System-Parametric Analysis of a Creative Person: New Facets of Comprehension

Alla NERUBASSKA¹, Halyna TARANENKO², Olga POPRAVKO³, Inna KUZMENKO⁴

¹ Private Joint-Stock Company “Higher education institution “Interregional Academy of Personnel Management”, Odesa, Ukraine, saylort03@ukr.net
² Dmytro Motorny Tavria State Agrotechnological University, Melitopol, Ukraine, taranenkoggg@ukr.net
³ Dmytro Motorny Tavria State Agrotechnological University, Melitopol, Ukraine, popravko_olga@ukr.net
⁴ Odesa National Medical University, Odesa, Ukraine, ina_medin@l.ua

Abstract: The article considers possible issues connected with using contemporary systematic methods in studying human existence during the crisis stages of life. We suggest that the role of science, art and culture in human life be considered as a way to overcome crises. The system-parametric method developed by Avenir Uyemov allows us to explore the nature of human creativity. This method is based on the dual definition of a system, which may represent any object. When an object is defined, the concept, structure and substrate can be identified. This hierarchy constitutes integrity in the system. The use of such a system-parametric method in studying an object provides new perspectives, especially when it comes to arts and humanities. This paper endeavors to characterize the “creative human” system. The definitions of the “creative human” system used herein indicate that the two definitions are different, but yet still meet the complementarity principle. Both systems are characterized using first-order parameters (concept, structure, and substrate). For an in-depth analysis, we can use second-order parameters: attributive and relational. In this study five attributive second-order system parameters were used to characterize “creative human” systems.

Keywords: a system-parametric model of the “creative person”, binary system parameters, Creative Person, Genetic Properties, human cyborgization, a new stage of transhumanism.

Introduction

In an age of global revolutions in science, economics, politics, culture and society, people find themselves in conditions where they constantly have to make choices, which changes their essence and makes them more vulnerable and less adaptive. Excessive information flows, technical innovations and economic crises can lead to revolutions both in large systems, such as public systems, and in micro-communities, such as humans. Given that contemporary bifurcation communities do not offer free choice to people, but rather impose generally accepted standards and rules on them, creative thinking becomes a means for people to express themselves. And, as never before, such thinking is in high demand in all spheres in order to carry out tasks more creatively. According to our research hypothesis, contemporary humanity is slowly losing and increasingly negating the talent and genius of people, at a time when all economic sectors are in need of creative approaches to, and creativity in, addressing tasks and developing market systems and other spheres of society. The object of this study will be a creative person in a bifurcation society.

If we want to develop auxiliary mechanisms for how humans adapt to ever-changing reality, we should start by creating a contemporary universal personality, a model of the present and future human. One such adaptive mechanism for human personality are the arts and culture. Although psychologists have worked actively on the development of specific methods to study the interaction between man and his environment, a philosophical perspective to these problems will inevitably increase opportunities for scientists (Bodrov, 2006, pp. 122-133). Other non-scientific life spheres may also come to the aid of science. In such processes when social sphere influence people, art becomes the translation of their sensual and emotional essence. Further in-depth analysis can also be conducted on human genetic parameters. We believe that the development of human adaptive mechanisms, which are based on the confluence of science, culture, the arts and human genetic properties, is relevant and requires the creation of a model. We presented the system models “a person as a biological species” and “a person as a creative being”, which highlight several sub-systems that are based on differences in the understanding of creativity, talent and genius discussed in another paper (Nerubasska & Maksymchuk, 2020). Therefore, the goal of this article will be to create a system-parametric model of the “creative person” system, in two different
ways with the use of the dual definition proposed by the author of the general parametric theory, A. Uyemov.

1. Philosophy and psychology about sore points of human being and creativity

Many researchers, such as S. Kierkegaard (Kierkegaard, 2016); J.- P. Sartre (Sartre Jean-Paul, 2007); A. Camus (Camus, 1990, pp. 24-100), N. Berdyaev (Berdyaev, 1991, p. 56), spent many hours working on human issues in the context of these problems. According to Albert Camus, “Of all the schools of patience and lucidity, creation is the most effective. It is also the staggering evidence of man's sole dignity: the dogged revolt against his condition, perseverance in an effort considered sterile. It calls for a daily effort, self-mastery, a precise estimate of the limits of truth, measure, and strength. But perhaps the great work of art has less importance in itself than in the ordeal it demands of a man and the opportunity it provides him of overcoming his phantoms and approaching a little closer to his naked reality.” (Camus, n.d.). Camus compares the creator with the ancient character in Greek mythology, Sisyphus (Camus, 1990, pp. 24-100).

We can also cite psychologists who have made a number of discoveries in the field of human problems in existential psychology, such as R. May (May, 2001); L. Binswanger (Binswanger, 2014) as well as others.

Analysis of their works demonstrates that they were only focused on the stages of human and human existence when problems arise. Techniques for the prevention of such, if any exist, are poorly studied and developed. Even today therapeutic approaches to addressing human existential states have not progressed much from their developmental stages. According to the research works cited above, they treat people as abstracts, without designating his uniqueness as a “living” intellectual being with all his properties that are geared towards self-creation and the environment around him.

At the same time, having created one’s own environment, a person doesn’t feel free any longer. This artificially created social environment has become extraneous to its creator. However, such a scenario is one such example of a pre-crisis or crisis moment of existence. The author of the article “You Have to Become a Work of Art” (Original title: Musíš sa stať umelkým dielom) by Švihura, Lukáš suggested exploring “the art of life” in a similar context. Relying on philosophic works from both ancient and contemporary times, the author concludes that the ability to live a good life, which is what the “art of life” is about, serves the functioning of a social
system but is by no means a moment of existence that is responsible for our free self-determination. “What is pleasant, is individually pleasing, and what is useful, is individually useful.” (Švihura, 2019, pp. 232-233). Moreover, when defining anesthetization, the author concludes that, in fact, sociality imposes its norms on us but because we have already adapted to them and, principally, are accustomed to such non-freedoms, we consider them the norm of life. With reference to Castells (Castells, 2010) the researchers point to an important aspect of contemporary societies. When defining society as a network society, they note that human creativity in the network society is released and may freely develop (Mazur & Duchlinski, 2020, p. 54).

Let’s determine the role of the creative component in each person’s life.

2. Choosing systems approach to analyze the model of “creative person”

I would like to emphasize the importance of applying a systems approach in the cognition process. The method itself is characterized by a hierarchical pattern in object analysis. “The hierarchical pattern of cognition requires a multilevel approach to studying an object: studying an object itself is an ‘immediate’ level; studying the same object as an element of a larger system is a ‘higher’ level; studying the object in relation to its constituting elements is a ‘lower’ level” (Isko et al., 2010). This research will focus on the immediate and lower levels, setting aside the higher level for now.

One of the systems method options authored by Professor A. Uyemov, and developed in the middle of the 20th Century in the Ukraine, is based on system definition and parametric analysis. The choice of the theme for this work and its novelty will be connected with the use of this system method option in studying human creativity. The primary novelty of our research approach will be: 1) the use of a dual-system model of the “creative person” system; 2) Use of parametric analysis of the “creative person” system and, consequently, increasing our knowledge about the object.

The system method allows us to present an object as a system in two separate ways. The first way the system can be defined using a relational concept, attributive structure and substrate. The second way focuses on attributive concepts, relational structure, and substrate.

1. “Any randomly taken object can be considered a system if it is an object on which some relation with a fixed property is realized;

2. Any randomly taken object is a system if its properties are connected through a certain fixed relationship” (Uyemov, 1978, p. 98).
The life of a contemporary human is constantly associated with bifurcations, which have various effects on the human. In the system model, bifurcation may relate to any descriptor level. People turn to art as a way out of the bifurcation points of their existence. Hugh Silverman in his book “Postmodernism: Philosophy and the Arts” presents in detail the philosophic way of looking at the various arts – architecture, painting, literature, theater, photography, cinema, television, dance and fashion, and presents postmodernism as a cultural phenomenon, with its own politics and language (Silverman, 2019, p. 319). The human role in these epochs of new changes is poorly explained. It is therefore necessary to emphasize and identify: the role of art and culture for contemporary personalities in the communication spheres of human life; highlight creativity in a contemporary person; and, to present a system-parametric study of humans as an inherently creative, inventive and innovative subject rather than just as a biological species.

We will demonstrate the importance of human genetic properties, creativity, talent and genius, by arranging them in the hierarchy of “creative person” system elements and identifying new system parameters for this object. But will such creativity be real art?

3. Scientific progress, art and humans

In the era of information and technological revolutions, which have rapidly expanded across humanity in the twentieth century and continue their rapid development for almost a quarter of the twenty-first century, humanizing the spheres of people’s lives has become an integral part of any system’s success. “The challenge of the holistic scientific cognition of a human is that science is focused on building perfect models, identifying general patterns, describing types, while a human is a unique creature. However, this limitation is generally typical of the natural-science paradigm in the study of human studies. Yet there is also humanitarian paradigm in human studies that seeks to challenge natural science unilateralism and instead focuses on human integrity and uniqueness” (Slobodchikov & Isaev, 1995, p. 17). Today, there are two main customers and consumers in Ukraine – economy and politics. It is quite unfortunate that the culture and social spheres have fallen behind due to specific demands of society. The change in the importance of art for society becomes a new bifurcation. The arts, as a reflection of modernity, change their function. What will become of it at this stage of information development in society? Isn’t it going to become a standardized and simplified art, created not by humans but by
machines? This is a pressing concern, as the contemporary technological progress allows creating and recreating the most ingenious masterpieces. Let’s not forget that art saves us from the hustle and bustle of everyday life. “Art is the only corner of human life where we can relax” (Blackburn, 2019). Unfortunately, not everyone is involved in the arts. As concerns the creative realization of personality, here we see an absolutely different situation. Higher-level human qualities such as empathy, the ability to love, to empathize, to bring good to the world, etc., are cultivated in people through the various arts, for example, film and literature. However, even art cannot change the genetic properties of a human predestined to be talented or a genius.

Genius is considered a very rare feature. American sociologist George Becker noted: “A genius, unlike a talented person, is not satisfied with reproduction and synthesis of existing knowledge, but is driven by mystery and insuperable need, seeks originality” (Punchenko & Doroshenko, 2004, p. 27). This desire can be absolutely incredible in the categories of science, it can be seen as a flash of genius, as a “jump into the dark”, a concept used by Albert Einstein (Nerubasskaya, 2013). This refers to an element or a piece of a puzzle that a scientist sometimes lacks to make a great discovery, and suddenly he makes that discovery as if some unknown power had suddenly bestowed it upon him. “Genius is the ability to show universalism in every responsible creative moment, to focus all creative potential on one direction at the right moment” (Punchenko & Doroshenko, 2004, p. 30). Speaking about genius, A. Schopenhauer emphasized that “only the spirit hears the spirit, and works of a genius will only be understood and appreciated by other geniuses” (Schopenhauer, 2001, p. 195). Meaning, it is hard to imagine that Einstein's general relativity being developed by anyone else other than a genius, but its fundamentals, essence, perspectives, etc. can be appreciated by any university student, not only by an ordinary physical scientist. The same thing can be said about art. Anyone who with an interest in art can admire ingenious works, but only a specialist is able to understand them. It’s questionable, what meaning Schopenhauer put into the word “to understand genius”. Schopenhauer might have meant a mental level rather than an art movement to which a particular work of art belongs or a style used by an author, etc. An art expert doesn’t need much talent, not to mention genius, to answer these questions. Today it is enough to be a creative person with special education. And this can be considered a concept of a system of “creative person”. “The signs of creativity are: conscious purposeful activity of faith – conscience – will, imagination – intuition – mind, love – joy – hope; creation of fundamentally
new values; focus on achieving socially significant results. Creative work is where all available noological abilities of the person are realized. A human may experience inspiration, insight, a creative impulse, that which has been repeatedly described and discussed by scientists, engineers, poets, artists and thinkers” (Onishchenko, 2012, p. 26). However, won’t this “battle” be lost by man with his creativity, talent and genius, which are inherent in only a small percentage of people, to machines that are used everywhere and can displace people?! Thus, the functions of human and human-made machines are changing. Human creativity may become not a conceptual but a substrate property. This decreases its importance significantly. This movement, which is called transhumanism in philosophy and development of cyborgization, a new stage of transhumanism, has once again become relevant.

Today, the problem of human cyborgization is very acute and the discoveries of contemporary science indicate a breakthrough in and rapid development of this industry (Nerubasska, Maksymchuk, & Palshkov, 2020). Today, one can hardly be surprised by the presence of robots; even children are capable of making various models of robots. Contemporary researchers are more interested in a specific type of robots, androids, which look like people and even have a sense of humor (Halapsis, 2019). These processes are supported by the creation of the cyborg, Sofia, which has already been presented to the whole scientific and non-scientific world. It therefore becomes important to prove that people will not lose the intellectual battle to cyborgs. In this battle, the ability of people to approach creatively everything they do will be of great importance; and gifted and brilliant people will be a level higher than any mechanisms they create. “The increasing importance of knowledge and, accordingly, human capital in the economy, which stems from the need to improve labor productivity and ensure the most effective functioning of this form of economic activity requires the further development of creativity as part of an individual’s personality, in order to provide at the human creativity stage the possibility for a human to realize his or her fullest potential and take advantage of opportunities to achieve common goals for the benefit of the whole of society” (Meyerovich & Shragina, 2013-2016, pp. 155-164). The authors of the article also bring discuss the formation of new human needs, focusing on a need that has emerged during the social development of mankind – to create aesthetic images in communicative processes with the external and internal world. An example would be a poetic image that carries systemic utility in building and perceiving new individual thoughts. It is possible that art will bring people to this conceptual level.
Halapsis, when speaking about beginning of posthumanic history (Halapsis, 2019, pp. 78-90), purports cyborgs will be need to be recognized as personalities in the future, and therefore society will have to define laws and rights for humanity’s new neighbors. This process can hardly avoid bifurcations in the communications between humans and robots. Such bifurcations will have a conceptual meaning for the “society” and “creative person” systems.

I cannot help but mention predictions in this area of scientific progress. According to what are considered the stages of cybernetic revolution, more specifically the initial scientific and information stage (1950-1990), the middle modernization stage (1990-2030-2040) and the final (innovative) stage (Grinin & Grinin, 2016, p. 6), we are currently at the epicenter of active developments, experiments and trial samples. In the third phase, self-controlling systems will be used, where it is presumed they will be active participants, that is, they will become members of society. This requires reassessment of social reality, communications, ethics, values, etc., as cyborgs will substitute people in many activities, even in art, which can lead to a growing crisis in society whereby people will withdraw from reality and their day-to-day and understood lifestyles, especially if society is unable to self-organize quickly. This also applies to humans.

4. Dual definition of the “creative person” system

The “creative person” system with its propensity to, or need for, transformation and the creation of something new or necessary includes the following concepts.

In this study, a person is presented as a system in a dualistic way – not just a human person, but a "creative person". We distinguish the system descriptors according to the second definition proposed by A. Uyemov, i.e. with an attributive concept and relational structure. The most difficult thing in defining a system is to identify its concept. It is quite clear what the main attribute of the “creative person” system is: the conceptual property is the attribute “creative”. The second step is to identify an appropriate structure with a relation that matches the identified concept. For a creative person, it is necessary to manifest his or her creative nature, and it can be manifested in relations with the environment and in communicative contacts with others. Therefore, we suggest designating the social and communicative relations of a person as a system structure. The substrate, being the third system descriptor and which constitutes a basis for implementation of the structure and concept, will be the acting person himself.
The dual definition of a system has a relational concept. Creative relations in a creative person’s activity, as a manifestation of his or her personal abilities and realizations, are conceptual in the “creative person” system. The attributive structure of this system includes numerous properties. Among them are high efficiency, agreeability, having a strong-willed character (not always, but it is desirable), being creative, ethical, appreciating aesthetics, sociable, having the ability to learn, being creative, talented (not always) and brilliant (rarely), etc. These are the qualities (in this case properties) that will help a creative person realize him or herself in society. The substrate of this system is an active person. Both systems have the same substrate and are therefore identical by substrate.

A question may arise here: have we described the same system or not? The question arises because both definitions contain a system with the same name “creative person”. A. Uyemov, the author of the system parametric theory of systems, answers this question when he characterizes system definitions. He says that these are two different systems, such as, for example, the “master’s slave” system and the “slave master’s” system. The dual system definition contains dual system modeling, which in turn provides insight into the intrinsic identity of the object. We mirrored this procedure and practically applied the system method, having created a model of the objects of our interest, which is the first stage of research. “The structure of the model is characterized by subordination of various information related to the research object, identification of the object properties being most important for the study, ‘information points’, and certain interdependencies. It is this subordination that provides the heuristic function of the model, where, on the basis of the unrecognized, knowledge emerges about other aspects of the phenomenon that have yet to be explored. Identification of individual essential properties is among the factors that put the model above the forms of ordinary sensual cognition” (Vornikov, 2014, p. 89). Parametric analysis of the systems under consideration becomes such new knowledge in our study.

5. Parametric analysis of the “creative person” system with a relational concept and attributive structure

There are 24 attributive parameters on the list. In this article, we will consider five of them. The choice of these parameters for our research is subjective as we can use any number of parameters. We think that these parameters will help achieve clear insight into the essential features of the creative person model.
Parameter No. 1 – **ordered and unordered** systems. **Ordered** systems are systems for which order is important. Otherwise, we have **unordered** systems. The “creative person” system is an ordered one. We think that for a creative person who realizes his or her potential the desire to solve a problem or any unusual situation is the basis of orderliness. This orderliness is more about the interaction of the individual and his or her social environment. Disorder may lead the system to states that existentialists have philosophized about: uncertainty, fear, alienation, absurdity, etc. An integral personality will always strive toward orderliness.

Parameter No. 2 involves **structurally-pointed, structurally-linear and structurally-multidimensional systems**. The “creative personality” system may be attributed to structurally multidimensional systems, because the structure expressed by a large number of properties allows it to be attributed to this type of system parameters.

Parameter No. 3 – **stratification** (systems may be stratified, i.e. consisting of two or more elements, or non-stratified, i.e. consisting of a single element). The systems may be stratified by substrate and by structure. A creative person is a system stratified by structure.

Parameter No. 4 – **reliability**. The systems that cannot be called absolutely reliable always contain some elements the withdrawal of which may liquidate the system. **Absolutely reliable** systems retain their nature even if any of its elements are destroyed with the exception of a single element. We suggest attributing the “creative person” system to absolutely reliable systems. For example, if we exclude talent and genius from this system, it can still be creative. More specifically, if it retains only one of its elements (properties) – its creative one.

Parameter No. 5 – **completeness**. No new subsystems may be added to a completed system without destroying the initial system. The “creative person” system is incomplete or, as it is also known, an open system. This is a significant advantage for a system that is open to new knowledge, new cultures, and new needs. That is what a creative personality is. Genius can “burn out”, “talent” can disappear, whereas creativity is the very source of inspiration that everyone needs just as they need air to breathe. Creativity is multidimensional and multi-faceted. Therein lay a personality’s strength and adaptive potential.

**Novelty.** Contemporary exact methods are rarely used in the arts and humanities, in contrast to economics, psychology and other sciences. The use of the system-parametric method in studying any object provides new perspectives, especially if it comes to the humanities. This article describes a way the system-parametric method may be applied to the human
problem, provides system characteristics of the object, i.e. the “creative person” system. The definitions of “creative person” systems we have considered indicate that these two definitions are different, but meet the complementarity principle. Both systems are characterized by first-order parameters (concept, structure, and substrate). For an in-depth analysis, you may use second-order parameters: attributive and relational. In this study, one of the “creative person” systems was characterized using five attributive second-order system parameters.

6. Conclusions

Current scientific progress devalues the human factor in a social system. This leads to interruption of a person’s habitual lifestyle and to bifurcation points of existence. Existential philosophy and psychology have identified the main markers of bifurcation states: fear, depression, alienation, absurdity, etc. Arts and creativity then become potential mechanisms for coping with crises. In this article we tried to demonstrate that not only art and culture are important in the contemporary human life, but also their genetic parameters: creativity, talent and genius. We presented systemic-parametric models of the “creative person” model in two different ways, with the use of the dual definition proposed by the author of the general parametric theory A. Uyemov. We identified and provided summary characteristic for the property of “genius”. The first definition of the “creative person” system is given with a relational concept, and the second one with an attributive concept. In the first case, it is the creative approach in a creative person’s activity as a manifestation of the person’s abilities and realization thereof. In the second case, it is the “creative” attribute. We identified appropriate structures and substrates. These models represent the image of contemporary personality in new realities of the social community. We performed parametric analysis for the model with the relational concept and established that the system is ordered, structurally multidimensional, stratified, absolutely reliable and open (binary system parameters). Using the system method parameters we tried to gain a deeper understanding of the creative personality and its communication with the external world.

The prospects for this study include analysis of the proposed systems using other system relational and attributive parameters. The results can be used in addition to conventional courses of social philosophy, philosophic anthropology, aesthetics, cultural studies, theory of art, philosophy of art and, among others, systems analysis.
References


