Sąmonės filosofija

DID DESCARTES COMMIT AN ERROR? NEW DIMENSIONS FOR COGITO ARCHITECTURE

Valery Yevarouski

Centre for History of Philosophy and Comparative Studies The Institute of Philosophy of the National Academy of Sciences of Belarus Surganova ulitza 1/2, 220071, Minsk, Belarus E-mail: walewr@gmail.com

Abstract. The approaches to brain-mind-environment interaction practiced within classical epistemology, modern neurophilosophy, and neuroscience are considered together with the comparative research design. The concept of natural dualism is introduced. On above grounds, the operational or protopraxis model of behaviour is discussed, which is based on the rigid distinctions between useful, harmful, and neutral fragments selected during life. For the human being, the environment is not limited to nature but includes the body as well as many cognitive processes. The question is who (or what) benefits in the end, if even our internal world is adjusted to its demands. By now it is a construct with philosophically presupposed meaning, which also can be interpreted as both cogito and the Self. Philosophy of psychiatry may propose the minimal or non-programmed cogito as an alternative starting point. This system can be enriched with two more elements – affective cogito and reward centre. Thus, we receive a harmonious categorical structure for the description of psyche and its external activity or practice.

Keywords: philosophy of psychiatry, natural dualism, operational behaviour model, hierarchical architecture of the cogito

Reflections which are presented in this article constitute a peculiar reaction evoked by reading a series of works on neurophilosophy and neurosciences. I will leave their analysis for some other time. Still, from these studies, I have borrowed a paraphrase of the title of the book by the American neurophilosopher and neurobiologist Antonio Damasio *Descartes' Error* (1994), as well as the impulse for the reasoning that follows. While reading predominantly American literature on neurophilosophy and relevant studies on neuroscience, I have almost never come across any mention of Edmund Husserl or Jean-Paul Sartre. Very few references to Immanuel Kant. However, at the same time, the celebrity and the object of tough criticism is Rene Descartes. As an example, we can recall Damasio's book *Descartes' Error* (1994). A philosopher can find very little there about the essence of Cartesian philosophy. For Damasio, Descartes is rather a metaphor symbolizing dualism that is understood with some deviation from the tradition as such. *Descartes'Error* defends the idea that the mind can't be separated from the brain and that any joy or suffering of a human soul can be viewed as different conditions of a human body. In his later book *Self Comes to Mind: Constructing the Conscious Brain* (2010), Damasio adjusts his idea – "there is no dichotomy between self-as-object and self-as-knower; there is, rather, a continuity and progression. The self-as-knower is grounded on the self-asobject" (Damasio 2010: 9-10).

According to the modern European philosophical tradition (although it consists of many concepts contradicting one another, but historically coming out of Cartesianism), this idea can be a target of multiple criticisms. Nevertheless, we are not going to disagree with it now. Once again, we point out our thought. Despite the eloquent title of the first book and the highly promising continuation quoted above, Damasio's writings are neither about Descartes, nor about Cartesianism at all. There may be only a metaphor of Descartes' error that is used to demonstrate a very simple idea that our thoughts are a mere function of our body, like, for example, digestion. Indeed, let us assume we understand the social reality as abstractly as possible. Thus, we get an environment which is different from food in its impact on the brain only by its complexity. However, this complexity is not based on the a priori impossibility to reduce the human activity to the processes inside the brain interacting with the environment; it is created with the insufficient level of the development of neuroscience. Precisely in that context, the mention of Descartes and his famous aphorism cogito ergo sum is, indeed, rather a metaphor than a serious critical analysis of the tradition.

Thinking about Nothing, Cognition as a *Ding an sich*

Let us note briefly one evident thing. The dichotomy of the mind and the body, of course, is not an invention of this great French philosopher. By going deeper into the history and philosophy, we can recall the Christian doctrine with its distinct division of the soul on God's gift and the body (admittedly sinful) given to the soul as a temporary shelter. We can notice that Christianity pushed philosophy to find the location where in the human body the soul lives, and the picture in the context was a priori argumentative. It is interesting that the brain was not the best candidate for that purpose historically. Let us recall the metaphors of the heart, which are still quite strong even now, not only in poetry, but also in ordinary people's description of their emotional states. As an interesting cultural parallel, it can be noted here that while in difficult psychological moments people of European culture complain about the heart, the Chinese often speak about the stomach (Ryder et al. 2011) and other somatic symptoms (cf. Dere et al. 2013). The dichotomy of the soul and the body, at least in the cultures established on the ideals of Christianity, can be considered as a universal script having its influence on many manifestations of human intellectual activities

The above-mentioned concepts of Damasio can be evaluated in yet another sense. In our opinion, the author defends a very productive position of the syncretism of the soul and the body. In the context, it is not about the deconstruction of the Cartesian tradition, but about emphasizing certain weak points of the concepts related to the

construction of artificial intelligence and about potential unclarities these approaches may face during the attempts to construct a whole human personality. We can mention here the distinction between neurophilosophy and philosophy of neuroscience made by Carl Craver (2007: vii). From this point of view the philosophy of neuroscience follows the traditional path of the philosophy of science when philosophical structures are, firstly, very carefully used to fill the gaps in proofs and, secondly, serve to reflect the foundations of the discipline. Thus, it can be said that the statements called philosophical must not contradict experimental data, and shall ideally be within a purely (in our case) biological discourse.

Let us provide an example. For neuroscience and philosophy connected with it, the statement that addiction is a brain disorder simply means that we can imagine certain biochemical disorders directly or indirectly related to the advent or aggravation of addictive behaviour. According to neurophilosophy, the situation is different. For the model intellectual activity somehow related to the brain is primary here. Besides, with respect to this activity, the brain and, even, the body is viewed with a certain degree of abstraction. Neurophilosophically the body can be, through some trifle exaggeration, compared with L. Frank Baum's Tin Woodman with emotions in the form of the embedded heart. As for the external world, intentionality can be an adequate parameter to which all its diversity can be reduced. Intentionality is hereby understood at least from three points of view. First, it is a set of changing potentials that can provide initial conditions for intellectual activity. Second, in the Turing machine model frameworks (Penrose 1989, 1994), intentionality can be viewed as a "stop command" that helps calculation processes to change their directions. Third, intentionality can be considered as a kind of reality-charging or the specificity that can potentially give concreteness and thingness to intellectual processes.

Nevertheless, we have the same dualism when a person's complexity is reduced to two structures: the controllable one (the body, including the brain as a biological structure) and the mind (which, depending on the concept, need not be regarded as something that does not have a physical carrier). Such concepts are also as far from the ideals of harmony of body and soul as the above-mentioned ideas of Damasio (though they are by no means like Cartesian schemes). So far several generations of children have grown up with the images of robots, good ones helping humans faithfully, and evil ones who have seized power and try to make their own civilization. However, we can say with certainty two things about all these mechanisms. Firstly, the body is secondary for these creatures (or, better say, structures). In this respect, their history shall be traced not from Karel Čapek's R.U.R (1923), but from the medieval homunculus sitting inside a bigger human and using him or her as its own sequel (Churchland 1995; Lycan 1987). Secondly, we agree about it with Paul Churchland (1995): the mind functions anyway. Having outlined the boundaries of neurophilosophy, let us try to get some crucial details out of its concepts. First, under any interpretation the external environment is, at best, reduced to the role of the divine primum mobile of the epoch of Newtonian mechanics. In other words, the stability of functioning of the cognitive system or, to be more exact, the possibility, at least by making mathematical or logical algorithms, of modelling it as an endlessly functioning continuum. However, what is cognition? Is it a pure and eternal mathematical algorithm that can be successfully repeated with any physical model, or is it a specific feature of the human brain as a unique and inimitable substrate?

Dualism is the Strongly Ideographic Pattern of Life on Earth

Any form of life can be imagined as an autonomous formation within which the frameworks of physical reality are changed. It means the activities taking place inside any life form are not like those proceeding in neighbouring fragments of the so-called inanimate nature. Thus, the primary principle of dualism can be formulated. This principle is not the fact of cognition, of course, but it does take place. Besides, as a postulate another fact can be mentioned here. The physical reality (we are going to use this phrase as a synonym of inanimate nature hereafter) is a necessary element for the existence of this living being. Also, we can take for granted the fact that most living organisms on Earth would die immediately and cease to exist as individual units, if they were put, say, to outer space. So, we get the primary sketch of dualism. The second important stratum of evolution can be the genesis of such organisms (fish, reptiles and, finally, mammals) that do not just passively interact with nature, but show such characteristic as behaviour. A lion or a shark can somehow tell edible from inedible and even choose more delicious prey leaving less delicious kill for worse days. A zebra knows, or at least behaves as if it knows, which creatures are dangerous and

which ones it can simply ignore. And at last, the finest moment of the "beast understanding" is reproduction: it is impossible without clearly recognizing a creature of the same species but opposite sex. Had this recognition failed to work, the evolution would have got stuck or gone another way. Thus, by means of quite simple ratiocinations (by the way, making the foundation of the so-called attachment theory (Bretherton 1992, Cassidy and Shaver 2008) we come to the conclusion that the environment seems to be discrete not just for humans, but also for their very distant biological ancestors. Besides, this discreteness, even if there is no subject, is subjective as such, its nature is not in ontology, but in the specificity of the interaction of a living being with it. The question whether non-humanoid creatures have the opposition of external and internal worlds or how clearly they see the borders of their own bodies remains pending. However, it is enough for our further talk about the nature and genesis of the subject-object dualism

A different question can be more interesting here. We only mention a sophisticated and hypothetical issue of the possibility that animals have intelligence (Lurz 2011). If we describe it briefly, we can make a purely philosophical conclusion. We cannot be certain that animals do not have intelligence, but we cannot be equally sure that they have it. The problem is not about Thomas Nagel's (1974) phenomenon of bat, nor is it about the insufficient study thereof. Available research tells us that primates (and not only them) have some rudimentary skills of logical thinking, an ability to learn, etc. Before we also assumed that the world is not discrete only for humans. But the question of an animal realizing oneself as a *res cogitans* is pending. In other words, according to strict Cartesianism, it cannot be said that a chimpanzee is able to think (or perform actions an observer takes to be thinking) (cf. Bekoff et al. 2002, Lurz 2011, Shettleworth 2010).

We may consider some models of information processing that modern neuroscience finds at the level of purely biological structures of the brain, which belong not only to humans but also to some higher animals (especially mammals) (cf. Harington et al. 2016, Pandurangan and Hwang 2015, Robinson et al. 2014, Robinson and Berridge 2008). Sensors of all kinds stimulate the work of separate information channels, which are not only worked in parallel and then compared but also poured into specific models of animal behaviour. Thus, we get an operational (or protopraxis model) which at this stage is the form of the intellect which we can also call operational. On such a pre-humanoid level, there are no special difficulties in constructing an opposition of the real and not real, visible, and invisible.

Everything that is worthy of the mission which is carried out by this or that living species is accepted and, correspondingly, the behaviour which is useless for a certain model of life activity does not exist. Such operational activity is of an objective nature and the discreteness of the world is operational and is self-sufficient in this utilitarian significance. Of course, a direct comparison with the animal model (cf. Lynch et al. 2010, Shippenberg and Koob 2002) of even the simplest human goal setting will not be correct. Nevertheless, many pieces of information are operational for the human as well (like automatic forms of knowledge, for example, the potential virulence or edibility of a fruit), since information processing is strongly needed to successfully accomplish this or that task.

Psyche, Cogito, Self

Concentrating on the human being we will receive new connotations supplementing the traditional grasping of cogito only as first elements and the primary precondition of obtaining knowledge about the world. Furthermore, we will show that the heuristic of cogito is not limited in its meaning to intellectual activity only. A key issue of psyche and any social processes is the matter of control. Assuming we have lost control of any process, we have a fundamental and still unclear question of what or who controls it.

Apart from the world outside us, there is another one inside us. And in this inner world, we can find multiple components on a conditional basis. The first one is the sphere of automated reactions. They take place in the body beyond any control: the heart pumps blood, the lungs pump air, the stomach digests food, the kidney, and urinary system remove the products of our vital processes out of the body. This normally works invisibly to our consciousness and can be compared to such well-known processes as the Earth's revolving around the Sun or the water cycle. Some other phenomena are of a probabilistic nature, which means we cannot control them, yet can adapt to them. A good example of it is the natural changeability. In some regions of the Earth, the umbrella is a useful thing to have with you in all kinds of weather. Therefore, we can say that we are all under the influence of external and internal environment independent from our ego. However, the last structure has a wonderful characteristic. If we can get away from unpleasant external

events, it is impossible to get rid of our internal world. We always have to respond to the challenges of our body. The entire process, obviously, goes unnoticed by our mind only when body develops the functions in a familiar environment and well-regulated rhythm. If there is any failure, such as a disease causing chronic effects, a part of the responsibility to maintain the homeostasis should be done consciously. Thus, our internal world teaches us as effectively as the social reality in which we live. On the other hand, failures to control the internal world, as well as those undesirable conditions, irritate us even more than failures in our activities in the world around us.

It happens that our environment is not just the nature and the social world, but also the processes in our inner organs and even our mind. That makes another question: what is our "situation room", or, in other words, how can we determine the structure that, firstly, controls things around and inside a human, and, secondly, for the sake of which things are sometimes called "the feast of life". If our external world is an environment and the internal world is an environment too, then in both cases we have spheres to function - adapt to them, regulate, or change them. The science has not found the exact structure of the brain or the point in charge of the beginning and the end of the human conscious activities. By now it is a purely philosophical construct which also can be interpreted as both cogito and the Self.

However, the question of cogito as both first element of Selfness and the primary precondition of obtaining knowledge about the world is not limited in its meaning only to the sphere of cognitive activity (Smith 1986). When the issue of capability is investigated, for example, the question is whether a human can control his or her affects and, what is more, their consequences.

In fact, using the concept of cogito, we can talk about its absence (in case of, for example, mental retardation) (Sedikides and Spencer 2007), or its improper functioning (as it is sometimes interpreted specifically with respect to schizophrenia or autism) (Kimura 2001). We can go even further here. We can introduce the concept of the human will and even speak of the criteria of the weakness of the will. It is also possible to view cogito with exposing to computer-style thinking. If we consider the human brain like a supercomputer and assume that a new-born's cogito works at the initial level of human development, the enculturation, socialization, and education can be represented as a gradual complication of the cogito program. This process results in two interrelated consequences. Firstly, a person's ability to act like other adult members of the same community. Secondly, the advent of the responsibility of a person for his or her actions.

Even at such a deep level of the mind, the control of humans over themselves manifests itself as subjective experience in the form of the appearance only. Like in the case of cognitive activity when we come to a truth through some logical forms, knowledge, and skills we have obtained, our cogito within situation room model depends on the character and the way of acquiring social representations, rather than just on neurostructures containing relevant information. But speaking about cogito, we face another problem. From the viewpoint of modern philosophical phenomenology and many branches of psychology (especially psychoanalysis), the assertion that the mind has the absolute power in the vast internal

world of a human is not doubtless. As an example of that we are going to give unconscious (Grotstein 2004, Zachar 2014) as well as qualia (Churchland and Churchland 1981, Ramachandran and Hirstein 1997).

Philosophy traditionally uses cogito in epistemological analysis. The question philosophers answer in the shortest and simplest way can be put as follows. How can one prove the idea of a thing shaped in one's mind complies with the original – an object working outside the mind? That is the framework for Descartes' cogito to be born as a primary condition for knowledge. Because to have some knowledge there shall be something (or somebody) to have it. Keeping the scheme in mind we pay attention now to the dichotomy of something and somebody. Then the question arises about the structure of that somebody. Since a human being is an object of cogito control, there is then the question whether the cogito is the mogul of our internal world, who that is, such as an ambassador representing a sophisticated complex called a human being in this person's relations with the entire world. In different philosophical systems the self or *I* is used as a synonym of cogito (not as a part of a pronoun, but as a noun) (Gallagher 2000). Thus, our problematic issue becomes a little clearer. A human ego or self, which borders in our commonplace understanding as the same as the shapes of the human body, when viewed in a more sophisticated way obtains a somewhat different framework. For the question about where ego finishes and non-ego begins brings us to the beginning of the trouble and has no conventional answer. Different philosophical systems answer it in a unique way.

Although this question about the borders of Self is essential for psychiatry, for example, it has only a philosophical answer. On the one hand, it is impossible to switch off the human ego like any other cognitive function and see how the body works afterwards. On the other hand, the neurobiology is guite far from finding the sweet home of cogito among the brain structures (Minsky 2006, Northoff et al. 2011). And finally, a question like that about cogito due to its specific position will maybe remain unanswered forever. To prove this thesis, we will examine the dichotomy of the first and third person suggested by Georg Northoff (2004). Firstly, Northoff speaks of the structures he called neuronal states; secondly, he spoke of mental states. Neuronal states that are related to biology can be studied empirically, and belong to the sciences. We can speak of our brain in third-person perspective and speak of ourselves in first-person perspective. Still the borders of this first person are hidden somewhere far on the routes approaching the brain's biological structures.

The problem of the invisibility of the relation between the processes inside the brain structure and the mental activity of a human can be viewed teleologically. The innate curiosity of humans considers any impediment to the broadening of outlook as an annoying mistake. Meanwhile, what we call the barrier between our ego and the inanimate prospects of the brain can be viewed not only as an atavism, but also as a natural gift of the evolution, something embedded to the nature of our functioning as Homo sapiens. From this point of view, our ego, the world we view in first-person perspective, has inevitably no means at all to include within itself many cerebral and mental processes that are substantially the substructures of Self and paradoxically are not part of the psychological and social senses.

Contrariwise, after a human is born he or she becomes a person due to a complex process of social upbringing. It means that the human obtains knowledge of past generations by rationally acquiring the pieces of the humanity's experience. This experience must include some knowledge of the past including the facts that had happened before this human began to exist. Furthermore, we are becoming noticeable among other people or by the self-expression language. Thus, a person understands one's own significance. Thereby the foundation of the concept of the narrative cogito is laid (Gallagher 2000, Northoff 2004, Northoff et al. 2011). According to this viewpoint, the minimum requirement for a person's capability is his or her capacity to tell some intelligible and distinct story about himself or herself. Therefore, we seem to perceive our being in the world with a minimal part of our mind. But it is the narrative ego that is responsible for every effect of our body. It is also the only source of information about the cognitive processes inside us.

Hierarchical Architecture of the Cogito

Thus, the question of control can be raised to a new level. For example, let us mention ongoing discussions about alcoholism and other addictions, and formulate our interest in this way. Do men or women have the power to control their (and not only addictive) drives and impulses? In our context, these inquiries are specified by the next question. Does narrative cogito fully control the addictive process of the impact on the reward centre or not? To explore the direction further, we shall point out the key elements of the above-mentioned control

centre complex of the human body. Frankly speaking, we have twisted the logic of the earlier fragment by introducing the idea of the narrative cogito without discussing the basic notion of which subcategory this idea is. We can find an excuse that we did it following the historical tradition. Indeed, it was narrative cogito that Descartes and his followers put into the centre of their attention. Though they did not use the term. Cogito does have a final "human" realm in the depth of our brains for epistemology studies. This area can lose every other characteristic, but one - to be an element of the communication environment. Philosophically, we can, like Husserl. leave every element of human knowledge aside to get the extreme point of the human communicative activity. It is important for us that epistemology usually speaks about consciousness of a mentally healthy person as its ideal. Moreover, the person had to be intellectually developed. To be a scientist, a philosopher, an inventor solving difficult heuristic problems. Nevertheless, if we try to build a model of cogito based on experience in psychiatry, we can have as a result a completely different model based on minimal or elementary cogito (Gallagher 2000, Gallagher and Marcel 1999). If we resort to the trending language of cybernetics, we can speak of a structure with no initial software installed (Kimura 2001).

Such concepts for instance can be drawn from philosophy of psychiatry explaining the origin of schizophrenia with the *minimal* cogito concept (Cermolacce et al. 2007). It shall be noted that the programming code of cogito can be accessed by external social experience together with multiple internal structure of the mind. Thus, in most cases, talking about the human self we are dealing

with narrative cogito that can be viewed as an independent phenomenon provided we use classical dialectic categories. On the one hand, it always contains a certain image of human experience. On the other hand, it has the potential of an individual interpretation of this experience. Even in the ancient world they used to compare the human internal environment with the social structures outside the human. It is the root of the dichotomy of microcosm and macrocosm that are similar in structure and functions, but not the same. Our story, living in the structure of the self, gives us the sense of the past, determines our ability to predict the future, and allows us to compare ourselves with others. Moreover, it is the embedded social programs that help us act, that is become a part of a big social organism. Contrariwise, the achievements in philosophy and psychology we have now suggest that this social self is the most significant part, although not the only one, of a complex set called the human consciousness. Even philosophically speaking, the rationalism explaining everything from the reason's point of view has never been the only view of the subjective reality. The irrationalism has always been the opposite of the rationalism. When irrationalists describe a human being, they take intuition of indivisible human experience as a leading power of the person.

All above-mentioned constructions of the intuitive experience are based on the idealized model of intellectual life. It is the creativity in its broadest sense. Indeed, literary works, paintings and our favourite movies are something other than dry academic treatises. They do not put first the desire to find a generally valid truth. Rather they emphasize bursting out something unexpected, extraordinary or simply what

captures the attention of many in an incredible way. To be frank we must say that scientific discoveries are made likewise. They seem to be an insight experience to their authors rather than a result of dull rational work. On the other hand, when speaking of the human consciousness structure, these philosophical exercises with irrational experience are a good analogy rather than a real model. For a very long while the human is the unity of two sides – the rational area, well-visible, striving to be understood, and the dark one, the realm of emotions and unconscious. One can only guess about the activities and even the role of the "dark side". To understand it, one can use analogies, for instance, comparing it with its researcher's internal world. Any science requires a classification. It means that only the language of the literature and philosophy can have much to say about the intuition or inspiration. The psychology finds it more convenient to speak of certain structures. Therefore, the human mind appears to have the unconscious besides the consciousness as the rational core. Freud found superego as the mediator between the Ego and unconscious (which Freud figuratively parallelizes with the full uncertainty of the German pronoun es). Logic demands that an alternative to the unconscious be created. And Clarence Irving Lewis (1929) introduces the concept of qualia as the storage of "raw feels" of sensations. The doors of perception, a preprocessor of our rational actions open to us.

Affective Cogito and Reward Centre

The above-mentioned system can be enriched with two more elements – affective

cogito and reward centre. Thus, we receive harmonious categorical structure as for the description of psyche and its external activity or practice. The reward system is usually described neurobiologically with the help of chemical and physiological process of the brain (Koob et al. 2014, Koob and Kreek 2007). Dopamine (Berridge and Robinson 2003), serotonin (Higgins and Fletcher 2003) and other substances, which are referred to in the biochemical analysis of the reward system do not associate with fanfares, awards, and other means of human reward for his or her contribution to this or that community. In our minds, the chemistry just does not seem quite in line with such things as fame, recognition and even the pleasure of resting on laurels, perceptible by many. Well, why not pleasure? Many have experienced it. However, it can be experienced, but cannot be described in words. To speak a bit figuratively, we can describe the reward system as a trace of God in the human mind. But again, the specific feature of this structure is that it lays in so-called ancient layers of the brain inherited by humans from their biological ancestors. It is quite tricky: all human's higher nervous activity, all human's social achievements and losses can be explained by the processes in the depths of the brain that have appeared long before anything anthropic began to exist.

The affective cogito we grasp here is only illustrative through the next paraphrases. Let us image something like a simply independent choice (самостоятельное хотенье) of the anonymous character of the story of Fyodor Dostoyevsky's *Notes from Underground*. Surprisingly the English translation of the novel by Richard Pevear and Larissa Volokhonsky (1994) does not fully render the figurative meaning in the Russian original and makes it closer to the strict scientific terminology. What is a simply independent choice? Firstly, the simplicity is not only about something easy to understand, it is something that cannot be divided into any components. Secondly, such a choice or better to say the manifestation of our desires (which is a more exact translation of the original meaning in Russian) is hereby considered independent from socially programmed narrative cogito.

Let us remark here that autonomous affective cogito is an abstraction, for it requires having zero rational cogito or the one with no contact with the external environment and, therefore, incognizable and inexpressible. In most cases, the so-called independent choice is just a riot, and therefore a denial of choice models externally imposed on us. In fact, most affects are still a reaction to external circumstances, although the reaction may go beyond the rational control. It means it does not come from the narrative cogito structure alone. When we say that our mind has a complex structure, we shall suggest some models to be its elements of interactions. We will not be too bold if we assume that narrative cogito plays the leading part in this sophisticated mechanism. The thing we can use to describe the domination option may be the notion of endurance, for instance. It suggests voluntary inhibition of other mental manifestations for the sake of aim to be achieved. Sometimes this process is described as the manifestation of willpower or volition

Conclusions

It is doubtful whether Descartes was mistaken or not. In many cases, this or that answer follows from a context. Anyway, outside classical epistemology it will always be only a subject for discussion. I do not think I will find much opposition if I should say that to be a thinking being is a unique ability of a human. Besides, a human after a long way of evolution (sociogenesis), or after passing the crucial stages of psychological development (anthropogenesis). In such a case, it is easier to work with alteration of the Cartesian statement made by Maine de Biran - volo, ergo sum (I will, therefore I am). This statement (being at the same time the product of reflexion over Cartesianism and the challenge of modernity) is an issue which needs to be handled sensitively. "It will" be the end, not the beginning of a chain of reasonings, since here, volo has the same function as Descartes' cogito. For volo is not vouloir, it is volition, a well-understood wish our ego accepts unconditionally. Meanwhile, even for today's society such volition is a very irregular thing, not to say rare, although on the other hand, volition without any reflexion (i.e., an automatic phenomenon) is more habitual.

An ordinary human often has a typical situation when the ability to think does an auxiliary function to volition. Thinking is particularly aimed at how to realize volition in the most efficient way. We can play with this scheme a bit more and add extra connotations to Descartes' statement, remembering about the class of intellectuals. At least in our life today it is a person, not God, who chooses what to do. Somebody wants to earn money at a stock market, somebody else manages to learn to cure people, others, say, drive trains, or perform other functions that the community views as useful. Only a small part of the population chooses intellectual activity as their trade. Namely, for intellectuals the phrase *I think, therefore I am* gets the full and unconditional meaning. Accordingly, we can extract two additional options out of *cogito ergo sum*: *I will to think, therefore I think*, and *I will, therefore I should think*. All these distinctions add leastwise historical and practical correctness to our talk.

Nevertheless, let us go back to the world discreteness models. We may assume for the phenomenon sometimes called animal intelligence that the understanding of the world as many objects is a result of viewing it according to its use or a necessary condition to implement, want, and like embedded in biological and learning programs of certain species of higher organisms. Human evolution adds extra forms to already complex distinctions. Most notably, we explained the opposition of ego and non-ego. Of course, it is difficult to say when what we call today the understanding of the sameness came into existence in the human cognition. Moreover, the forms of present-day civilization, despite obvious convergence processes, do continue offering their different solutions to ego's placement in the body and social reality. And this divergence rested on the assumption of peculiarities in cultural scripts, intellectual histories, religious beliefs and philosophical discourses

REFERENCES

Bekoff, M., Allen, C., and Burghardt, G. M. (eds.), 2002. *The Cognitive Animal: Empirical and Theoretical Perspectives on Animal Cognition*. Cambridge, Mass., London: MIT.

Bretherton, I., 1992. The Origins of Attachment Theory: John Bowlby and Mary Ainsworth. *Developmental Psychology* 28(5): 759–775.

Čapek, K., 1923. R. U. R.: Rossum's Universal Robots. Kolektivnii drama o vstupni komedii a 3 dejstviich. Praha: Aventinum.

Cassidy, J., and Shaver, P. R. (eds.), 2008. Handbook of Attachment: Theory, Research, and Clinical Applications, 2nd edition. New York, London: Guilford.

Cermolacce, M., Naudin, J., and Parnas, J., 2007. The "Minimal Self" in Psychopathology: Re-Examining the Self-Disorders in the Schizophrenia Spectrum. *Consciousness and Cognition* 16 (3): 703–714.

Churchland, P. M., 1995. *The Engine of Reason, the Seat of the Soul: A Philosophical Journey into the Brain*. Cambridge Mass.: MIT Press.

Churchland, P. M., and Churchland, P. S., 1981. Functionalism, Qualia, and Intentionality. *Philosophical Topics* 12 (1): 121–145.

Craver, C. F., 2007. *Explaining the Brain: Mechanisms and the Mosaic Unity of Neuroscience*. Oxford: Clarendon.

Damasio, A. R., 1994. Descartes 'Error: Emotion, Reason, and the Human Brain. New York: Putnam.

Damasio, A. R., 2010. *Self Comes to Mind: Constructing the Conscious Brain*. New York: Pantheon Books.

Dere, J., Sun, J., Zhao, Y., Persson, T. J., Zhu, X., Yao, S., Bagby, R. M., and Ryder, A. G., 2013. Beyond "Somatization" and "Psychologization": Symptom-Level Variation in Depressed Han Chinese and Euro-Canadian Outpatients. *Frontiers in Psychology* 4 (377): 1–13.

Dostoyevsky, F., 1994. *Notes from Underground*. Translated by R. Pevear and L. Volokhonsky. New York: Vintage Books.

Gallagher, S., 2000. Philosophical Conceptions of the Self: Implications for Cognitive Science. *Trends in Cognitive Sciences* 4 (1): 14–21.

Gallagher, S., and Marcel, A. J., 1999. The Self in Contextualized Action. *Journal of Consciousness Studies* 6 (4): 4–30. Grotstein, J. S., 2004. Notes on the Superego. *Psychoanalytic Inquiry* 24 (2): 257–270.

Harington, K., Smeele, R., van Loon, F., Yuan, J., Haszard, J. J., Drewer, A., and Venn, B. J., 2016. Desire for Sweet Taste Unchanged After Eating: Evidence of a Dessert Mentality? *Journal of the American College of Nutrition* 35 (6): 581–586.

Kimura, B., 2001. Cogito and I: A Bio-logical Approach. *Philosophy, Psychiatry, & Psychology* 8 (4): 331–336.

Lewis, C. I., 1929. *Mind and the World-Order: Outline of a Theory of Knowledge*. New York: Scribner's.

Lurz, R. W., 2011. *Mindreading Animals: The Debate over What Animals Know about Other Minds.* Cambridge, Mass., London: MIT Press.

Lycan, W. G., 1987. *Consciousness*. Cambridge, Mass.: MIT Press.

Lynch, W. I., Nicholson, K. L., Dance, M. E., Morgan, R. W., and Foley, P. L., 2010. Animal Models of Substance Abuse and Addiction: Implications for Science, Animal Welfare, and Society. *Comparative Medicine* 60 (3): 177–188.

Minsky, M. L., 2006. *The Emotion Machine: Commonsense Thinking, Artificial Intelligence, and the Future of the Human Mind.* New York, London, Simon & Schuster.

Nagel, T., 1974. What Is It Like to Be a Bat? *The Philosophical Review* 83 (4): 435–450.

Northoff, G., 2004. *Philosophy of the Brain: The Brain Problem*. Netherlands: John Benjamins Pub.

Northoff, G., Qin, P., and Feinberg, T. E., 2011. Brain Imaging of the Self: Conceptual, Anatomical and Methodological Issues. *Consciousness and Cognition* 20(1): 52–63.

Pandurangan, M., and Hwang, I., 2015. Systemic Mechanism of Taste, Flavour and Palatability in Brain. *Applied Biochemistry and Biotechnology* 175 (6): 3133-3147.

Penrose, R., 1989. *The Emperor's New Mind: Concerning Computers, Minds, and the Laws of Physics*. Oxford: Oxford University Press.

Penrose, R., 1994. *Shadows of the Mind: A Search for the Missing Science of Consciousness*. Oxford, New York: Oxford University Press. Ramachandran, V. S., and Hirstein, W., 1997. Three Laws of Qualia: What Neurology Tells Us about the Biological Functions of Consciousness, Qualia and the Self. *Journal of Consciousness Studies* 4 (5-6): 429–458.

Ryder, A. G., Ban, L. M., and Chentsova-Dutton, Y. E., 2011. Towards a Cultural-Clinical Psychology. *Social and Personality Psychology Compass* 5 (12): 960–975.

Robinson, T. E., and Berridge, K.C., 2008. Review. The Incentive Sensitization Theory of Addiction: Some Current Issues. *Philosophical Transactions of the Royal Society of London. Series B, Biological sciences* 363 (1507): 3137–3146.

Robinson, T. E., Yager, L. M., Cogan, E. S., and Saunders, B. T., 2014. On the Motivational Properties of Reward Cues: Individual Differences. *Neuropharmacology* 76: 450–459.

Sedikides, C., and Spencer, S. (eds.), 2007. *The Self.* Hove: Psychology Press.

Shettleworth, S. J., 2010. *Cognition, Evolution, and Behavior*, 2nd edition. Oxford, New York: Oxford University Press.

Shippenberg, T. S., and Koob, G. F., 2002. Recent Advances in Animal Models of Drug Addiction and Alcoholism. In K. L. Davis, D. Charney, J. T. Coyle, and Ch. Nemeroff (eds.), *Neuropsychopharmacology: The Fifth Generation of Progress,* Philadelphia: Lippincott, Williams, & Wilkins, pp. 1381–1397.

Smith, D. W., 1986. The Structure of (Self-) Consciousness. *Topoi* 5 (2): 149–156.

Zachar, P., 2014. *A Metaphysics of Psychopatholo*gy. Cambridge, Mass.: MIT Press.

AR DESCARTES KLYDO? KELETAS NAUJŲ COGITO ARCHITEKTŪROS ASPEKTŲ

Valery Yevarouski

Santrauka. Straipsnyje aptariama smegenų, sąmonės ir aplinkos sąveikos traktuotė klasikinėje epistemologijoje, modernioje neurofilosofijoje ir neuromoksle bei lyginamuosiuose tyrimuose. Vartojant natūralaus dualizmo sąvoką aptariamas operacinis ar protopraksinis elgesio modelis, paremtas griežtu naudingų, žalingų ir neutralių gyvenimo fragmentų atskyrimu. Žmogiškosios būtybės aplinką sudaro ne tik gamta, bet ir kūnas bei gausybė pažinimo procesų. Kyla klausimas, kam tai galų gale naudinga, jei net mūsų vidinis pasaulis yra priderintas prie šių reikalavimų. Šiandien tai filosofinės reikšmės pripildytas konstruktas, kuris gali būti interpretuojamas kaip *cogito*. Psichiatrijos filosofija kaip alternatyvų atspirties tašką gali pasiūlyti minimalų arba neužprogramuotą *cogito*. Ši sistema gali būti praturtinta dar dviem elementais – afektyviu *cogito* ir atlygio centru. Tokiu būdu gaunama darni kategorinė struktūra, aprašanti psichiką ir jos išorinį veikimą ar praktiką.

Pagrindiniai žodžiai: psichiatrijos filosofija, natūralusis dualizmas, operacinis elgesio modelis, hierarchinė *cogito* architektūra

Įteikta 2017.07.17 Priimta 2017.09.12