



# Heterologous Dimension of the Other Sociality in the Cognitive Space of Uncertainty

Bakhyt Zharmukhamedovna Zhussupova<sup>1</sup> · Baizhol Iskakovich Karipbayev<sup>1</sup> · Galiya Azirkhanovna Zhumassultanova<sup>1</sup> · Madina Maximovna Umurkulova<sup>1</sup>

Accepted: 10 July 2022 / Published online: 4 August 2022

© The Author(s), under exclusive licence to Springer Science+Business Media, LLC, part of Springer Nature 2022, Springer Nature or its licensor holds exclusive rights to this article under a publishing agreement with the author(s) or other rightsholder(s); author self-archiving of the accepted manuscript version of this article is solely governed by the terms of such publishing agreement and applicable law.

## Abstract

Contemporary society is presented as a model of other sociality demanding extraordinary methods of research in the cognitive space of uncertainty. This article aims at analyzing a heterologous paradigm of postnon-classical social philosophical discourse and how it applies to the socio-philosophical context of modernity by using cognitive and heuristic capabilities of social heterology which explain the uncertainty principle of social cognition in other sociality. The diversity of the other sociality is characterized by structural non-linearity, disequilibrium, rupture, decentralism, and lack of a unified systematic principle. In their research, authors highlighted the two different approaches to analyzing the social structure: the classical ontological and post-non-classical heterologous one. Philosophical and scientific sources of European and Russian traditions were used to suggest new revolutionary post-non-classical methods and social paradigms emphasizing the heterogeneous pattern of contemporary, unexpected and even unpredictable society. Transition to social heterogeneity is attributed to the uncertainty principle in extraordinary processes of social self-development. The authors' position is that the heterologous dimension of sociality approaches the complete understanding of social life's contradictions of a modern human not only in a cognitive perspective but also in a practical one to define humanistic social policy.

**Keywords** Other sociality · Uncertainty · Heterogeneous pattern · Post-non-classical methods · Modern society · Decentralism

---

✉ Bakhyt Zharmukhamedovna Zhussupova  
zhusupova2013@mail.ru

<sup>1</sup> Karagandy University of the name of Academician E.A. Buketov, University street 28th, Karaganda, Kazakhstan

## Introduction

Contemporary communities are explicitly characterized by “other sociality” (Kerimov, 1999). Today’s society is explicitly presented by diversified sociality. The main attributes of the heterogeneous society are distinction, singularity multiplicity, and de-centrality. Contemporary social development refutes reductionist classical adjustments of social philosophy on monotony and integrity of the human being and argues their insolvency, lifelessness and even inhumanity due to their ignorance of human life quality.

The classical arrangements of social philosophy demonstrate their limited understanding of the quality of human life considering an individual as a formal subject of human history. The humanitarian nature of reflection started to play a significant role in overcoming the classical subject-object reception and turn more to subject-subject one, to meta-reflection, and finally to self-knowledge. According to the Russian psychologist Asmolov, the humanitarian pattern of reasoning is conceivable if the transcendent method of social research is abandoned which is congruent with going beyond the human limits (Asmolov, 2002).

This renouncement is associated with Martin Heidegger who contributed to the ontic turn of social-philosophical discourse, resulting from the two basic models, the ontological and heterologous, use to describe the social being. **The ontological approach** is concerned about the indispensable correlation of the social being with some transcendental and ideal basis which is singular and not plural (Bertrand, 2017). This is a view of society from above. Contrarily, **the heterologous mode** does not search an absolute source of society, a hegemonic principle and center which are beyond the entity. This approach interprets society where *differences*, not similarities, are its main attributes, linear development and social organization are disputed, and multidimensional relationships derive relativism, initially legitimizing the ambiguity principle in cognition. This is a view of society from below, from the analysis of self-organizing social processes. It is not about overabundance of truth in social knowledge but the search for a new paradigm and methodology of modern society knowledge in growing ambiguity.

The ambiguity principle of social cognition is caused by various factors, the main ones being prognosis and prediction. We are on the threshold of an absolutely new social reality to which we are not ready. The future of the modern world is less presented in the perspective of bright hope, causing future shock, existential horror because as A. Toffler asserts, “there must be a balance not only between the rate of change in different sectors, but between the rate of change in the environment and the limited rate of human reaction. The reason for the future shock is the growing gap between them” (Toffler, 2002). From the point of view of a number of futurologists L. Mumford (Mumford, 2001), A. Peccei (Peccei, 1980), J. Lanier (Lanier, 2020), E. Webb (Webb, 2019), modern civilizations and cultures are mired in a crisis, near the points of bifurcation. The growing processes of trans-humanism; the colossal decline of spiritual values due to technocratization and capitalization of society; the criminalization of society, the growth of consumerism, economic egoism; separatism, super-individualism, utilitarianism and many other things, are unconditional evidence of this. The terrible pandemic of the coronavirus Covid-2019 that unfolded before our

eyes, economic sanctions policy, paralyzing the whole world, further exacerbated the problem of uncertainty in future existence and development of humanity.

*Habitual* human relations are disrupted in anticipation of modern social dynamics and, the most important the primary human orientations are destroyed. These are contemporary to increasing human individualization in social development contributing to its release of traditional social relationships and values. Civilizational shifts make individuals more autonomous and independent to choose own aims and actions, to construct their own identity and morality. It is confirmed by contemporary processes of intensified multiculturalism in its various manifestations as well as multiconfessionalism, multiethnicity, activation of minorities and others. This diversity “on historically high level” led to various modern problems such as family crisis, bilingualism, marginalism, separatism, religious extremism and neotribalism. There are researches of European scientists related to interethnic tensions in Europe due to increasing ethnic minorities. Laurence claims, that “with immigration and diversity at historically high levels across many developed countries there is a need to focus on the strategies available to address possible emergent tensions” (Laurence, 2018, p. 720).

New practical and theoretical strategies are required for decentration of society. Society is no longer monotonous and homogenous. It becomes non-equilibrium and heterogeneous. It is qualitatively a different world to compare with the near past. Its factor of uncertainty has increased and the ambiguity principle has become more evident.

Therefore post-non-classical science followed the periods of classics and non-classics in the evolution of scientific knowledge with primary categories such as “ambiguity”, “deterministic chaos”, “fractal”, “self-organization” and others. Ambiguity is the actual scientific and philosophical problem.

Mostly it is concerned with social sciences which are aimed not only to explain but also *to understand* a human in the whole and polysyllabic essence. Today’s society is plural and polyphonic; it is presented in a variety and diversity of multivector processes, ideas, life positions, ideological aspirations including polar, reactionary, constituted from different centers that do not have responsibility for the whole society. Society is not monolithic and its main attributes are narrow aims, fragmentation and superficiality of relationships, nexus instability, intensification of irrationality, indeterminacy of social development that has challenged the possibility of harmonious human coexistence. Additionally, the modern tensed political situation connected to discontinuity of social being and consciousness is discomfort for human existence itself.

In spite of processes of globalization, the modern society is not correlated to basic positions of classical social paradigms searching the united backbone principle of social life and total metaphysics which *is defined* by all social processes by some general higher *over-human* principle of existence and development. T.Kh. Kerimov, referring to Heidegger, indicated this metaphysics as onto-theology (Kerimov, 2015).

Despite traditional metaphysics, the modern society does not lead to a general basis as criterion of distinctness. It is the other naturalness, “other sociality”, and other “humanity”. The modern society is divided on the basis of various parts which are not constituent; they are *the others* to each other. “Other humanity” as the problem

of morality in the aspect of ambiguity is mostly manifested, for instance, in deontology of legal science and practice when human life is put on the line. The issue is that criminal penalty is considerably complex in modern heterogeneous society due to a variety of indefinite factors, according to general positions of deontology. It is required to adapt rationally deontological (ethical) theory to various illegal situations (Lazar, 2018). In this case the concept “responsibility” is significant which if it is analyzed by J. Derrida’s deconstruction method is immanent to the concept “irresponsibility” (Kerimov, 2016).

### From Classics to Post-non-classics

To confirm it, T.Kh. Kerimov argues that “architectonics of modern social life is not one-dimensional and monotonous today but it is multidimensional and versatile. All these facets are affirmed in this world taking into account other “possible worlds” Society was always heterogeneous but presently heterogenization is not only a fact but also a considerable problem’ (Kerimov, 1999) in virtue of its growing uncertainty.”

Social philosophy is in the same heterogeneous condition as that of social reality itself. According to M. Mamardashvili, “the most difficult thing in modern reflection is getting used to consider the world not as complete and predetermined for understanding... The philosophical evolution occurs when something is disrupted in this conquered felicity, in this ontological rootedness of a human, hence this question (atleast, this question provokes rethinking): does the world of laws and predetermined essences exist?” (Mamardashvili, 2002).

This question has become the stumbling-stone between classical, non-classical and post-non-classical paradigms evoking the conflict of previous scientific adjustments of searching social life’s unified principles and humanitarian approach with the new ideas such as “discourse”, content”, “narrative”, “episteme” and “concept”.

The concept of changing the types of scientific rationality that correspond to the classical, non-classical and post-non-classical paradigm was proposed by V.S. Stepin (Stepin, 2013). The classical paradigm, claiming to be objective and representative, makes cognition the main object; the non-classical paradigm, on the contrary, shifts the focus to the cognizing subject, emphasizing the subjective nature of knowledge. As a consequence, classical science reduces the world in contrast to non-classical science, which claims the complexity of the subject’s life world. At the same time, both types of rationality are equally within the boundaries of fundamentalism, metaphysicality, the search for an absolute basis for cognition, which is categorically opposed by the post-non-classical one, which refutes metaphysical concepts as being based on the “principle of unfoundedness” (Meillassoux, 2008). Moreover, it is an important point that the post-non-classical paradigm refers not to anti-fundamentalism as the antipode of foundation, but to post-fundamentalism, which asserts not the absence of a foundation, but its random nature, the plurality of being. The post-non-classical social paradigm overcomes metaphysics.

Sociality is not a common being, not distributed among all, but divided between events. The difference is the primary principle of the cognitive construction of social reality. The main attribute of post-non-classical philosophy is the concept of “differ-

ence”. The “philosophy of identity” is replaced by the philosophy of “difference”, the linear understanding and vision of the world is replaced by a nonlinear one. Therefore, fundamentally new attitudes are formed in the cognitive space, constituting a different understanding of the dynamics of the world, different images of cognition, a different vision of deterministic connections, dictated by a departure from fundamentalism.

The post-non-classical paradigm indicates the elimination of the subject and the object, as a result of which the absolute observer disappears and a close intertwining of the subject and object, equivalence, equal positioning occurs.

Structurally, the paradigm of classical philosophy clearly differentiated and drew a clear demarcation line between different areas of philosophical knowledge (ontology, epistemology, social philosophy, philosophical anthropology, philosophy of history, etc.). In the conceptual-categorical matrix of the post-non-classical social picture, the concepts of instability, nonlinearity, disequilibrium, irreversibility, self-organization, coevolution and others that were present in the classical and non-classical sciences, but did not have much significance, are fundamental. Their actualization is caused by social global evolutionism, which requires new cognitive conceptual constructs.

The objects of study of post-non-classical social philosophy and science are unique, non-equilibrium, complex systems that actively interact with the external environment and exchange energy and information with it. Thus, the main interest is in self-organizing, open systems. Therefore, the post-non-classical social paradigm is forced to overcome the old, outdated social-cognitive attitudes that do not meet the challenges of modern social life, primarily by changing the cognitive methodology and conceptual apparatus. As a result, informational, activity-based, synergetic, heterological and other methods appear.

The same thing happens in the sciences. By the birth of non-classical science at the turn of the XIX - XX centuries, classical natural science revealed its limitations and inability to explain the latest scientific discoveries. A fair question arose before scientists: “Is there a ready-made world of laws and predetermined essences?” The answer to it changed as the view of man’s place in the space of being and cognition changed, when in the process of epistemological evolution, various research paradigms arose. Until now, this place has not been finally clarified.

The classical paradigm strongly advocated a predetermined world of essence and given laws, in which a person appears as a subject capable of objectively reflect it. The non-classical paradigm, on the contrary, reveals science as the creative result of cognitive subjective activity. The post-non-classical paradigm eliminates the previous metaphysical constructs, excluding any predestination, and affirms fractal being as co-being.

Many works of social researchers have been written about the dissonance of socio-philosophical discourse, among which one can especially note the studies of V.S. Stepin (Stepin, 2016), M. Mamardashvili (Mamardashvili, 1994), T.Kh.Kerimov (Kerimov, 2015), T.Kh. Kerimov (Kerimov, 2016), M. Malkay (Malkay, 1979) and R. Merton (Merton, 2006).

Asserting classical positions, S.M. Zhuravleva and A.V. Ivanov claim that modern social philosophy has become pseudoscientific humanitarianism, turning knowledge into diverse views and resonating with the Latin term of taking the shape of “sectar-

ian caves” which temptations need to be coped with: 1) the enticement of innovation because the truth of what is known is better than the new absurdity; 2) temptation of pretentious terminology when the complex language is fascinating yet hindering a creative thought; 3) temptation of originality, i.e. the cult of subjective opinionion whichin most cases “the author dies”, but fashion philosophers and an ordinary fear to be out of date play the lead” (Zhuravleva & Ivanov, 2017). However, it is assumed that the authors do not criticize ‘the linguistic turn’ of the contemporary Western philosophy in hermeneutic context. The most disapproved is the Western terminology dedication, pretentiousness and intricacy of new philosophical language.

It is assumed that this opposition to “sectarian caves” is the external view of the pivotal ontological turn of Western philosophy related to the Heidegger’s deconstruction of metaphysics that expresses the clam of classical philosophy to exclude any uncertainty in social cognition. “Newspeak” of contemporary philosophers does not mean their shocking and eccentricity but their understanding of the complex essence of a human being.

Currently there is not solid social-philosophical theory on heterogeneous society (Kerimov, 1999) but such conception is required to go out of metaphysical basis. This basis should be looked for inside the society/ Traditional philosophy viewed human existence from above, from a bird’s perspective, which, undoubtedly, allows us to outline the contours of human life, but, alas, only the contours.

Contours of human beings were diffused due to increasing level of mediated social relations social interactions where language is the primary factor in its broad meaning. The idea of “the author’s death” by Roland Barthes (Bart, 1994) is methologically interpreted in such “heterologous way” when he wrote in his similar essay on narrative tyranny of the author to understand the essence of literary work (social action) bereaving creative perception of human entity. Analogically, Michel Foucault suggested the new methodology of humanitarian knowledge as archeology of knowledge about a human (Foucault, 1996).

‘Archeology of Knowledge’ (Foucault, 2002) is the deep analysis of discourse related to the “digging” of thick levels of the dead human language (culture) under which a living person and his activity are “buried”. Discourse analysis is based not on origin of discourse but on systematic research of discourse as practice shaping objects of discourse. According to Foucault, there is no progress and entity in human history. This explains Jacques Derrida’s ideas of deconstruction (Derrida, 1997) which imply understanding of a text by disruption stereotypes or including it in the new context assuming a heterologous approach to the text.

Gregory W. Dawes wrote on heterologous approach to contemporary scientific cognition: “Success of sciences is also dependent on existence of the society with differentiated norms and procedures. These procedures are both collective and individual: the success of science cannot be understood by placing an individual thinker face to face with the world, no matter how sophisticated he thinks and tries to experiment” (Dawes, 2017). Thus, the thinker convinces that science is a social procedural approach to the problem, legitimizing the heterologous multiplicity of the reality.

To continue the idea of procedural scientific knowledge, Platonova S.I. noted that modern social-humanitarian knowledge has synergistic natural scientific principles, categories and approaches (Platonova, 2017) as synergetics, for instance.

Synergetics permeated into social and humanitarian knowledge in the late 20th century and contemporary social philosophy indicates it as one of the newest social paradigms. According to synergetics, post-non-classical society is the evident dissipative and explicitly open self-organized system where chaos, “instability”, “permanent crisis”, “turbulence”, “networked individualism” play their particular role (Shevlov, 2016).

Every social system in its evolution attains definite points of “divergence” that are critical in its development where further ambiguity in development grows with dynamics of this development. All insignificant and even microscopic randomness moves to macro level in such moments of historical development. For example, a small extremist group can be a real hazard for the whole world or a small-minded policy of state results in critical consequences. It is particularly necessary to use laws, principles and rules of co-evolution of complex self-developed systems, their co-existence and mutual functioning in these hazardous conditions for humanity. The main obstacle here is the principle of homogenization (alignment) of systems, reduction and blind extrapolation.

Researchers are increasingly claiming interdisciplinarity in its variety as a key direction for further knowledge development (Uskali, 2016a) which raises the problem of hybrid modeling (Rolf, 2017). Uskali Mäki sees “heterogeneity” in multidisciplinary: “There are a lot of sources and varieties of this heterogeneity where most disciplines are multidisciplinary for as much as their types of activity include its multidisciplinary traffic or cooperation and it is encouraged by local conventions and reward structures in these disciplines” (Uskali, 2016b).

Contemporary social scholars are more inclined towards plurality of social and humanitarian theories (Stepin, 2016) and multiparadigmality (Platonova, 2017) than on multidisciplinary. This means the unity of classical, non-classical, and post-non-classical paradigms. Alongside the idea of polyparadigmality of social and humanitarian knowledge, the possibility of co-existed competed social theories, the concept of sociological meta-theory and the principle of societal evolutionism (anthropological social and cultural (ASC) evolutionism) (Lapin, 2018) emerged (Deviatko, 2017). They reflect the mosaic aspect of postmodern world, which violates the classical “idyll” of social and human structures.

To accept and understand the postmodern world, one can use different approaches and conduct research in different paradigms. For example, in modernity we are talking about the priority of Social philosophy over the private, about the declarative and abstract understanding of both freedom and the individual as a generic being. The postmodern society, on the contrary, develops the individuality and freedom of a person, immersing him/her in situations of permanent choice and risk.

In addition to the hybrid modeling of social and natural science knowledge, we are also talking about the pluralism of theories of social and humanitarian knowledge and multiparadigmality, or polyparadigmality. We are talking about the unity of classical, non-classical and post-non-classical paradigms. The polyparadigmatic essence of social philosophy indicates the inadmissibility of the hegemony of any social theory. This is not about opposing paradigms, but about supplementing them in the study of various sections of social reality, solving certain types of tasks, scales. So, if the task is to trace the general, global trend of social development, one can rightfully apply

the classical paradigm. If it is necessary to analyze the value components of social life, then it is possible to turn to non-classical methods of research. To understand the singular aspects of human life, the specific basis of social processes in the conditions of the rapid, intense flows of modernity, fraught with social cataclysms, human-dimensional tactics of social cognitions are necessary. In this sense, social theory and social practice are interdependent, ambivalently influence and change each other, being in a state of heterogeneity.

Theories of classical social discourse manifest the priority of the general over the particular, of society over the individual social reality, eliminating it. Congruent to this, a strict social structure, explicitly represented by social institutions and social facts, is declared to be the subject of social research. According to the classical paradigm, social structures dominate live communication. The concepts of “social system”, “social structure” exist in absolute isolation from their carriers. It explores society from above, metaphysically.

Contrary to the classical type of rationality in science with an explicit ideal of objectivity and impartiality, non-classical science begins to understand itself as the result of the cognitive activity of the *subject*.

Non-classical social science discovered that in the rigid subject-object dichotomy of the classical type of rationality, the subject of social action was lost as the bearer of his own life world.

*The post-non-classical social paradigm overcomes metaphysics. It rejects fundamentalism.* It understands sociality not as a pre-established sociation, but as a way of linking singular units devoid of commonality. Such sociality manifests to heterology, an ontology based on difference. It focuses on the living procedural nature of human life. It explores society from below.

The French philosopher, professor of Strasbourg University, Jean-Luc Nancy in his book “Being singular plural” claimed on his ambition to change “the first philosophy” extrapolating it to a human in the following way: humans are “such a kind whose existence is manifold, dispersed and uncertain in its generality. This existence is seized only in the paradoxical simultaneity of all complexity (anonymous, intricate, voluminous) and disperse singularity” (Nancy, 2004).

The Slovenian thinker Slavoj Žižek reflects in the same way, suggesting the idea of social reality discontinuity which was transformed into virtual social reality in the modern world but he supposes that the problem of virtual reality is banal. He is interested in the issue of *reality of virtual*. “Virtuality is very concrete thing but, on the whole, it is nothingness simultaneously. It is the specific effect of real and it is the real problem” (Zbrozhek, 2012). In other words, the social space where a human exists is real virtuality. The real virtuality is the most problematic register of virtuality but it determines ontology of discontinuity for us. Real is not a thing but discontinuity is on the way to it (Zbrozhek, 2012). The Slovenian philosopher says on the ideas of discontinuity, schism, and decenteration of the subject are consonant to the existentialist concepts of Heidegger, Camus and Sartre.

As mentioned above, the ‘ontological turn’ started from Heidegger, from ontological bases of being to ontic ones setting the heterologous orientation of social philosophy and transforming ontology as the exploration of not ‘being as being’ but ‘being related to ... human being’ (Kerimov, 2015) which is a priori excluded unambiguous

certainty. In this context the traditional social philosophy absolutized the transcendental method of going beyond a human and becoming suprahistorical and suprahuman. Consequently, it was not capable of clarifying the humanitarian part of a social being and the entity of human life. It was not capable of teaching people to live as humans (Kemerov, 2001), ignoring the disequilibrium and contingency of the human being.

The contingency of reality is stated in the concept of post-fundamentalism which “the strongest version” is related to “the principle of unfounded’ of Quentin Meillassoux that is, the principle of equal and indifferent opportunity of things (Kerimov, 2015). According to Meillassoux, “...everything must have an opportunity not to be and/or to be the other without any basis’ (Kerimov, 2016a). He deduced the facticity principle where ‘facticity’ is “the absence of the reason for reality’ (Kovalets, 2015). Post-fundamentalism motives postulate not the absence of foundation but the accidental nature of the basis and being multiplicity. Alain Badiou noted it by interpreting being as infinity of multiplicities. “If ontology of the One is theology, then ontology beyond onto-theology is ontology of multiplicity” (Kerimov, 2016b).

To continue the post-fundamentalist idea with synthesis of ideas of synergetics, the hypothesis of the informational-resonance nature of radical transformations has emerged in the modern world. It is represented in the following: “individual effects and local structural changes (anomalies) are caused by wave variable informational impulses intruded into the structure of social interactions as the “cell” (elementary system) of social system’ (Ignatyev, 2017).

## A Shift in Ways of Conceptualizing the Social

### Community Ontology J.L. Nancy

French researcher J.L. Nancy calls to turn away from social philosophy, mixed with metanarratives, and to make it primordially humanitarian, to rediscover a person, to remake the “first philosophy” (Nancy, 2004).

Classical philosophy tore up the social space, and a person found himself/herself in this gap. To open a person, according to the thinker, means to move away from the traditional meaning of understanding the world as a single, finite horizon. It is necessary to turn, following Nietzsche, to man’s infinity, to his openness to the world.

The modern society appears in the form of a complex, meaningless proliferation, in which the multiplicity is locked in the meaninglessness of human life: “What does this proliferation, which has no other visible meaning, except for the endless multiplication of centripetal meanings, and does not radiate out anything but destruction, hatred and rejection of existence, want from us?” (Nancy, 2004). This artificial, civilizational construction is lifeless, divorced from the existence of man, from the existence of people, while true human existence is co-existence, which everyone has: “the essence of being exists only as a co-essence” (Nancy, 2004). Not first being, and then adding us to it. “Together” is the being of man. There is no being at all, each being is defined in being with others.

A priori that there is no singularity outside of multiplicity means that, the singular is in its being - with many. But this does not mean that the singular in such a unity with many acquires additional qualities. The singular is the singular, distinct from

other singularities. The combination of singularities is also singular. This is society, being together, the meaning of which has yet to be revealed.

### **Construction of Social Reality by J. R. Searle**

In his “social ontology” John Rogers Searle tries to reconcile the cognitive attitudes of classical rationalism and the principles of “humanization” in cognition. At the same time, the absolute goal is not to preserve the position of classical rationality, and in this, the thinker discovers a methodological problem.

J. Searle turns to the analysis of the “functionality” of social formations (Searle, 1995). If causality takes place in the natural environment, then in social reality causality appears in the form of a functional dependence of subjects, processes and states. This means that social education is a structurally organized whole that exists and is reproduced as such in the minds of individuals.

Constantly constructing, reproducing social reality, individuals endow social processes, objects, relationships with certain functions and coherent processes of their life.

### **Bruno Latour's Actor-network Theory**

Unlike J.R. Searle, who does not directly declare the procedurality of social construction, Bruno Latour's actor-network theory explicitly contains a heterological concept, according to which society is not an ontologically given integrity, as it is a set of coexisting singularities that form a “heterogeneous network”. When studying society, Latour suggests “following the actors themselves, by trying to understand their often extravagant innovations” (Latour, 1987).

The actor-network theory testifies to the transition, the shift of the traditional study of society towards a new social ontology, into a new heuristic paradigm that allows for a wide horizon of possible options for social development, containing sources of uncertainty.

### **Assembly Theory M. DeLanda**

The modern American philosopher M. DeLanda speaks about the heterogeneous nature of the social structure of society as an assembly in his work “Intensive Science and Virtual Philosophy”, who, with the help of mathematical concepts, builds an ontology of space and time that is different from classical metaphysics.

“Assembly” is a mechanism for the emergence of many systems that are self-organizing. This is a kind of sociogenesis in which there is a transformation of struggling ways of existence, as a result of which new formations are formed. As a result of assembly, the object changes its own shape, which coincides with the environment in which it resides (DeLanda, 2006). Thus, the object changes its shape to a new one.

## The Theory of Practices by M. de Certeau

Modern socio-philosophical discourse, focusing on singularity and humanism, is marked by an increased interest in the analysis of human everyday life. On the one hand, everyday human life unfolds directly before our eyes, but at the same time it is veiled by the eventfulness in which a person is realized. In other words, if earlier everyday human life was considered as a background against which a person acts, then in the mainstream of post-non-classical socio-philosophical intentions of everyday life, the role of the dominant of social life is assigned.

The interest of modern social theory in the analysis of a person's everyday life is due to the need to humanize it, since society produces a person in his daily actions and practices.

The main work of the thinker is called "The Practice of Everyday Life". In it, M. de Certeau deduces the idea that through the analysis of everyday life, a radical change in the relationship between social theory and social practice will take place.

The thinker discovers that even within the rigid boundaries of the social rules of production, consumption and behavior established by those who have power and resources, under the conditions of the strategy of the "strong", the "weak", the individual develops and implements tactics of resistance. The main weapon of the "weak" is cunning ingenuity based on dexterous, unpredictable tricks, improvisations, recombinations, including parasitic practices.

Such creativity is possible with the ability to see the familiar with a different look, temporarily changing the stable order. Thus, this demonstrates that obedient individuals who do not have the resources to openly resist "force" are by no means passive units within the framework of the manufacturer's set of guidelines and rules, but have the potential for creativity in their social practice, as a result of which they are able to gain their own benefit, creating a space of "anti-submission" (Certeau, 1984).

Interpersonal relations in a situation of instrumentalizing influence of society and power attract great attention of de Certeau. Any state system tries to comprehensively research the existence of members of society in order to control them. The practice of everyday life allows them to go towards freedom, towards resistance. "Trick", "tactic", "cunning trick" - these are the words that the author uses to describe these interactions. These interactions are manifested in the daily activities of a person - at work, shopping, visiting, watching movies.

Usually everyday activities are associated with routine, consumption, inertia. However, de Certeau denies the passivity of individual. He says that when consuming, we not only follow certain rules, but analyze, interpret them, change, correct them. This is how the freedom of a person is formed - from the interpretation of the rules of social behavior, from the adaptation of one's life to them. Author shows that individual is always inventing and changing his ways of doing things in order to master and appropriate space and go beyond the rules of consumption. Being within the given norms of consumption, a person makes the smallest and not always conscious changes in these norms. De Certeau calls this process "appropriation", or "artistic action" when the "weak" uses the laws of the "strong" for their own needs. The "weak" can defeat the "strong" with creativity, cunning, ingenuity, sometimes using parasitism or the strategy of a hunter. To do this, a person ("the poet of everyday

affairs”) moves through the space controlled by the authorities. Even if person cannot become a producer of resources, he/she can change the ways and extent of their consumption. This allows the individual to resist the dominant economic order.

Everyday practices are imperceptible, unpredictable, temporal, so it is difficult to subject them to control and statistical analysis. They fall out of the system and undermine its total power. On the one hand, everyday life is one of the characteristics of a social system. On the other hand, it is the source of its transformation, a special practical rationality.

De Certeau points out the difference between “place” and “space”. Place is an organized, orderly, stable, “true” position of objects. Space arises when objects move; it has an anthropological and existential character. The space is formed by people, establishing relations between objects and semantic connections between them. Through practical, slightly reflective actions, a link is formed between everyday life and the institutional order.

In addition, De Certeau shares the tactics and strategies of everyday life. Strategy is the assertion of one’s own place, one’s strength, power. The strategy is used by political, economic and scientific rationality. Tactics comes from “lack of place” and time. It is based on creative activity, improvisation, approximation, operating with improvised means of “weak” people.

### **Heterological Paradigm of Social Cognition**

Thus, as a result of our analytical study of modern concepts of socio-philosophical discourse, the conclusion that arises is that sociality is not given in a ready-made form. Sociality is procedural. The modern world is represented not by the world of facts, but by the world of processes and relationships. The social is thus established from itself, from the singular being of man. Modern sociality is no longer an object or idea, it is the co-existence of various existences, singularities.

Singularities do not have a common being; they are united only by the escape of being. Sociality is not a shared spatial and temporal reality. Sociality is “being-together”. Individual being is separation. Individual being is a co-being, for the description of which heterology is needed, based on the difference in the being of the individual.

In our firm belief, it is only in the competence of social heterology to understand the motives and living actions of people, caused by a wide range of factors, without leveling the psychological ones. The event is heteronomous, therefore it is a verb. An event is an exit of existence into presence. Being is not an established entity, therefore not a noun. To be means to act. Being is an event. The attributes of an event are difference, heterogeneity, multiplicity and relation to others.

Therefore, the conceptual basis of the new paradigm of social cognition, which focuses on the ontology of a set, not a single one, and legitimizes in this connection the principle of indeterminacy of social cognition, which is especially relevant for our time, can only be heterological. Only the heterologous social paradigm is able to overcome the “sociological imperialism” from “Western theories standardized understanding non-Western countries, aborigines, and indigenous worlds” (Platonova, 2014).

Kerimov T.Kh. endeavored to develop social heterology as the new methodology and theory of the modern social philosophical discourse but this problem is stated first in the context of the principle of uncertainty of social cognition.

The article's authors attempted to justify epistemic and heuristic potential of social heterology as the new post-non-classical paradigm of social knowledge which is capable of representing the pattern of the modern heterogeneous society in the context of the principle of uncertainty of social cognition.

The authors revealed that heterologous trends dominate in the post-non-classical social-philosophical discourses which methodologically establish the new approaches to understand the modern social practice, actualizing the ambiguity principle of its development and cognition ensuing from a diversity of social connections and actions which are unattached to the single vector of development.

The whole post-non-classical science claim that the world is the object of cognition is more complex and indefinite than it was represented earlier: it has complicated ontological organization, nonlinear structure; randomness and orderliness are changed periodically in it through processes of self-organization detected and described by synergetics; it demonstrates non-statics, incompleteness, fractality, openness, and non-equilibrium. This complex ontologically multiple, and nonlinear world with various feedbacks is developed within similar complicated laws with an array of latent inside processes and it is studied difficulty. So, the ambiguity as the main characteristics is included in the process of the world's cognition.

The ambiguity principle of social cognition as the most significant attribute is explained:

1. First of all, by its existential part: by uncertainty and undiscloseness of the individual essence, by being of the human who is ambivalently presented as an object and a subject of social knowledge. Hence its internal duality, inconsistency, and paradoxicalness;
2. By processes of the human's decentration as the active subject;
3. By fractality of the human and society;
4. By strengthening irrationality in contemporary social life;
5. By virtualization of modern reality;
6. By uncertainty of social prognoses and others.

Nevertheless construction of the ambiguity principle in social-philosophical discourse does not lead to postmodern ideas of depreciation of truth with exploration of relativist concepts. At first sight, the ambiguity principle encounters the classical idea of determination and indetermination of social development related to the certain point of reference that makes social cognition possible or impossible on the whole. Such a dilemma emerges if the linear paradigm of social research is used. If other research paradigms are applied, for example, the postmodern "rhizomorphic" paradigm where the central principle and united code are absent, or the synergetic one with the idea of fractality, the ambiguity in social cognition as in social development appear as its indispensable attribute. Simultaneously, social sciences are not questioned and their importance and potentiality are not rejected. It is not a paradox of human cognition but a presentation of object specificity and the subject of social knowledge that is a

society and a human, which comprehension of essence and existence does not attain its logical completion but, contrarily, it is enriched with more uncertainty.

It is the new post-non-classical paradigm of social cognition based on heterogeneous, not homogeneous, social connections and relationships. It is about discovering social laws-tendencies having various possibilities for realization; it is about creative character of social development and knowledge. In our mind, the concept of “scientific paradigm” borrowed from natural sciences is applied to social research. Moreover, natural sciences are the philosophical basis of the ambiguity issue in cognition and naturalists who were the first to discuss it.

Ambiguity was presented earlier in classical scientific systems as the element, but it was considered as atypical, specific, uncharacteristic, extraneous and even extreme phenomenon, as the exclusion (Kerimov, 2015) connected to incomplete scientific description or subjective peculiarities of cognitive subject. The ambiguity principle became as a part of scientific lexicon and methodology with an establishment of quantum mechanics but it was limited by the micro world. Only post-non-classical science included the *ambiguity* into cognitive spaces as its essential attribute.

The natural and social sciences have always developed in close interaction, but in this connection, the relationship between them periodically changed like a pendulum. The classical period was dominated by natural-scientific methods applied in social cognition. People were considered like mechanisms and atoms. In the 19th century, the social sciences declared their special status, claiming the subjectivity of knowledge, returning to man. In natural science, this led to non-classical science, which shifted the focus of attention to the subject and which soon discovered the uncertainty principle in the quantum world. This principle has been actively taken up by social thinkers. Following synergetics, social synergetics arose. Today, philosophy, including social philosophy, declares that it cannot be the metaphysics of science, the methodology of sciences, a priori knowledge. Researchers are increasingly declaring the heterogeneity of the cognitive process itself, such as interdisciplinarity in its various variants, which raises the problem of hybrid modeling, the unity of humanitarian and natural science knowledge.

An important and relevant topic in heterological knowledge is the need to resist the colonial violence inherent in traditional science. The heterological paradigm involves a change in views on the traditional understanding of society. In this regard, the decolonization of science becomes relevant, in particular, the decolonization of psychology, which involves a change in attitudes towards different cultures.

Franz Fanon wrote that the dominant knowledge both in person and society is subordinated to the interests of a minority of people from privileged countries and serves the interests of racist colonial domination. Fanon emphasized that liberation from colonial oppression requires not only the decolonization of land and resources, but also the decolonization of consciousness (Fanon, 1963).

Colonial violence manifests itself not only in the imposition of knowledge in post-colonial spaces, but also in the day-to-day application of such knowledge in countries WEIRD (Western, educated, industrial, rich, democratic). Colonization can also be expressed in a monocultural understanding of mental health, lack of local staff, social stigma, isolation and lack of information (Henrich et al., 2010).

The decolonial psychology studies how Euro-American scientific psychology became the gold standard of psychology around the world and explains why an understanding of local cultural ideas is necessary to form an identity around the world. Decolonial psychology not only defines the role of culture in human behavior, but also calls for action towards social change.

The decolonization of science involves the separation of science from Western Eurocentric logic, the elimination of colonial power, the redistribution of resources and the decentralization of power. Central to the decolonial turn is a reorientation of the attitudes, opinions and experiences of the peoples of the world.

The preservation of the colonial roots of psychology, which do not reflect the realities and conditions of communities, will inevitably lead to a decline in the values of knowledge. A more critical, humanistic and liberating knowledge is needed, free from colonial, racial and gender oppression. The integration of social science, psychology and politics makes pre-colonization an object of theoretical study and practical action (Kessy & Kiguwa, 2015).

Mostly it is about social sciences aimed not only to explain but also to *understand* a human. It is exceptionally significant in the modern world where humanitarian theories were identified to solve various issues in human activities such as politics, economics, administration and others. It is extremely important due to the “turbulent” existence of the humanity of the 20th -21st centuries where negligible actions and human behavior are capable of turning into crisis and even catastrophic consequences.

In our opinion, the interpretation of postmodernism as the arrangement for “truth inflation” does not justify and caused by classical and linear thoughts on determinism and indeterminism. In fact, it is transit from homogenous to heterogeneous paradigms of social-humanitarian knowledge that are synergetic, nomadological, and rhizomorphic ones (G. Deleuze, F. Guattari). With the help of rhizomatics as a methodology of social reality description, it is possible to reveal the connection of macro and micro phenomena; to recognize congruence of various social processes: globalization and terrorism, mentality development and interethnic conflicts escalation, progress in mass media, internet technologies and activation of subcultural phenomena (Pilugina, 2013). These post-non-classical paradigms are opposed to immutable linear structures of social beings and elicited diversified social constructions with plural basics (Griffith, 2018).

The main arrangement of heterologous researches is the interior look at the society from a diversity of its nuances reflected in human activities, in human singular actions that are not evaluated simply.

The problem of human action as undefined was considered in philosophy of M. Bakhtin inasmuch as in the human action he saw the appeal and orientation to the other person, representation as the dialogue where the primary structure of individuality is germinated, the uniqueness of personal being (Bakhtin, 1986). It is the transition from present and emerged in the past, formed, to create, creatively created in the present and then to the future.

According to Bakhtin, the dialogue with the other is the field where veritable creative human activity is deployed presenting completely different spheres of social being (Bakhtin, 1986). This issue has the serious research of finely defined and clearly

articulated differences between creative activity and destructive opposite and disruptive activity. In the modern world where the processes are complex, non-one-dimensional, and difficult-definable, those are guaranteed by moral positions but not guaranteed in the sense of destructive results. The saturated philosophical analysis of the blurred edge between good and evil is necessary.

According to Bakhtin, the human act is the microcosm of creative activity in the world which is fundamentally incomplete where the future is not guaranteed by something or someone and it is not predictable. Moreover, every accomplished action forms the world and it is realized for the human as actual and responsible. As a creative act the deed is not derived wholly from the scientifically generalized past. Every action is always directed to another person in what his owing is expressed and his unique essential uniqueness in relation to the future. In Bakhtin's opinion, the creativity is presented in the action, the destruction is contained in it, so as the presence of prior knowledge in the human action is obligatory combined with individuality of his initiative, subjectivity of the will emanated from the complex depth of the soul.

In the diversity of social interactions, their polyphony, dialogue and polylog of inter-human relationships, Bakhtin is considered as the primary indispensable condition of creativity. He emphasized that the concrete human action includes a multitude of prerequisites for creativity and sense formation. The creativity as development and co-existence is possible not inside an individual but on the threshold of own consciousness and the other alien consciousness (Bakhtin, 1986).

The Russian philosopher Vladimir Bibler was considerably interested with this subject and in the social reflections he focused not on relations of subject and object as in classical philosophy, but on inter-subject relationships. Furthermore, every world subject which is interpreted by the thinker "as if it was a creation" represents personalization of subjective peculiarities of the author. Simultaneously, subject-object relations are not leveled due to subjectivity of thinking. As Bibler states, the polylogical "dialogue", the "indefinitely-potential world is irreducible to any logics, the 'ball' of being is dense, not absorbed, mysterious, and expelled 'out of' the thought" (Bibler, 1991). Thus, the ambiguity principle is determined by imbalance of human acts.

In our opinion, only social heterology is capable of outlining the attractor of human actions as the basis of social activity. According to social heterology, social being is considered as the basis of reality in the sense of belonging to it but not in the sense of possession. It means that being is the being of singular existence. Being is the difference of being. Being is co-being. The way of being is co-existence.

Thus, the idea of making a difference becomes highly important for contemporary philosophy, meaning the transition to the new concept of being unrelated to a traditional basis. "Things are some continuous creation of exnihilo; they exist as verbs and never as nouns. What supports entities in the presence is their eternal dissipation and becoming. Thus, the constancy, or constancy of things, is concluded only in their inconsistency or eternal disappearance" (Kerimov & Kerimov, 2014).

The relationship between being and real is interpreted as relation of single and plural in the traditional metaphysical discourse. The evident difference between being and real is that being is singular while real is plural. For social heterology real (plural) is not everything, it is not variety of segmental items but variety in progress. The progress as becoming essence-oneness but it is not metaphysical unity. It is another

presentation about sociality, it is the other sociality. Simultaneously, it is also the other naturalness. If there is abstractly understood natural being in traditional ontology, the evolutionary ontology is postulated socialization of nature, its heterologization.

The reductionist social studies in classical metaphysics are accompanied by some supreme organizational and organized order (Cosmos, God, Nature, Idea). Community was the ideal of sociality. Happiness in community is the state as the family by Confucius, the state as the city by Plato, the state as the organism by Al-Farabi and others. This sociality surrounds something common and united.

Taptyg Kerimov high lights two reasons of that:

1. Emphasizing natural causes of sociality;
2. Objectivity of natural sciences.

As a result, there is the type of theoretical consciousness in social cognition not based on tradition or faith but on critical research results. This criticality in sociology of Comte, Durkheim, and Weber is inside cognitive procedure and it does not involve particularities of cognitive subject. The prime principle of Comte's sociology is to study a society naturally and objectively. On the one hand, this epistemological approach is exempted from metaphysical falsifications and simplifications. On the other hand, it generates ambivalently more restrictions caused by excessive objectification of a society.

Comte used the expression "Natural laws of a society", Simmel speaks about "social forms", and Durkheim wrote about "social facts". "Strangely, when sociology is separated from metaphysics as a private and autonomous discipline with own subject (with own truth and essence of this subject) and corresponding methods, it turned out of metaphysical authority" (Kerimov, 1999). Sociology does not turn to supreme transcendent order but to the social Cosmos, to the order presenting in the society invisibly (the Greece word "cosmos" means "order"). All variants of human being in the society are only private cases of social cosmos. Thus, it is about self-sufficiency of social as metaphysical (ontological) concept noted about self-sufficiency of metaphysics.

So we have to speak about "other sociality" not based on united foundation and sameness but on plural, discrete, and diverse sociality. We have to talk about heterogeneous society and not the homogenous one ... about society of difference. It is necessary to overcome metaphysics. The requirement to overcome metaphysics is not explained by cognitive interest describing social reality but cognitive interest tended to understand a human transforming from a social to humanitarian one. New ontology should be based "on the ascendant principle": to thematize populations of heterogeneous existences of various bottom levels, but not integrity as in descending model (Uskali, 2016a).

The modern sociality is not an object or an idea; it is a co-being of different existences and singularities. Representatives of "philosophy of life", existentialists, postmodernists, personalists and others wrote about that. Singularities do not have common being; they are united only by escaping being, according to adherents of the heterologous concept. Sociality is not a general extensional and temporal reality. Sociality is "being-together". Individual being is differentiation. Individual being is

co-being - to depict it heterology is required based on distinction of individual being (to compare with classical metaphysics which is capable of describing a homogenous society). Consequently, heterogeneity of contemporary society is the essential issue of social studies.

According to Heidegger, being is always own being but singularity is not a projection of the subjective I on surrounding Me; in contrast defines “mine” every time. Singularity of time is - “escaping of substance”. Being is in discrete of singularities. Being together is differentiation of social being. Hence, tolerance is an affiliation measure of individual existence to being in conjunction. So, being together is equality. This equality is not unconditional and categorical but related to us. Equality is not criterion and measure. Equality is equality of non-equal; equality in difference (Kerimov, 1999).

According to the heterologous concept, history is “timelessness” and “intertime” on which history and historical time is emerged. The time stops in every historical event, it hangs. Co-being exists between moments of time.

In our conviction, the models of social synergy and fractality (Epstein, 2006) are included into the heterologous concept including postmodernist projects where “co-being” is significant within processuality and internal self-organization defined by immanent principles of development. Sociality is defined in itself. The heterologous concept suggests the new paradigm of social research changing the cognitive angle from certainty to uncertainty, to “flow of development” and “politics of experiment” (Pickering, 2017) attempting to overcome nomothetic arrangements of epistemology.

Ambiguity of social development and cognition designates *impossibility* of contemporary social process construction in one transcendental principle and convinces heterologous approach to the society. The authors’ position is that social heterology is aimed not at depiction and explanation of complex social processes but at creative interpretation of motives and actions of living humans, driven by various factors including psychological ones (although classical social philosophy tabooed any psychologization of social-philosophical analysis) but not formalized subjects of human history.

## Conclusions

Modern social tectonics in no way fit into classical metaphysical constructions, despite the reflexive aspirations of human illusions to the predetermined order of the world order. Contrary to our own creative claims, we, nevertheless, are in captivity of idealism, representing the world around us as linear and ordered, one-dimensional, anthropic, determined by a total, absolute foundation. This is what classical philosophy dreamed of, eloquently declaring itself metaphysics. Rationally - cognitive attitudes of classical social philosophy have been based on idealization, rigidly linear determinism, homogeneity of social life, congruent with going beyond the limits of person, contour of human life, inhumanity and lifelessness. In retrospect, philosophy has always been far from person, tying him/her either to nature or to society. As a result, social philosophy was forced to transform into non-classical and post-non-classical socio-philosophical discourses, coupled with the search for representative

and relevant social paradigms, geared towards understanding a person, whose existence in the conditions of modern civilizational realities of heterogeneous sociality has become extremely tense and acutely problematic.

However, the unfolding world processes inevitably eliminate the classical onto-theological postulates, revealing that “until now, philosophy has sewn not where it was torn, healed not where it was broken, looked not where it was lost” (Kemerov, 1996). Metaphysics exposed a fundamental inability to understand the fractal essence of nature and man, which is extremely necessary for the conditions of modern turbulent sociality.

Society of the XXI century is characterized by a different sociality, high heterogeneity, composed of:

- Difference as a structure-forming factor;
- Obvious nonlinear, decentration of social processes and a human;
- High degree of social processes mediation concealing their complex interactions.

Heterogeneity is strengthened by:

- Power and dynamics of scientific-social progress;
- Activation of social life self-organization processes;
- Complication of the subjective factor of social development;
- Reinforcement of social processes irrationality;
- Heuristic character of social processes and others.

The ambiguity factor of contemporary social life is increased and escalated while the “ambiguity principle” in social-philosophical cognition stated the problem to look for effective scientific paradigms in the other sociality and naturalness.

The article’s authors first justify social heterology as a post-non-classical paradigm correlating with ambiguity principle of social knowledge and it is required to study polysyllabic mediated social processes and connections in modern social-philosophical discourse. These processes have self-organized development algorithm denying scientific classical ideas to find the one superhuman system-forming principle of social life development. It is originality and novelty of the research.

Social heterology accepts the ambiguity principle of social cognition but does not absolutize it and elicits their correlation to each other in the complex hierarchy of mediations to find real connections. In our opinion, it is feasible.

Our future is open and diverse but it is not random. It is not accident, it is probabilistic (Podoprigora, 2016). Social structure is heterarchical and presented as ordered multiplicity (Krasavin, 2017). There is the specific set of future opportunities of social development. This spectrum is mostly defined by its attributes and it is the prime cognitive and heuristic principle of social heterology. We argue that in spite of inevitable elements of ambiguity, chaos in public life, social heterology as post-non-classical paradigm of social cognition has highly effective epistemological potential in the study of the contemporary society’s creativity.

Social-heterologous cognitive paradigm has a solid basis to realize that contemporary polyfundamental society consisted of fractal units and processes. This paradigm

postulates the existence of indeterminacy principle in social cognition revealing a creative pattern of post-non-classical social.

**Acknowledgements** This research is funded by the Science Committee of the Ministry of Education and Science of the Republic of Kazakhstan (Grant № AP13268777).

## References

- Asmolv, A. G. (2002). *По ту сторону сознания: методологические проблемы неклассической психологии* [Beyond consciousness: methodological problems of non-classical psychology]. Smysl
- Bakhtin, M. M. (1986). *Toward a Philosophy of the Act*. University of Texas Press. <https://emanat.si/en/publishing/mikhail-bakhtin--toward-a-philosophy-of-the-act/>
- Bart, R. (1994). Смерть автора [Death of the author]. In G. K. Kosikova (Ed.), *Избранные работы: Семиотика. Поэтика* (pp. 384–391). Moscow, Progress. <https://docplayer.com/27231421-R-bart-smert-avtora-bart-r-izbrannye-raboty-semiotika-poetika-m-s.html>
- Bertrand, M. (2017). Fundamental ontological structure: an argument against pluralism. *Philosophical Studies*, 174(5), 1277–1297. <https://doi.org/10.1007/s11098-016-0760-x>
- Bibler, V. (1991). *От наукоучения - к логике культуры* [From science to the logic of culture]. Political literature. [https://www.gumer.info/bogoslov\\_Buks/Philos/bibler/04.php](https://www.gumer.info/bogoslov_Buks/Philos/bibler/04.php)
- Certeau, M. (1984). *The Practice of Everyday Life*. Berkeley: University of California Press. [https://www.researchgate.net/publication/235674512\\_The\\_Practice\\_of\\_Everyday\\_Life](https://www.researchgate.net/publication/235674512_The_Practice_of_Everyday_Life)
- Dawes, G. W. (2017). Identifying Pseudoscience: A Social Process Criterion. *Journal for General Philosophy of Science*, 48, 1–16. <https://link.springer.com/article/10.1007/s10838-017-9388-6>
- Delanda, M. (2006). *New Philosophy of Society: Assemblage Theory and Social Complexity*. N.Y.: Continuum, 2006. <https://doi.org/10.1111/j.1467-8330.2008.00646.x>
- Derrida, J. (1997). In G. C. Spivak (Ed.), *Of grammatology*. The Johns Hopkins University Press. (Original work published 1967). [http://www.unisa.ac.za/static/corporate\\_web/Content/Colleges/CHS/News/Events/Docs/Of%20Grammatology.%20Jacques%20Derrida.pdf](http://www.unisa.ac.za/static/corporate_web/Content/Colleges/CHS/News/Events/Docs/Of%20Grammatology.%20Jacques%20Derrida.pdf)
- Deviatko, I. (2017). Metatheorizing or philosophy of social sciences? *Sociological research*, 12, 3–9. <https://doi.org/10.7868/S0132162517120017>
- Epstein, M. N. (2006). On philosophy of age. Fractal structure of life and periodic table of ages. *Bulletin of Siberian Medicine*, 5(5), <https://doi.org/10.20538/1682-0363-2006-5-48-57>. 48–57
- Fanon, F. (1963). *The wretched of the earth* (p. 316). New York, NY: Grove Press. <https://groveatlantic.com/book/the-wretched-of-the-earth/>
- Foucault, M. (1996). Археология знания [Archeology of knowledge]. D.Stasov, *Trans*. Kiev. S.Mitin. (Original work published 1969) <https://gtmarket.ru/library/basis/6850>
- Griffith, A. M. (2018). Social construction: big-G grounding, small-g realization. *Philosophical Studies*, 175(4), 241–260. <https://doi.org/10.1007/s11098-017-0865-x>
- Henrich, J., Heine, S. J., & Norenzayan, A. (2010). The weirdest people in the world? *Behavioral and Brain Sciences*, 72–3, 61–83. DOI: <https://doi.org/10.1017/S0140525X0999152X>
- Ignatyev, V. I. (2017). Социальная теория в контактной зоне методов естествознания: информационно-резонансный подход к интерпретации социальной реальности [Social theory in the contact zone of the methods of natural science: informational resonance approach to interpreting social reality]. *Sociological research*, 3, 3–13. <http://socis.isras.ru/en/article/6593>
- Kemerov, V. (2001). *Введение в социальную философию* [Introduction to social philosophy]. Academicchesky Project. <https://libking.ru/books/sci-/sci-philosophy/137532-v-kemerov-vvedenie-v-sotsialnuyu-filosofiyu-uchebnik-dlya-vuzov.html>
- Kerimov, T. (1999). *Социальная гетерология* [Social heterology]. Ural-Nauka. <https://www.ozon.ru/product/sotsialnaya-geterologiya-31463760/?sh=2dINDr-50Q>
- Kerimov, K., & Kerimov, T. (2014). The evanescent thing: Heidegger and Ozu. *KronoScope*, 14 (2), 195–210. <https://doi.org/10.1163/15685241-12341305>
- Kerimov, T. (2015). Онтология как онто-теология и ориентиры ее преодоления [Ontology as onto-theology and the ways to transcend it]. *Bulletin of Irkutsk State University*, 14, 106–113. <https://cyberleninka.ru/article/n/ontologiya-kak-onto-teologiya-i-orientiry-ee-preodoleniya>

- Kerimov, T., & Burbulis, Y. V. (2015). Ирредукционизм как основной методологический принцип современной социальной онтологии [Irreductionism as the main methodological principle of modern social ontology]. *Humanitarian socio-economic and social sciences*, 11(1), 26–28. <https://cyberleninka.ru/article/n/irreduksionizm-kak-osnovnoy-metodologicheskii-prinsipip-sovremennoy-sotsialnoy-ontologii>
- Kerimov, T. (2016a). Апории ответственности [Apories of responsibility]. *Proceedings of the International Conference “Historical responsibility: from the myths of the past to the strategies of the future”*, 25–31. Delovaya Kniga. <https://elibrary.ru/item.asp?id=28494949>
- Kerimov, T. (2016b). Преодоление метафизики: предпосылки и ориентиры [Overcoming of metaphysics: preconditions and guidelines]. *Intellect Innovation Investments*, 10, 23–25. <https://cyberleninka.ru/article/n/preodolenie-metafiziki-predposylki-i-orientiry>
- Kovalets, M. S. (2015). Принцип необходимости контингентности в философии Квентина Мейяксу [The principle of the necessity of contingency in the philosophy of Quentin Meillassoux]. *Scientific Bulletin*, 101, 222–225. <https://elibrary.ru/item.asp?id=24907173>
- Krasavin, I. (2017). Гетерархия множества [Heterarchy of the Multitude]. *Philosophical Literary Journal Logos*, 27(3), 173–198. <https://doi.org/10.22394/0869-5377-2017-3-173-195>
- Lanier, J. (2020). *Кому принадлежит будущее* [Who owns the Future?] (O.Lipa & E.Voronovich, Trans.). Eksmo. (Original work published 2013). <https://www.litmir.me/br/?b=696047&p=1>
- Lapin, N. I. (2018). Антропосоциокультурный эволюционизм - метатеоретический принцип изучения сообществ людей [Antroposociocultural evolutionism – a metatheoretical principle of staging human communities]. *Sociological research*, 3, 3–14. <https://doi.org/10.7868/S0132162518030017>
- Latour, B. (1987). *Science in action: How to Follow Scientists and Engineers through Society*. Harvard University Press. [https://www.academia.edu/5409673/SCIENCE\\_IN\\_ACTION\\_How\\_to\\_follow\\_scientists\\_and\\_engineers\\_through\\_society](https://www.academia.edu/5409673/SCIENCE_IN_ACTION_How_to_follow_scientists_and_engineers_through_society)
- Laurence, J. (2018). Ethnic Diversity, Inter-group Attitudes and Countervailing Pathways of Positive and Negative Inter-group Contact: An Analysis Across Workplaces and Neighbourhoods. *Social Indicators Research*, 136(2), 719–749. <https://doi.org/10.1007/s11205-017-1570-z>
- Lazar, S. (2018). In dubious battle: uncertainty and the ethics of killing. *Philosophical Studies*, 175(4), 859–883. <https://doi.org/10.1007/s11098-017-0896-3>
- Malkay, M. (1979). *Science and sociology of knowledge*. Routledge. <https://doi.org/10.4324/9781315763408>
- Mamardashvili, M. K. (2002). *Введение в философию* [Introduction to philosophy]. Alphabet-classic. <https://gtmarket.ru/library/basis/5501>
- Meillassoux, Q. (2008). *After Finitude: An Essay on the Necessity of Contingency*. London: Continuum
- Merton, R. (2006). Социальная теория и социальная структура [Social theory and social structure]. In E. N. Egorova, Z. V. Kaganova, & V. T. Nikolaev (Eds.), E. R. Chermisina, Trans.). Moscow: AST. Publishing house “Hranitel”. (Original work published 1968). [http://shagpro.ru/sites/default/files/documents/merton\\_socialnaya\\_teoriya\\_i\\_socialnaya\\_struktura\\_.pdf](http://shagpro.ru/sites/default/files/documents/merton_socialnaya_teoriya_i_socialnaya_struktura_.pdf)
- Mumford, L. (2001). *Миф машины* [The myth of the machine]. (T. Azarkovich, B. Skuratov, Eds. & Trans.). Logos. (Original work published 1967). <https://gtmarket.ru/library/basis/3115/3119>
- Nancy, J. L. (2004). *Бытие единичное множественное* [Being single plural]. (V.V. Furs, Trans.). Minsk: I.Logvinov. (Original work published 1996). [https://platonu.net/load/knigi\\_po\\_filosofii/o\\_filosofii/nansi\\_bytie\\_edinichnoe\\_mnozhestvennoe/19-1-0-2810](https://platonu.net/load/knigi_po_filosofii/o_filosofii/nansi_bytie_edinichnoe_mnozhestvennoe/19-1-0-2810)
- Peccei, A. (1980). In O. V. Zaharova (Ed.), *Человеческие качества* [Human qualities]. Moscow: Progress. (Original work published 1977)
- Pickering, A. (2017). New Ontologies. *Philosophical Literary Journal Logos*, 27(3), 153–172. <https://elibrary.ru/item.asp?id=29077886>
- Pilugin, E. V. (2013). Феноменология ризомы. Ризоморфные среды [Phenomenology of the rhizome, Rizomorphic media]. *Scientific and methodical electronic journal «Concept»*, 3, 3101–3105. <https://elibrary.ru/item.asp?id=20573674>
- Platonova, S. I. (2014). *Парадигмальный характер социального знания* [The paradigm nature of social knowledge]. Izhevsk: Izhevsk State Agricultural Academy. [https://www.studmed.ru/platonova-s-i-paradigmalnyy-harakter-socialnogo-znaniya\\_2369bee2b84.html](https://www.studmed.ru/platonova-s-i-paradigmalnyy-harakter-socialnogo-znaniya_2369bee2b84.html)
- Platonova, S. I. (2017). Эпистемологические особенности современного социально-гуманитарного знания [Epistemological features of modern socio-humanitarian knowledge]. *Context and Reflection: Philosophy of the World and Human Being*, 6(3), 131–142. <https://elibrary.ru/item.asp?id=30612057>

- Podoprigora, A. V. (2016). Генератор реальности: информация и механизмы самоорганизации [Reality generator: information and mechanisms of self-organization]. *Scientific Yearbook of the Institute of Philosophy and Law of the Ural Branch of the Russian Academy of Sciences*, 16(4), 17–32. <https://elibrary.ru/item.asp?id=28126779>
- Rolf, H. (2017). Interdisciplinarity as Hybrid Modeling. *Journal for General Philosophy of Science*, 48(1), 35–57. <https://doi.org/10.1007/s10838-016-9344-x>
- Searle, J. (1995). *The Construction of Social Reality*. New York: Free Press. [https://epistmh.pbworks.com/f/6.+The+Construction+of+Social+Reality+\(SCAN\).pdf](https://epistmh.pbworks.com/f/6.+The+Construction+of+Social+Reality+(SCAN).pdf)
- Shevlovkov, V. A. (2016). Устойчивое развитие общества: синергетический подход [Sustainable development of society: synergetic approach]. *Bulletin KRASEC Physical and Mathematical Sciences*, 13(2), 57–61. <https://elibrary.ru/item.asp?id=26527432>
- Stepin, V. S. (2013). Типы научной рациональности и синергетическая парадигма [Types of scientific rationality and synergetic paradigm]. *Complexity Mind Postnonclassics*, 4, 45–59. <https://cyberleninka.ru/article/n/typy-nauchnoy-ratsionalnosti-i-sinergeticheskaya-paradigma>
- Stepin, V. S. (2016). Историко-научные реконструкции: плюрализм и кумулятивная преемственность в развитии научного знания [Historical and scientific reconstruction: pluralism and cumulative continuity in the development of scientific knowledge]. *Questions of philosophy*, 5, 5–15
- Toffler, A. (2002). *Шок будущего* [Future Shock]. (E. Rudneva, L. Burmistrova, K. Burmistrov, I. Moskvina-Tarkhanov, A. Mikisha, A. Mirer, V. Kulagina-Yartseva, N. Khmelik, E. Komarova, Trans.). Moscow: “АСТ” Publishing House. (Original work published 1984. [https://www.gumer.info/bibliotek\\_Buks/Culture/Toff\\_Shok/index.php](https://www.gumer.info/bibliotek_Buks/Culture/Toff_Shok/index.php))
- Uskali, M. (2016a). Interdisciplinarity in action: Philosophy of science perspectives. *European Journal for Philosophy of Science*, 6(3), 323–326. <https://doi.org/10.1007/s13194-016-0161-1>
- Uskali, M. (2016b). Philosophy of interdisciplinarity. What? Why? How? *European Journal for Philosophy of Science*, 6(3), 327–342. <https://doi.org/10.1007/s13194-016-0162-0>
- Zbrozhek, E. A. (2012). Онтология разрыва как ключ к пониманию философии С. Жижека [Ontology of the gap as a key to understanding philosophy of S. Zhizhek]. *Journal Vestnik VSU*, 2, 115–120. <https://elibrary.ru/item.asp?id=18753611>
- Zhuravleva, S. M., & Ivanov, A. V. (2017). Соблазны современного гуманитарного знания [Temptations of modern humanitarian knowledge]. *Proceeding of the scientific-practical conference “Omsk Scientific Readings”*. <http://conf.omsu.ru/Conference/ShowThesis?thesisId=104>
- Webb, A. (2019). *The Big Nine: How the Tech Titans and Their Thinking Machines Could Warp Humanity*. New York: Public Affairs
- Webb, A. (2019). *The Big Nine: How the Tech Titans and Their Thinking Machines Could Warp Humanity*. New York: Public Affairs.

**Publisher's Note** Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.