will pose to the "techies" questions, which previously mainly were within the competence of the social sciences and the humanities. The main one, obviously, is the question of the essence of intelligence as such. Without an answer on this question all discussions about whether this particular system can be considered as artificial intelligence or not become pointless (Suleimenov, Vitulyova, Bakirov, & Gabrielyan, 2020; Vitulyova, Bakirov, Baipakbayeva, & Suleimenov, 2020).

"Gabbay predicts that the day is not far off when the computer scientist will wake up with the realization that his professional line of work belongs to formal philosophy". This phrase completes the review article (Karpenko, 2003) written by one of the most prominent specialists in the field of mathematical logic and the philosophy of logic. This judgment, however, is worth adding. More precisely, it should be extended not only to specialists in the field of information, but also in the field of telecommunications technologies, since the line between them is now being erased, which fully meets the principle of convergence of technical sciences, natural science and humanitarian knowledge, which is currently gaining an increasing number of supporters.

Moreover, the rapid development of artificial intelligence systems, among other things, highlights unexpected facets of old problems. In par-

ticular, there is every reason to assert that the social phenomenon that is called bureaucracy is the "artificial intelligence system" that arose in an evolutionary way, at least if the term is interpreted from the standpoint of objective dialectics (Suleimenov, Massalimova, Bakirov, & Gabrielyan, 2018).

The above-mentioned fact can be visually explained by the example given in (Suleimenov et al., 2014), which considered the voting procedure in a certain Council (for example, a dissertation council). The cited report shows that the mutual influence of Council members on each other (for example, a vote "against" a good dissertation can be cast if it is defended by a student of a competitor or foe) leads to the fact that the Council scheme becomes topologically equivalent to the Hopfield neural network. Therefore, if the density of connections of the above-mentioned type becomes sufficiently high, then the decision is made de facto not by the totality of Council members but by the analogue of the neural network formed by them. Similar processes of informational self-organization also take place during the development of other managerial (administrative) decisions; as a result, one can argue that very often, the decision is made by some kind of transpersonal information systems, the nature of which so far remains poorly understood.

This example shows that in the question of artificial intelligence systems, the specific element base on which it is technically implemented is secondary. Ordinary calculations in the decimal number system can be carried out on paper, using the old testamentary account with wooden knuckles, using an adding machine or calculator, etc. The basis of the account in any of these cases is information of a higher order (Vitulyova et al., 2020; Karpenko, 2003), which is used by a particular computing device. These are the rules for adding decimal numbers, which technically can be implemented in any way.

In other words, the essence of artificial intelligence systems is determined not by a specific form of technical implementation. It is determined mainly by the algorithms that form its operational basis. However, the term "algorithm" has a very specific meaning. It is worth talking about the existence of a well-defined hierarchy of information objects, considered in (Suleimenov et al., 2020, Vitulyova et al., 2020; Suleimenov, Gabrielyan, Bakirov, & Vitulyova, 2019). The lowest position in it is occupied by "just information", say, a message, the amount of information that can be directly measured by Shannon's formula. The rules for adding binary and/or decimal numbers take a higher level. Indeed, these rules are also purely informational objects. For example, they can be recorded on paper, and the amount of information contained in such records can also be calculated. However, the obtained value of the amount of information will not fully reflect the essence of the matter: with the help of these rules, it is possible, generally speaking, to obtain infinitely large amounts of new information, which is actually carried out in practice when performing calculations according to the mentioned rules.

From this point of view, "intellect" is information structured in a special way and acquired relative independence (Suleimenov et al., 2020, Vitulyova et al., 2020; Suleimenov, Gabrielyan, Bakirov, & Vitulyova, 2019). It can be implemented on an arbitrary element base, in particular, from administrators. The nature of the information carrier is indeed secondary. We emphasize that such an interpretation of bureaucracy, in essence, is fully consistent with the point of view of Weber (1972), who believed that an ideal administrative system should be a software-hardware complex (in modern terms), the actions of officials in which are strictly regulated (which implies the complete exclusion of the "human factor"). It is another matter that there is nothing ideal in nature, and processes of information self-organization were actively going on and continue to go on in administrative systems, which give rise, in particular, to the phenomenon of bureaucracy, due to the emergence of horizontal (para-

sitic) information links between officials (Suleimenov, Panchenko, Gabrielyan, & Pak, 2016; Suleimenov, Gabrielyan, Malenko, Vitulyova, & Nekita, 2021).

Note that the issue under consideration about information self-organization and spontaneous emergence of information objects of higher levels of the hierarchy (in the sense of (Suleimenov et al., 2020, Vitulyova et al., 2020)) is a de facto general scientific interest, more precisely, this issue can be used as the basis for a consistent natural science proof of the principle of global evolutionism.

In particular, the phenomenon of Life, as was noted in (Chernavskii, 2000), can also be considered from a purely informational point of view. The phenomenon of life is inseparable from the processes of preservation and self-reproduction of genetic information.

As it is known well, the most reliable way to preserve information for the longest possible time is not to provide the most durable and resistant to environmental influences information carrier but ensure its multiple replications. In this sense, the most indicative are objects that occupy an intermediate position between living and non-living matter - viruses - the functioning of which is subject to a single task - the preservation of information contained in the biological informational macromolecule, which, in fact, forms the virus.

Therefore, the study of the processes of informational self-organization in media containing macromolecular objects capable of replicating information is of considerable interest, among other things, from the point of view of the still unresolved problem - establishing the mechanisms of evolution that preceded the biological one (Mun et al., 2020)

The processes of information self-organization become very pronounced in telecommunication environments; namely, the question of the emergence of "spontaneous intelligence" in telecommunication networks is currently being raised (Chen & Burgess, 2018).

It is naive to assume that the processes of self-organization in the communication space are something abstract, the subject of speculation of refined intellectuals.

These processes - just as can be seen in the example of bureaucracy - are able to subjugate even political elites, which is partly already seen in the example of the "madness of information flows", which is one of the facets of the epidemiological crisis of 2020.

Thus, the problem of the essence of intelligence and photo intelligence (i.e. those information systems from which human intelligence has developed in the course of evolution) acquire far more than just technical interest.

As emphasized, inter alia, in (Kalimoldayev et al., 2018), the vector of development of artificial intelligence systems is in many ways able to determine the vector of development of society. Under a pessimistic scenario, AI can become another means of fooling people and subordinating them, and under an optimistic scenario, it can serve as a tool for strengthening the sovereignty of the individual.

This conclusion determines the relevance of the development of mathematical models and logical systems that allow revealing unexpected aspects of collective human activity. As shown in this work, it is the *collective* aspects of thinking that are the key to comprehending the essence of intelligence as such.

Mythological Thinking and the Dual Essence of Human Intelligence

The starting point of the reasoning is the conclusions made in the reports (Vitulyova et al., 2020; Suleimenov et al., 2019; Bakirov, Vitulyova, Zotkin, & Suleimenov, 2021) concerning the existence of a transpersonal level of information processing and transpersonal information objects. Otherwise, the brain of each of the individuals, strictly speaking, is not a completely independent information processing system. It is integrated into systems of higher orders, each of

which is a part (or structural element) of the noosphere, as understood in V. I. Vernadsky's sense.

It is appropriate to emphasize that in recent decades, the attitude towards the ideas of V. I. Vernadsky in the expert community remained ambiguous. Some experts saw behind the theses about the noosphere nothing more than some metaphors, if not an attempt to idealize the development of mankind.

The works cited above (Vitulyova et al., 2020; Suleimenov et al., 2019; Bakirov et al., 2021), however, show that, contrary to such points of view, the noosphere is an objectively existing physical reality, the nature of which is most closely related to the media space or communication environment.

This can be proved without resorting to detailed mathematical calculations (they are presented in (Suleimenov et al., 2022)).

Modern neurophysiology unequivocally says that such informational entities as the intellect, mind and consciousness of a person arise as a result of the exchange of signals between nerve cells - neurons - that are part of the brain.

Moreover, any communication between individuals, de facto, also comes down to the exchange of signals between neurons that are part of the brain of the interlocutors. It is generally accepted that individuals exchange information, but really this is a very rough approximation. Information cannot be transmitted without a carrier (physical processes that determine the exchange of signals between neurons act as such).

As follows from the modern theory of neural networks, the quantitative laws of which were established, including in (Suleimenov et al., 2022), their information capabilities depend nonlinearly on the number of neurons. Simplifying, a neural network composed of two identical subnets will be not two but more than two times more efficient than each of these subnets separately (in any case, this statement is true for neural networks with distributed memory (Suleimenov et al., 2022)).

Consequently, at the moment when a common neural network arises as a result of communication between individuals, a certain new quality arises. There is a new "segment" of the common memory; information recording in it is only indirectly related to information that stores the memory of individuals.

This is the transpersonal level of information processing, on which various kinds of transpersonal information objects can be developed.

Paradoxically, examples of this kind of transpersonal information objects are well known. These include, in particular, any of the natural languages that exist on our planet. Indeed, language, as system integrity, is only partially stored in the memory of individuals; it becomes integrity at the transpersonal level of information processing only.

The conclusion about the existence of transpersonal information structures (objects) also allows us to give a consistent interpretation of such concepts as mentality and the collective unconscious (understood in the sense of Jung). From our point of view, the collective unconscious is one of the subsystems of the transpersonal level of information processing. Information objects associated with this subsystem are also well known, for example, archetypes, as well as other manifestations of everything that is connected with the mythological consciousness of people.

It should be more correct to say that the consciousness, intellect and mind of a person actually have a dual nature. They simultaneously contain both a collective and an individual component. At the same time, the collective component of the mind, consciousness (subconscious), etc., represent a kind of projection of transpersonal information structures onto a relatively independent fragment of the noosphere, localized within the brain of an individual.

Thus, points of view on the differences between "machine" and human intelligence connecting with the Turing test should be considered as inconsistent ones. At a minimum, this test

does not take into account the collective component of intelligence, and in addition, it does not allow taking into account the evolution of intelligence, which, as emphasized in (Bakirov et al., 2021), takes place in real time. The conversion of society into a human-machine system due to the rapid development of the telecommunications industry accelerates this process many times over.

Of course, quite a lot of other criteria for the differences between "machine intelligence" and intelligence in the full sense of the word can be proposed, but for practical use, one still needs to make a certain choice.

We proceed from the fact that the fundamental difference between human intelligence and the conventionally "machine" one (in the not quite definite sense in which this term was used and is still being used in discussions on the topic "is a machine capable of thinking") is the *ability to consciously and purposefully lie*.

We emphasize that this statement does not provide for a mandatory negative connotation; in essence, it is the ability to lie that underlies what is called creativity. Any novel from a purely formal point of view is a lie; the man named Eugene Onegin never lived in the real Saint Petersburg.

Probably, there is no need to prove in detail that the same mechanisms of the functioning of the intellect are responsible for creativity and for the conscious deception of one's neighbour. The construction of a mathematical model of a real physical process is the same act of creativity as writing a novel or a fairy tale. A certain idealized construct, a product of fantasy, is generated. This model only then correlates with reality, and the interpretation of the term "reality" in this sentence is more than variable. So, in relation to literary creativity, it is customary to talk about artistic truth. A model of a physical phenomenon can be fully functional even when it turns out that its nature has nothing to do with reality at all.

The line between lies and fantasy is very shaky; in fact, it lies only in the ethical plane. A writer can write about the experiences and actions of fictional characters for good purposes, a corrupt official who covers up his actions with some plausible fabrications - on the contrary. Moreover, the mythological nature of thinking inherent to humans (especially in modern conditions) suggests that "fiction can become truth".

More precisely, in accordance with modern views, myths (especially the myths of ancient cultural peoples, for example, ancient Greek) should by no means be interpreted as a kind of fiction. The myth was (in many ways still is) a means of reflecting reality. A person streamlined his vision of the surrounding reality through myth, for example, in the era of Classical Greece or Ancient Egypt. The myth regulated his life, gave integrity to society, etc. In fact, the myth performed the functions that religion, science and law later began to perform - all these areas of human activity were initially generated by the mythological picture of the world, which eventually ceased to satisfy the needs of society.

In other words, at a certain stage in the development of society, the myth was practically useful, but this usefulness had nothing to do with the category of Truth in its modern sense. Here it is appropriate to note that, as shown in the works of Mircea Eliade (2021), the mythological way of perceiving reality is also found in the modern era, and much more often than it might seem at first glance.

From the point of view under consideration, this conclusion means that the idea of truth is by no means inherent in human thinking from the very beginning - at least in the modern interpretation of this concept. The human intellect, strictly speaking, operates with completely different constructions, to which "truth" has only an indirect relation. The apparatus of formal logic, which goes back to Aristotle, is a later invention. In particular, it is shown by the studies of Lévy-Bruhl, L. (1963), in which it was concluded that there was no logical thinking in primitive cultures.

From the considered point of view, the myth-

ological picture of the world is an information structure generated by the collective component of consciousness and mind, or rather, it is the refraction in the language that is accessible to the individual, of those information processes that occur at the transpersonal level of information processing.

Not only archetypes but also the Ancient Gods are some reflections of transpersonal information objects, the evolution of which only gradually led to the emergence of the mind, in which the individual component became quite pronounced. At the level of logical thinking, which developed only quite late, it is obviously impossible to perceive such mythological objects, which is inseparable from creativity, and, consequently, from fiction that plays such an important role in all cultures.

It remains to emphasize that the simplest act of creativity is the direct and unpretentious deception of one person by another.

Paradoxically, based on the above conclusions, the question "can a machine think?" should be reformulated – "can a machine deliberately lie?"

This question in the current conditions has a purely applied sound. No one knows whether we can consider the "spontaneous" artificial intelligence generated by the exchange of information in the telecommunications environment to have taken place or whether we can only talk about proto-intelligence so far. Existing views on the evolution of complex systems (their review is given in (Mun et al., 2020)), however, allow us to assert that the line between the spontaneous behaviour of an unintelligent system, which ensures its self-reproduction, and conscious goal-setting (the line between "instinct" and conscious behaviour) is diffuse.

Accordingly, the behaviour of even a proto-intelligence generated by telecommunication environments can run counter to the interests of those who create and operate these environments, which returns to the thesis of (Kalimoldayev et al., 2018). The global information environment may well get out of control, and the situation that arose in the communication space under the influence of the epidemiological crisis of 2020-2021 is direct proof of the fact; we emphasize it again.

The global information environment can lie in the ordinary sense (for example, generate and maintain the stability of fakes) not because it cherishes some insidious intentions but because it obeys certain poorly understood patterns that reflect the collective behaviour of complex systems. The above example of bureaucracy as an artificial intelligence system assembled on a "human" element base convinces us that such judgments do not at all look hypothetical.

The bureaucracy obligately lies not because it is necessarily made up of corrupt officials and swindlers (it is possible that there are situations when the administrative apparatus is staffed with honest people), but because the processes occurring at the transpersonal level of information processing differ significantly from those inherent in our - ordinary for perception - level. Here it is appropriate to recall again the essence of myth as a manifestation of information processes occurring at the transpersonal level of information processing.

Problems of mutual understanding, a special case of which is the problem of text interpretation, arise even when it comes to the exchange of information between two systems of the same level of complexity (two interlocutors, even communicating in the same language, for example). With regard to systems related to different levels of information processing, this problem, obviously, can only intensify.

As an illustration, let's ask a rhetorical question without expecting an answer. It is customary to talk about modernity as an era of post-truth - a world of induced illusions, where the vast majority of the inhabitants have lost not only the criteria of primitively understood truth but even the elementary guidelines "what is good - what is bad". An important question arises - who created this state of affairs? Some dark forces in the per-

son of "generalized Bill Gates"? Political elites of specific countries claiming world domination? Irresponsible bloggers? Or is it the information environment itself? The vast majority of people are inclined to deny being included in it, although few of their contemporaries are really ready to challenge the dictates of the environment - the vast majority of people, especially in countries where traditions and the influence of family ties are strong, obey him resignedly.

Thus, the thesis about the ability to lie as a criterion for intellectuality is a multifaceted one. It is quite possible that the category of Falsehood is even more difficult for a consistent philosophical interpretation than the category of Truth, but this does not negate the possibility of using it for applied purposes. Moreover, the "mechanisms of deception", which are already being implemented in systems where pronounced processes of information self-organization are taking place, must also be uncovered in order not to be defenceless in the face of information elements the forerunner of which is the phenomenon of bureaucracy.

Multi-Valued Logic and the Category of Lies

Based on what has been said above, let us return to the thesis called in (Savkin, 2010) the Maltsev-Tarsky thesis. It says that any description of a situation, which, from the point of view of a person, is complete, accurate and formal, can be represented as an algebraic system.

This thesis, as rightly noted in (Palchunov, 2006), has not been proven or refuted by anyone. Based on it, it can be argued, at least in the first approximation, that the question posed above presupposes a certain "formalization of the process of conscious deception" and, moreover, its algebraization.

Paradoxically, it is impossible to teach artificial intelligence to create without laying in it some mechanisms similar to those that allow a person to lie.

Of course, it makes no sense to design a system that will purposefully deceive its developers, but the above theses, at least, clearly show how important for the further development of artificial intelligence systems is the ability to operate with representations that do not fit into the framework of the primitively understood opposition "True – Falsehood".

Currently, there are a number of logical systems in which the law of the excluded middle is not elevated to the rank of absolute (Caret, 2017; Abe, Nakamatsu, & Silva Filho, 2019). Their development began in the first decades of the twentieth century, under the influence of the success of non-Euclidean geometries. Basic for classical logic is the law of the excluded middle (every statement is either true or false); the works of Lukasiewicz (Bofill, Manyà, Vidal, & Villaret, 2019) and his followers laid the foundation for the creation of logical systems in which this law is not satisfied. Today, many significant results have been obtained in this direction (Bofill et al., 2019; Kulik, 2007; Marcos, 2005), and the question of their use for creating artificial intelligence systems of various varieties are already clearly raised.

This section discusses the issue of creating logical systems that make it possible to use in practice the criterion for distinguishing human intelligence from the conditionally "machine" one, which was mentioned above.

An expanded interpretation of the thesis about the ability of the intellect to lie sounds like this: the intellect of higher levels (for example, the human intellect) is able to operate with ideas that are not related to reality or are only indirectly related to it. Obviously, it is these human abilities (more precisely, the corresponding mechanisms of the functioning of the intellect) that are adjacent to the ability to think abstractly, generate new meanings, fantasize, etc.

Therefore, the next step in the development of logical systems that refuse to absolutize the law of the excluded middle is of interest. This makes one pay close attention, including to an-

cient Indian/Buddhist philosophical concepts, one of the basic theses of such conceptions may be formulated as follows: truth cannot be expressed in words at all; the truth lies outside "Yes" or "No".

Already in the VI-IV centuries, BC in India, the concept of "chatushkuotika" (i.e. "having four peaks") was developed, operating with four options for judging an object: "it is", "it is not-is", "it is and is not-is", "it is neither is" (Maksimov, 2016). In the future, it was significantly complicated (the doctrines of ajnanavada and syadvada, the constructions of Buddhist philosophers), but for the purposes of this work, it will be enough to confine ourselves to analogies with the simplest version.

A judgment of such a type as "an object both exists and does not exist at the same time" and a judgment conjugated to it in the sense of chatushkootika, in a formalized language, it is permissible to describe through the imaginary component of logical variables. Accordingly, with this approach, the list of logical values should be significantly expanded; along with "Yes", "No", "Indefinitely" used in logical systems dating back to the logic of Lukasiewicz, the opposition "Yes" - "No" is supplemented by a pair on the imaginary axis, which represents the opposition "imaginary Yes" - "imaginary No". One of the simplest interpretations of the last pair (along with those directly related to chatushkuotika) is, for example, as follows:

- It is true that the primary opposition implies "by default".
- It is false that the primary opposition implies "by default".

With regard to the apparatus of dialectical categories, such judgments allow, among other things, an extremely transparent interpretation. An object/entity can be described in terms of a certain opposition, then the imaginary part of the logical variable takes on a positive value, regardless of which of the variants of the basic judgment is true, and vice versa, the object/entity is not described at all through such an opposition (simplifying, this question has nothing to do with it).

Problems of Artificial Intelligence and the Renaissance of Philosophical Knowledge

The multi-valued logic mentioned above can be fully formalized (Moldakhan, Shaltikova, Egemberdyeva, & Suleimenov, 2020). In particular, this can be done using the apparatus of Galois fields. This apparatus is already finding direct practical application, in particular, in digital signal processing (Moldakhan, Matrassulova, Shaltykova, & Suleimenov, 2021). A detailed consideration of this issue is beyond the scope of this work, but the very fact of the existence of a close relationship between the algorithms of the functioning of artificial intelligence and its philosophical interpretation serves as a strong argument in favour of the thesis of the convergence of natural science and humanitarian knowledge.

Moreover, the question can be put much broader: the example considered makes us look at the subject of practical philosophy differently.

If we start from T. Kuhn's concept of the structures of scientific revolutions, then we would characterize the current situation in philosophy as pre-revolutionary. Its development in the "normal" (according to T. Kuhn) way ended with postmodern deconstruction, which indicated the futility of its further scholastic development. This does not mean that this scholasticism was unnecessary and meaningless, but it has become obsolete, as it turned out to be unable to find actual answers to the actual challenges of the time, which are becoming more and more formidable.

If we adhere to the tradition coming from Aristotle, who divided the sciences into theoretical and practical, then today it makes sense to talk about the actualization of the problems of practical and even applied philosophy, and not metaphysics as the "first philosophy", which focused its attention on high abstractions.

This commitment to "pure" knowledge be-

came dominant in philosophy for a long time. In different eras (in the state of "normality" of the intellectual field according to T. Kuhn), the scholasticism of the "first philosophy" flourished and dominated, but in the situation of the scientific revolution, the transition to a new level of development, practical issues became actual. As an example, it is appropriate to note the "New Organon" by F. Bacon with his "idols of the clan, caves, market and theatre".

K. Marx, in "Theses on Feuerbach", wrote that philosophers only explained the world in different ways, but the point is to change it. Today it is clear that there is a more fundamental task.

Philosophy, as the presented material shows, can and must change its position in the world, starting to set the vector for the development of specific sciences. Society no longer has the opportunity to dissipate forces and resources for the development of a large number of scientific areas that are weakly interconnected.

It also follows from the materials of this work that completely new problems also arise that require the expansion of the subject field of practical philosophy.

These include, in particular, filling with adequate content all those studies that are somehow related to artificial intelligence. Indeed, the level of modern programming has reached such heights that any formalized problem can be solved. Accordingly, the formulation of the problem comes to the fore, and this is already a field for the activity of practical philosophy. Before creating artificial intelligence systems, strictly speaking, you need to understand what intelligence is as such.

Obviously, under these conditions, the need for a "general" and "special" practical philosophy is growing exponentially. Our confidence in the renaissance of philosophy the existence of a pronounced need for its creative potential and possibilities are based on mentioned above conclusions.

The subject of (general) practical philosophy are the topical issues of human life and humanity in terms of not only the freedom of his choice but also the morality of such a choice, and morality here also has a direct practical aspect. As noted above, the direction of development of society largely depends on the nature of the further development of artificial intelligence systems. Therefore, the relevant questions should initially be laid in the foundation of specific scientific developments.

Philosophers no longer have the ability to hide behind words; it is necessary to act here and now in everyday life. Obviously, in this way, philosophy returns to its main function: reflecting on the past and present of a person, it has in mind its future.

In our opinion, the "special" practical philosophy (applied philosophy) should also be noted. The main objection to applied philosophy is that philosophy deals with abstractions and laws of the highest level and has no direct access to practice and everyday life.

However, philosophy arose precisely as applied knowledge in Ancient Greece. Socrates was sentenced to death for corrupting the youth; obviously, what he was doing was not abstract but very applied to the citizens of Athens.

An article (Savkin, 2010) identifies the following structure of applied philosophy: methodology, philosophical sciences, philosophical problems, some areas of life - education, politics, religion, practical philosophy or philosophical therapy. Actually, defining the structure and the corresponding areas of application of the applied philosophy of N. S. Savkin defines its subject.

However, it seems to us that applied philosophy is a specific section of practical philosophy, where the applied nature of philosophy gives the ability to practically use its arsenal and possibilities.

Applied philosophy is a focus on the final result, on the implementation of a certain project, even if it is a new scientific theory. This is the essence of applied philosophy.

The stated assertion is based on observed

practice. By moving to project work in interdisciplinary teams, philosophers have found that there is a serious need for their efforts at all stages of work. Very significant, in particular, is participation in the formulation of the idea of the project (its basic meaning). Most often, it is people who have philosophical knowledge or a way of thinking that propose and formulate basic meanings in a correct way. Throughout the project, they maintain the integrity of the team's work, focusing its efforts on achieving the goal, especially when the "techies", who always need explicitly formulated "terms of reference", are faced with fundamental problems.

Given that convergence and projectivity are becoming important characteristics of modern science, the prospects for practical and applied philosophy look solid. And our research on multi-valued logic is a good example of this.

Conclusion

Thus, the further development of artificial intelligence systems is closely related to the problems of many-valued logic.

The multiplicity of such logic, in particular the one proposed in this report, undoubtedly corresponds to the variety of ways of reasoning that an intellect (worthy of such a name) can use. The existence of a variety of non-classical (non-Aristotelian) logics allows us to pose the question namely in this way.

The main argument in favour of the use of multi-valued logics is the criterion of "true" intelligence proposed in this paper - the ability to consciously and purposefully lie, the formalization of which leads to the need to build specific multi-valued logics that allow a variable understanding of the category of Truth.

There is every reason to believe that the ability to operate with truth in just such an interpretation underlies such non-trivial functions of the human intellect as creativity, deceit and fantasy.

It is also shown that the considered example of using multi-valued logic for further improvement of artificial intelligence systems is important from the point of view of interpreting the essence of applied philosophy. It is demonstrated that its significance in the modern world is again significantly increasing, to the point that it makes sense to talk about the predicted renaissance of philosophical knowledge.

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PHILOSOPHY OF RELIGION

DOI: 10.24234/wisdom.v21i1.586
Sergey ASTAPOV,
Alina KRASNOVA

RELIGIOUS VALUES IN MODERN RUSSIAN SOCIETY: A PHILOSOPHICAL EXPLICATION

Abstract

This article analyses the results of sociological research on value orientations in modern Russian society, based on the philosophical explication of the concept of 'value'. The analysis allows us to recognize that the significance of religious values in the value system of modern society depends on both – the goals of research and their methodological foundations. A philosophical understanding of the essence and nature of values is, therefore, central. Values are principles of a meaningful human life that give ideas about what is significant and important in one's life, legitimising one's activities as the realisation of one's being. This article emphasises that the majority of respondents to the study, who belong to the Russian Orthodox Church, do not separate the confessional values from the moral values of traditional society. This tendency is also seen in the documents defining the social activities of the Church, although the division between confessional and moral values exists in the theology and religious philosophy of the Russian Orthodox Church. The authors of the article consider the essence and nature of values presented in Russian religious philosophy relevant to a religious worldview and assert the ontological, not moral, nature of values.

Keywords: religious values, sociology of religion, value system of society, Russian Orthodox Church, Russian religious philosophy.

Introduction

Research on value orientation in the context of social changes has received a lot of attention in the last few decades. This is because value orientations can influence both the individual and the collective consciousness of social groups, making them important for social forecasting. Indeed, values are the basis for desired actions and events – they determine the direction of the social activity of individuals, and in this sense, they determine the social future. For this reason, most social research includes them. The largest projects for the study of values are the international sociological programmes, World Values Survey and European Values Study, which have been operating since 1981.

Among the value orientations of modern society, religious values are highly important, although several modern social theories substantiate the idea that society (mainly European) has entered a post-secular era. Consequently, we would expect that the value system of society undergoes certain transformations because of the interaction between religious and secular values as well as the influence of values from different religions.

Despite a significant array of publications devoted to religious values, most publications have a normative and speculative nature, representing arguments (mostly well-founded and fruitful) about the spiritual crisis of modern society. Furthermore, the existing literature highlights the importance of spiritual, moral, religious, or confessional values for individual, societal, cultural, educational, and historical development. Such publications express the results of specific sociological research dedicated to the value orienta-

tions, or even individual values, of specific social groups or religious associations.

This study aims to develop an understanding of the philosophical basis for research to determine the significance of religious values in the value systems of modern society. Before discussing the place of religious values thus, it is necessary to understand what values will be discussed and in which system. In other words, it is necessary to determine the meaning of those concepts that, when applied to a specific resource of sociological research, will become the basic elements of a theoretical construction that determines the place, role, or significance of religious values in society.

The results of this study will allow us to comprehend what determines the value system of society and what influences its change. Since the research is mainly based on the publications of Russian authors, this study will focus on the value system of Russian society. In the future, the conclusions of this analysis will make it possible to compare the studies on religious values by Russian sociologists with similar studies by their foreign colleagues. In another research area, the results of the article will lead us to a better understanding of the place and role of religious values in the social life of modern Russia.

To determine religious values, it is necessary to correlate them with non-religious values. In this correlation, a lot depends on what is considered religious. In most Russian publications that are not dedicated to specific faiths, religious values are understood as the values of the Russian Orthodoxy by default. This is quite understandable for three main reasons. First, Russian Orthodoxy has played a historical role in the formation of Russian culture; many of its elements are contained in various symbolic systems of Russian culture, such as art, literature, and philosophy. Second, most Russian citizens nominally consider themselves as Russian Orthodox. Third, the Russian Orthodox Church actively positions itself in the public space, both as a guardian and defender of traditional values. Therefore, when considering specific religious values, this article takes into account Christian values in their context, which is presented in the doctrine of the Russian Orthodox Church.

Differences Between Sociological and Religious-Philosophical Definitions of Religious Values

Like most philosophical concepts, "value" is a concept with an ambiguous definition. More precisely, it depends on how the nature of values is understood and how they are related to meanings, experiences, and needs. Therefore, in the history of philosophy, we will encounter various teachings on values, and we can even define the paradigms of these teachings. Moreover, an analysis of scientific articles on the values of modern society demonstrates that, in most cases, authors give a definition of "value" without referring it to any direction of philosophy or philosophical teaching. While some construct their own definitions, and some provide no definition at all, each approach can be justified. If an article is devoted to the field of sociological or anthropological research, the author, most likely, considers the understanding of the value that is formed through everyday use. Alternatively, the author gives a personal "working" definition, which is suitable to solve the problems that are set in the study. The problem is that there are bound to be distortions in the interpretation of these research results since the representatives of the scientific community who interpret these results will most likely not analyse how the definitions of value correlate with each other; they are unlikely to verify if these meanings belong to 1) themselves, 2) the author of the study, or 3) the respondents.

Moreover, these interpretative biases apply to religious values. Secular and religious (traditional or post-secular) views of social relations provide different ideas about values. In addition, without an initial definition of value, it will be difficult to draw lines of demarcation between

'value' and related concepts such as norms and commandments in the sphere of religious ethics and personal meanings and preferences in the sphere of religious psychology.

Therefore, in modern Russian sociology, values, in their most general understanding, are "generalised goals and means of achieving them, which serve as fundamental norms. They ensure social integration by helping individuals make socially acceptable choices about their behaviour in life-changing situations" (Lapin, 1996, p. 5). This definition corresponds to the understanding of values in Western sociology and is based on the theory of Milton Rokeach. As noted by Braithwaite and Scott (1991), "Rokeach set about measuring values by asking respondents first to rank-order 18 instrumental values (modes of conduct) and second, 18 terminal values (end-states of existence) in terms of their importance as guiding principles in their lives. A *value* was defined as "an enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence" (p. 662).

Furthermore, value orientations play a special role in social relations, as the essential elements of goal setting, the expediency of behaviour, and meaning-making. In fact, value orientations are those values that an individual or social group explicitly implement. Moreover, they are a complex hierarchical system that is built under the influence of life experience, depending on the subjective significance of a particular value. The top of this system is occupied by ideals that function as an overarching vision: the ultimate goal that determines the meaning of an individual's life, and moreover, represents something that is subjectively more important than one's own life. A goal is an image of the desired future that a person seeks to achieve. Usually, an individual has many goals, and they are organised hierarchically, depending on the value that a particular goal is associated with. Thus, the individual proceeds from their ideals, from what they consider to be the meaning of their life, set certain goals for oneself and organises one's behaviour in accordance with them, and this gives meaning to one's life.

The analysis of the value systems of various social groups suggests that all of them contain some invariant values, which, depending on socio-cultural factors, may have a different location in the hierarchy of values, be interpreted differently, and differ in relation to other values. These invariant values are called basic values. Nevertheless, there are not many of them: Rokeach settled on 36 and Braithwaite and Law (1985) identified 54 goals in life and 71 ways of behaving, which was reduced through factor analysis to 19 basic dimensions corresponding well with the Rokeach Value Survey.

The sociological approach to defining orthodox values (as well as values in general) is based on the social functions of values, such as socialisation, social identity, and social regulation. From this point of view, values appear as regulative guidelines that determine social activities and social relations. They assume a system of social needs and interests, but their main purpose is to establish an image of what is normal and proper, which, in turn, ensures the unity of society and gives its members certain orientations and motives for action. Thus, in the book "Russian Society and Challenges of the Time", value orientations are actually identified with behavioural and evaluative maxims. Fomicheva (2012), who analysed the concept of value in sociology, notes that values appear "in the form of patterns of preference, choice and evaluation, so they act as normative phenomena that regulate activity" (p. 69). In the sociological research of Pesetsky (2015), values and norms are directly identified as follows: "Value is understood as a set of norms (content component) and goals (instrumental component) that form the choices (requirements) that address the will of the individual and determine the process of his social interaction. Value is a norm that is significant for a social subject" (p. 330).

It should be specially noted that sociological studies that include a psychological component add a connotation of personal meaning to the definition of value as a norm. As a result, the concept of value gets a subjective component and is defined as an object of the external (material or social) world that has significance or importance for the individual. Thus, Magun and Rudnev (2010) write that values are defined as the beliefs of a person in the significance of a certain object or phenomenon for them, personally. Kuznetsova (2010) notes that values in the structure of personality perform the function of orientations based on evaluation, and value orientations, in turn, function as a motive and motivation. Likhatskaya (2014) concludes the same, "values and evaluation are linked and function as guidelines for human activity" (p. 126). Religious values are considered by sociologists in the same way. Hence, Alekseenko and Abramov (2012) write, "Religious values associated with belief in the supernatural are also real values that serve as a guide in the life of believers, determine the norms and motives of their behaviour and actions" (p. 174).

This functional-normative approach to understanding values differs significantly from a religious understanding of them, which is based on the recognition of the absolute value of God, and the formation of a value hierarchy in the religious consciousness, in accordance with this absolute value. The specifics of religious axiology can be found in the works of Russian religious philosophers of the first half of the twentieth century. For example, the definition of value given by Nikolay Lossky in the book "Value and Being" is as follows: "The concept of derived value can easily be defined: it is in its meaning for the realisation of absolute completeness of being or removal from it. The whole difficulty lies in determining the primary super-world absolute positive value: this is God as Good itself, the absolute fullness of being, which has a meaning that justifies it, makes it an object of approval, gives it an unconditional right to exercise and preference for anything else" (Lossky, 1931, p. 78).

Lossky, Frank, Berdyaev, and other Russian religious philosophers associate the concept of value exclusively with the spiritual life of a person. The value appears as an objective phenomenon – a divine being realised in human existence and revealed as a real being. In other words, according to Russian religious philosophy, value is an ontological, not a moral, category. Therefore, according to Frank (2000), value is the ontological basis of the meaning of a person's life; it gives people a reference point to the ultimate goal of their own existence, makes their life meaningful, and gives them an idea of what is significant, desirable, and important.

However, if we divide values into terminal and instrumental values, only terminal values would be considered true values in the religious and philosophical sense. Moreover, terminal values express the ultimate foundations of human existence and serve as the ultimate goals of life - as ideals. Instrumental values, however, are related to everyday activities and the transitory world, and they gain significance only in correlation with terminal values. This understanding of values should be reflected in confessional literature, so its analysis is a necessary point in the study of religious values.

Value in the Confessional Understanding: The Doctrine of the Russian Orthodox Church

In the analysis of Christian or, rather (and more narrowly) the Orthodox Church values, the difference in the understanding of the theological and social doctrines of the Church is noteworthy. According to the theological doctrine, the highest value is God. Since theology finds the most powerful argument in the words of the Holy Scripture, the gospel becomes important for understanding the hierarchy of values, "Glory to God in the highest, peace on earth, and goodwill toward men" (Lk. 2:14). The Creed containing dogmas about God the Father, God the Son (Je-

sus Christ), God the Holy Spirit, the Church, baptism for the remission of sins, and the resurrection of the dead and eternal life creates a certain hierarchy. God is at the pinnacle of this hierarchy, followed by the Church; at the bottom of the order is salvation, as the ultimate goal and meaning of humanity. The values of human existence are at the bottom of the hierarchy and are derived from the Christian understanding of God and God's relationship with humanity. Moreover, the resurrected dead and their life in Paradise (or salvation) are related to eternal life, not to temporal, earthly life, and only salvation and eternal life appear as value-goals – those that provide perspective on and act as a focal point for, actions. It is also important to note that these values are both individual and collective. The Creed begins with the words, "I believe...", that is, it presupposes a personal confession of faith and ends with the words, "I look for the resurrection of the dead and the life of the world to come. Amen", that is, affirming the value of the common good for all the people who will be resurrected in the future and be worthy of salvation.

The Russian Orthodox social doctrine is set out in "The Basis of the Social Concept of the Russian Orthodox Church" and "The Russian Orthodox Church's Basic Teaching on Human Dignity, Freedom and Rights". Neither of these documents explicitly defines the concept of "value", although the word is widely used in them. These documents have certain theological grounds, which are reflected in their preambles. The first is based on the orthodox doctrine of the Church, orthodox ecclesiology, and the second on the doctrine of the human being, that is, orthodox anthropology. Accordingly, the values referred to in these documents are derived from these spheres of theological knowledge and are generally recognised as the values of the Russian Orthodox Church.

"The Basis of the Social Concept of the Russian Orthodox Church" substantiates the values of the Church itself and its participation in the socio-political aspects of society. Furthermore, it is stated that "the unity of the Church as the mysterious body of Christ (Eph. 1:23), on whose undamaged existence the eternal salvation of humanity depends, is the highest value for it" (The Basis of the Social Concept of the Russian Orthodox Church, 2008). State power also has value, provided that "the limits of its purely earthly, temporary and transitory value are recognised, due to the presence of sin in the world and the need to contain it" (The Basis of the Social Concept of the Russian Orthodox Church, 2008).

"The Basis of the Social Concept of the Russian Orthodox Church" also affirms the value of enlightenment, moral education, and education, in which the Church is recognised as not only a possible but a necessary participant. Thus, it is noted that "crime prevention is possible primarily through education and education aimed at establishing true spiritual and moral values in society. In this case, the Russian Orthodox Church is called upon to actively interact with schools, the media and law enforcement agencies", because "from the Orthodox point of view, it is desirable that the entire education system be built on religious principles and based on Christian values" (The Basis of the Social Concept of the Russian Orthodox Church, 2008).

Further, societal values such as freedom (including freedom of conscience), work, property, health, and science are not absolute values, according to this document, but are recognised as values only if they are considered in the context of serving God and others, that is, if they are embedded in the system of the other higher values of orthodoxy. For example, regarding science, it is noted that "today, to ensure normal human life, it is more necessary than ever to return to the lost connection of scientific knowledge with religious, spiritual and moral values" (The Basis of the Social Concept of the Russian Orthodox Church, 2008).

Thus, from the analysis of the document, it follows that the Church offers its vision of a socio-political structure based on religious values, which are equated with moral values. Further,

the Church declares the need for its participation in all spheres of society: politics, culture, medicine, education and science, media, defence, and the economy, among others. However, the document does not indicate whether there are non-religious moral values in these areas of society, probably because the authors are convinced of the religious nature of all moral values.

"The Russian Orthodox Church's Basic Teaching on Human Dignity, Freedom and Rights", in relation to the previous document, recognises the relative value of dignity, freedom, and human rights. A person has absolute dignity, only potentially, as the image and likeness of God, but fallen (i.e. present) human nature does not have this dignity because it is exposed to sin. In the same way, the document considers human freedom, "while recognising the value of freedom of choice, and the Church asserts that it inevitably disappears when the choice is made in favour of evil. Evil and freedom are incompatible" (The Russian Orthodox Church's Basic Teaching on Human Dignity, Freedom and Rights, 2008). Similarly, in the document, the concept of freedom is expanded from the legal field to the moral field.

With regard to the Church's view on human rights, the document attempts to determine that there are values with which these rights should be harmonised, "from the point of view of the Orthodox Church, the political and legal institution of human rights can serve the good goals of protecting human dignity and promote the spiritual and moral development of the individual. To do this, the realization of human rights must not conflict with God-established moral norms and traditional morality based on them. Individual human rights cannot be opposed to the values and interests of the Fatherland, community, or family. The exercise of human rights should not be an excuse for encroaching on religious shrines, cultural values, or the identity of a people. Human rights cannot serve as a pretext for causing irreparable damage to the natural heritage" (The Russian Orthodox Church's Basic Teaching on Human Dignity, Freedom and Rights, 2008).

Therefore, the Russian Orthodox Church proposes that the human rights system should not interfere with traditional spiritual and moral values and norms that are based on the Holy Scriptures and the Holy Tradition of the Church. The values discussed in "The Russian Orthodox Church's Basic Teaching on Human Dignity, Freedom and Rights" are a system of moral orientations that the Church translates as requiring purposeful activity.

By analysing the social doctrine of the Russian Orthodox Church, we can conclude that, like dogmatic theology, it considers God at the top of the system of values. However, the system which it built equates religious values with moral ones. Religious values are reduced to the level of moral regulators of social relations and are designed to perform certain functions in society: integrative, harmonising, protective, and educational. This view of values reduces them to a level where the distinction between morality and religion itself is lost. However, in modern society, secular ethical norms that are characteristic of the secular worldview can, and in some situations more successfully, perform the same functions as religious ones.

Religious Values in Contemporary Society: Data from Sociological Research

The results of sociological research on religious values give an ambiguous picture of the position of religious values in the system of social values due to the differences in research approaches. They allow us to detect a discrepancy between the real value orientations of the declared importance of religion in public life. This is evidenced by the analysis of the research data of a study that was conducted at approximately the same time (2014-2016) and only a few years apart from this study.

For example, the book "Russian Society and the Challenges of the Time" presents the results

of a 2014-2015 survey in which respondents assessed moral qualities that were important for them. The survey was conducted among representatives of four groups: Orthodox Christians, Muslims, non-confessional believers, and atheists. First, the researchers noted the similarity of moral preference scales in all groups. At the same time, as specific features, the following were most important and highly valued: for the Orthodox Christians, honesty and justice; for Muslims, diligence, solidarity, adherence to moral norms, national-cultural and religious tolerance, and religiosity; for the non-confessional group, initiative, love of freedom, being principled, pragmatism, and caring for local problems; and for atheists, responsibility for themselves and their loved ones. Nonetheless, qualities such as enterprise, law-abiding, initiative, love of freedom, and concern for local needs are valued equally in the Orthodox Christians and Muslim groups. Second, researchers have placed values that are related to the attitude towards religion among the moral qualities. The survey results showed the following: "As for the quality of national-cultural and religious tolerance, it is only in the Muslim group that it is in the top ten of the scale of value preferences… A similar situation is observed with regard to religiosity: this quality is not so important. Such qualities related to the religious component as adherence to traditional moral norms, solidarity, and patriotism, primarily in their non-religious forms, are gaining a more noticeable level. The same quality as humility is generally on the periphery of respondents' assessments. The absolute value, regardless of the religious and ideological orientation of respondents, is honesty, hard work, justice, responsibility for themselves and their loved ones" (Gorshkov & Tikhonova, 2016, p. 287).

Thus, not specifically religious values but general moral ones came to the fore in the value scale. If such data are expected from respondents who consider themselves to be atheists or believers outside of confessions, then in relation to Orthodox Christians and Muslims, they serve as indicators of the weak influence of religion on the formation of their value orientations. According to the study, only 8% of Orthodox Christians and 16% of Muslims noted faith in God as a value; 5% of Orthodox Christians and 4% of Muslims consider humility to be valuable. The researchers noted that here "explanations can vary: the predominantly secular nature of public consciousness, the consideration of religiosity and faith as a private, personal element of human life, the exclusion of religious organisations from the dominant institutions of moral regulation" (Gorshkov & Tikhonova, 2016, p. 288).

Both explanations characterise society as secular, not post-secular, since it does not allow us to talk about changes in value orientations towards religion. Nor is the post-secularity in Russian society related to the desecularization of consciousness but to the increasing activity of religious organisations that proclaim traditional and useful moral values for society in the public space.

Similar results were provided by a sociological study on "Religiosity in the system of values of women", conducted among women who consider themselves Orthodox Christians in 2016, in Tambov. A total of 200 women were interviewed using the questionnaire method. The results were as follows: "Answering the question: 'What are the most important life values for you?', the majority of women chose such as love (53.5%), health (47%) and family (45.5%)... In general, the survey participants noted the importance of faith and religion. So, the answer options 'very important' and 'quite important' were expressed by 30% and 42%, respectively. 16% noted the answer 'not too important' and only 2% – 'not at all important'. Another 10% found it difficult to answer (Belinskaya & Zadonskaya, 2017, p. 275).

It is noteworthy that 28% of the respondents – Orthodox Christians – chose the responses that faith and religion are "not too important", "not at all important", or "I find it difficult to answer". The authors of the study do not explain this fact

in any way, but it can be assumed that a random survey conducted among the parishioners of the temple showed a certain percentage of those women who do not have a proper religious motivation to visit the temple – their motivations may be different. In support of this, we can point out the fact that according to the results of the same survey, women most often turn to prayers when they feel bad (37%) and almost the same (34%) when they remember; further, 18% pray every day, 8% pray very rarely, and only 3% of respondents do not pray (277). Thus, religious values may not have a place at all among the parishioners of orthodox churches.

Another research approach and different results are shown in the study by Pesetsky. He conducted a series of video interviews with representatives of the clergy and Orthodox Christian entrepreneurs about Orthodox Christian values as a system. Based on interviews with representatives of the clergy, the researcher compiled a list of Orthodox Christian values: "God as an absolute value, the Church, the family, Orthodox ethics, asceticism, the Decalogue (ten commandments), postulates and dogmas of the Christian faith" (Pesetsky, 2015, p. 331). However, having singled out the primacy of the value of God, the author could not systematise other values.

The study conducted by Riazantsev, Podlesnaya, and Kozlov among teachers of spiritual and secular universities is mostly devoted to clarifying the list of Orthodox Christian values and is an attempt to build their hierarchy. The respondents were asked to independently name a set of Orthodox Christian values as well as explain Orthodox Christian values (their semantic content) from the list proposed by the authors. The researchers concluded the following: "Our study found some differences in the set of values of Orthodoxy and how they were interpreted by representatives of two expert groups – teachers of spiritual and secular universities. In the first case, the emphasis was on the person of Christ and the person's mental health. In the second – repentance, humility, spiritual fortitude, and the emphasis was on the historical significance of Orthodoxy in the development of Russian society and the state, as well as on the property of values, in particular Orthodox, to conduct the process of socialization" (Riazantsev, Podlesnaya, & Kozlov, 2014, p. 134).

Thus, as in Pesetsky's research, the hierarchy of values here was not built into a unified picture. Besides, the interpretation of Orthodox Christian values by representatives of the secular worldview often turned out to be secular – the content of concepts in their interpretation was more social than religious in meaning. The authors of the study explain this situation by the fact that, unlike experts from spiritual universities, the approach of secular experts to Christian Orthodoxy and its values is primarily instrumentalist in nature.

The general conclusion from the studies analysed is that the concept of Christian 'Orthodox values' (as a representative of the concept of "religious values") is currently not clearly defined; its content is broad and vague. In this regard, it is not possible to talk about a certain universally recognised hierarchy of Orthodox Christian values.

Conclusion

Even though modern society has objectively made a turn from secularisation to desecuralisation processes, this change was noticeable at the level of functioning of religious institutions and not at the level of mass consciousness. Regarding a positive attitude towards the activities of religious organisations and individual identification as believers, a significant number of individuals do not associate themselves with any religious organisation (the phenomenon of so-called extra-institutional religiosity). Among those who indicate their affiliation to religious organisations, there are many who do not share the entire value system of their denomination but choose from it only those values that correspond to their personal needs and orientations. Perhaps,

value shifts will occur in the next generation, some thirty years from now, when the public activity of religious institutions finds expression in the public consciousness.

This activity in the field of ideology is aimed at the desecularization of moral values and the return of their sacred sanction. Having confirmed the understanding of the religious nature of moral values, it will be possible to delve further – into the value of their religious foundations. However, post-secularism does not mean only desecuralisation and a return to a pre-secular society when the institution of the Church played a leading role in public relations. In a post-secular society, religious organisations perform their social roles in various spheres along with other institutions of society. When representatives of any denomination promote religious values, they should be aware that, first, in modern society, no religious organisation has a monopoly on faith, and second, for a modern person, values related to personal self-expression are more important than values about the preservation of existence.

This awareness is most important for historically traditional religions, particularly for Christian Orthodoxy. Christian Orthodoxy is characterised by the presence of dogmatised values of a traditional society, in which the preservation of existence in various forms was of primary importance: from survival to the reproduction of all its own genus, people, customs, way of life, and religion amongst others. However, the use of the institution of power to transmit these values creates significant difficulties for the Russian Orthodox Church to promote itself. Since personal and social orientations (individual and universal) coincide in the value relation to existence, the actualisation of the values of traditional religions is impossible without emphasising and resolving the key problems of existence, when religion opposes the meaning and purpose of existence to the absurdity and spiritual freedom and creativity to dependence on life conditions and circumstances and compassion and hope for immortality to illness and the fear of death.

Thus, we see that the results of this research to determine the significance of religious values in the value system of modern society depend on not only the goals of research but also their methodological foundations, among which, the philosophical understanding of the essence and nature of values is central. We believe that one of these grounds and prerequisites for sociological research is the division of values into terminal and instrumental values, in which religious values, as the ultimate meanings of existence, belong to terminal values. As a relevant understanding of the essence and nature of values, we share the point of view of Russian religious philosophers who claimed the ontological, and not the moral, nature of values and saw in them the principles of meaningful human life. This gave ideas about what is significant and important in one's life and legitimised one's activities as the realisation of one's being. Despite the fact that this understanding does not correspond to the functional-normative approach to values, which in some cases occurs both in research and confessional literature, we believe that it is the ontological approach to understanding values, and not the normative one, that allows us to see the specifics of religious values and not combine them with moral values in the category of spiritual values.

Acknowledgement

This work was supported by Russian Foundation for Basic Research (RFBR) under Grant number 20-011-00400.

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DOI: 10.24234/wisdom.v21i1.712
Rakhmat KARIMOV,
Rauf BEKBAEV

THE TRADITIONALISM OF RENE GUENON IN THE DISCOURSE OF PHILOSOPHY OF HISTORY AND SOCIAL ANTHROPOLOGY

Abstract

The article provides a complex analysis of the problems of traditionalism in the teaching of Rene Guenon, a famous French philosopher author of works on metaphysics, symbolism and initiation. Attention is drawn to the fact that traditionalism sublimated and produced a theoretical formulation of ideals, systems, values aimed at the conscious cultivation of this worldview. The roots of the philosophical reflection of traditionalism, which originated in ancient times, starting with ancient Chinese and ancient Indian philosophy, through ancient Greek philosophy to its modern doctrines, are analyzed. The concept of Tradition, which Guenon defined as the so-called Primordial Tradition, is considered. A comparative analysis of the problem of intellectual intuition of Rene Guenon and Henri Bergson in the context of social philosophy is carried out. Particular attention is paid to the concept of Rene Guenon's philosophy of history, in which the basic position is occupied by the theory of cosmic cycles based on the cosmology of Hinduism.

Keywords: tradition, traditionalism, perennialism, philosophy, social anthropology, historiosophy.

Introduction

In the history of philosophy, the phenomenon of tradition has been an actual problem of the philosophical discourse of both Western and Eastern philosophy. Elements of traditionalism were already present in the philosophy of Confucianism and in some way manifested themselves in ancient Greek philosophy. Despite the fact that traditionalism is inherent in Eastern social life, as a separate trend in philosophy, traditionalism is formed in Western philosophy of the 20th century. The founder of philosophical traditionalism is the French philosopher Rene Jean-Marie-Joseph Guenon, whose metaphysics is of interdisciplinary nature. Guenon's works stand at the interface of various philosophical disciplines, as well as other social and humanitarian sciences. Thus, Guenon's philosophy affects ontology, epistemology, historiosophy, social philosophy and philosophical anthropology, as well as cultural studies, religious studies, art history, literary studies, etc. It should be noted that Guenon's works are also relevant in the context of comparative and intercultural philosophy. For instance, M. Sedgwick (2021) notes that Guenon's traditionalism influenced South American literature, in particular, the literary and artistic environment of Argentina in the 1920s; A. Kolesnikov (2004) examines the metaphysics of Guenon in the East-West dialogue; P. Nosachev (2013) analyzes Guenon's traditionalism in the context of politics and religion; I. Bembel (2020) draws attention to the transformation of traditionalism in architectural studies; Barbara Batista Santos (2017) discovers elements of traditionalism in Thai culture. The traditionalist philosophy of Rene Guenon continues to be an actual subject of modern historical and philosophical research, both in the West and in the East. However, there are still certain gaps in this area. For example, there is not enough research on the

anthropological teaching of Guenon, his comparative philosophical conception, as well as the theory of cognition. Although at the same time there are many works aimed at the study of his philosophical and religious conceptions, the doctrine of tradition, the philosophy of history. M. Sedgwick (2004) undertook a detailed historical study of the genesis and development of traditionalism. At the same time, the definition of the place of Rene Guenon traditionalism in the history of philosophy remains out of the field of attention of modern scholars.

Some Elements of Traditionalism in the History of Philosophy

Before proceeding directly to the problem of studying the philosophy of history and social anthropology of Rene Guenon, attention should be paid to the manifestation of the phenomenon of tradition in the history of Western and Eastern philosophy. Thus, we find traditionalism in the philosophy of Confucianism. The dictum of Confucius (2000) is known: "I continue – I do not create; I believe in antiquity and love it wholeheartedly" (p. 36). This expresses the traditionalist essence of Confucianism, which opposes changes in social life and turns to the past. Confucianism is based on the social experience of previous generations and hence the requirement to respect and observe the customs and traditions of the ancestors, not to deviate from fate, *"Tao"*. It should be noted that the "Tao" is the central concept of Taoism, which also contains elements of traditionalism. For example, the principle of *"Wu-Wei"* or *"inaction"* also requires everyone not to resist their fate, to follow it unconditionally. The traditionalist aspects of Chinese philosophy had a significant impact on the development of the Chinese Empire, especially considering that Confucianism was the state ideology for a long time, and Taoism was widespread among the common population. In that regard, it is interesting to note Feng Yu-lan (1958), who wrote: "According to Chinese tradition, the study of philosophy is not a profession. Everyone should study philosophy just as in the West everyone should go to church" (p. 11). These words express the spirit of traditionalism, which is also present in modern Chinese philosophy.

Traditionalism is also present in ancient Indian philosophy. Here we should pay attention to the category of the holy scriptures as *Smriti*. The word "Smriti" is translated as "that which is remembered", i.e. a tradition transmitted from memory (Upanishads, 1992, p. 8). In the traditionalism of Rene Guenon (1945), it is noted that "oral teaching methods almost everywhere preceded written teaching" (p. 58). The traditional knowledge is transmitted primarily orally, as was the case with the *Vedas*. However, traditionalism in ancient India is expressed most of all in the social structure of society, namely, in the *caste system*, which follows directly from the study of the Vedas. Castes are sometimes considered as an exceptional feature of the social structure (Bongard-Levin & Il'yin, 1985, p. 134), and it expresses traditionalism since the caste system is not just a form of social structure, they are directly related to the fate of a person. Buddhism denied the caste system and, as a result, was ousted from ancient India. Castes continue to play a big role in modern Indian society.

Ancient Greek philosophy, as well as ancient Eastern philosophy, is also not devoid of the presence of elements of traditionalism in it. Moreover, this manifests itself starting from ancient Greek mythology with its *cosmocentrism*, which will also manifest itself in philosophy. Traditionalism is most clearly found in the philosophy of Plato, who was highly appreciated by Guenon himself. Plato's social philosophy, like ancient Indian philosophy, divides society into estates and interprets the concept of justice in a peculiar way. According to Plato (2007), "justice consists in everyone having his own and doing his own, too" (p. 244).

Stringent social stratification, no less strict laws, predetermined not only some motives of

the social philosophy of traditionalism, but also influenced the further development of political thought. K. Popper calls the justice that Plato speaks of "totalitarian justice" and points to the key formula of Plato's political program: "Arrest all political change!" (Popper, 1943, p. 74). Why is this formula important for understanding Plato's traditionalism? Because changing political thinking violates traditional attitudes, changing people's way of thinking can give them political freedom, it destroys tradition. It should be noted that here Plato's social philosophy approaches Confucianism. Aristotle, despite the fact that he was less radical than Plato, was strongly influenced by the traditionalist motives of his teacher's philosophy. This is especially evident in the fact that he systematized slavery naturalized by Plato: "It is decent for the Greeks to rule over barbarians; barbarian and slave are identical concepts by nature" (Aristotle, 2010, p. 26). In the future, Cicero will continue this thought of Aristotle and note that barbarian peoples are "born for a slavery condition" (Fedorov, 2018, p. 246).

Ancient philosophy is partially imbued with the spirit of traditionalism, which was strengthened in the Middle Ages when philosophy became the "servant of theology". Scholasticism is not only conservative in nature, and it is in general an expression of religious traditionalism with its *theocentrism*, which declined in the 14th century and was replaced by Renaissance anthropocentrism. It is not for nothing that Guenon notes that "what is called the Renaissance was in reality not a re-birth but the death of many things" (Guenon, 2003, p. 15). It is interesting that it was during the Renaissance that what will be called by M. Sedgwick (2004) *perennialism* was formed as one of the elements of the philosophy of traditionalism (p. 39). The founder of perennialism or *"Eternal Philosophy"* is, as Sedgwick notes, Marsilio Ficino. However, it should be said that Ficino's "Eternal Philosophy" was turned to Neoplatonic tendencies and sought to synthesize Christianity and the teachings of Plato, as well as other religions. Nevertheless, perennialism is essential for understanding Rene Guenon's traditionalism.

The Doctrine of the Primordial Tradition

In the philosophy of traditionalism of Rene Guenon, the central place and the basic position is occupied by such a concept as tradition. It is a system-forming concept of his philosophy. The word "tradition" itself means "transmission" and today is defined as "a universal form of fixation and selective preservation of certain elements of socio-cultural experience, as well as a universal mechanism of its transmission, ensuring stable historical and genetic continuity in socio-cultural processes" (The Newest Philosophical Dictionary, 2003, p. 1047). The concept of "tradition" covers a wide range of phenomena in various fields of human activity and is an integral part of social life. Guenon (1945) defines that "tradition simply means "that which is transmitted: in some way or other" (p. 88). In the context of traditionnalism, the phenomenon of tradition means the transmission of transcendent knowledge, since "all that authentically traditional may be generally defined as the intervention of 'non-human' element" (Guenon, 2001c, p. 19). The tradition contains the initial knowledge, the initial spirituality. However, the philosopher focuses on the *primordial tradition*, which is "the primordial revelation, which is, like Creation, a work of the Word, is itself incorporated, so to speak, in symbols which have been transmitted from age to age ever since the origin of humanity" (Guenon, 1995, p. 16). As a source of absolute divine truth, the primordial tradition contained genuine spirituality, since "it is a 'law' or 'rule' ... which reflects the divine Will and expresses the universal Order" (Guenon, 2002, p. 93). It follows from this that the primordial tradition is directly connected with religion, which is one of the most important forms of its manifestation, but at the same time, it influences the social hierarchy and ensures the correct social organization. Accor-

ding to Guenon (2003), the primordial tradition is one, unique, but with the passage of history, the change of different epochs, "primordial spirituality becomes gradually more and more obscured" (p. 7), as a result of which it is divided into local traditions. Initially, the oral way of transmitting the tradition is gradually being replaced by its written fixation, which distorts its original meaning. The degradation of human spirituality plays an important role in this, which "stands for the individualization of conceptions, the substitution of the rationale for the truly intellectual, and of the scientific or philosophical for the metaphysical point of view" (Guenon, 1945, p. 41). At the same time, if local forms of tradition continue to exist in the East, then in the West they are lost with the beginning of the Renaissance and Reformation, which "were primary results, made possible only by the preceding decadence; but, far from being a readjustment, they marked an even deeper falling off, consummating, as they did, the definitive rupture with the traditional spirit, the former in the domain of the arts and sciences, and the latter in that of religion itself, although this was the domain in which it might have seemed the most difficult to conceive of such a rupture" (Guenon, 2003, p. 15). The Renaissance is marked by the turn of Western philosophy from theocentrism to anthropocentrism, but at the same time, the process of secularization and an appeal to individualism begins, which, according to Guenon (2003), "the negation of any faculty of a supra-individual order" (p. 44). Medieval Catholicism was for Guenon the best form of expression of tradition, but now it is lost. Local traditions now exist in the East in the form of Confucianism, Taoism, Hinduism and Islam. It should be noted that traditionalism is close to Islamic dogmatism since traditionalism and dogmatism as a whole are in an essential relationship. However, here Sufism is of great importance for Guenon, which is an esoteric tradition in Islam, although irrationalism, as K. Popper (1945) noted, must tend towards dogmatism (p. 226).

The Social Anthropology

Rene Guenon develops his own social anthropology based on the doctrine of the primordial tradition. Guenon (2001b), in the spirit of Hinduism, defines that man is the unity of spirit (Purusha) and matter (Prakrti), he is the identity of *microcosm* and *macrocosm*, because "the "Self" is the transcendent and permanent principle of which the manifested being, the human being, for example, is only a transient and contingent modification" (p. 23). The "Self" is potentially located in the individual, but the union of his own essence with the divine in him is realized only when a person comprehends the possibility of their "union" through the manifestation of *intellectual intuition* in him, which "is even more immediate than sensory intuition, for it is beyond the distinction between subject and object which the latter allows subsisting; it is at once the means of knowledge and the knowledge itself, and in it, subject and object are identified" (Guenon, 1945, p. 168). Intellectual intuition stands above not only sensory cognition but also rational thinking, which, according to Guenon (2003), produces only various forms of speculation, which remain something completely external and purely verbal, and not genuine and effective (p. 39). At the same time, "this intuition has nothing common with the ability of the unconscious and sensual… this faculty can also be called the pure intellect, following the practice of Aristotle and his Scholastic successors, for to them, the intellect was in fact that faculty which possessed a direct knowledge of principles" (Guenon, 1945, pp. 116-117). Here Guenon approaches Henri Bergson's (1999) teaching about intuition, according to which, for example, the concept of duration is known not through rationality, but through "grasping" the stream of consciousness: "There is at least one reality that we grasp from the inside, by intuition, and not by simple analysis. This is our Self that lasts" (p. 1176). According to Bergson, intuition "grasps" the phenomena of reality directly, without

rational cognition. Guenon, leaning towards "direct comprehension of principles", practically approaches intuition in Bergson's understanding. In addition, while criticizing rationality, which is identified with intelligence, he also again approaches Bergson's position on this issue: "Bergson has written as follows: 'Intelligence, considered in what seems to be its original feature, is the faculty of manufacturing artificial objects, in particular tools to make [*sic*], and of indefinitely varying the manufacture". And again: "Intelligence, even when it no longer operates upon its own object (i.e., brute matter), follows habits it has contracted in that operation: it applies forms that are indeed those of unorganized matter. It is made for this kind of work. With this kind of work alone is it fully satisfied. And that is what intelligence expresses by saying that thus only it arrives at distinctness and clearness" (Guenon, 2001a, p. 12). According to Bergson (1999), the work of the intellect is like the work of a camera taking mechanical pictures of things and phenomena or a candle that hardly illuminates the darkness around itself, and only intuition is capable of spontaneous, imaginative thinking (pp. 339, 876). However, Guenon (2001a) is critical of Bergson's philosophy as a continuation of Cartesianism (p. 29), because "the quarrel between spiritualism and materialism, around which almost all philosophical thought has revolved since the time of Descartes, has nothing to do with pure metaphysic" (Guenon, 1945, p. 151). Descartes, according to Guenon, postulated the dualism of "spirit-matter", as a result of which Western philosophy formed not only a distorted understanding of the nature of the universe but also of man, who is also seen as existing within this antagonism. Moreover, this led to the fact that orientalists began to consider the concepts of "Purusha" and "Prakrti" as analogues of "spirit" and "matter", respectively. In fact, these concepts are similar to the concepts of "essence" and "substance", which are the single beginning of both the individual and the whole being (Guenon, 2001b, pp. 36-45). Proceeding from this, we cannot observe the antagonism of spirit and matter in human nature, since they are "consubstantial", and intellectual intuition is the highest degree of human spirituality as opposed to reason, whose role is only "fulfilling the needs of a lower and bodily level" (Guenon, 2003, p. 86). Thus, Guenon's anthropology is gradually approaching mysticism, especially when he points out that "*haqiqah* is pure knowledge" (Guenon, 2004a, p. 1).

Despite the fact that Guenon develops deeply spiritual ideas about man as a microcosm, similar to the macrocosm, his philosophy is not addressed to man. Developing the idea of intellectual intuition as a supra-rational human ability, he believes that "the *haqiqah*, literally the 'inward truth', reserved to an elite, not because some arbitrary decision, but by the very nature of a thing, since not all men possess the aptitudes or 'qualifications' required to reach the knowledge of the truth" (Guenon, 2004a, p. 1). People naturally have different abilities. Therefore not everyone can follow the path of "truth", most are only available to the "great way" or Sufi "*shariyah*" (Geunon, 2004[a], p. 1). Based on these differences, Guenon forms his socio-philosophical concept, which is based on the caste system.

So, since people have different abilities by their own nature, each individual can only perform a certain function; therefore, an organized hierarchy is necessary, where each being takes its place. Thus, the thinker postulates the fatality of human fate because, in each individual, some abilities are initially inherent, and therefore, he is destined to occupy only one specific position in the entire hierarchy and not be able to change it; otherwise, he will enter into contradiction with "divine providence", which, in turn, is an anti-traditional phenomenon.

The correct social organization for Guenon, as noted above, is the hierarchy. It contains the following categories of individuals:

1. The spiritual or intellectual elite, similar to the Brahmins caste, who are few in number but have super-rational abilities, they have access

to traditional knowledge.

2. Military, officials or Kshatriya caste performing judicial and administrative functions.
3. Merchants, farmers, artisans or the Vaishya caste. They perform an economic function.
4. Workers and peasants or Sudras occupy the lowest position in the social hierarchy. Their activity consists in performing physical labour. Guenon speaks quite pejoratively about this category of people since they are characterized by "the lowest kind utilitarianism, the negation of all disinterested knowledge and of all reality beyond the perceptible domain" (Guenon, 2004b, p. 74).

The aforementioned social hierarchy, according to Guenon, reflects the "original unity", since there is only differentiation of people according to their abilities, and the caste system reflects the division of functions and this structure is the most natural: "In effect, each man, by reason of his proper nature, is suited to cry out certain definite functions to the exclusion of all others; and in a society established on a regular traditional basis, these aptitudes must be determined according to precise rules, so that, by the correspondence of the various functions with the principal categories in the classification of 'individual natures', each finds his proper place (barring exceptions due to errors of application which, although possible, are reduced to a minimum), and thus the social order exactly expresses the hierarchical relationships that result from the nature of the beings themselves" (Guenon, 2004b, p. 9).

The socio-philosophical concept of Guenon is a synthesis of the ancient Indian caste system, Platonic social philosophy and the theology of Thomas Aquinas. Like Plato, Guenon also believes that society is gradually degrading, which is expressed in the change of its social organization. The "original unity" is broken when changes begin from a perfect form of government to a decadent one. If Plato's philosopher-ruler is a "philosopher-breeder" (Popper, 1943, p. 131), then Guenon's role is performed by the intellectual elite, which has access to traditional knowledge, "truth". Social stratification, according to Plato and Guenon, is natural since the abilities and skills of individuals are a priori determined by nature. Therefore, the optimal solution is to determine each of them their own place in the hierarchy.

For Guenon, society is a set of people whose management is possible only with a hierarchical system and one that implies the division of society into strata based on the natural abilities of specific individuals. Guenon believes that equality is impossible and is a delusion. Attempts to implement egalitarian theories only lead to an imbalance in society, and in order to prevent this, the thinker offers his own model of the correct social structure in accordance with traditional conceptions. Other alternatives are considered invalid and destructive since it is through the system-hierarchical organization of society that it is possible to maintain not only stable development but also the preservation of tradition and spirituality.

The Philosophy of History

In the traditionalism of Rene Guenon, a special place is occupied by his conception of the philosophy of history, in which the basic position is occupied by the *theory of cosmic cycles* based on the cosmology of Hinduism. Guenon (1991) gives a twofold understanding of the historical process: in a broad sense, this is "the process of unfolding a certain state of manifestation", in a narrow sense, it is "a more or less limited and specialized modality of this state" (Guenon, 1991, p. 11).

A broad understanding of the cycle is the whole existence of the universe as the life of Brahma, which goes through cycles of "day and night". The "day" of *Brahma* or *Kalpa* consists of fourteen *manvantaras*, in each of which Manu is created – the progenitor of mankind, the first ruler who established order through the Laws of Manu as a set of religious and ethical rules go-

verning all spheres of society. In turn, already in manvantara, we come to the cycles of human history – the four *Yugas* (Guenon, 1991, p. 14):

1. *Satya Yuga* or the *Golden Age.*
2. *Treta Yuga* or the *Silver Age*.
3. *Dvapara Yuga* or the *Copper Age*.
4. *Kali Yuga* or the *Iron Age*.

Guenon (1991) notes that each cycle is "marked by degeneration in relation to the preceding period" (p. 14), which is explained by a gradual departure from the "principle" or "original tradition". The people of the Golden Age, being close to the truly traditional knowledge, were in a state of "pure spirituality", true 'unity' and genuine "quality". The social way of life corresponds to the necessary hierarchy, and everyone occupies his proper place. The high spirituality of the Golden Age is expressed in the fact that the individual does not distinguish himself from the social environment. All human activity of the Golden Age in a priori form is aimed at fulfilling socially important tasks predetermined by his inner nature; therefore, he does not think about defining himself autonomously from society since this is a contradiction of tradition. The era of Satya Yuga is analogous to the rule of the Brahmins, which the follower of Guenon – Mircea Eliade (2001) compared with the supreme guardian of justice, the judge-almighty Varun (p. 180) and this comparison is not accidental, since during this period genuine justice is ensured through "purely spiritual and intellectual dominion". It should be noted that here Guenon, like Confucius or Hesiod and a number of other philosophers, is inclined to idealize the past.

The Silver Age of human history is marked by the first tendencies towards "materialization" and is associated with "a subversion of the social hierarchy, as can be seen, for example, in the repeated attempts made by Kshatriyas to throw off the Brahmanas" (Guenon, 1945, p. 222). Individuals of the previous era were distinguished by their spiritual purity and the absence of any negative qualities. However, people of the silver Age show elements of hostility, greed and hypocrisy to each other, which is further aggravated in the cycle of Dvapara Yuga, in which the management of society is already carried out by Vaishyas or farmers, merchants, artisans whose activeties are generally in the field of material, but nevertheless they "can also be qualified for initiation" (Guenon, 2001c, p. 246). The tradition is still available, however, to a lesser extent, as vice increases. Accordingly, spirituality declines and the social hierarchy is gradually disrupted and the very last cycle – Kali Yuga, the Iron or dark Age, the "period of obscuration", in which "spiritual knowledge has become hidden, and only a few can still achieve it if they find themselves in the right conditions" since the characteristic feature of this time is "the mingling of castes", i.e. "the destruction of all true hierarchy" (Guenon, 2001c, p. 252), contributing to "social chaos", the transition of "quality into quantity", when human thinking degrades towards materialism and pragmatism, losing all connection with tradition and giving absolute attention only to its "ego", filled with passions and desires, suppressing intellectual intuition, which previously lay at the heart of everything in traditional civilizations, but now we are dealing with "profane" civilizations with their inherent "modern" worldview. Kali Yuga is the last epoch of history, after which a new manvantara must begin, and the cycle must repeat again, because "the present age, however painful and troubled it may be, must also, like all the others, have its allotted place in the complete course of human development, and indeed the very fact of its being predicted by the traditional doctrines is indication enough that this is so" (Guenon, 2003, p. 18). It can be seen that the theory of the cyclic history of Guenon has a pessimistic character since there is an involution. Therefore, the idea of evolution and progress, which are identified only with material and technical development, is denied. The genesis of the idea of progress for Guenon is of an anti-traditional nature, expressed, for example, in the fact that Pascal stated that "those whom we call ancient were actually new in

everything… in this respect Pascal had at least one predecessor, since Bacon had already said with the same implication: *Antiquitas saeculi, juventus mundi* (Ancient ages – the youth of the world)" (Guenon, 2001a, p. 17). For Guenon, such beliefs are nothing but sophism, a "simplistic" view of history, which, under the name of the "philosophy of becoming" with all its variations, is called "evolutionism", which "implies a formal denial of whatever lies beyond nature, in other words the realm of metaphysics – which is the realm of immutable and eternal principles" (Guenon, 2003, p. 41). Under the influence of these "anti-metaphysical" theories, "pseudo-intuitive" ideas are also formed, among which Guenon (2003) notes Bergsonianism, in which intuition "modeled on the ceaseless flux of the things of the senses, far from being able to serve as an instrument for obtaining true knowledge, represents in reality the dissolution of all possible knowledge" (p. 41).

Guenon's historiosophy was influenced by both Eastern and Western philosophy. The theory of cyclical and fatalistic history was formed in ancient Indian philosophy. Nostalgia for antiquety was present in ancient Chinese and ancient philosophical and historical thought. Guenon was particularly influenced by Plato's philosophical and historical concept, which also had a negative attitude to any changes, especially social ones, which are degeneration (Popper, 1943, p. 16) because the ideal state of society is the power of the Brahmins, "which are above change" (Guenon, 1945, p. 223). Any changes in the tradition give rise to its aberration, the consequence of which is first its disintegration, and then completely "darkening". Guenon was even more influenced by scholastic philosophy, the pinnacle of which is Thomism for him, because "the *Summa Theologica* of St Thomas was, in its time, a manual for the use of students, Today, where are the students who would be capable of fathoming and assimilating it?" (Guenon, 1995, p. 3). It is the loss of medieval theocentric Christianity and the beginning of Renaissance anthropocentrism that is a symbol of decline for Guenon, and all further development is a movement towards a modern crisis.

Conclusion

The fundamental concept of Rene Guenon's traditionalism is tradition, through the prism of which various conceptions of his philosophy are formed. At the same time, the basic position is occupied by his doctrine of the primordial tradition as the original content of spirituality, transcendent, but lost knowledge, transformed into local traditional doctrines in the East and West, affecting their historical development both at the individual and social level. History is interpreted by Guenon as a process that is in direct relationship with tradition, and he does not limit its chronological framework to existing empirical data, assuming that a lot of information about the historical past was transmitted orally, not reflected in writing, which eventually led to different interpretations. In order to restore the true history, Guenon considers it necessary to deconstruct it.

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HISTORY OF PHILOSOPHY

DOI: 10.24234/wisdom.v21i1.605
Oleh BONDAR

BETWEEN EXISTENTIALISM AND ANTI-EXISTENTIALISM

Abstract

The article is an evaluation of Pollock's anti-existentialist argument and its place in the contemporary debates about Existentialism. We demonstrate that the main contemporary objections to Pollock's Anti-Existentialism can be grouped into two argumentative directions: (1) Pollock's supposed confusion of inner and outer truth (Fine, Speaks); (2) Pollock's assumption that there is such state of affairs as *Socrates's not existing* (Kroon). We also introduce an argument against Pollock`s crucial argumentative step against existentialism.

Keywords: existentialism, anti-existentialism, truth, propositions, possible worlds, closure under containment.

Introduction: What is Existentialism?

Existentialism, according to Plantinga (1983), is a view that singular propositions depend ontologically on their constituents – that is, on what these propositions are about. Take, for example, the proposition [Socrates is a philosopher]. Existentialists believe that [Socrates is a philosopher] involves Socrates as its constituent (because [Socrates is a philosopher] refers directly to Socrates); thus, by Existentialism, if Socrates does not exist, [Socrates is a philosopher] does not exist too. Existentialism is a very influential and widespread view in philosophy, and there are many ways to argue for it. One might argue that Existentialism follows from Millianism, according to which the meaning of a name is its referent (Ryckman, 1988). The defender of Kripkean point of view (Kripke, 1980) might argue that proper names are rigid designators, and thus the sentence [Socrates was a teacher of Plato] is meaningless if there is no such a person as Socrates – the proper name *Socrates* would designate nothing if Socrates did not exist. Williamson (2002) argues for Existentialism as follows (pp. 200-242). Consider the proposition [Socrates is a philosopher]. It is necessarily the case that if [Socrates is a philosopher] exists, then Socrates is a philosopher. So, if [Socrates is a philosopher] is about Socrates, [Socrates is a philosopher] must bear a relation to Socrates. But if Socrates bears a relation to [Socrates is a philosopher], Socrates must be existent in order to be a bearer of this relation. How could Socrates stand in relation to [Socrates is a philosopher], being nonexistent? Thus, if [Socrates is a philosopher] exists, and if [Socrates is a philosopher] is about Socrates, Socrates exists too. Similarly, (Stephanou, 2020) argues that the existence of Socrates is a necessary condition for [Socrates is a philosopher] to be a proposition that Socrates is a philosopher – it is not the case that [Socrates is a philosopher] could be a proposition about Socrates if Socrates is nothing or the meaning of the proper name *Socrates* is empty.

Another strong argument for Existentialism was suggested by (Stalnaker, 2010, pp. 22-23). Suppose Kant could have had a son. If so, there is someone, X, such that X is Kant's son. But given that nothing in the actual world is the son of Kant (X), there couldn't be such a sentence as [X is the son of Kant]. For suppose otherwise. Let us accept that [X is the son of Kant] exists, such that [X is the son of Kant] is about possible

Kant's son. Now consider:

a) [X is the son of Kant].

b) [Y is the son of Kant].

How could we distinguish between (a) and (b) if X and Y are both nonexistent? It is obvious that (a) and (b) express different propositions – (a) is about X, and (b) is about Y. But if X is nonexistent, and the proposition expressed in (a) refers to nothing, we have no truth-conditions for (a) to individuate its meaning. If X is nonexistent, and [X is the son of Kant] refers to nothing, then it is impossible for us to distinguish between (a) and (b).

Existentialism also meets some objections. One of them can be inferred from the following example of Bennett (2005, pp. 317):

(1) Kant could have had a son who was a philosopher who could have been a football player.

It is obviously true that a philosopher could have been a football player. But if (1) is true, the existentialist seems to be forced to accept that *the philosopher*, who is the (possible) son of Kant, has a *de re* modal property of *being a possible football player*. However, if Existentialism is true, then the proposition that Kant's son could have been a football player is a singular proposition about the *possible* son of Kant. Thus, following Existentialism, such a singular proposition is nonexistent, since its constituent does not exist. Nevertheless, we can guarantee that, necessarily, every philosopher could have been a football player:

(2) $\Box\forall x\,(Px \rightarrow \Diamond Fx)$.

Again, by (2), Kant's son could have been a football player. Kant's son, a possible philosopher, could have been existent, and thus could have been a football player, so [Kant's possible son could have been a football player] is existent in the actual world (since this proposition attributes a *de re* property to Kant's son), contradicting Existentialism.

Existentialists could reject this objection by claiming that "there are no *de re* modal claims about things that do not actually exist" (Bennett, 2005, pp. 317). But this solution seems to be half-hearted (at least for the problem with Existentialism). For suppose we agree that propositions do not exist if their constituent is nonexistent. We can agree that everything is such that it could be nonexistent

(3) $\Box\forall x \Diamond\sim\exists y\, y = x$.

Say that, by (3), every contingent proposition could fail to exist. Also, by Existentialism, any proposition could be nonexistent if its constituent is a contingent object. Let P be a proposition "Fichte could have failed to exist". This proposition, P, is about Fichte. Thus, by Existentialism, "Fichte could have failed to exist" do not exist if Fichte does not exist. P expresses a contingent truth, and so there is a possible world W such that Fichte does not exist in W. Then in @ (in the actual world), it is possible that Fichte is nonexistent, and the proposition that Fichte is nonexistent is true. If the proposition that Fichte is nonexistent, P, is true, then according to Existentialism, the constituent of P must be existent. Thus, it is possible for the proposition that *Fichte could have failed to exist* not to exist and, by Existentialism, Fichte must be existent to be a referent of P. Within this counterexample, we do not need to refer to a certain *possible* object (Kant's son) to provide an argument against Existentialism. Even if we are not allowed to attribute a *de re* modal truth to nonexistent objects (like Kant's possible son), this restriction still leaves the door open for a most pressing challenge for Existentialism – Plantinga's anti-existentialist argument.

Plantinga's Anti-Existentialism and Pollock's Existentialism

Plantinga's reductio of Existentialism (Plantinga, 1983) runs as follows. Let "a" abbreviate Socrates, "T" – "truth", "ξ…" – "the sentence that…", "E" – "exists", $\Diamond$ and $\Box$ – "possible" and "necessary", respectively. The argument is this:

(4) $\Diamond\sim Ea$

(5) $\Diamond\sim Ea \rightarrow \Diamond\xi\sim Ea$

(6) ◇ξ~Ea → ◇Tξ~Ea
(7) □ (Tξ~Ea → Eξ~Ea)
(8) □ (Tξ~Ea → ~Ea)
(9) ◇Tξ~Ea
(10) □ (Tξ~Ea → (Eξ~Ea & ~Ea))
(11) ◇(~Ea & Eξ~Ea).

In words, Plantinga's argument against Existentialism has the following form. Consider a possibility of Socrates`s nonexistence (4). If it is possible that Socrates does not exist, the proposition *Socrates does not exist* is possible (5), and thus possibly true (6). Now we have that, necessarily, if the proposition *Socrates does not exist* had been true, then the proposition *Socrates does not exist* would be existent (7). However, it is necessarily the case that if the proposition that *Socrates does not exist* is true, then Socrates does not exist (8). From (4-6) we have that the proposition *Socrates does not exist* is possibly true (9). From (7-8) we have that, necessarily, if the proposition *Socrates does not exist* is true, then *Socrates does not exist* exists, and Socrates does not exist (10). Finally, from (9-10) we have the following: it is possible that Socrates does not exist, and the proposition *Socrates does not exist* exists (11). But (11) contradicts Existentialism. According to Existentialism, a singular proposition *Socrates does not exist* requires the existence of Socrates, because Socrates is a constituent of this proposition. Thus, if Socrates does not exist, existentialists should claim that the proposition *Socrates does not exist* must be nonexistent too. It is not possible for a singular proposition about Socrates's nonexistence to be existent while Socrates is not.

In his "Plantinga on Possible Worlds" (Pollock, 1984a), Pollock was enthusiastic about Existentialism. He offers an argument against Plantinga's Anti-Existentialism, according to which Plantinga's argument relies on the modal fallacy, that is, on the confusion between

(12) □∀S (S obtains → S exists)

and

(13) □∀S □ (S obtains → S exists),

where "S" is such a state of affairs as "Socrates's nonexistence". This argument is a particular instance of Pollock's argument against Plantinga's Serious Actualism, according to which Plantinga illegitimately concludes that

(14) □∀x (Fx → Gx) → □∀x □ (Fx → Gx).

Pollock argues as follows. Let F be "does not exist", and G is "exists". Now, "assuming that our quantifiers range only over existing objects … the antecedent of (14) is true because it is necessary that everything which exists exists; but the consequent is false because it says that everything has necessary existence" (Pollock, 1984a, p. 126). From this perspective, Pollock asserts that Plantinga fails to prove that propositions are bound to be existent to be true – it is not the case that the truth of *Socrates does not exist* necessarily implies the existence of *Socrates does not exist*. Thus, according to Pollock, Plantinga is not able to provide a successful argument for (13), which is a necessary premise of his Anti-Existentialism.

In response to Pollock, Plantinga defends the essentialist reading of (14); he argues that the right side of our conditional should be read as a *de re* modal claim. Say that □Fx attributes an essential property F to X, such that for every possible world W, if X has F in W, X exists in W – that is, X has F in every possible world. So, following this reading of (14), it expresses the claim that if everything is such that if it is F, it is G, then necessarily everything has essentially a property of being such that if it is F, it is G (Plantinga, 1985, p. 179). Now, we do not have a problem with the counterexample of Pollock. Assume the truth of Actualism, according to which there are no (and couldn't be) any nonexistent objects. We have thus a sentence that "if necessarily everything is such that if it is nonexistent, then it is existent, then necessarily, everything necessarily has a property of being existent, if nonexistent", which expresses a necessary truth, given that necessarily, everything necessarily exists, and nonexistence is non-exemplified. However, Pollock, as Plantinga convincing-

ly argues, understands the nature of (14) in a somewhat different way. His reading is rather

> (15) If necessarily everything is such that if it is F, then it is G, then necessarily, everything necessarily has a property of being such that if the proposition that it is F is true, then the proposition that it is G is true (Plantinga, 1985, p. 180).

And this claim obviously has false instances. Consider, for example, God. In theology, God is usually seen as a necessary being. Thus, it is true that God necessarily exists, but it is not true that God is such that the proposition that God necessarily exists couldn't fail to be existent. The proposition that *God is a necessary being* is not a necessary being; thus, *God is a necessary being* could have been nonexistent. However, *God is a necessary being* could lack existence, but it couldn't lack the property of being (necessarily) true. So the question is: how could a certain proposition be true without having existence in the world?

Pollock (1984a) gives the following example (pp. 135-136):

"Consider pictures. Pictures can correctly depict a state of affairs. We can even have a picture that correctly depicts a state of affairs in which there are no pictures (e.g., a picture of a big empty Louvre) and hence in which it does not itself exist. There is an analogy between pictures and states of affairs. A currently existing state of affairs can be said to represent part of the structure of a possible world at which it obtains, and just as in the case of pictures, there is no obvious reason why it must exist in that world in order to achieve the representation. To say that the state of affairs represents the world is to say something about the relationship between two currently existing objects - the state of affairs and the world. Whether the state of affairs would exist if the world were actual seems irrelevant to the relationship in question".

This objection is very close to Fine's argument about the need to distinguish between *inner* (truth-in-W) and *outer* (truth-at-W) truth[1] (Fine, 1985, p. 194). If P is a proposition, and W is a possible world, say that P is true in W if P exists in W, and let's say that P is true at W if the following holds – P would be true in W if W existed. Consider now the truth of *Socrates does not exist*. This proposition is usually equivalent to the following sentence – "There is a possible world W such that Socrates does not exist in W". Now, the proposition "X does not exist" can be expressed in two following ways[2]: either predicatively, by attributing the property of nonexistence to X of W (truth-in-W), or impredicatively, that is, by a formula that indicates the nonexistence of X with respect to a certain possible world W(truth-at-W), but not being true in the world being evaluated by this formula. Say that "X does not exist" (P) is true in W. If P expresses the inner truth about X, then X is among the constituents of P, and the constituent of P, X, is existent in W. But if P is true *at* W (that is, P expresses the truth about W in the outer sense), P is not among the constituents of W and cannot be deduced from W. Regarding this issue, Morato (2006) distinguishes between the truth's "being generated" and "being evaluated" (p. 224). It is not the case that the constituents of outer truth are bound to be existent in the world of what P is about.

Given this distinction, let us now return to Pollock's example with *pictures* which, as Pollock believes, works successfully against Plantinga's Anti-Existentialism. Say that *picture* is a certain state of affairs representing another state of affairs. So, *the picture* says something true about these states of affairs. But according to Plantinga's anti-existentialist argument, *being true* entails *being existent*. If *the picture* is bound

[1] Fine credits this distinction to Arthur Prior (see Prior, 1969).

[2] In *World Stories and Maximality* Morato (2017, p. 268) distinguishes two possible ways of the representation of possible object's nonexistence in w: nonexistence in virtue of direct information about object's nonexistence and nonexistence in virtue of lack of the information about an object. This distinction can be easily compared with two concepts of truth, mentioned above.

to be existent, *the picture* must be among the objects (more accurately, states of affairs) in *the picture*. This, of course, is not true. *The picture* is not a part of itself. Thus, the picture says something true about W, and is not among the constituents of W – *the picture* does not exist in W, because *the picture* is not in *the picture*. For example, let's say that propositions do not exist. One can argue that this proposition says something false because [Propositions do not exist] is itself a proposition, and thus the proposition [Propositions do not exist] is never true. But suppose a possible propositionless world W (for instance, the defenders of God's omnipotence might argue that it is within God's power to create a world without propositions, to destroy all propositions in the actual world, etc.). Now, the proposition [Propositions do not exist] says something true about W. But is the proposition [Propositions do not exist] true *being expressed in W*? Surely not. Otherwise, this proposition would be self-defeating. So, "Propositions do not exist" is true in W only if W contains no propositions as its constituents, and thus the proposition [Propositions do not exist] is not among the constituents of W. We have that [Propositions do not exist] expresses a truth about W. Pollock now asks: why should we believe that [Propositions do not exist], in order to be able to say something true about W, must be existent *in W*, - that is, to be a part of W? Similarly, Fine asks: why should we believe that the premise (6) of Plantinga's anti-existentialist argument is true?

As we see, the crucial premise of Pollock's defence of Existentialism is his distinction between *S's obtaining* and *S's existing*. In his "Plantinga on Possible Worlds" (Pollock, 1984a), Pollock accepts this distinction and thus rejects Plantinga's Anti-Existentialism. But later, in "The Foundation of Philosophical Semantics", Pollock has become convinced that this distinction is false (more accurately, in this work, Pollock shows the falsity of distinction between the possible world's *being actual* (actually existent) and *being obtained*. But possible worlds are states of affairs. Thus, what goes for S, also goes for W), and Existentialism is false too (because Existentialism relies on this distinction).

Pollock's Anti-Existentialist Argument

Pollock addresses Existentialism with the following challenge. Existentialist believes that states of affairs rigidly depend on their constituent, in the same way as sets depend on their members. Thus, such a state of affairs as *Socrates`s not existing* (S) would not exist if Socrates is not. Consider now the possible world W such that S is a member of W – that is, W is a world that does not include Socrates. W, by definition, is a maximal and consistent state of affairs (that is, for every possible world W and a state of affairs S, either S or the complement of S is included in W, and it is not the case that W could include both S and its complement). So, existentialists suppose that S does not exist if Socrates does not exist. W is a possible world in which S obtains, and Socrates is a constituent of S. Thus, given that W is a state of affairs, Socrates is a constituent of W. Now, existentialists must conclude that if S does not exist if Socrates does not exist, W does not exist too. So, if W (such that W includes S) obtains, W does not exist, and thus "if W obtained then W would not be the actual world" (Pollock, 1984b, p. 99). Thus, Existentialism implies the distinction between W's *obtaining* and W's *being actual*. But Pollock argues that this is wrong, and thus Existentialism is inconsistent.

Pollock's argument runs as follows. Suppose that W is a possible world that includes S. Hence, it is necessarily the case that W's obtaining implies S's obtaining. Given that S, by definition, obtains only if Socrates does not exist ("Socrates does not exist" is true only if Socrates does not exist), we have that, necessarily, W's obtaining implies the nonexistence of Socrates (~Ea). But if Socrates is a constituent of S, and W includes S, then Socrates is a constituent of W. Thus, if ~Ea implies ~ES (by Existentialism),

then ~Ea implies ~EW. Hence, necessarily, if W obtains (that is, if S is a member of W), then ~EW – W does not exist. Given that, necessarily, there is the actual world W* among the collection of possible worlds, W* would exist if W obtained [Pollock 1984b: 100]. So, necessarily, if W obtains, then W* obtains, such that W ≠ W*. Given that W*, by definition, is necessarily existent, we reach the distinction between W's obtaining and W's existing, and this distinction follows naturally from the metaphysical premises of Existentialism. In order to show that this distinction is incoherent, Pollock introduces the following proof. We have that, necessarily, W's obtaining implies W*'s obtaining, and W* is the existing world. But EW* entails that W* does not include S:

(15) S ∉ W*.

For suppose otherwise – S ∈ W*. By definition of S, S implies ~Ea. Given that Socrates is a constituent of W*, ~Ea would imply ~EW*. Thus, W's obtaining would imply ~EW*. We have that W's obtaining implies ~Ea (because W is a world in which S obtains), and W implies EW*. So, necessarily, W's obtaining implies (~Ea & EW*). But suppose that S ∈ W*. S implies ~Ea, and thus ~Ea implies ~EW*. So, if W* includes S, then there is a possible world W such that W implies (~Ea & EW* & ~EW*). No contradiction is possible, thus (15) is true – W* does not include S.

But now we have that (15) implies that W*s obtaining implies ~Ea: "However, because it[3] would be maximal, *W** would have to contain an "enumerative" state of affairs E listing all of the contingent objects existing at *W**. E would be a state of affairs of the form *being the set of all contingent objects.* As Socrates is not among the contingent objects existing at *W*,* **E,** and hence also *W*,* is necessarily such that if it obtains then Socrates does not exist" (Pollock, 1984b, p. 100). Now, ~Ea implies S – if Socrates does not exist, then *Socrates's not existing* obtains. So, if W* implies ~Ea, then W* implies S (that is, S ∈ W*), contradicting (15). Thus, by Existentialism, W* includes and precludes S, and so Existentialism is inconsistent.

Objections to Pollock's Anti-Existentialism

As we see, Pollock's Anti-Existentialism differs slightly from Plantinga's Anti-Existentialism: Pollock prefers to talk about *states of affairs*, while Plantinga talks about *propositions*. It is intuitively plausible to think that if [Socrates does not exist] is true, then Socrates does not exist and so *Socrates`s not existing* obtains. However, it is not clear whether such entity as *Socrates's not existing* is acceptable for existentialists, and why the existentialist must allow for [Socrates do not exist] to be S (that is, why existentialists should endorse the equivalence of [Socrates does not exist] and S). So, one possible problem with Pollock's Anti-Existentialism is that Pollock uses a much stronger formulation of Existentialism than Plantinga. Pollock's (1984b) formulation of Existentialism is as follows (p. 98):

(E) For any state of affairs S, if [x1,…,xn | *a*] ∈ S then, necessarily, S does not exist if any of x1,…,xn fail to exist.

By (E), if we have a set (call it SET) of states of affairs of the form *x1,…,xn having a*, then S does not exist without the existence of x1,…,xn, because x1,…,xn are constituents of S. Now, for any xi ∈ SET, if SET ∈ S, then □ (*xi`s implying S* ∈ SET). This formulation crucially depends on Pollock's *Closure Under Containment* Principle (hereafter CUC) – for any state of affairs S, S ∈ S* iff S and S* are necessarily such that if S* obtains then S obtains (Pollock, 1984b, p. 105). It follows from CUC that if X is a constituent of S, and S is included in S*, then X is a constituent of S*. Following CUC, Pollock concludes that if Socrates is a constituent of S (*Socrates`s not existing*), and S ∈ W, then Socrates must be a constituent of W.

[3] That is, W*.

Kroon offers the following objection (Kroon, 1989, p. 219). Let SET be a list of Roman philosophers. Then, given that Socrates is not a Roman philosopher, Socrates is not a member of SET and thus does not exist in SET. Pollock believes that states of affairs are necessary existents [98], and thus the fact that Socrates does not exist entails S. By CUC, we have then □ (*SET's obtaining* implies *S's obtaining*). But Socrates is a constituent of S, hence, by CUC, Socrates must be a constituent of SET. However, this is obviously false – the only constituents of SET are Roman philosophers, so Socrates is not a constituent of SET. Socrates is a constituent of S. S is included, by CUC, in SET (because SET implies S), so the constituents of SET must be the constituents of S. But it is not the case that Roman philosophers could be the constituents of S because the only constituent of S is Socrates. Thus, CUC fails. Also, Pollock's inference that, necessarily, ~Ea implies ~EW, and thus if W obtains, Socrates does not exist, by Kroon, also fails. Let W be SET. W exists only if every Roman philosopher in SET exists. Thus, the existence of Roman philosophers guarantees the existence of W. Socrates is not a member of SET, and thus Socrates is not included in W. So, Socrates does not exist in W. Given that W possibly obtains, it is possible for W to exist without Socrates's existence, contrary to Pollock's inference that necessarily, ~Ea implies ~EW.

Kroon's argument, as opposed to Pollock's argument, tries to block the possibility of anti-existentialist argumentation in terms of *states of affairs*, that is, by Kroon, the existentialist asserts that the talk about Socrates's nonexistence must be formulated reductively, in terms of *propositions*. Let us take some xi ∈ SET (say, Cicero). Cicero is a Roman philosopher and thus a constituent of SET. Cicero, of course, is necessarily self-identical (that is, Cicero has a property of *being Cicero* essentially), and thus Cicero is necessarily non-self-diverse. Say now that Cicero is not Harry Potter. It is necessarily the case that Cicero exemplifies a property of *not being Harry Potter,* and thus, as it follows from Pollock's argument, such a state of affairs as *Cicero's not being Harry Potter* (hereafter HP) must be a member of SET. But if Pollock's argumentation is formulated properly and is adequate to Existentialism, *HP* could be adequately expressed by a proposition of the form [Cicero is not Harry Potter]. However, if Harry Potter is nothing in W (that is, in SET), the existentialist must conclude that [Cicero is not Harry Potter] is nothing in W, as long as Harry Potter is a constituent of [Cicero is not Harry Potter]. Thus, it is not the case that existentialists could agree to accept the equivalence between HP – *Cicero's not being Harry Potter* - and [Cicero is not Harry Potter]. Assume that Harry Potter is a constituent of HP. Following Pollock's argument, it means that HP is included in SET, and thus Harry Potter is a constituent of SET. Given Pollock's formulation of CUC, if HP is included in SET, then it is necessarily the case that SET entails HP's obtaining. Now, if HP is necessarily a member of SET, then Harry Potter is necessarily a member of SET. So, if [Cicero is not Harry Potter] is nothing in SET, Cicero is nothing in SET, and thus the existence of SET (that is, Roman philosophers) rigidly depends on the existence of Harry Potter. This conclusion is unacceptable for existentialists. Even if the existentialist agrees that Cicero is essentially not Harry Potter, he disagrees that the fact that Cicero is essentially not Harry Potter necessarily implies HP, because it would mean that Cicero, in W, could not be Cicero without *Harry Potter's exist*ence in W. Thus, the existentialist tries to show that S – *Socrates's not existing* – is not a possibility in a proper sense. The existentialist response to Pollock is that the truth of [Socrates do not exist in W] does not necessarily imply that *Socrates's not existing* obtains in W. Following the distinction between strong (always true) and weak (never false) propositional truth, the existentialist would reply to Pollock that the proposition's being possible in W does not entail proposition's being possibly true in W if a state of affairs like *Socrates's not existing* could be

properly translated into the language of propositions. Now, Pollock's Anti-Existentialism faces the same objection as Plantinga's Anti-Existentialism. The core of this objection is that some propositions are possible without being possibly true. For instance, consider the proposition [I do not exist]. I am not a necessary being, so I could have failed to exist. Thus, [I do not exist] is possible. Let us accept now the following principles borrowed from (Williamson, 2002):

(A) Necessarily, if P, then the proposition that P is true.

$\Box (P \rightarrow T(p)$.

(B) Necessarily, if the proposition that P is true, then the proposition that P exists.

$\Box (T(p) \rightarrow \exists q (q = p)$.

(C) Necessarily, if the proposition that P exists, and X is a constituent of P, then X exists.

Note that (C) is exactly what Existentialism asserts – P does not exist if X is nonexistent. By applying (A), (B), and (C) to the fact that *I am possibly nonexistent*, we have the following argument[4]

(a) Possibly, I do not exist (Assumption).
(b) Necessarily, if I do not exist, [I do not exist] is true. (a), (A).
(c) Necessarily, if [I do not exist] is true, [I do not exist] exists. (b), (B).
(d) Necessarily, if [I do not exist] exists, I exist. (c), (C).
(e) Necessarily, if I do not exist, I exist. (b), (c), (d),
Conditional Proof.

Another consequence of (a) – (e) is what the existentialist wants to demonstrate: some propositions are possible but never possibly true. Consider again the proposition [Propositions do not exist]. What is a truth-condition for [Propositions do not exist]? Of course, it is possible for propositions to fail to exist. But the proposition [Propositions do not exist] is never true in the world in which this proposition is uttered. This truth is true *regarding* the possible world, but it is not the case that it could be true *in* this world. The proposition [Propositions do not exist] is possible without being possibly true, and that is what the existentialist can oppose to Pollock and Plantinga. Another variation of this argument, but without using indexicals, was suggested by David[5] (2009). Let "Socrates" be the name of Socrates. Then, the inference *If, possibly, "Socrates" does not exist, then ["Socrates" does not exist] is possibly true* seems to be false, at least for the proponents of Serious Actualism (Plantinga is among them). For if "*Socrates"* does not exist, but the proposition *["Socrates" does not exist]* bears a property of being true (in some possible world), then *["Socrates" does not exist],* following Serious Actualism, must exist, and thus "Socrates" must be existent too. But if "Socrates" exists, then *["Socrates" does not exist],* contrary to our assumption, cannot be true. So, *["Socrates" does not exist]* is possible, but never possibly true. "Socrates" is a contingent entity and thus could have failed to exist, but *["Socrates" does not exist is true]* does not express the possible truth – only possible non-falsehood. If so, Plantinga's (6) fails, and Pollock's argument fails too.

In response to this objection, Plantinga (1979) asserts that the distinction between the proposition's being possible and being possibly true is false because the only way for the proposition to be possible is to be possibly true (pp. 155-156). Consider SOC - [[Socrates does not exist] exists and Socrates does not exist]]. Given that Socrates is a constituent of SOC, the existentialist will reply that SOC is impossible. But then, as Plantinga remarks, SOC, by Existentialism, is possibly non-false, and SOC could have failed to be false if Socrates did not exist. If "possibly non-false" is a possibility, then SOC is possible, contradicting Existentialism; and if SOC is a proposition, then SOC is possibly true, if possible. If this claim is true, it allows us to eliminate the main objection to Pollock's Anti-Existentialism

[4] This argument was first formulated by Williamson (2002).

[5] See also (Speaks, 2012) for the development of this argument.

by validating the possibility of S, which is the main premise of Pollock's argument.

No Equivalence Between Propositions and States of Affairs

A crucial step of Pollock's argument is his move from [Socrates does not exist] to *Socrates's not existing obtains*. This move could be acceptable for existentialists only if there is equivalence between states of affairs and propositions. Suppose there is such equivalence. Thus, there is a possible Socratesless world W such that if S belongs to W, then P (that is, a proposition [Socrates does not exist] belongs to W. By Pollock's CUC, we have that if S is a member of W then, necessarily, W's obtaining entails P's obtaining (obviously, P's obtaining implies that P is true). Now, the existentialist can easily respond to Pollock that it will be improper to accept that Socrates is a constituent of P – for if P is true, Socrates does not exist, and P, therefore, does not exist too. But the most pressing challenge for Pollock is this – why should we believe that if P belongs to W (suppose, for the sake of argument, that P is possible in W, contrary to the existentialist claim), then the constituent of P must be the constituent of W (by CUC)? This objection was offered by Kroon (Kroon, 1989, p. 217). It is not obvious that the fact, according to which Socrates does not exist in W, could be appropriately characterized by P's obtaining *in* W. The existentialist, of course, will simply reject the idea that P expresses truth *in* W (that is, an inner truth about Socrates); at best, the existentialist will assume that P is a truth *of* W (that is, P is true *at* W). But the latter does not entail that P must exist in W in order to be able to express the truth about W. Existentialists like (Fine, 1985), (Kroon, 1989), and (Prior, 1969) disagree that P's being true of W necessarily implies P's existence in W (see also Turner, 2005; Adams, 1981; Bealer, 1998). But if, possibly, P is true at W, and does not exist in W, then in W, if we have the truth of P, we do not have S. Thus, Pollock's crucial move becomes unacceptable for existentialists. Of course, the inference *If [Socrates does not exist], then Socrates does not exist, and so the nonexistence of Socrates obtains* seems to be plausible, but in fact, it is not. Fine argues convincingly (Fine 2005) that the inferences like *Necessarily, P, if the proposition that P is true*, and *Necessarily, P is true if P* are not always true. Also, the arguments of David (2009), Speaks (2012), and Williamson (2002) are other counterexamples to Pollock's Anti-Existentialism, which are very close to Fine's argument. Consider the propositions like [I do not exist] or [Propositions do not exist]. Following Fine, these propositions are never true in W being expressed in W. Thus, it is not the case that my nonexistence or *proposition's not existing* obtain in W, and so Fine's line of reasoning allows us to reject the essential step of Pollock's argument. Again, consider [I do not exist] from Williamson's point of view. Williamson argues that such a proposition is true if we accept Necessitism – the view that necessarily, everything necessarily exists. However, it is obvious that Williamson's Necessitism is incompatible with Anti-Existentialism (both Plantinga's and Pollock's) because they argue that it is possible for an object X not to exist if the proposition [X does not exist] is true. Thus, both Fine's Contingentism and Williamson's Necessitism pose a serious challenge for Pollock's argument.

From the counterexamples above, we see that the main existentialist objection to Pollock's argument is as follows. If S is equivalent to P, then this equivalence violates the constituent principle (because Socrates, as a constituent of P, is not a constituent of W). But it is not the case that P's being true of W necessarily implies P's existence in W, and so P is not identical to S. Thus, Pollock's argument fails since this identity is a necessary premise of Pollock's Anti-Existentialism. This is the argument of Fine, and the arguments of Kroon, David, and Speaks are, in general, instances of Fine's argument. But this argument is based on the distinction between two types of

truth, and it is not clear whether we should accept this argument, especially if we agree with Plantinga's (1979) argument in *De Essentia* that this distinction is self-defeating (pp. 155-156). However, we can derive the same result without appealing to the distinction between inner and outer truth.

Our argument is this. Pollock accepts the equivalence between propositions and states of affairs. Now, let us accept the equivalence between states of affairs and properties – say that S, *Socrates not existing*, is equivalent to *Socrates exemplifies F - the property of not existing*. It is well-known that some properties exemplify themselves, and some do not. For instance, consider a property of *being property*. Every property has a property of being a property. Thus, a property of being property is itself a property, and so it exemplifies itself. On the other hand, consider the property of *being red*. The property of being red is not red and thus does not exemplify itself. Now, what kind of property is a property of *not existing*? If Socrates exemplifies the property of *not existing*, Socrates exemplifies something; thus, the property of not existing is something existent. Thus, F does not exemplify itself. We have that Socrates exemplifies F if S obtains, and F is a property that does not exemplify itself. But then we can derive the following conclusion:

(16) Necessarily, if F does not exemplify itself, then F exemplifies the property of non-self-exemplification

If (16) is true, we can conclude that if F exemplifies the property of non-self-exemplification, then there is such a property as *F's non-self-exemplification*. But if F exemplifies *F's non-self-exemplification*, then F does not exemplify itself – that is, F does not exemplify *F's non-self-exemplification*. Thus, we have a contradiction – given (16), necessarily, F does not exemplify *F's non-self-exemplification* only if F exemplifies *F's non-self-exemplification.* It is well-known that the property of non-self-exemplification "is at best extremely problematic" (Plantinga & Grim, 1993, p. 275); and it seems to be that "we can avoid the contradiction by claiming that there is no such property as non-self-exemplification" (Stephanou, 2007, p. 226).

What is a connection between our reductio of F's non-self-exemplification and Pollock's argument? Suppose we have such a proposition as [F does not exemplify itself]. This proposition is true in virtue of the fact that F does not exemplify itself. Now, the crucial move of Pollock's argument is as follows: if [F does not exemplify itself] is true, then there is such property as *F's non-self-exemplification*, and then, given the presupposed equivalence between properties and states of affairs, there is such state of affairs *F's non-self-exemplification*. But it follows from the argument above that there is no such property as *F's non-self-exemplification*, and thus there is no such state of affairs as *F's non-self-exemplification*. Even if the proposition [F does not exemplify itself] is true, it is not the case that the truth of this proposition implies the obtaining of *F's non-self-exemplification*. It means that Pollock's proof (if our argument is correct) has a false instance. Within our counterexample, we do not need to appeal to Fine's distinction between inner and outer truth – of course, [F does not exemplify itself] is true *in* W, but *in* W, there is no *F's non-self-exemplification*.

Conclusion. Pollock's Anti-Existentialism and Modern Existentialism

As we see, the premises of Pollock's argument are, in general, not valid. However, this argument, I believe, can be easily reformulated in terms of classical propositional Existentialism, and in this form, Pollock's solution looks acceptable, more or less. For example, let us compare this argument with Williamson's solution. Williamson (2002) proposes the following challenge for classical Existentialism – either [I do not exist] exists if I do not exist, and so I exist if I do not exist, or it is not the case that I could have failed to exist. By Williamson, we do not have

problems with sentences like [I do not exist] if we accept Necessitism – a thesis that, necessarily, everything necessarily exists. However, Necessitism is a too high price to pay for the possibility to save Existentialism. If we have, as Williamson believes, a choice between Necessitism or Anti-Existentialism, we think it would be plausible to reject Existentialism and accept Anti-Existentialism. Most modern philosophers do not build up their Existentialism on the necessitist fundament. Also, some existentialists think that Necessitism is, in fact, a false challenge for classical propositional Existentialism because Williamson's argumentation for Necessitist Existentialism can be blocked by appealing to the distinction of truth in W and truth at W (Morato, 2006). Even if we do not agree with this solution (for obvious reasons), we can say that Williamson's Necessitist Existentialism is much closer to Anti-Existentialism than to Classical Propositional Existentialism. However, for the sake of ideological parsimony, philosophers (who are sceptical about Classical Existentialism) do not need to appeal for Williamson's radical position because we already have Pollock's moderate solution. Thus, Williamson's Necessitism is an ally of Pollock's Abstractionist Anti-Existentialism. Some philosophers try to combine Williamson's Necessitism with Plantinga's (and particularly Pollock's one) Contingentism (Jacinto, 2016) but without endorsing Anti-Existentialism (both Plantinga's and Pollock's one). Thus, the necessitist line of argumentation for and against Existentialism is not very popular among contemporary existentialists

Pollock's criticism of Existentialism also had a strict impact on Moderate Existentialism. Moderate existentialists (for instance, (Forbes, 1989)) believe that only positive existential statements have constituents, while negative existential statements lack them. Also, Pollock's argumentation for Anti-Existentialism contributed to the emergence of a revised form of Existentialism that does not presuppose the principle that propositions have constituents (Stalnaker, Stephanou, Williamson).

In the light of Pollock's argument, several philosophers introduced a revised form of the argument concerning the distinction between truth in W and truth at W. One of the most notable attempts regarding this issue is the argument of Speaks (2012). Speaks accepts Fine's distinction but disagrees with Fine that truth at W expresses an outer truth. Thus, Speaks rejects the idea that if P is true *at* (or truth *of*) W, P would be true in W had W be actualized. Rather, Speaks tries to show that the difference between two types of truths must be understood in terms of context and circumstance, without appealing to such "transcendental" notions as "outer truth".

Also, Pollock's argument has sparked discussions concerning the question of what can serve as an identity criterion for different possible worlds. Pollock argues that the possible (Socratesless) world W, being obtained, necessarily implies the existence of the actual world W*, and thus W must share with W* its constituents. Following Fine, Kroon, the most prominent contemporary critic of Pollock's argument, argues that existentialists must accept the more strong version of logical equivalence between states of affairs than Pollock's identity-criterion – the existentialist could accept that "X1 and X2 are identical just when X1 and X2 are logically equivalent and share all their individual constituents (and hence necessarily co-exist)" (Kroon, 1989, p. 221). This problem is widely discussed in contemporary debates, in particular about the principle of Existence Requirement and the proposal of Takashi Yagisawa on how to reject this principle (see Yagisawa, 2010, p. 59; Caplan, 2007). Pollock's argument also contributed to the development of discussions regarding the following issue: what is for propositions and states of affairs to be identical? Pollock argues that if S is a member of W, then W and W* have common constituents – that is, the constituents of S. But if S is equivalent to the proposition P - [Socrates does not exist] – how could P be nonexistent in the world in which S obtains? This question is

part of a broader debate about the nature of propositions and states of affairs, and Pollock, without doubt, greatly contributed to these issues.

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BOOK REVIEW

DOI: 10.24234/wisdom.v21i1.750
Svetlana ZAKHAROVA

DIGITALIZATION AND HYBRIDIZATION OF SOCIAL SPACE: DISCUSSION ON THE MONOGRAPH: "SOCIOLOGY OF DIGITAL SOCIETY"

Abstract

The article was prepared as one of the formats of the review of the monograph "Sociology of Digital Society" (Vasilenko & Meshcheryakova, 2021) as part of the implementation of a comprehensive sociological study conducted with the financial support of Russian Fond for Basic Research, grant 20-011-00694 "Public Administration".

The authors consider interdisciplinary theoretical and methodological foundations for the formation of a digital society. The defining feature of the new stage of social development is hybridization, which implies the interpenetration of the real and virtual worlds, in which the existence of a significant part of society has become equivalent. They justify the fundamental changes that are taking place in a digital society in all key aspects of public life: the transition to a platform economy, a change in the social structure characteristic of industrial society, a new nature of production attitudes and management styles.

Keywords: sociology of digital society, digitalization, hybridization of social space, public governance, smart management, self-organization, synergistic approach.

Introduction

The peer-reviewed monograph "Sociology of Digital Society" is the result of many years of work of the authors. In their monograph, the authors raise the question that the information society has moved to the final stage of its development - a digital society, which will become a direct transition to a post-digital society (Vasilenko & Meshcheryakova, 2021, p. 60). The theoretical foundations of the study of relations between the executive branch and society through the Internet were presented by N. N. Meshcheryakova in 2016 (Meshcheryakova, Lukianova, Kiriyanova & Ivchik, 2016, 74-78). The forerunner of the widespread use of the term "smart management" in the conditions of digitalization was the work of A. Tikhonov and V. Bogdanov (2020) "From" smart regulation to "smart management": the social problem of digitalization of feedback", which allowed the authors of the monograph to develop this approach in the context of the proactive ability of the management subject to perform managerial functions and duties using the intellectual ones (Vasilenko, 2021), the public and network aspects of the participating management subjects (Vasilenko, Zotov, & Zakharova, 2020), etc.

Methodology

The monograph uses several research approaches developed by the authors in previous publications. Thus, a synergistic approach due to the complexity of the formation of hybrid social space was considered by L. Vasilenko in the work "Fractal-synergetic approach to the research of entrepreneur in the non-profit organizations" (Vasilenko, 2019). A fractal-evolutionary research approach has been applied to addressing the inconsistency of gender relations in digital society (Kashina & Vasilenko, 2019). The an-

throposocietal approach, based on three components - man (anthropos), society (socium) and culture (cultura), determines the peculiarity of the evolutionary nature of social dynamics from the point of view of the self-organization of the social system, which can flexibly change in response to threats and risks (Lapin, 2005).

Results and Discussion

Hybridization of Digital Society

Digital society is a super-smart society, corresponding to the sixth technological framework, in which virtual relations are transgressed into the real socio-cultural world, hybrid collective intelligence accumulates and is smartly used. The nature of relations in a digital society is determined by the hybridization of social interactions and the hybridization of technology, and the infrastructure of social space. The authors of the monograph assign a special role to hybridity as "interpenetrability of the virtual and real worlds" (Vasilenko, & Meshcheryakova, 2021, pp. 62-63) and proceed from the definition of modern society as a network. Therefore, a large volume of the monograph is devoted to social networks. "Network lifestyle" has become a social phenomenon that needs to be studied (Vasilenko & Meshcheryakova, 2021, p. 87). Since both authors of the monograph consistently advance the synergistic paradigm of thinking, they consider social space to be constructed in the process of human interaction. The formation of horizontal relations in the network is the basis for the transition from the hierarchical structure of society, communications to the network. Mediation institutions are born. Due to this, the possibilities of intellectual and spiritual unification are increased, there is an increase in collective intelligence. Sociocultural networks in a digital society can be built as self-organizing multi-attractor networks, or as networks with a controlled attractor and formed in the process of interaction of actors, create, promote and integrate into society new ideals, values and norms, act as resonators of social innovations, as well as stimulants of increased activity that forms civil society in Russia (Vasilenko & Meshcheryakova, 2021, p. 370)

Philosophical Foundations of Public Governance in Digital Society

The monograph reveals the features of management in a system in which the level of complexity increases under the influence of natural stochastic processes and/or management effects. Options for possible management paradigms are predicted. With these cognitive goals, methods are used based on fractal-evo-logical, systemic-synergistic and informational approaches (Vasilenko & Meshcheryakova, 2021, p. 29). It is postulated that the system needs rational management formation of order to reduce entropy.

The authors show how in the phase of differentiation in the process of formation of the social system, organizational-managerial and normative subsystems are formed, the core of the fractal in the format of social constructs, which, through subsequent recursive distribution, can further influence the formation of the social system (Vasilenko & Meshcheryakova, 2021, p. 36). There is a transition from a vertical management and activity organization to a mainly horizontal network one, in which fractals of remote and distributed work of teams of employees cleverly use hybrid intelligence and reproduce themselves in business, science and all other areas of activity.

At the same time, the existing management models are inert, and they are based on the established tradition and the obliqueness of the management apparatus. They show mechanisms, excessive rationalism, suppress staff motivation, feedback mechanisms do not work, contacts with the external environment and customer orientation are lost. The authors state the need to move in management to a phase of integration based on human development. Vasilenko and Meshcheryakova (2021) highlight such key points of the new management paradigm as the formation of social relations on the principles of partnership

and not hierarchy, proactive expansion of public spheres, the ability to create and use time-stable social networks to form conditions for understanding, animation of new meanings (p. 34).

It is postulated that the leadership style should also be changed: from the rigid consolidation of duties and control to the encouragement of initiative, the formation of horizontal ties, the formation of a senior management team that interacts with teams of other levels of management, to the cooperative resolution of problems, taking into account the interests and proposals of all members of the team.

The Public Nature of Smart Governance in a Digital Society

As the role and place of a person in the management system changes in a digital society, the authors of the monograph wonder whether the actors of the social space are able to constructively and jointly participate in smart management? They conclude that the key to a positive response is to gain the quality of the subjectivity of the representatives of Homo digitals, that is, their ability to realize and implement their interests, define and adjust goals, make decisions, make plans for the future, achieve them, determine their social roles and statuses, since this is the main quality of the subject, that is, the ability to transform the surrounding world with his practical active actions (Vasilenko & Meshcheryakova, 2021, p. 90).

The authors believe that the modern transition to smart management technologies involves the use of artificial intelligence in management decisions, and they call the symbiosis of human and artificial intelligence hybrid collective intelligence (Vasilenko & Meshcheryakova, 2021, p. 9), for which they see the future. So far, artificial intelligence performs an assisting function in relation to humans, but its development promises humanity both prospects and threats. Already today, as the authors show, artificial intelligence and machine learning allow you to identify and extract information from large sets of structured data and use data mining functions to create models that allow you to conduct descriptive, predictive and prescriptive analytics (Vasilenko & Meshcheryakova, 2021, p. 177). With the development of this technology, it is expected that the computer will learn to do something that a person cannot do. The authors believe that sociologists need to master artificial intelligence algorithms to make the right management decisions: assessing effectiveness, failure to perform, etc. Management decisions can be made in a system of distributed situation centres with the virtual participation of expert communities using predictive analytics, analytics of Big Data, Thick Data user behaviour (Vasilenko & Meshcheryakova, 2021, p. 49). The authors insist on the revival of the critical function of sociology, crushed by naked empirics (Meshcheryakova, 2021), necessary for the development of the sphere of public administration.

Conclusion

Vasilenko and Meshcheryakova argue that classical sociology with its arsenal of theories, methods and techniques is not enough to know modern hybrid reality, partially virtualized. The monograph lays the theoretical and methodological foundations of the sociology of digital society. They are built on a flexible combination of classical and digital sociology. A large amount of research is devoted to modern methods of cognition. Despite some eclecticism of the monograph, it stands completely separate in the breadth and depth of coverage of issues related to the modern stage of the existence of both society and sociological science. The work is based on an interdisciplinary approach, so it can be interesting for a wide range of scientists of different specialities, teachers, students, graduate students and everyone who conducts research on the effects of digitalization on humans, society, nature.

Acknowledgements

Research of the authors partially supported by grants: Russian Fond for Basic Research, grant 20-011-00694 Public Administration as Configuring of Relational Networks in the Public Space of a Digital Society.

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> In a recent study by Fallon and van der Linden (2014), 161 adults diagnosed with ADHD were compared…

Three, four or five authors

> Grier, Johnson, Green, Smith, and Hyde (2013) analyzed 65 studies of mindfulness-based therapy (MBT). …
> An analysis of 65 studies of mindfulness-based therapy (Grier, Johnson, Green, Smith, & Hyde, 2013).

In second and subsequent citations, give only the first author's name followed by 'et al.'

> (Grier et al., 2013).

Six or more authors

Cite only the first author for the first and subsequent citations, followed by 'et al.'

> (Huizinga et al., 2014).

Two or more works with different authors

> (Bradfield & Lewis, 2014; Pearson, 2010; Smeets, 2011)

Two or more researches, papers and/or sources by the same author

> (McDaniel, 2012, 2014)

Citations with the same author(s) and with the same publication year

Identify citations with the same author(s) and with the same publication year by the suffixes a, b, c, and so forth. Assign the suffixes alphabetically by title (consistent with the order in the reference list).

Stress can adversely affect our health (James & Singh, 2012a, 2012b, 2012c).

Authors with the same surname

If a reference list contains works by two leading authors with the same surname, provide the initials of both authors in all text citations.

Among studies, we review M. A. Smith (2010) and J. Smith (2007).

Works with an unknown publication year

When the publication year of a work is unknown, use the abbreviation 'n.d.' (no date).

(Walker, n.d.).

Specific parts of a source

(Spencer & Buchanan, 2011, p. 332)
(Nguyen, 2009, pp. 13-14)
(Atkinson, 2007, Chapter 8)
(Jones& van der Meijden, 2013, Appendix)
(Gallo, Chen, Wiseman, Schacter, & Budson, 2007, Figure 1, p. 560)
(Dexter & Attenborough, 2013, Table 3, row 5, p. 34)

Secondary sources

However, results from another study suggested significant differences… (Smith, as cited in Jones, 2012).

Direct quotations

Lindgren (2001) defines stereotypes as "generalized and usually value-laden impressions that one's social group uses in characterizing members of another group" (p. 1617).
(Mitchell & de Groot, 2013, p. 51).

REFERENCES

References must be arranged in alphabetical order by the last name of the (first) author, followed by the initials. (Hanging - 1.5).

The Latin transliteration of all non-Latin references should be included together with the English translation. There is no need to transliterate the author(s) surname(s).

Брутян, Г. А. (1992). *Очерк теории аргументации.* Ереван: Изд-во АН Армении.

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*Works by the same author (or by the same two or more authors in the same order) with the same publication date are arranged alphabetically by title (excluding **A** and **The**). Add lowercase letters - a, b, c, etc. - immediately after the year.*

Hayward, K. H., & Green (2012a). …
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For degrees from institutions outside of the U.S., add the name of the country:

(Master's thesis, Humboldt University, Berlin, Germany).

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AUTHORS

Asiyat ABDULKADYROVA - Postgraduate student of the English Philology Department, Senior Lecturer of the Foreign Languages Department of the Faculty of Economics of Dagestan State University, Makhachkala, Russia. Her research interests include cognitive and contrastive studies. She is the author (co-author) of more than 10 scientific works. Recent publications: "Concept LOCKDOWN as Value and Anti-Value in the Modern British Society's Life", "System and Structure Characteristics of the Sphere of Concepts".
ORCID iD: https://orcid.org/0000-0002-2732-887X
E-mail: saidulik1@rambler.ru

Elina ASRIYAN - PhD in Psychology, Representative in the Bologna Follow-Up Group, Vice-Rector for Academic Affairs, Yerevan State University, Yerevan, Armenia. The areas of scientific interests include psychology of emotional sphere and psychology of mass communication, social psychology, psychology of image. Elina Asriyan is the author of 60 and more articles and methodological guides. Recent publications: "Personal Potential in Overcoming the Socio-Psychological Consequences of War and Pandemic", "The Study of Well-being Level in Fairytales", "Branding Specificities of the Armenian "Velvet Revolution", "Communicative Difficulties of Russian and Armenian Adolescents: A Sociocultural Aspect".
ORCID iD: https://orcid.org/0000-0003-4970-3527
E-mail: elina.asriyan@ysu.am

Sergey ASTAPOV - PhD, Dr. of Sciences in Philosophy, Professor, Head of the Department of Philosophy of Religion and Religious Studies at Institute of Philosophy and Social and Political Studies, Southern Federal University, Rostov-on-Don, Russia. His research interests include philosophy of religion, religious studies, Russian religious philosophy. He has published above 150 articles. Recent publications: "Religious Ideology in the Post-secular Russian Society", "The Theme of Religious Fanaticism in Ivan Ilyin's *Axioms of Religious Experience*".
ORCID iD: https://orcid.org/0000-0001-7697-2170
E-mail: snastapov@sfedu.ru

Olesia BARBANIUK - PhD in Philology, Associate Professor of the English Department in Kamianets-Podilskyi Ivan Ohiienko National University, Ukraine. The areas of interest include linguosemiotics, cognitive linguistics, frame semantics, psycholinguistics, extra-linguistic studies, translation studies. Recent publications: "Representation Model of Hyperreal Fantasy World: Phraseological Dimension", "Culture-Loaded Vocabulary: A Problem of Definition", "Gender Asymmetry in Fiction Fantasy World of Ursula Le Guin".
ORCID iD: https://orcid.org/0000-0002-0448-065X
E-mail: olesia_barbaniuk@ukr.net

Rauf BEKBAEV - Doctoral student of the Department of Philosophy and Logic of the National University of Uzbekistan named after Mirzo Ulugbek, Tashkent, Uzbekistan; *Member of the Journal of Central Asian Renaissance.* His areas of interest include philosophy of artificial intelligence, history of philosophy, comparative philosophy, intercultural philosophy, philosophy of traditionalism, philosophical anthropology. Bekbaev is the author of 1 monograph and 42 scientific articles. Recent publications: "Artificial Intelligence": Philosophical Aspects of Understanding", "Philosophical Traditionalism of Rene Guenon and its Manifestation in the System of Intercultural Dialogue", "The Transformation of Platonism in the Philosophy of Traditionalism by Rene Guenon".
ORCID iD: https://orcid.org/0000-0001-5072-3379
E-mail: rauf.r.bekbaev@gmail.com

Asya BERBERYAN - PhD, Dr. of Science in Psychology, Head of the Psychology Department at the Russian-Armenian (Slavonic) University, Head of Psychology direction of the Institute for Humanities (Yerevan, Republic of Armenia). She is also the Head of the Armenian Regional Department of All-professional psychotherapeutic league and the Armenian branch of the International Academy of Psychological Sciences, a member of the International Council of Professional Therapists. Berberyan is the author of 250 scientific publications and proceedings of the international conferences has certificates of practically orientated courses. Her research interests include psychology of higher education, studies of ethnic identity and virtual reality investigation.
ORCID iD: https://orcid.org/0000-0003-0321-0161
E-mail: aspsy@inbox.ru

Hermine BERBERYAN - Doctoral student in the Cognitive Modelling group at Bernoulli Institute, University of Groningen, Groningen, the Netherlands. She has a bachelor's and master's degrees (both Cum laude) in Psychology from Russian-Armenian University (Yerevan, Armenia). Previously she was a scholar of Erasmus +. Her research interests lie in the fields of computational neuroscience and psychology, where she is applying machine learning algorithms (hidden semi-Markov model multivariate pattern analysis, HsMM-MVPA) and advanced statistical analysis to behavioural and neuroimaging data (EEG, MEG). Additionally, her research interests include ethnic studies and virtual/augmented reality.
ORCID iD: https://orcid.org/0000-0002-3889-5933
E-mail: hermpsy@mail.ru

Oleh BONDAR - PhD in Philosophy, a postdoctoral fellow in Department of Philosophy, School of Public Administration, Nanjing Normal University (China). His areas of interest include metaphilosophy, metaphysics, modal epistemology, metaethics, and grounding theory. Recent publications: "Existence Requirement, World-Indexed Properties, and Contingent Apriori", "Edwards on the Incompatibility of Divine Foreknowledge and Human Free Will", "A Short Argument against Truthmaker Maximalism".
ORCID iD: https://orcid.org/0000-0003-2657-6510
E-mail: olegbondarb581@gmail.com

Oleg GABRIELYAN - PhD, Dr. of Science in Philosophy, Professor of the V. I. Vernadsky Crimean Federal University; Dean of the Department of Philosophy (Republic of Crimea, RF). Areas of interest include social and political philosophy, cultural studies, history and philosophy of science. He is the co-author of 18 monographs and more than 150 scientific articles. Recent publications: "Algorithmic Basis of Battle Neural Networks and Crisis Phenomena In Modern Society", "Objectified Formulation of a Search Query for an Intellectualized System of Monitoring Internet Memes", "Artificial Intelligence: what is it?", "Mythopoetics of the Culture: the Research Methodology Issue".
ORCID iD: https://orcid.org/0000-0003-0302-0229
E-mail: gabroleg@mail.ru

Andrey GALUKHIN - PhD in Philosophy, Associate Professor of Philosophy at the Department of History and Philosophy, Plekhanov Russian University of Economics (Moscow, RF). His areas of interest include epistemology, philosophy of science, history of philosophy. Galukhin is the author of 2 monographs and the author of 65 scientific articles. Recent publications: "Epistemic Regress Argument in Favor of Foundationalism in Theory of Justification", "Existential-Analytical Substantiation of the Question of Being in M. Heidegger's Ontology", "A Brief History of Ancient Philosophy".
ORCID iD: https://orcid.org/0000-0002-8091-6160
E-mail: mystolbard@gmail.com

Srbuhi GEVORGYAN - PhD, Dr. of Sciences in Psychology, Rector of Khachatur Abovyan Armenian State Pedagogical University. She is also the chairman of the council of Psychology "064" and the Chief Editor of the journal of *Main Issues of Pedagogy and Psychology*. S. Gevorgyan is the author of 109 sci-

entific publications and proceedings of the international conferences. Her research interests include social psychology, communication psychology, age and pedagogical psychology.
ORCID iD: https://orcid.org/0000-0003-4467-9759
E-mail: gevorgyansrbuhi@aspu.am

Sargis GRIGORYAN - PhD, Associate Professor, Faculty of the Oriental Studies of Yerevan State University, Yerevan, Armenia; Researcher at the Institute for Armenian Studies of YSU. His areas of interest include regional developments in the Middle East; Islamic extremism ideology. He is the author of 3 monographs and 20 articles. Monographs: "Islamic State. From Roots to the Proclamation of Caliphate", YSU, 2016, "Islamic Radicalism in the Caucasus", YSU, 2017, "The Syrian Conflict in 2011-2020", YSU, 2020. Recent article: "Transformations of the Islamic Extremism and the Emergence of the "Islamic State" (from the end of 20th century till 2014)", 2021.
E-mail: grigorian_sargis@yahoo.com, grigorian_sargis@ysu.am

Marina ILYUSHINA - PhD, Dr. of Juridical Science, Professor, Head of the Department of Civil and Business Law at the All-Russian State University of Justice (RLA of the Ministry of Justice of Russia) and Professor of Department of Economic Legal Regulation of Faculty of Law at the Financial University under Government of Russian Federation. Her areas of interest include Civil and Business Law, Commercial Law, Share Transactions and Notary Practice. Ilyushina is the author of 10 monographs and 266 scientific articles. Recent publications: "Topical Issues of Notarial Support of a Mediation Agreement", "Recovery of Illegally Obtained Income: Experience of Russia and Foreign Countries".
ORCID iD: https://orcid.org/0000-0002-8040-5520
E-mail: alexi59@mail.ru

Anahit JIJYAN - PhD in Philosophy, Scientific Secretary of Institute of Philosophy, Sociology and Law NAS RA, Associate Professor at the Chair of Sociology and Social Work at ASPU, Yerevan, Armenia. The areas of interest include theory and methodology of sociology, theory and models of social work, social work with youth, social work with vulnerable groups. Jijyan is the author of 3 monographs and 33 scientific articles. Recent publications: "Social Work in Transforming Society", "The Specificity of Christian Social Work with Needy Families in RA", "Social Work Models" and "Social Work and Ethics. Analysis of Some Methodological Issues".
ORCID iD: https://orcid.org/0000-0001-9832-4051
E-mail: jijyan@mail.ru

Khaibat KADACHIEVA - Head of the English Philology Department of Dagestan State University, Makhachkala, Russia. Her research interests include cognitive and contrastive studies. She is the author (co-author) of more than 70 scientific works. Recent publications: "Translation of the Meteorological Metaphor (Based on English and Russian Languages)" https://doi.org/10.15405/epsbs.2019.12.04.193, "Structuring the Space in the Languages of Different Cultures and Traditions" https://doi.org/10.15405/epsbs.2021.05.138.
ORCID iD: https://orcid.org/0000-0002-7278-1278
E-mail: haibat@mail.ru

Eduard KALNYTSKYI - PhD in Philosophy, Associate Professor of Philosophy Department of Yaroslav Mudryi National Law University, Kharkiv, Ukraine. Her areas of interest include the areas of her interest include political philosophy, philosophical anthropology, and philosophy of law. Kalnytskyi has over 50 publications, including collective monographs and journal articles, which are indexed in Scopus, Web of Science, Copernicus and other platforms. Recent publications: "Conspiracy Thinking in the Dynamics of Modern Culture: characteristics and Features of Manifestation", "The Phenomenon of

Corporeality in the Performative Paradigm: From Gatherings to Political Issues", "Personal Information Rights and Freedoms within the Modern Society".
ORCID iD: https://orcid.org/0000-0002-1777-9992
E-mail: kalnitsky@ukr.net

Nare KARAPETYAN - PhD in Psychology, Researcher Assistant at Scientific Research Center of Psychology, Yerevan State University, Yerevan, Armenia. The areas of scientific interests include management psychology, advertising and PR, psychology of influence, decision-making psychology. Nare Karapetyan is the author of 10 and more articles. Recent publications: "Psychological Conditionality of Professional Reflection and Behavioral Strategies in Situations of Problematic Interaction", "Psychological Criteria for Assessing Personality and Behavioral Strategies in the Face of Overcoming Problematic Interactions", "The Study of Well-being Level in Fairytales", "The Study of Peculiarities of Social Self-Control and Coping Behavior".
ORCID iD: https://orcid.org/0000-0001-6427-0198
E-mail: nare_karapetyan@ysu.am

Rakhmat KARIMOV - PhD, Dr. of Science in Philosophy, Professor of the Department of Philosophy and Logic of the National University of Uzbekistan named after Mirzo Ulugbek, Tashkent, Uzbekistan; *Member of the Journal of Central Asian Renaissance.* His areas of interest include the history of philosophy, comparative philosophy and intercultural philosophy. Karimov is the author of 2 monographs, 10 textbooks and 47 scientific articles. Recent publications: "History in the Understanding of the Philosophical Discourse of Karl Popper", "Critical Rationalism and Comparativism as Methods of Philosophy of History", "Synthesis of Traditionalism and Social Anthropology in the Metaphysics of Rene Guenon".
ORCID iD: https://orcid.org/0000-0003-2531-4789
E-mail: rakhmat.r.karimov@gmail.com

Romik KOCHARYAN - PhD in Philosophy, Senior Researcher at the Mesrop Mashtots Institute of Ancient Manuscripts, Associate Professor at the Chair of Sociology and Social Work at ASPU, Yerevan, Armenia. His areas of interest include theory, history and application of hermeneutics, theoretical and practical philosophy, philosophy of history, theology, theory and methodology of sociology and social work. Kocharyan is the author of 5 monographs and 50 scientific articles. Recent publications: "History and Hermeneutics. Book 1: Historical-Scientific Conception of Movses Khorenatsi", "Philosophical Hermeneutics of Hans-Georg Gadamer", "Education to Wisdom", and with co-author "Social Science And Hermeneutics: Social Work Models".
ORCID iD: https://orcid.org/0000-0002-1337-3709
E-mail: kocharyan.romik@mail.ru

Inna KOVALENKO - PhD in Philosophy, Associate Professor of Philosophy Department at Yaroslav Mudryi National Law University, Kharkiv, Ukraine. Her areas of interest include philosophy of law, theory of culture, philosophy of human rights, cultural phenomena in a post-digital society. Kovalenko have over 70 publications, including a monographs and journal articles, which are indexed in Scopus, Web of Science, Copernicus and other platforms. Recent publications: "Metamorphoses of Historicity in Modern Culture", "Socio-Cultural Reflection in Phenomenological Paradigm: Opportunities and Prospects", "The Phenomenology of Creativity in Digital Era".
ORCID iD: https://orcid.org/0000-0002-3156-9254
E-mail: kinna087@gmail.com

Ganna KRAPIVNYK - PhD, Dr. of Science in Philosophy, Associate Professor of the Department of English Philology, H. S. Skovoroda Kharkiv National Pedagogical University, Ukraine. Her areas of

interest include philosophy of culture, linguoculturology, culturology, media studies, intertextuality and sociolinguistics. Ganna Krapivnyk is the author of nearly 40 research papers, including a monograph, articles in scientometric databases, in particular, a paper indexed in Scopus and a paper published and pending for the Web of Science indexing. Among her recent publications: "Apocalyptic motifs and images in media texts on Brexit and Ukrainian elections" "Vocabulary flexibility and development promoted by covid-19 pandemic".
ORCID iD: https://orcid.org/0000-0003-1641-987X
E-mail: akrapivnik@gmail.com

Alina KRASNOVA - PhD in Philosophy, Senior Lecturer of the Department of Philosophy of Religion and Religious Studies at the Institute of Philosophy and Social and Political Studies, Southern Federal University, Rostov-on-Don, Russia. Her areas of interest include philosophy of religion, Russian religious philosophy, psychology of religion, theology, existential philosophy. Krasnova is the author of 2 monographs and 38 scientific articles. Recent publication: "Psychological Features of the Religious Faith of Christians in Modern Russian Society".
ORCID iD: https://orcid.org/0000-0002-1347-7313
E-mail: agkrasnova@sfedu.ru

Oksana KUSHLYK - PhD, Dr. of Science in Philology, Drohobych Ivan Franko State Pedagogical University. Now is currently working on the problem of deryvatology (the stem-centred approach) and syntax (the academic syntax and the functional syntax) of the Modern Ukrainian Language.
ORCID iD: https://orcid.org/0000-0001-7502-622X
E-mail: okushlyk@gmail.com

Miguel LÓPEZ-ASTORGA - PhD in Logic and Philosophy of Sciences, Professor at the Institute of Humanistic Studies "Juan Ignacio Molina", University of Talca (Chile). He is interested in philosophy of language, philosophy of cognitive science, and epistemology. Currently, he is working on the relations between syntax, semantics, and pragmatics in human cognition. That work is allowing him to find links between that theory and ancient approaches such as that of Stoic logic.
ORCID iD: https://orcid.org/0000-0002-6004-0587
E-mail: milopez@utalca.cl

Elena MALAKHOVA - PhD in Philosophy, Associate Professor in National Research Nuclear University MEPhI (Moscow Engineering Physics Institute), Moscow, Russia; postdoctoral researcher in Institute of Philosophy, Russian Academy of Sciences, Moscow, Russia. Her areas of interest include philosophy of science, philosophy of education, ethics, cultural studies. Elena Malakhova is the author of 34 scientific publications. Recent publications: "The Concept of the System and Main Paradigmatic Foundations of The System Approach", "Conceptualisation and Formation of Systemic Consideration of Crises Phenomenon Approach".
ORCID iD: https://orcid.org/0000-0002-1829-8234
E-mail: e.v.malahova@mail.ru

Mariia MALETSKA - Master of Philosophy, Doctoral student at the Department of Philosophy, Faculty of History and Philosophy, Borys Grinchenko Kyiv University. Her areas of interest include videogame philosophy, social philosophy and philosophy of education, game studies. Maletska is the author of 17 scientific publications. Recent publications: "Phenomenon of Videogame Culture in Modern Society", "Philosophical and Educational Aspects of Videogame Activity in Conditions of Online Learning", "Basic Hermeneutic Approaches to Interpretation of Videogames".
ORCID iD: https://orcid.org/0000-0003-3123-9500
E-mail: m.maletska@kubg.edu.ua

Eranuhi MANUKYAN - PhD in Philosophy, Associate Professor of Faculty of Philosophy and Psychology - Chair of Social Philosophy, Ethics and Aesthetics at the Yerevan State University, Armenia. Her areas of Philosophy of postmodernism, philosophical anthropology, socio-cultural transformations, ethics, aesthetics, socio-cultural paradoxes, philosophy of history. Manukyan is the author of 1 monograph and 8 scientific articles. Recent publications: "Systemic Transformations, Socio-Cultural Paradoxes", "Public Service Ethics, Methodical Guide", "Anthropological Implications of Information Civilization", "Terrorism in the Context of the Modern Socio-Cultural Crisis", "Socio-Cultural Paradoxes as Consequences of Systemic Transformations", "Emergency Crowd Management Perspectives. Crisis Management and Technologies", "General Description of the Binary Archetype".
E-mail: e.manukyan@ysu.am

Gevorg MARGAROV - PhD in Technical Sciences, Professor, Head of the Department "Information Security and Software Development" of the State Engineering University of Armenia, Yerevan, Armenia. His areas of interest include information security, digital economy, artificial intelligence, education management. Margarov G. is the author of 5 monographs and over 170 scientific articles, including 15 articles in SCOPUS and Web of Science. Latest publications: "Educational Potential of Internet Communications", "Interdisciplinary Competencies Needed for Engineers in the Digital Economy", and "Effectiveness of implementing Practice-Oriented Higher Education Programs Based on Stakeholders Feedback".
ORCID iD: https://orcid.org/0000-0001-5280-3743
E-mail: gmargarov@gmail.com

Nattapon MEEKAEW - PhD, Dr. of Science in Sociology, Lecturer of the Department of Social Studies at Khon Kaen University, Khon Kaen, Thailand. His areas of interest include educational philosophy, digital citizenship, sociology of education, and rural development. Meekaew is the author of 10 scientific articles. Recent publications: "Effects of Training on Creative Social Studies Instructional Innovation for Border Patrol Police Teachers in Remote Northeastern Schools", "Rural Reconstructuring and Democratization in the Northeast of Thailand", "Factors Influencing Livelihood Security among the Fishing Migrant Households at Places of Origin in Thailand".
ORCID iD: https://orcid.org/0000-0001-9765-8965
E-mail: nattaponmeekaew@gmail.com

Yuliia MELIAKOVA - PhD in Philosophy, Associate Professor of Philosophy Department at Yaroslav Mudryi National Law University, Kharkiv, Ukraine. Her areas of interest include philosophy of law, philosophical anthropology, hermeneutics, social philosophy. Yuliia Meliakova is the author of more than 80 scientific papers, among which there are publications in scientometric databases Scopus Web of Science. Recent publications: "The Problem of Deficit of Reality: a Subject of Law as the Person who is Present", "Posthumanistic Culture through the Prism of Natural Human Rights", "Semiotics of Gesture: Performative Conceptualism", "Posthuman Freedom as the Right to Unlimited Pleasure".
ORCID iD: https://orcid.org/0000-0002-0200-1141
E-mail: melyak770828@gmail.com

Nataliya MESHCHERYAKOVA - PhD in History, Dr. of Science in Sociology, Professor at Tomsk Polytechnic University and Tomsk State University. Her research interests include digitalization, digital sociology, new methods of sociological research, big data in sociology, and the phenomenon of social anomie. Meshcheryakova is the author of three monographs and over 50 articles. She has extensive experience in conducting empirical research using both quantitative and qualitative sociological methods.
ORCID iD: https://orcid.org/0000-0001-7658-7993
E-mail: natalia.tib@mail.ru

Adrian MIKHAILOV - PhD in Sociology, Associate Professor of Department "Human Resource Management" of the Moscow Aviation Institute, Russian Federation. His areas of interest include sociology of education, socio-humanitarian training of engineering personnel, social aspects of personnel management. Mikhailov A. is the author of 4 monographs and 54 scientific articles. Recent publications: "The Social Significance of Engineering Activities in the Works of P.K. Engelmeyer" and "Tasks of HR-Activities in the Context of the COVID-19 Pandemic".
ORCID iD: https://orcid.org/0000-0003-3603-8011
E-mail: adrian7@list.ru

Elena MOROS - PhD in Philosophy, Associate Professor at Krasnoyarsk Railway Transport Institute, branch of Irkutsk State Transport University, Krasnoyarsk, Russia. Her areas of interest include philosophy, political science, philosophy of education. Moros is the author of a large number of monographs and scientific articles. Recent publications: "The Education System as a Factor of Global Security", "Foundations of the Socio-Philosophical Concept of National Security", "The Education System as a Factor of Ensuring National Security" and "Values and Goals of the Modern Model of Education", "Modern Dangers in the Development of the Russian Education System and Ways to Overcome Them: Socio-Philosophical Analysis".
E-mail: moroslena@yandex.ru

Viktor OGNEVIUK - PhD, Dr. of Sciences in Philosophy, Professor, Academician of the National Academy of Educational Sciences of Ukraine, the Rector of Borys Grinchenko Kyiv University. His areas of interest include philosophy of education, educology, social philosophy. Ogneviuk is the author of more than 100 publications. Recent publications: "Developing Education as an Opportunity for Medium-Developed Countries in the Context of Innovative Revolution: A Case of Ukraine", "Ukrainian University at the Time of Exponential Development", "In Search of Educational Strategy for Ukraine".
ORCID iD: https://orcid.org/0000-0002-8671-3348
E-mail: kubg@kubg.edu.ua

Tetiana PETROVA - PhD in Pedagogics, Associate Professor of the English Department in Kamianets-Podilskyi Ivan Ohiienko National University, Ukraine. The research interests lie in the sphere of linguosemiotics, word theory, extra-linguistic studies. Recent publications: "Hydronyms as Markers of Spatial Orientation", "Reduplication of –er Suffix in Modern English Word-Formation", "Impliciticity of Rhetorical Questions".
ORCID iD: https://orcid.org/0000-0003-2607-2152
E-mail: tetyana.petrova@hotmail.com

Irina PONIZOVKINA - PhD in Philosophy, Associate Professor of Philosophy at the Department of History and Philosophy, Plekhanov Russian University of Economics (Moscow, RF). I. PONIZOVKINA is the head of the university department of the Russian Philosophical Society; the author of 120 scientific articles. Her areas of interest include social philosophy, logic, methodology of scientific research, mythological consciousness and communication.
ORCID iD: https://orcid.org/0000-0003-3392-9521
E-mail: Ponizovkina.IF@rea.ru

Nerses QOCHARYAN - Chief Supervisor at Armenian Sociological Association, Junior Researcher at the Institute of Philosophy, Sociology and Law NAS RA. His areas of interest include the history of sociology, sociology of religion, sociology of identity. He is the author of more than 8 scientific articles. Recent publications: "Revealing by the Method of Case-Study the Social-psychological Consequences of the Armenian Genocide", "Some Specific Features of Religious Situation in Armenia", "Idea of Family in Khachatur Erzrumetci "Hamarotakan Imastasirutyun" work".

E-mail: qocharyan.n@mail.ru

Anna SAMOKHVALOVA - PhD in Pedagogy, Dr. of Psychology, Director of the Institute of Pedagogy and Psychology, Kostroma State University, Kostroma, Russia; editor in chief of the scientific Bulletin of the KSU. Series "Pedagogy. Psychology. Sociokinetics". The area of scientific interests: the psychology of communication, theory of difficult communication at different stages of ontogenesis, child and adolescent psychology, psychology of well-being, family psychology. She is the author of 5 monographs, 7 teaching aids and more than 200 scientific articles. Recent publications: "Communicative Difficulties of a Child in a Multicultural Social Environment", "Structural and Functional Model of Psychological Well-Being of Modern Students".

ORCID ID: https://orcid.org/0000-0002-4401-053X
E-mail: a_samohvalova@ksu.edu.ru

Liudmyla SMIENOVA - PhD in Philological Sciences, Senior Lecturer at the Ukrainian State University of Railway Transport. She works on the problems of word formation and lexical processes in the terminological vocabulary of the modern Ukrainian language, in particular, researches into verb terms in the field of computer technology.

ORCID iD: https://orcid.org/0000-0003-4456-1582
E-mail: lsmenova@ukr.net

Ani STEPANYAN - PhD in Law, Associate Professor at the Department of Civil and Business Law at the All-Russian State University of Justice (RLA of the Ministry of Justice of Russia). Her areas of interest include business and corporate law, artificial intelligence and intellectual property law, intangible assets, bankruptcy. Stepanyan is the author of 4 monographs and 30 scientific articles. Recent publications: "Perspectives for the Use of Artificial Intelligence in Family Legal Relations: problems of theory and practice", "Private Bankruptcy: Relevant Law Enforcement Issues", "Insolvency (Bankruptcy) and Intangible Assets of Corporations: Problems of Theory and Practice".

E-mail: anistepanyan1981@gmail.com

Ibragim SULEIMENOV - PhD in Physics, Dr. of Science in Chemistry, Professor of V. I. Vernadsky Crimean Federal University (Russia). His areas of interest include logic, theory of science, history of scientific philosophy, radio engineering, electronics and telecommunications, and critical thinking, general problems of evolution. I. Suleiemnov is the author of 24 monographs and 235 scientific articles. Recent publications: "Distributed memory of Neural Networks and the Problem of the Intelligence`S Essence", "New application of Non-Binary Galois fields Fourier Transform: Digital Analog of Convolution Theorem", "Dialectical Understanding of Information in the Context of the Artificial Intelligence Problems".

ORCID iD: https://orcid.org/0000-0002-7274-029X
E-mail: esenych@yandex.kz

Lia TEVOSYAN - Lecturer of Law Department at the Eurasia International University, Armenia. Her areas of interest include constitutional law, intellectual property, copyrights, artificial intelligence, plagiarism, self-plagiarism. Tevosyan is the author of 4 scientific articles. Recent publications: "The Essence and Concept of Author Rights", "Legal Regulation of Self-plagiarism in the RA", "The Issues of Legal Regulation of Artificial Intelligence in The Context of Copyright", "Plagiarism as a Challenge: a Reminder for Academic Circles".

E-mail: lia.tevosyan@gmail.com

Alexey TIKHONOV - PhD in Technical Sciences, Associate Professor, Head of the Department "Human Resource Management" of the Moscow Aviation Institute, Russian Federation. His areas of interest include company personnel management, various aspects of education management, as well as complex scientific research based on an interdisciplinary approach. Tikhonov A. is the author of 8 monographs and

more than 450 scientific articles. Recent publications: “Higher Education in Russia: Challenges of the Time and a Look into the Future”, “Psychological Features of the Personality of Students Of Different Specialties”, and “Socio-Economic Development of Russia”.
ORCID iD: https://orcid.org/0000-0002-6095-1620
E-mail: mai512hr@mail.ru

Liudmila VASILENKO - PhD in Philosophy, Dr. of Science in Sociology, Professor of the Institute of Public Administration and Management of the Russian Presidential Academy of National Economy and Public Administration. Her areas of interest include sociology of an information society; fractal approach to the formation of the methodology of cross-disciplinary synthesis of knowledge; social self-organization; synergetics; gender; theory of complexity; institutes of civil society; openness of State Governance. Vasilenko is the author of 24 monographs and more than 100 articles.
ORCID iD: https://orcid.org/0000-0002-0468-8194
E-mail: vasilenkola@mail.ru; la.vasilenko@migsu.ru

Nataliia VINNIKOVA - PhD, Dr. of Sciences in Philology, Professor, Vice-Rector for Research of Borys Grinchenko Kyiv University. Her areas of interest include philosophy of education, quality assurance in education, communication and internationalization. Vinnikova is the author of more than 70 publications. Recent publications: “Methodical Tools for Security Level Diagnostics of the Modern University’s Activity”, “Trade in the Decade Following the Collapse of the USSR”, “Control of the Quality Assurance System at the Modern Ukrainian University”.
ORCID iD: https://orcid.org/0000-0002-5162-4150
E-mail: n.vinnikova@kubg.edu.ua

Elizaveta VITULYOVA - PhD in Radio Engineering, Electronics and Telecommunications, Senior Lecturer of the Department of Radio Engineering, Electronics and Telecommunications of the Almaty University of Power Engineering and Telecommunications (Kazakhstan). Her areas of interest include logic, theory of science, radio engineering, electronics and telecommunications, and critical thinking. Vitulyova is the co-author of 8 monographs and more than 75 scientific articles. Recent publications: “Distributed Memory of Neural Networks and the Problem of the Intelligence`S Essence”, “New Application of Non-Binary Galois fields Fourier Transform: Digital Analog of Convolution Theorem”, “Dialectical Understanding of Information in the Context of the Artificial Intelligence Problems”.
ORCID iD: https://orcid.org/0000-0002-6075-4870
E-mail: lizavita@list.ru

Svetlana ZAKHAROVA - PhD in Social Sciences, Associate Professor, Department of Regional Management, the Russian Presidential Academy of National Economy and Public Administration, portfolio page: http://igsu.ranepa.ru/person/p6765/, Moscow, Russia. Her areas of interest include sociology, sociological methodology, social relations and processes, common problems of modern sociology. Zakharova is the author of 1 monograph and more than 25 scientific articles. Recent publications: “Moscow State Crowdsourcing Projects: Stakeholders and Configuration of Networks”; “Digital Maternity of Regional Public Authorities as a Base for Modern Public Governance”; “The Participatory Governance: The Public Authorities and Social Network Actors Interaction”.
ORCID iD: https://orcid.org/0000-0002-8191-6584
E-mail: sa.zakharova@igsu.ru

Vitaliy ZAVADSKYI - PhD in World History, Associate Professor, Vice-Dean of the Faculty of History and Philosophy, Borys Grinchenko Kyiv University. His areas of interest include social history, communication, management of education. Zavadskyi is the author of more than 30 publications. Recent publications: “Methodical Tools for Security Level Diagnostics of the Modern University’s Activity”, “Uncer-

tainty as a Regular Feature of Modern Ukrainian Society", "European Union Enlargement in 2004: System Analysis of the Benefits and Losses".
ORCID iD: https://orcid.org/0000-0002-0384-5979
E-mail: v.zavadskyi@kubg.edu.ua

Svitlana ZHDANENKO - PhD in Philosophy, Associate Professor of Philosophy Department of Yaroslav Mudryi National Law University, Kharkiv, Ukraine. Her areas of interest include philosophy of law, theory of culture, philosophy of human rights. Kovalenko has over 70 publications, including collective monographs and journal articles, which are indexed in Scopus, Web of Science, Copernicus and other platforms. Recent publications: "Attribution and Modality of Responsibility in the Information Society", "Performance in the Postmodern Culture and Law", "Performance in the Methodology of Philosophy of Law", "Problems of Adaptation of a Man to the Conditions of Information Society".
ORCID iD: https://orcid.org/0000-0003-4335-8224
E-mail: svetlana.zdanenko@gmail.com

Vitaly ZOTOV - PhD in Philosophy, Dr. of Science in Sociology, Professor at the Department of Philosophy, Educational and Scientific Center for the Humanities and Social Sciences, Moscow Institute of Physics and Technology (National Research University). He has publications, including in the form of monographs, which consider the organization of the information and communication environment in general and the socio-network space in particular, the impact of these processes on the transformation of public administration. He is the author of 4 monographs and more than 150 articles.
ORCID iD: https://orcid.org/0000-0003-1083-1097
E-mail: Om_zotova@mail.ru; zotov.vv@mipt.ru

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1(21), 2022

Լրատվական գործունեություն իրականացնող՝ «Խաչատուր Աբովյանի անվան
հայկական պետական մանկավարժական համալսարան» հիմնադրամ
Վկայական՝ № 03Ա1056715, տրված՝ 19.04.2016 թ.
Հասցե՝ Երևան 010, Տիգրան Մեծի 17
Համարի թողարկման պատասխանատու՝
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1(21), 2022 issue of WISDOM is dedicated to the 100th anniversary of Khachatur Abovian Armenian State Pedagogical University

The Teacher-training Alma Mater celebrates its 100th anniversary.

For 100 years, the Pedagogical University has been welcoming people committed to the teaching career.

For the first time and in the jubilee year, the University administration will be bestowed on a female Rector. On March 19, Professor Srbuhi Gorgyan was elected the 19th Rector of ASPU.

Yerevan State Pedagogical Institute – 40 years ago, in 1982.

One of the most exciting corners of the 100-year-old University is the University History Museum.

2 out of 10 faculties are committed to culture and art education – the Faculty of Art Education and the Faculty of Culture. The Faculty of Art Education passage in the photo is popular with the whole University community.

This is one of the three Art Education on-the-campus galleries and lecturing halls, where the works of the lecturers and famous graduates of the Faculty are on show.

The Faculty of Art Education also trains fashion designers. Moreover, the graduation collections are assessed on runway shows held by most high-end fashion rules.

A scene from the regular concert programs of Dance Pedagogy Department students of the Faculty of Culture.

The publication has been endeavoured by Khachatur Abovian Armenian State Pedagogical University Foundation
Certificate № 03A1056715, issued 19.04.2016
Address: 17 Tigran Mets Ave., Yerevan 0010, RA
Phone: (+374 10) 59 70 65; Fax: (+374) 59 70 08
E-mail: wisdom.periodical@gmail.com
Official webpage of the Periodical: http://wisdomperiodical.com
Responsible for the issue: Hasmik HOVHANNISYAN, Editor-in-Chief
Print run: 200
Number of pages: 237