

**MODERN CULTURE AT THE CELLULAR
LEVEL: PHILOSOPHICAL ANALYSIS**

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**СОВРЕМЕННАЯ КУЛЬТУРА НА
КЛЕТОЧНОМ УРОВНЕ:
ФИЛОСОФСКИЙ АНАЛИЗ**

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Based on research in the field of philosophy, philosophical anthropology, medicine, biology, the author considers and analyzes the crisis processes occurring in modern culture by analogy with the processes that occur inside the human body, namely, in the cell. With the help of a comparative analysis, the vital activity of cancer and stem cells, the balance between the inner world of a person and his external activity, between being collective and individual, it has been found that constant egocentric behavior leads to a shift in balance and gradually destroys not only the human body, but also, by analogy, can destroy modern culture and education. It is noted that the only way out of the crisis situation that has developed in modern society is to turn to the Other, which will allow the individual to revive the lost spiritual and cultural values. This is what does not allow a person, like a spontaneous expansion of a cancer cell, to repeat indefinitely, thereby destroying himself and the world around him. These processes are especially acutely felt during the SARS-CoV-2 pandemic, which has greatly accelerated the process of total digitalization of modern culture and education.

Key words: *culture, spirituality, cancer cells, stem cells, education, culture nucleus, DNA, metastases, quasi-culture.*

INTRODUCTION

One of the main criteria for building an effective education system is its compliance with the modern needs of society, as well as the ability to quickly adapt to a changing external environment. Therefore, the development of various methods, approaches as training and administration of the education sector is an urgent problem of scientific research. Despite the fact that modern research provides a wide range of tools, there is a crisis in the administration of the education system, primarily in the long term. If “here” and “now” we see the expediency of using a certain approach, then tomorrow it becomes ineffective, and we must again look for a new one. In such an unchanging, multi-vector search, the direction, structure, integrity of the education system, and from time to time, its meaning are lost. The old (traditional) system does not work, and the new one is not accepted and very often not understood. If we generalize the existing approaches in administration, we get a bifurcation model “control-stimulus”: we develop either additional methods of control, or methods of stimulation. However, the question arises: first of all, the practical application of these methods in a given situation? How not to lose the integrity, harmony, spirituality of future education? How to see and reproduce the whole picture from the numerous

puzzle approaches without losing the child and the student? How to suspend the uncontrolled process of introducing the latest technologies for the sake of the technologies themselves? Especially acute, this problem arose with the SARS-CoV-2 pandemic and its consequences. An uncontrolled process of introducing “innovations” of distance education has been launched, which has acquired relevance in modern society.

As you know, education is recognized as an important element of the overall cultural development of society. A modern analysis of the educational transformations of society is impossible without systemic studies of the cultural space. The era of postmodernism, where a person cannot withstand the pressure of the world (Y. Borev), gave impetus to the uncontrolled “replication” of culture and the formation of its different meanings, which receive their own, independent vector of further development. The total digitalization of modern society has only strengthened these processes. One of the possible options for explaining the current situation is the consideration of these processes through the prism of “oncology” of modern culture.

METHODOLOGY

The main methodological principle of the research is reductionism, according to which the processes occurring in modern education and culture are similar to the processes occurring at the cellular level of an oncologically sick person. The complexity of the research lies in the need, relying on the classical understanding of culture and on the non-classical understanding of reality, to reproduce the modern model of culture by combining philosophy, medicine, education, philosophical anthropology and medical psychology (David J.Kerr. 2016. P.7). The structure and logic of the study is determined by the theoretical and methodological concept of the integrity of socio-cultural reality, both in historical and structural aspects, and education itself is interpreted as being in the general context of the evolution of the culture

of modern mankind. Also, at all levels of research, methods of analysis, synthesis and abstraction were used.

OBJECTIVES.

The aim of the study is to try to consider and analyze the ongoing changes in modern culture by analogy with the processes that occur inside the human body, namely in the cell.

DISCUSSION

The return to the origins of culture has always acquired special weight and acuteness in the era of social crises, historical turning points, changes in eras, the emergence of epidemics. It is no exaggeration to say that the problem of the cultural crisis is one of the main problems of modern philosophy of culture (L. Klages, H. Ortega-y-Gasset, O. Spengler, K. Jaspers, etc.). Already in the XX century, culture ceased to be something exclusively positive in relation to a person, sometimes it is even considered as something hostile to him, his freedom, as something that threatens his inner world. The paradox is that the danger generated by culture itself threatens both the creator and the culture itself. Today we are observers of an unprecedented phenomenon - the agony of culture “sent” the era of “absolute truths” into oblivion. Today, the disintegration of values, the leveling of perishing spirituality, dissolving into the masses, have given rise to a “society of spectacles” that is going nowhere, giving rise to their own kind: the “copier of culture” continues to work without interruption in a digitalized society.

Within the framework of the proposed research, the author is based on the works of such scientists as J. Baudrillard, V. Isaev, Y. Lotman, A. Rakitov, M. Saraf, A. Schweitzer, O. Spengler, etc., as well as scientific developments in fields of medicine, biology and medical psychology.

Culture is a large dynamic living organism that reacts very much to “irritations” that arise throughout the history of mankind: it reacts with changes, crises, and various transformations.

M. Saraf, considering in his work “Experience of the typology of culture” culture as a system of reproduction of a social person, deduces the main links, subsystems of culture (Сафар М. Я. 2003, p. 16-24):

- the first subsystem: the production of spiritual values or creative activity, the results of which make up the material, material, objective substrate of culture, whose function is the self-development of a person, in his self-actualization;

- the second subsystem is a person's assimilation of the world in direct activity or spiritual and practical assimilation of reality, carried out in the process of labor, everyday activity, in the forms of artistic development of the world, in the forms of play, competition, sports. Its function is to de-objectify the material substrate of culture, that is, to assimilate meanings, decipher and understand symbolic structures, to transform these meanings into the content of one's own individual, personal consciousness, into the content of the inner spiritual world;

- the third subsystem is the storage, distribution and consumption of spiritual values, which, in fact, ensures the spiritual mastery of the world, that is, the transfer of social experience from one generation to

another and the spiritual development of a person. The structural elements of this subsystem are all kinds of forms and methods of activity, as well as special education, organizations and institutions in the form of traditions, rituals, customs, clubs, museums, etc. Social institutions of upbringing and education occupy a special place here.

M. Saraf notes: “These subsystems are in one form or another in the culture of any society and any era as necessary components. Let's try to exclude any of them and not only the integrity of culture will immediately disappear, but also the possibility of any interaction, functioning and development of all the others. However, the forms and content in which these subsystems of culture acquire real existence are historically determined and transitory. There may be a relationship of continuity between them, but there may not be such a relationship, each of these subsystems changes due to its characteristics, direction and speed, the processes of changing different subsystems may not strongly coincide and even come into sharp contradictions with each other. It is these subsystems that also produce a human attitude towards nature, including towards their own, social “nature”. They produce relations of self-regulation within themselves and among themselves, as well as relations between the integral system of culture and other systems of social production.” (Сафар М. Я. 2003) So, in our opinion, a systematic approach to the study of culture is quite fruitful.

Undoubtedly, the content and all functions of culture are of an extra- or super-biological nature: none of the constituent elements of culture is provided by the action of biological or other natural mechanisms, it is not obtained and is not transmitted genetically or by biological inheritance of life

support programs; they all arise, form and change only in the system of spiritual production. But despite this, the author takes the liberty of trying to consider the transformations and processes taking place in the culture of modern times by analogy with the processes taking place inside the human body, namely in the cell.

According to I. Rakitov, the culture of any human association has a “core”, a container of a certain culture, which ensures the preservation and transmission of the self-identity of society. The author compares the core of culture with human DNA, which ensures high stability and minimal variability. In addition to the core, there is a “protective belt” that acts as a filter, both allowing information to pass from the core to the social organism, and reformatting, not letting in, extinguishing, absorbing information from other cultures. The “protective belt” determines the emergence and existence of the so-called “pretending culture”, which outwardly looks like changed, although its core remains the same (Максакова В. И. 2001). An example can be called the processes of the 90s of the last century in Ukraine (and in many post-Soviet countries), when the “pretending culture” was outwardly “Euroopized”, but its core remained unchanged. “At present, the high stability of the “core”, while preserving the culture, hinders its adaptation to rapidly changing conditions, hinders its assimilation of new civilizational mechanisms. All this can push culture, and hence its carriers - ethnos, society - to self-destruction. At the same time, assimilation of the core is also fraught with the destruction of culture (Максакова В. И. 2001). So, a somewhat biologized view of the processes taking place in culture, as we see, has the right to life. Let us try to consider the

mentioned processes precisely from this point of view, because, sad as it is: “We live in a reproduction society, in a society that continues to grow and that cannot be measured, that develops without paying attention to its nature, whose results grow with the disappearance of the reasons, which leads to an unusual clogging of all systems, to destruction with the help of excess, excess functionality, saturation. Best of all, it is comparable to the process of spreading cancer metastases ...” (Бодрийяр Ж. 2010).

Any phenomenon is an integral part of a higher-order system, and in each of the systems there are certain interrelationships, the violation of which leads to an imbalance in the entire system. Both human culture (as mentioned above) and the human body (consisting of organs, which, in turn, are composed of many cells) are also systems.

It is expected that the vital activity of each organ, cell, each subsystem will be oriented towards the good of the whole organism, because it obeys the law of nature - the part serves the whole. But, unfortunately, this is not always the case. In the human body, processes sometimes occur that, on the contrary, are aimed at destroying the body, and therefore at violating the aforementioned law. Let's take a closer look.

In our century, and this is already statistics, the number of cancer patients is growing, and this growth is associated with the deterioration of the ecological state of the environment, the SARS-CoV-2 pandemic or with the rapid development of the diagnostic capabilities of modern medicine, or maybe there are some other reasons - until now, science is not exactly known. Research shows that cancer cells are the body's own cells that, up to a certain time, served the body by doing the job of keeping it alive. But at a certain

moment, their program fails, and they change their behavior, refusing to serve the organs, multiply uncontrollably, violating morphological boundaries and establishing their strong points everywhere - metastases. Cancer cells grow very quickly and multiply much faster and better than healthy cells, which means they need nutrition and oxygen. As for oxygen, we note that respiration is a general process, and cancer cells always function according to the principle of gross egoism, so they do not have enough oxygen. This means that a malignant tumor goes into an autonomous form of respiration - fermentation, a process in which each cell can breathe separately from the entire system of the body. As for nutrition: in the body, nutrition must be paid for with functional work, and tumor cells are deprived of this usefulness, because their only "goal" is reproduction, which means that they are forced to wage a constant war, seizing more and more new resources and territories (act as aggressors).

Man is a bridge, a point of connection of the idealistic world with the material, where the leading role remains with the idea. Taking this into account, it becomes clear that any disorder or disease of the body (by the way, like "diseases" and cultural crises) has fairly stable parallels with human thinking. If we define personality as a system of relations, then from this position cancer is a necrosis of personality, a product of the rupture of fundamental relations and connections in the internal and external world and their replacement with some superficial and formal similarities.

As for cultural processes, something similar happens with the gradual transformation of culture into a "werewolf space", "quasi-culture", which "capturing its

numerous achievements and realities from culture, places them in civilization and gives these realities a completely different meaning" (Исаев Б. Д., с. 150). Consequently, "quasi-culture" can be considered, so to speak, a "precancerous state" of culture (Zhurba M. 2013).

I must say that the hypothesis of the ideological etiology of cancer is rather ambiguous and, perhaps, even somewhat fantastic from a scientific point of view, and yet it is supported by the latest data that the nuclei of cancer cells, unlike normal ones, do not have an electric potential a, respectively, and fields. That is, the same phenomenon occurs with the cell as a subsystem as with the large system of the body: it is known that people with cancer seem to "drop out of the game", abandon social relations. Consequently, the cell "refuses" from relations with other subsystems: this is served by a high negative charge of the shell of cancer cells, which repels other cells so as not to form a system with them. Scientists have found that cancer cells lose "celi" (microscopic hairs on the surface of cell membranes), designed to communicate with other cells and the external environment. Consequently, the "worldview" of a cancer cell is the philosophy of total egoism, and the whole history of mankind shows that the behavior of an egoist is the destruction of oneself, and then of those around.

Of course, any cell must first of all take care of itself. But a healthy cell serves for the good of the body and always gives more than it consumes. As we have noted, a cancer cell only consumes and works "for itself," but, so to speak, the concept of "freedom" of a cancer cell is erroneous - at first glance, a completely successful process of egoistic development of a cell ends with its death. Erroneous egoism

tears the cancer cell off from the whole and makes it “act” according to the logic “either me or you”, “the main thing is that I feel good”.

A cancer cell is like the human ego. She seeks immortality in division and expansion. Man, on the other hand, tries to perpetuate himself through children, students, victories, books, scientific discoveries, etc.

This misunderstanding is typical for humans and for cancer diseases: the more the ego limits itself, the faster it loses the feeling of a single whole, of which it is a part. He has the illusion that it is capable of doing something “alone”. But “one” - to the same extent means “one with all”, in which and “separated from the rest”. He tries to satisfy his needs and dictates the path to a person, considering only that which contributes to his further delimitation and manifestation to be correct and useful. A person loses connection with the sources of being to the extent that he separates his “I” from the world” (Дальке Р. 2008).

M. Saraf, considering culture as a system, the main function of which is the reproduction of a person, notes that there are two components in this process, namely the reproduction of the forms of the collective being of a person and the reproduction of the forms of his individual being.

Since the 60s of the twentieth century, alienation from the so-called high culture has been rapidly growing: “Everyday life with its forms of being and with its language suddenly turned out to be as if on an equal footing in relation to high culture, so that it even became difficult to distinguish science from charlatanism, an artistic masterpiece from buffoonery...” (Сафар М. Я. 2003). As you know, these processes served as the foundations of postmodernism, that state of

culture, when the forms of collective and individual existence are fragmented and mixed, which, according to M. Saraf, is one of the most significant signs of a cultural crisis.

The state of the new culture can generally be called tragic. Reproduction of a person (in culture) has already become surrogate - the individual for the most part lags behind the level of culture that has been achieved by humanity, filling his “voids” (lack of spiritual and moral values) with mass culture. It must be admitted that today the “point of no return” has almost passed the process of human alienation in all areas, from material production to social, communicative, and spiritual spheres. Apparently, a person is gradually losing the “celi” of the soul, designed to unite it with others.

Everywhere we see a quick and noticeable turn of human interests to the personal sphere of life, which means the dominance of the individual form of being. M. Saraf notes that “...one of the most obvious evidence of the weakening and destruction of forms of collective existence is the seizure of significant official institutions (state, religious organization, etc.) by clan, family clans or criminal communities (which are also a “family”) for achieving their own, self-serving and ambitious interests. Such a degeneration of official social institutions is destructive not only for the forms of individual existence, which are no longer supported by national social programs, lose social and material guarantees of existence, find themselves outside protection, lose life prospects and face many, many more troubles through the destruction of social infrastructures, public order and safety. To “reproduce” a person in such conditions is not only a super difficult task, but often an impossible one, since there is no more

resource for this, a person has nowhere to live, nothing and, it seems, nothing for. ... So, the concentration of a person on private interests, leaving them - is not only a limitation of the cultural space, but even its collapse" (Саф М. Я. 2003).

Do these processes not resemble the selfish philosophy and behavior of a cancer cell? We find confirmation in J. Baudrillard: "Stagnation of a living art form - and at the same time reproduction, chaotic inflation of value, numerous variations of all previous forms (as if the movement of something already dead). And this is quite logical: where there is stagnation, there is metastasis. Where the living form no longer controls itself, where the rules of the genetic game cease to operate (as in the case of cancer), cells begin to multiply randomly. In fact, in the chaos that now reigns in art, one can read a violation of the secret code of aesthetics, just as a disorderly biological character can read a violation of the genetic code" (Бодрийяр Ж. 2010).

When the culture of a nation or ethnos, it would be more accurate to say "quasi-culture", grows on a powerful civilizational platform, it not only destroys the individual, the nation, but also destroys itself.

Scientists noted that in a cancer cell, the value of the nucleus increases significantly, which increases in size. The nucleus of any cell can be compared to the human brain. So, when a person begins to live not with his heart, but with intellect, logic, he himself becomes a cancer cell. Let us remember that in the Christian tradition the devil is the most talented and intelligent angel, who instead of Love strived for spirituality, rationality, and intellectuality.

In the rapid expansion of a cancerous tumor, the same is manifested that occurs with

any separation of the form from the content - the liberated form (in our case, cancer cells) first "rages", pseudo-life develops rapidly, striving to replace the entire real organism, which in the end- ends her and kills. Similar processes can be observed in other areas of life. For example, when the economy "takes off" and money (form), breaking away from the commodity content (content), begins to produce other money. But such a fake breakthrough inevitably ends in default. In fact, these are the same phenomena in which the main property of destructiveness is manifested - everything destructive is forced to self-destruct.

There is a rather non-standard point of view and seditious assumption about the occurrence of a cancerous tumor, namely: cancer is not a disease, but a temporary natural salvation, a defensive reaction of nature to a disease that comes to cancer and consists in the systemic alienation of organs and cells of the body. If there was no cancer, then such alienated organs and cells would be waiting for the final decay and necrosis. A cancerous tumor does not allow alienated cells to disintegrate and die, at least immediately. A similar phenomenon, but at the social level, is fascism. It also acts as an emergency resonant "unifier" that emerges where a society of alienation has emerged.

So, is cancer a kind of "regulator"? In this regard, it is fair to recall J. Baudrillard: "With the help of AIDS and cancer, we are probably paying for our own system: we expel its banal virulence in a fatal way. It is impossible to foresee the degree of effectiveness of such expulsion, but we must ask ourselves the question: why does cancer resist, does it not resist an even worse prospect - the total hegemony of the genetic code? ... You can imagine that our society

seeks to get rid of its disadvantaged in a special way, like the tribes that got rid of the surplus population by suicide in the ocean - it was about homeopathic doses of suicide, about the suicides of several people, but this made it possible to maintain the homeopathic balance of all tribes” (Бодрийяр Ж. 2010).

Within the framework of our research, it seems interesting to consider and compare the “vital activity” of two, at first glance, completely different cells: stem and cancer.

A stem cell is a cell that includes the potential for development in different directions, that is, it is capable of giving rise to many types of body cells, it is a mother cell, a tool for restoring the human body throughout its life.

A cancer cell is an instrument of destruction of the body, leading to the death of the whole organism...

Ordinary cells of the human body cannot multiply indefinitely (“Hayflick limit”). Some (for example, neurons) do not divide at all, others divide only a limited number of times. When the limit of cell division dries up, aging of cells and the body as a whole begins. The reason for the limitation of the number of divisions is the peculiarity of DNA copying: during cell division, it is not completely copied, a small fragment of it at the ends of chromosomes (telomeres) is lost. With each cell division, the length of telomeres decreases, and when they “end” and there is a threat of loss of DNA fragments carrying information that is significant for the cell, its division finally stops. For the majority of stem, cancer and, incidentally, embryonic cells, such a limitation does not exist, since after each division, losses are compensated: a special enzyme (telomerase) completes the telomeres to their original length. But stem and cancer cells use this privilege of

immortality for different purposes. Stem cells in order to provide the embryonic tissue with cellular material, constantly replenish the natural decrease in the body's cells, in order to effectively help an organ in trouble in case of damage. In turn, cancer cells - for the endless reproduction of themselves.

The process of stem cell division is clearly regulated. It is determined by the scale of the loss of cells by the body, and as soon as the number of cells in the affected area is reproduced, the division stops under the action of the so-called contact inhibition. The cancer cell does not “consider” the rules and norms of the cellular system, and follows its own path of unrestrained growth.

It is also interesting that ordinary cells of the body can exist only in the environment of their own kind. If such a cell accidentally falls into an environment unusual for it, it will inevitably die, because here its internal self-destruction mechanism will turn on. Stem and cancer cells feel comfortable in foreign territory, and not only survive on their own, but are also able to reproduce. But again, the purpose of the trip and their further fate are completely different. The stem cell, obeying the will of the whole, gets to the right place at the right time on a special signal with the task to revive the damaged organ for the good of the body.

The cancer cell does not care at all about the environment. When the tumor ceases to feel comfortable (and fit) in the old place, it begins to grow into neighboring tissues and metastasize to distant organs. In the new environment, the fate of the cancer cell does not change at all: it breathes, feeds, and, of course, constantly multiplies. Another feature of stem and cancer cells is their ability to travel long distances. Ordinary cells of the body, with the exception of blood cells, are

deprived of this ability. What is the difference between the “travel” of stem cells and cancer cells? Stem cells use the body's natural transport pathways to move, and this is not enough for cancer: a cancerous tumor creates its own highways - lymphatic and blood vessels.

Consequently, cancer and stem cells have common properties: the ability to divide indefinitely and endlessly, “travel” long distances, and also be in someone else's microenvironment. These features significantly distinguish them from all other cells in the body. But among themselves these similar cells differ fundamentally and, so to speak, fatally, precisely by the purpose of its “vital activity”: the stem cell serves the Whole (the human body), “hears” signals reflecting its will, and, most importantly, obeys them, this is a part harmoniously integrated into the program of the Whole; The cancer cell, although it is also a part of the Whole, but openly, egoistically ignores its laws, and uses only its own needs.

But why does an aggressive and willful cancer cell appear in the body?

Another hypothesis of the transformation of a law-abiding body cell into a malignant cancer is embodied in “tainted heredity” - fatal damage to the genetic apparatus. Changes in the so-called “social control” genes, genes responsible for growth, reproduction, nutrition, “career guidance”, for the ability to coexist with the body (namely, the ability to perceive, interpret and respond to regulatory signals that come from him) cells. But every person has tens of thousands of genetically altered cells every day, but not everyone develops a tumor. Why? For the body has attentive external and internal “sentries” (the immune system and special proteins - the clock of the genome), whose

task is to recognize and destroy dangerous cells. However, most cancer cells successfully avoid the punitive measures of these sentries, as it turned out, due to the ability of cancer cells to secrete substances that paralyze the activity of the immune system.

More and more scientific evidence supports the assumption that a cancer cell is an altered stem cell. For example, German scientists have proved the existence of a direct connection between defective stem cells (with a failure in the genetic program) and cancerous tumors: a similar stem, placed in the body of an experimental fly, has grown into a tumor with multiple metastases.

How does the process of malignant transformation take place? The direct responsibility of stem cells is to restore the destroyed tissues of the body: in the place of destruction, enhanced regeneration occurs, which means that the stem cells work with an overload, which sometimes leads to a malfunction in the stem cell program, and instead of rescue work for the good of the body, it will begin to save itself, turning into a cancerous one, and the restoration of an organ - into the growth of a tumor, the instrument of revival becomes an instrument of destruction, life is on the verge of death.

CONCLUSION

The current state of modern culture is comparable to the body of a cancer patient. When comparing the vital activity of cancer and stem cells and the balance between the inner world of a person and his external activity, between being collective and individual, it became clear that constant destruction, a shift in balance in the processes under consideration gradually destroys not only the human body, but also the culture itself as a social human essence... Therefore, the only way out of the current crisis situation

in modern society is to turn, turn to the Other, which will allow the individual to revive the lost spiritual and cultural values, because this is what does not allow a person, like a spontaneous expansion of a cancer cell, to repeat indefinitely, thereby destroying himself and the surrounding world.

The conducted research is an attempt to describe the biological model of culture at the cellular level and transfer it to the context of real socio-cultural relations. This approach made it possible to understand the negative consequences of the development of modern culture more deeply, which destroy the integrity and content of the educational process. The research carried out was tested at

international scientific and practical conferences, in various publications and in the training course “Philosophy” for graduate students (2015-2021), which is taught at the State Institution “Luhansk State Medical University”.

Perhaps such a reductionism and the reduction of complex cultural transformations into processes occurring at the cellular level are quite contradictory, however, the methodological principle used makes it possible to clarify some complex cultural phenomena of modern culture and education, where forms and functions have ceased to be a single whole

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