EPISTEMOLOGY OF COMMUNICATIONSOCIAL PROCESSES: SYNERGETIC APPROACH

EPISTEMOLOGIA DOS PROCESSOS SOCIAIS DE COMUNICAÇÃO: ABORDAGEM SINERGÉTICA

EPISTEMOLOGÍA DE LOS PROCESOS SOCIALES DE COMUNICACIÓN: ENFOQUE SINÉRGICO

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ABSTRACT: The article considers the results of research on social systems based on the principles of the complexity Paradigm. Our research task is centered around the analysis of communication processes in social systems. The purpose of this work implies the reflection on the epistemology of communication processes, aimed at studying the parameters one can find in social systems of the 'human' type. We apply the complexity Paradigm as a theoretical and methodological basis and as well rely on the Complex analysis of discourse that has been obtained as a result of our previous research on discourse theory and its modern achievements. This study made use of the general scientific methods such as analysis and synthesis, modeling and idealization, as well as concretization and abstraction. The interdisciplinary nature of this study determines the scope (set) of the methods being used, although it primarily focuses on a synergistic approach.The results of this work represent a new approach to the study of the dynamics of the development of communication processes in social human systems. The conclusions presented in the article fix the paradigm transformations caused by the penetration of the Multi-complexity category into the research space of social sciences, which acts as a new version of the complexity Paradigm.

KEYWORDS: Communication processes. Multi-complex systems. Communication. Complexity theory. Non-linearity. Emergence. Synergetics.

RESUMO: *O artigo considera resultados de pesquisas sobre sistemas sociais com base nos princípios do Paradigma da complexidade. Nossa tarefa de pesquisa está centrada na análise dos processos de*

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comunicação em sistemas sociais. O objetivo deste trabalho implica a reflexão sobre a epistemologia dos processos de comunicação, com o objetivo de estudar os parâmetros que se podem encontrar em sistemas sociais de tipo 'humano'. Aplicamos o Paradigma da complexidade como base teórica e metodológica e também contamos com a Análise Complexa do discurso que foi obtida como resultado de nossas pesquisas anteriores sobre a teoria do discurso e suas conquistas modernas. Este estudo fez uso de métodos científicos gerais como análise e síntese, modelagem e idealização, bem como concretização e abstração. A natureza interdisciplinar deste estudo determina o escopo (conjunto) dos métodos utilizados, embora se concentre principalmente em uma abordagem sinérgica. Os resultados deste trabalho representam uma nova abordagem para o estudo da dinâmica do desenvolvimento dos processos de comunicação no âmbito social. sistemas humanos. As conclusões apresentadas no artigo fixam as transformações paradigmáticas ocasionadas pela penetração da categoria Multi-complexidade no espaço de pesquisa das ciências sociais, que atua como uma nova versão do Paradigma da complexidade.

PALAVRAS-CHAVE: Processos de comunicação. Sistemas multi-complexos. Comunicação. Teoria da complexidade. Não linearidade. Emergência. Sinergética.

RESUMEN: El artículo considera los resultados de la investigación sobre sistemas sociales basada en los principios del Paradigma de la complejidad. Nuestra tarea de investigación se centra en el análisis de los procesos de comunicación en los sistemas sociales. El propósito de este trabajo implica la reflexión sobre la epistemología de los procesos de comunicación, orientada a estudiar los parámetros que se pueden encontrar en los sistemas sociales de tipo "humano". Aplicamos el Paradigma de la complejidad como base teórica y metodológica y también nos apoyamos en el análisis complejo del discurso que se ha obtenido como resultado de nuestra investigación previa sobre la teoría del discurso y sus logros modernos. Este estudio hizo uso de los métodos científicos generales como el análisis y síntesis, el modelado y la idealización, así como la concretización y abstracción. El carácter interdisciplinario de este estudio determina el alcance (conjunto) de los métodos que se utilizan, aunque se enfoca principalmente en un enfoque sinérgico. Los resultados de este trabajo representan un nuevo enfoque para el estudio de la dinámica del desarrollo de los procesos de comunicación en el ámbito social. sistemas humanos. Las conclusiones que se presentan en el artículo fijan las transformaciones de paradigma provocadas por la penetración de la categoría de Multi-complejidad en el espacio de investigación de las ciencias sociales, que actúa como una nueva versión del Paradigma de complejidad.

PALABRAS CLAVE: Procesos de comunicación. Sistemas multicomplejos. Comunicación. Teoría de la complejidad. No linealidad. Emergencia. Sinergias.

Introduction

In the interpretation of modern communication processes in social systems, epistemological principles of the complexity Paradigm demonstrate a high extent of heuristics, including: 1) rejection of the cause-and-effect model; 2) taking into account the complex positive and negative feedback in the study of micro- and macro-dynamics of the system; 3) taking into consideration randomness and errors both in the evolution of systems and in the way they are understood. These principles indicate that today the study and understanding of communication processes is impossible without bearing in mind the category of non-linearity.

In cases of communication actions of people and societies that unite them, we can claim that we observe manifestations of non-linearity quite frequently. Relations between the elements that make up society are built on the basis of complex dynamics that does not begin with unidirectional behavior, but with multi-effects and movements through unpredictable zones and trajectories instead. Despite the fact that classical sociology and other social paradigms that correspond to its principles have tried to introduce simplifying structures and regularities in the spirit of determinism into epistemological foundations, practice has proved that these approaches happen to be outdated.

In this context, the 'human factor' belongs to a world that exceeds the boundaries of materiality. It creates an anthropological universe in which human civilizations develop the emerging result far beyond the source it is descended from. The symbolic universe of our subjectivities has its own rules, and many of them do not coincide with the principles of the universe from which these subjectivities originate. This is all that defines the true essence of the evolution of communication processes.

Therefore, it can be argued that in communication systems there are positive and negative feedbacks, as in other social systems, but the specificity of their functioning amplifies the degree of unpredictability of the results and outputs of the system, both in qualitative and quantitative

terms. This means that the possibilities for obtaining emergent results in the process of their development are much greater than those of their biological and artificial counterparts.

Here one should take into account that in the case of communication interactions in social human systems, we are dealing with a particular type of emergence – a diachronic one. It is exactly this type of emergence that determines the nonlinear behavior of the system, the spontaneous appearance (or even disappearance) of certain properties, and makes it impossible to accurately predict the results of the system's development. 'Emergent here are those properties that, as a matter of principle, could not be guessed before their actualization, i.e. those specific properties that arose only in the process of implementing the system' (AL'BEKOV, 2015; MALDONADO, 2016). In this regard, we can say that the social order is based on chaotic, spontaneous processes involving a huge number of micro-communications.

This kind of order is not the result of an organization that exists in hierarchically constructed systems. In contrast, order formation in emergent systems occurs due to numerous network interactions, which do not imply static 'placement' of individuals in the social space, but a constantly updated, live, changing interaction between people instead (BARABASI, 2014).

With this in mind, in this introduction we note that our work continues the line of research on the multi-Complexity (Piloto Rodríguez & Nikolaeva, E. M. (2019), chalked out in the previous works. In this article, we will focus on implementing these studies to a specific case of 'human' communication processes in social systems. In other words, we are touching upon those communication processes that are the basis of civilizational systems, which are the result of complex and multidimensional communication of people.

Methods

The object of this research is the epistemology of communication processes. The subject is modern research of social human systems that

use the category of multi-Complexity as an epistemological basis. The purpose of this work is to reflect on the epistemology of communication social processes based on the principles of the complexity Paradigm.

The General scientific methods such as analysis and synthesis, modeling and idealization, as well as concretization and abstraction have been used within the framework of this study. The dialectical method, the historical-philosophical method, and the synergetic approach are to be also added to the aforesaid ones (PISAREVA & TRYAPITSYNA, 2019; MOROZOVA ET AL., 2019).

The dialectical method helps us developing the perspective of the complexity paradigm and correctly interpreting its evolution as a form of knowledge construction. The historical-philosophical method allows us interpreting the examples, that are being used in this study, from an integrative and contextualizing point of view. The synergetic approach, which is the basis of our work, allows us making an explication of the features of the epistemological development of the complexity Paradigm.

In compliance with the epistemological principles of complexity Theory, the methodology of the given study refrains from formulating and putting forward any hypotheses. In addition, the qualitative component (qualitativestudie) that this meta-theoretical study possesses is methodologically important.

The interdisciplinary nature of this research is determined by the volume (set) of methods being used, although it mainly focuses on the synergetic approach, through which objects, phenomena and processes are studied as complex open systems characterized by self-organization.

Results and Discussion

The theoretical elements revealed earlier provide us with several proofs of how communication processes occur. Let us consider their main aspects on the example of a discursive process between two or more interacting agents (the recipient and the sender): 1) description of the construction of key arguments in the formalization of significant moments of discourse based on more elementary ideas; 2) detection of relationships

between ideas that give birth to the discourse; 3) research and revelation of the points in which the discourse takes an argumentative turn, taking account of the internal and external context that can influence them as well; 4) tracing the subconscious lines containing semantic values that give the discourse ideological and communication power.

In our study, we took into consideration each of these aspects and studied the resulting vectors of each of them and how they behave in relation to one another.

To these issues we must add other equally important points that the complexity Paradigm contains as Central axes, such as order/chaos relations and emergence (Arshinov & Budanov, 2016). The categories of order and chaos are used to explain the mechanism of the system passing through different phases of order formation. Debunking the myths in this presupposed dichotomy is just one of the virtues of the new paradigm. This is expressed in general questions, for example: 'How is it possible that order arises from disorder?', 'what are the reasons for order turning into disorder?' ,'what is the nature of order and chaos?', and 'what are the consequences of the specific relationship between them for the future of our world?'.

The second category – emergence, belongs to the theory of systems. 'It indicates the emergence of new and consistent structures, patterns and properties in the process of self-organization of complex systems. Emergent phenomena are considered as arising at the macro level, in contrast to the components and processes at the micro level they stem from (Sosa, 2012).

Diachronic emergence becomes an attribute of the modern network space. Let us study some examples that demonstrate the fundamental unpredictability of communication processes the nature of which is determined by the specifics of the Internet.

The consumption of pornographic content is now a widespread and socially acceptable practice. This thesis is confirmed by the presence of a full-fledged pornographic industry. The phenomenon of Porn 2.0, similar to Web 2.0, involves personal active participation in the creation and

exchange of content, the creation of groups, active communication. At the same time, this leads to the appearance of new types of danger for users: revenge porn, shaming, deep fakes, etc. So, in the analysis of BigData for 2019, for one of the most popular resources (more than 42 billion visits in 2019; on average, 115 million visits per day), where pornographic content is hosted – PornHub, indicated that the 'Amateur' category became the most popular: the number of views has increased by 108% in comparison to the previous year.

This means that consumer interest towards amateur content is growing – more and more users are beginning to use this resource to realize their own sexuality. At the same time, it should be noted that in order to attract audience interest, some content producers are starting to produce non-fiction movies.

Thus, the 15-year-old girl who disappeared in 2019 was identified on 58 videos on the subjects of 'violence', which have been posted on PornHub. This is not the only case when kidnappers and rapists use this resource to monetize their criminal actions, since the verification of users on this resource has a fairly simple procedure. Underage victims of kidnapping and human trafficking can not be detected by algorithms, the annual high rating of the 'teen' category is updated with videos of subcategories such as 'Tiny Petite Thai Teen', 'Teen Little Girl First Time', etc.

Today, the main tool for business promotion is the presence in social networks. However, the process of active communication with consumers of the product is attributed to the unpredictable (emergent) effects of social media. For example, accounts of plastic surgeons are characterized by content consisting of images of patients before and after operations, as well as filming the operations themselves with professional comments from the surgeon. This practice of medical openness allows patients getting a better understanding of the surgeon's professionalism, personality, and learn more about the features of a particular surgical intervention. When entering into a contract, patients voluntarily sign their consent to post their images on social networks, as this creates a more

confidential relationship between the patient and the doctor. However, this practice involves a number of risks.

For example, a patient who decides to change his mind after surgery and wants the surgeon to delete images of him from social networks faces the problem of chaotic distribution of content when it is copied and posted on third-party accounts or other social networks. The public image of patients in social networks is subject to semantic re-evaluation: if a professional medical journal sees the image of a patient as an illustration of the work of a surgeon, then the casual audience of social networks will be unable to evaluate the work of the surgeon, but will comment on the appearance of the patient, his aesthetic imperfections, and sexualize his image. In this case, the actors involved in communication interactions and making a personal contribution to the final result may be not be acquainted, may know nothing about each other's goals and intentions. However, all of them, in one way or another, are involved in the emerging systemic emergent phenomenon.

If in the pre-digital society, the posthumous copyrights of famous people (writers, musicians, scientists, etc.) looked like deductions from the use of their works, now this right implies something more.

Modern technologies allow simulating shooting in films, interviews in such a way that it becomes impossible to distinguish the person from the construct. Thus, popular American singer Whitney E. Houston died in 2012. However, in 2019, the company, which inherited the rights to the artist's songs, announced her new concert tour. BASE Hologram and The Estate of Whitney E. Houston announced the holographic concerts as a theatrical event celebrating Queen of Pop's musical legacy.

Compliant to the scenario, these performances should be accompanied by live dancers and live backing vocals. According to the Director of the company BASE Hologram, this show will be a gift for fans of the singer, as it will be a unique experience, one hundred percent authentic due to the thorough elaboration of every detail. Pat Houston, President of The Estate of Whitney E. Houston, believes that the music of 'the most awarded artist of all time' will live forever. The new constructed

reality, which is based on the processes of merging the biological, material and digital environment, is inevitably accompanied by emergent effects, the nonlinear consequences of which cannot be foretold.

Summary

Let us fix the core characteristics with which 'social complexity' is usually identified in this new paradigm and which can as well be extended to the understanding of communication processes. According to the proposal of Carlos Lozares, at the X Spanish Congress of sociologists (LOZARES, 2010), social phenomena should first be understood as a network of relations between the subjects that make up the community itself, as well as the means with which it interacts in nature, and how it is able to do so.

The description given by this researcher can be understood as a 'basic complexity', since complexity is always born as the result of the multiple and the interrelated. However, we should add that the dynamics of social relations (either inter-, or intra-relations), based on multi-contour positive and negative feedback, becomes more complex as the temporal variable progresses. As a result, we can only understand it using a model that takes the account of this fact.

In the second case the same author emphasizes the non-linearity of these interactions, so we cannot talk about 'addition' or 'intensity' in relation to performance between agents. Here it is necessary to bear in mind the property of sensitivity of evolutionary transformations to initial conditions. They determine the specifics of subsequent social changes.

In this case, the dialogical model of communication, stated by M. M. Bakhtin (BAKHTIN, 1979), according to which any statement makes sense not in itself, but only in a certain context, at a certain time, appears to be relevant. In other words, the communication act itself does not mean anything. There must be a particular set of 'here and now' conditions under which it makes sense. A huge role belongs here to the receiving agent, who reads or listens, meanwhile creating his own interpretation, his own text, participating in the permanent updating of meanings. The non-

linearity of communication processes increases in the conditions of mass communication, mediated by technological processes and often carried out over long distances. As a result, the sociality formed through such actor interactions has signs of openness, fundamental incompleteness and intertextuality, when actors 'write' their texts in a constant dialogue with the texts of other actors. Such models of communication question the term 'information transfer', U. Maturana argues. Maturana compares language activity (languaging) with a dance, which is characterized not by 'hierarchy', 'management' or 'competition', but by mutual adjustment of actions, cooperation. 'Human beings are biologically loving (cooperative) creatures,' – he says in an interview, 'and language is our biological way of life' (MATURANA, 2020).

Here it is important to emphasize that the category of non-linearity is present in a significant part of research in the social sciences and humanities as one of the epistemological and methodological characteristics of social phenomena (YEVSYUKOVA & ABRAMENKO, 2019; DAWES, 2020). At the same time, they are based on a rather 'intuitive' way of cognition. It should be noted that in many works that were performed during the period of formalization and detailing of the methodology and methods of social/humanitarian research, very little attention is paid to the reflection of the 'subtleties' that have been outlined above.

In the third case, this author discusses the different levels and places of origin of agents involved in social interactions. Here there is an important caveat that while considering the general type of research, it is necessary to take into account the presence of the two main levels of social interaction – micro and macro level, as well as the complex transitions from the first one to the second.

This argument in the simplicity of its exposition conceals several points to which we must pay attention. It is not a matter of differences between the capabilities and the character of agents of the social communication process, but of the fact that a qualitative character is hidden beyond the limits of quantitative understanding. B. Latour,

investigating the phenomenon of a scientific laboratory on the example of research of anthrax by L.Pasteur at the end of the 19th century in France, arrived at the conclusion that the activities of a scientist (his laboratory experiments, experiments) can seriously transform society, the needs and behavior of people, the social practices existing. In this case, the laboratory, as an agent of the social micro-level, is the cause of social transformations at the macro-level, and in this regard, the macro-and micro-levels become difficult to distinguish, the line of demarcation between them becomes unclear, 'since the latter is used to redistribute and adjust the former' (LATUR, 2002).

Conclusions

The analysis carried out demonstrates us the attempts to understand and systematize complexity in social systems, existing in modern science. In doing so, one should always take into consideration the fundamental idea that there are different research positions in understanding what complexity theory and its paradigm are and what they deal with.

Given the above, one can conclude that the epistemological foundations proposed by the Complexity paradigm have a great heuristic potential for studying social systems and communication processes.

The study of communication processes implies understanding them as complex adaptive systems that are able to transform, develop and create independently. In fact, these theoretical settings are the legacy of the theory of complex adaptive systems. However, our research goes further and shows that we must identify the new complexity created by complex systems from the complexity that had created them. In this regard, we introduce the category 'multi-complexity', which fixes new properties that are born and developed in a new type of complexity, that is, within a completely new scenario.

From an epistemological point of view, this will allow us studying the communication processes in social systems from their own universe, from the reality that they create in their evolutionary process. Undoubtedly, this

can provide us with a boost in understanding the functioning of these social systems of 'human' type, because in this approach we completely change the traditional paradigm settings.

Acknowledgements

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