

Necessity of Critical Thinking in Solving Vital Problems

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Abstract – The ability to think while using critical thinking skills is one of basic requirements imposed on the modern man. Contemporary Russia lacks the sustained tradition of critical thinking, and the understanding of its significance in the professional, educational and personally relevant spheres has not been developed. While in the first two fields, there have been positive changes in recent decades, the issue of the necessity of using critical thinking in vital situations is considered neither at theoretical nor at methodological level. In this article, based on implementation analysis of the principle of autonomy of the patient, the necessity and significance of applying critical thinking in vital situations are justified.

Keywords – critical thinking, features of critical thinking, debates on critical thinking, informed consent, critical thinking and the principle of autonomy of the patient

I. INTRODUCTION

One important requirement imposed on the man by the modern society is the ability to “work” with information and solve various problems on this basis. Each subsequent generation has to be more educated. Education implies not only and not merely a possession of a certain set of knowledge (although it is the necessary condition), but also the ability to make correct considerations and justified conclusions and act in agreement with them. Parallel to these actions, one is to be able to analyze considerations of his/her interlocutors (real or virtual), find errors and justify the erroneous nature of the conclusions so made.

It is necessary to master critical thinking to learn to reason, be in the dialogue with the self and one’s interlocutor. Then, one should learn to come to conclusions which are rationally justified and not merely convenient, habitual or “do not cause doubts”. Development of critical thinking skills helps analyze one’s own arguments for their correctness or wrongness as well as arguments on conclusions of one’s interlocutors. Eventually, the results obtained with the use of critical thinking make us reasonable, independently thinking people. It is not so easy to mislead us in the situation of “post-truth”, impose emotional uncritical perception of information, and produce arguments based on dogmas.

The ability to think rationally, reason, justify one’s position, refute erroneous arguments of the opponent, and solve complicated problems by optimal means is the skills formed by critical thinking. They are necessary virtually in all spheres of the labor activity of the contemporary society. Their necessity raises because of the fact that even the top modern professional

is to be able to analyze new information, systematize it and use it in his/her actions. The complexity and full-fledged nature of personally relevant and vital problems faced by the man in the modern world also imply the use of critical thinking skills.

Critical thinking is the mandatory discipline in the U.S. and European education systems. It is studied together with learning vital competences of the modern man such as interpersonal communication and computer literacy [1, p. 1781–1782]. Regrettably, in the Russian system of education, critical thinking has not been long considered as the mandatory skill which should be managed and improved on the permanent basis. The situation has turned to be better during the last three decades. Elements of critical thinking started to be studied at the general secondary school and at higher schools; courses of critical thinking are developed and offered to both educators and students.

Statement of the problem. On the one hand, critical thinking is one of basic skills of the modern man. It is used in solving problems related to professional activities, analysis and systematization of increasing information flow, in the learning process and in settling vital matters. On the other hand, the modern Russia lacks the tradition of studying and applying skills of critical thinking, particularly, when it concerns behavioral or vital problems.

In recent decades, critical thinking has been used in the learning process for solving professional problems in the variety of fields; it is investigated both at theoretical and methodological levels. However, there are virtually no works analyzing why and how critical thinking should be used in the settlement of existentially relevant questions.

The goal of the study: Given there is importance of critical thinking for the modern man and the lack of the sustained tradition of its development in the contemporary Russia, **the goal of the study** is to validate the significance of using critical thinking in vital and existentially relevant situations. To hit this goal, we must solve the following problems:

1. single out the specific nature of understanding and using critical thinking in different theoretical fields: philosophy, pedagogy, psychology, and social science;
2. concretize conceptual features of critical thinking;
3. define main debating points related to critical thinking.
4. validate the necessity of using critical thinking for solving vital problems (by the example of implementing the principle of autonomy under modern Russian conditions).

II. METHODS AND MATERIALS

Conceptualization and reconstruction of critical thinking were performed using the interdisciplinary approach. When considering the historic-philosophical aspect of the method of critical analysis, we used the method of reconstruction of personal theories.

Analysis of critical thinking as the phenomenon and process was performed using methods of comparative analysis, analysis, and synthesis. Also we used the methods of hermeneutic analysis of the situation and historical reconstruction of situations.

III. RESULTS

The word combination “critical thinking” is commonly used in all fields of socio-humanitarian sciences: philosophy, psychology, philological and pedagogical sciences.

In philosophy, several aspects of critical thinking are considered. The first one is the historical-philosophical context of emergence and development of critical thinking starting from Anaxagoras rationale about the mind bringing into order chaos and non-orderliness and ending with essays of thinkers of the 20th and 21st centuries. Key figures on this pathway are Plato, Aristotle’s, Bacon, Cartesians and Kant. The second context in which critical thinking is considered in philosophy is related to problems of cognition, knowledge, and thought. The third one is connected with matters of molding personality development in the contemporary society. The basis of critical thinking is logic in all its variants and the theory and practice of argumentation, i.e. those disciplines which traditionally are developed or were developed within the framework of philosophy. In the broader social-philosophical context, critical thinking is represented by the critical theory developed by the Frankfurt school and representative of critical philosophy.

Examination of critical thinking as the phenomenon and the process is performed also in psychological and philological disciplines. It is caused by the fact that thought is not only connected with speech but also to a large extent is formed in a specific socio-linguistic situation based on psychological features of the personality.

The study of critical thinking in pedagogical sciences is performed in a more “applied” and technology-related form. Critical thinking is considered as the method of education and upbringing, based on certain tenets and oriented towards the development of the independently and rationally thinking personality. One of major vectors of development of this theme in education is the definition of basic skills and abilities of critical thinking and means of their development [2] and improvement [2, 3]. This process is being built depending on the age of the students, their abilities and peculiarities [4–6].

The theme of critical thinking is present in sociological and political science studies. As a rule, critical thinking is studied in the context of broader topics such as populism, a social agent and his/her/its characteristics, etc.

Critical thinking is considered depending on the field and goals of the study as an aggregate of skills and abilities, as a method, technology, social practice, a philosophical approach and so on. The account of so broad circle of generic terms is

caused by the fact that critical thinking stems from interdisciplinary studies and is based on results obtained in philosophy, psychology, linguistics, and pedagogics.

Reification of the understanding of critical thinking. One of efficient means of classification what critical thinking is and what it is not is a peculiar checklist, using which one can come to the answer. Questions formulated by K. Petress underline the boundaries of the meaning-based field of critical thinking.

Petress [7] proposes the list of questions and positive answers to which we confirm that the process of critical thinking has occurred:

- are the listed arguments sufficient for justification of the conclusion made;
- are the listed arguments relevant regarding the conclusion obtained and do they refer to them;
- are the listed arguments true, valid and proved;
- is the source of these arguments reliable;
- do the arguments, used in the process of reasoning, agree with what we already know from other sources and with each other;
- is the used information new, actual or is it obsolete;
- are the provided arguments available to the reader, interlocutor, i.e. are they open to the public.

Summing up the questions above, the author formulates such criteria of critical thinking as robustness of arguments, their agreement and relevance to the conclusion being proved, novelty, quality and availability.

Above questions-criteria pertain to the content and the process of critical thinking. In my opinion, one should also set such questions as how correctly and clearly the content and scope of concepts used are defined; how clearly these conclusions are formulated and whether they are fixed as conclusions or not. Clarifying the content and scope of basic concepts used in argumentation and conclusions is very relevant for the Russian language with its ambiguity and richness.

Moot points related to critical thinking. The basic questions currently under debate, related to critical thinking, are as follows: universality of critical thinking; means of forming critical thinking; the relationship between critical thinking and moral values; and behavioral patterns.

1. Is critical thinking universal or not; though the universality criteria are applied in two senses. The first one is universality in the sense of usage. The point of this discussion is where and in which areas of vital activities of the man one can or must use critical thinking skills. If the areas of professional activities or education are undoubtedly such, the sphere of our everyday life may raise doubts. As it is shown below by the example of implementing the principle of autonomy of the patient, critical thinking skills must also be used in daily routine.

The second sense of “universality” relates to the question whether the set of mandatory and universal features of critical

thinking exists. The essential features whose aggregate distinguishes critical thinking from noncritical thinking are the purpose orientation, planned nature, logical correctness, argumentation correctness, flexibility, plasticity, skepticism and self-skepticism, and reflection.

2. What methods, techniques, and practices form critical thinking at different stages of the man's development: in schoolchildren, students, and adults. The subsequent question is as follows: is the presence of already mold skills sufficient, or is performance of some other additional conditions required?

Such skills as correct logical thinking, readiness for analysis and self-analysis of arguments and for construction of causal links should be the subject of constant training. Theoretical knowledge does not suffice in order to master critical thinking. Specifically, this statement is important in the situations when the man must make an independent decision which will largely determine his/her future life. Implementation of the principle of autonomy of the patient (as it is demonstrated below) is possible only if the man has formed the skills of using critical thinking.

3. How does, if anyhow, critical thinking refer to moral values?

Some authors support the necessity of disclosure of value paradigms [8, p.11], factors determining this or that decision [9]. Indication of these features of critical thinking implies the further explanation which, namely, is meant under value paradigms. They can be understood in different ways, starting from the obtaining of the case-specific necessary result which is valuable for one of interlocutors or coming to truth which is the universal human value. In other words, the problem is about value of one's own or universal human interests.

Value paradigms of one man may greatly differ from one another, may not comply with one another or even be contradictory. Values related to the ethnic identity may not correspond to values related to the gender identity.

In addition, the requirement to disclose value paradigms needs some clarification. This means the questions: whose value paradigms should be disclosed – of the interlocutor who is engaged in the dialogue or of the self which is realized in the process of self-reflexing?

Defining factors which enable the acceptance of this or that decision is the complex methodological procedure. At the first step, one should specify what is meant under these factors. One version is the method of reasoning which leads to this or that decision. If the problem is about strict deductive arguments, then the conclusion bears the mandatory nature. In case of inductive arguments or arguments by analogy, the conclusion will have a likely nature (save use of complete induction). Less evident but no least important factors are those of personality development: education and self-education; the family and socially important environment; the ethnic and religious identity, the gender and professional identity, etc. With some portion of conventionality, factors defining the acceptance of this or that decision as a result of critical thinking include economic, political-ideological, and social conditions.

As it was shown above, it is difficult enough to disclose critical thinking through its relationship with value paradigms

and moral virtues. There are two more obstacles along the path of reference of moral criteria and critical thinking. *The first obstacle* is related to the "covertness" and complexity of definition of abstract concepts like honor, dignity, justice, honesty, and decency while the second one, with the fact that it is possible to use critical thinking, even at the high level, to achieve unambiguously immoral and, moreover, criminal goals. It is, for instance, a bank robbery or high-tech financial affairs. Rather an indication of connections of critical thinking with intellectual integrity, intellectual humility, intellectual politeness, intellectual sympathy, and intellectual sense of justice and trust in reason [9] discloses the idea of the ideal variant after the use of critical thinking.

However, in the situation of the complex moral choice which is made by each of us at least once in his/her life, the use of critical thinking skills helps assess existing information, construct casual links and clarify the prospects of the decision made.

The necessity to develop critical thinking in modern Russia is caused by accounts which are common for the modern world as a whole: change of requirement of the labor market; transformation of the educational paradigm; and the need to master and process the large amount of information. The rise of importance of such values of the modern society as the right of the personality to self-determination, the possibility to make public one's justified opinion, and independence in making vital decisions played a big role in the development of critical thinking.

Taking into account peculiarities of Russia's development and the current situation, one can say that these universal accounts have their own specific features. In Russia, values formed by critical thinking have gained recognition relatively recently. The traditional educational strategy did not mean the development of critical thinking skills. And there was no need to use the latter in the everyday practice.

One bright example of the fact that using critical thinking skills becomes important in modern Russia is the situation related to implementation of the principle of autonomy of the patient. Analysis of this illustration given below convinces that each and any of us should apply them not only in the vocational sphere and education, but in vitally important situations.

Analysis of the principle of autonomy of the patient in the context of critical thinking

The principle of the patient's autonomy is, on the one hand, one of most generally significant principles of the contemporary biomedical ethics. "Both in law and ethics, one paradigm dominates, and this paradigm is that of the patient's autonomy" [10, p.1]. On the other hand, this principle is one of most debatable, criticized and realized in practice with difficulty.

The principle of the patient's autonomy initially was formulated as the principle of respect shown for the person of the patient along with two other tenets, the principle of beneficence and the principle of justice in the so-called Belmont Report [11]. Paternalism, which was the major paradigm of the doctor-patient relationships, was losing its positions under the offensive of the movement for patients' rights and, on the whole, under the influence of freedom movements of the 1960s-

1970s. Actualization of the principle of respect shown for the patient's person and subsequently the principle of his/her autonomy became the effect and simultaneously the means of implementation of such vital values as self-determination of the personality; right to make public decisions; self-realization of the man; privacy; individualism, and so on.

The principle of the patient's autonomy is legally fixed in many international and local documents. Along with other biomedical tenets (principles of benevolence, "do not make harm", justice, etc., this principle reflects value paradigms and priorities of the modern society. In the Russian Federation, pursuant to Article 20 of the Federal Law "On the foundations of health protection of the citizen of the Russian Federation" dated November 21, 2011 (version dated August 03, 2018), the principle of the patient's autonomy is realized via informed voluntary consent of the citizen or his/her representative. Informed consent is mandatory with the following exceptions: minors and incapable persons in accordance with the established order; in case of emergency; regarding people suffering severe mental disorders; criminals; and when a forensic study is conducted.

In the Belmont Report the patient's autonomy is disclosed as the ability to formulate his/her *own goals* and *the ability to act in accordance with them*. This formula is principal, namely: it and its further way of decoding indicate the need to use critical thinking.

Ability to formulate one's own goals and act in accordance with them implies that the surrounding people, in the first order, medics, must accept the choice of the patient on the whole and his/her specific concrete decisions, in particular. The exceptions are cases subject to legal constraints or those potentially harmful to other people. Failure to recognize the ability of the patient to reason independently and then the right of the man to act in accordance with the conclusions made means to negate the autonomy of the man.

Closing information needed to make the justified conclusion when there are no good reasons for it is one of most common variants of "non-recognition of the autonomy" [11].

The requirement of respect for the patient's person was reworked in the contemporary bioethical discourse with the account for realities of the modern life in the treatise "Principles of biomedical ethics" which was published 13 times, T.L. Beauchamp and J.F. Childress. Narration of principles of biomedical ethics starts from the principle of autonomy. Although the authors explained that the order of the presentation did not suppose the priority of the principle of autonomy over the others [12, p. 57], the thesis about its primacy, "the first place in the series of bioethical principles" [13], primary significance and "the key role in the row of basic principles of bioethics" has been clearly formulated in literature [12, p. 45].

Speaking of autonomy, the authors accentuate its obligatory components: self-government and self-determination. Providing full and trustworthy information to the patient is the mandatory condition of self-government and self-determination.

The principle of autonomy is concretized in the following rules which have the nature of demands:

- tell truth to the patient;
- respect the privacy of the patient and other patients;
- protect confidential information;
- seek consent for any type of intervention; and
- help make an important decision [12, p. 63-64].

To solve the question whether the choice of the patient was truly autonomous in this specific situation, Beauchamp and Childress introduce three criteria: the *voluntary nature*, *possession of information* and *competence* (the ability) of decision-making. Execution of each feature suggests the use of critical thinking skills.

In my opinion, considering the above, the possibility of practical implementation of the principle of the patient's autonomy under modern Russian conditions is unlikely.

To justify this argument, at the first step we will consider features obligatory for the autonomy of the patient to come true and then analyze the possibility of their realization in modern Russia.

The *voluntary nature* is the first mandatory characteristic for the principle of autonomy to be implemented. For the decisions and choice to be voluntary, all kinds of controlled influence should be ruled out [12, p.93]. This requirement corresponds to one of essential signs of critical thinking concerning the ability to analyze, find errors, and troubleshoot a manipulation infringed by the interlocutor.

Beauchamp and Childress classify the influence (intervention) into three types: forcing, convincing and manipulating.

Forcing occurs when and only when the medic (most often, the therapist) consciously uses information of the threatening nature. The degree of the threat corresponds to the degree of control over the choice and behavior of the patient. In this situation, it is very important that the patient clearly distinguishes when the therapist provides him/her with objective information about potential consequences of the medical intervention or when the doctor "consciously uses information of the threatening nature". For this, the patient is at least to have additional information about possible consequences, be able to substantially analyze given information, and construct causal links, etc. The patient faces the even more complicated situation when the therapist explains to him/her potential consequences of the medical intervention and informs him/her that in the case of refusal, chances of the patient for healing (and moreover, the continuation of life) drop.

Convincing, opposite to the forcing, is based on the use of rational and convincing (from the point of the doctor) arguments [12, p.94]. In this case, the patient must make a decision on the convincing nature of the arguments offered by the doctor to support this or that decision. Ideally, any process of the patient's decision-making can be schematized as a process by which the patient becomes convinced in the correctness of the specific decision which is the result of his/her

agreement with advantages presented by the expert (doctor). [12, p.94-95].

The third type of intervention is manipulation. The peculiarity of manipulation in medicine is that it is manifested in information fed in the sense favorable for the doctor or (as a variant) incomplete information [12, p. 95]. In accord with the principle of the patient's autonomy, there is full knowledge of information by the patient and "openness of the (personally) relevant information". The doctor is obliged to provide information about all essential facts, all possible variants of the intervention and their consequences, both positive and negative [12, p.81]. Information must be understandable for the patient.

Here, the real problem related to information transfer in the form understandable by the patient appears. One should take into account that transfer of information to the patient in the volume which is possessed by the doctor is principally impossible. "Information asymmetry" in the doctor-patient relations is inevitable, given the "professional" time spent by the therapist on education, ordinance, apprenticeship and improving qualifications and time spent on the acceptance and treatment of the patient in reality. The higher the patient's skills of using critical thinking, the higher the chances to understand information offered by the doctor.

The patient's awareness is related to the informed consent to any form of the medical intervention. Beauchamp and Childress single out two components of the informed consent. The first one is the substantiated information component. The second one is the very consent as a separate action. If the first one requires openness and understanding what should be disclosed to the patient, the second one relates to voluntariness of the decision-making and the "belonging of the decision to the patient"; it pertains to the "authorship of the decision". [12, p. 84-90].

Competence, along with the voluntary nature and awareness, is also a mandatory condition of implementation of the principle of the patient's autonomy and, to our mind, is the most difficult condition. Competence suggests certain skills of making the decision in agreement with the existing circumstances, presumed consequences and long-term plans. In other words, the patient must already have the experience of making competent decisions.

Moreover, that decision shall be made based on rational grounds. Specification that *the patient needs to consider the conditions him/herself correlates the decision with plans and the base on rational grounds when making the decision* is of crucial importance. We think that the man (not only the patient) is competent in decision-making if, first, he/she understands the situation and consequences of the decision made. Second, his/her decisions are based on rational arguments [14, p. 117-127]; and, third, he/she is responsible for them. To make competent decisions in critical situations, which are rather frequent during medical intervention, is really a complex intellectual task.

Competent decision-making as it has been shown above suggests the presence of special skills in the patient. He/she is to be able to analyze and process information provided by the doctor; make conclusions on its basis; refer it to his/her own

plans and goals; and oppose the external intervention in the form of manipulation or forcing. Moreover, the patient should be able to act in accordance with the decision made. In other words, competence in decision-making as the mandatory condition of implementing the principle of the patient's autonomy is not taken for granted which man always has. "The presumption of competence" and, in a more general sense, the "presumption of autonomy" provided that the patient is capable and informed by the doctor, regretfully, is not the matter of fact.

Providing the patient with all the required information does not guarantee that the patient is capable of its effective processing and correlation with his/her own values, preferences and plans for life. It is the skill which should be permanently cultivated and consciously developed by the patient so that it becomes the condition of the mold competence. If in the preceding period (before the critical moment) when the medical intervention has occurred, the patient lacked skills of competent decision-making, it is rather difficult to imagine that in the critical situation, he/she will be able to make wonders of autonomy and independence. In situations of everyday health care, development of the competence of decision-making is virtually unrealizable. Its causes lie not only in temporal constraints (the so-called norms of time) of the activity of therapists and medical workers. Patients would reproduce the model of the doctor-patient relationship which was formed in the childhood when ethical norms of pediatrics dominated and in which the authority of the doctor is nearly absolute.

The complexity of making the competent decision is caused not only by the absence of critical thinking skills. The situation is further aggravated by other circumstances.

The disease, chronic or acute one, changes the experience of the world perception and the hierarchy of vital meanings. If in the previous life the man was able to make competent decisions depending on the situation, under conditions, when the world of everyday meanings is destroyed and "I can" turns into "I cannot" ("I will never be able"), it becomes more complicated to make the competent decision.

The man entering the "world of the hospital" (especially when it takes place rarely) appears in the completely unfamiliar and alien environment. The regime of the hospital, the duty of daily and periodical control and check, analyses and procedures – all this radically differs from the habitual rhythm of life. Many types of medical interventions, which are usual for the medical personnel, cause shock in the patient. The hospital meals and clothing and in some cases the necessity of staying in the ward with two, three or more unfamiliar people decrease the ability of the patient for independent critical thinking, the more so for independent decisions.

If the skill of making competent decisions is not formed or not well exercised in the critical situation, the man is not able to analyze information, systematize it, validate the correctness of reasoning and arguments of the doctor, make independent decision which corresponds to his/her plans for life.

IV. CONCLUSION

The ability to think critically is one of the basic skills of the modern man. It includes the aggregate of the following skills: the ability to reason rationally, justify the conclusion, analyze

the correctness of arguments of the interlocutor and reflexively assess one's own arguments. Critical thinking as the process is characterized by the knowledge of the problem, attentiveness, tolerance and readiness to take a more justified stance. To put critical thinking into life presumes the permanent "exercise" of critical thinking skills.

The necessity of critical thinking in the framework of professional activity and in the learning process in modern Russia is relatively well disclosed and justified. However, our study shows that critical thinking is required in vital situations, when the person makes decisions determining his/her future life. It is substantiated by the example of implementation of the principle of autonomy of the patient who lacks critical thinking, the man is not able to make the independent and competent decision, analyze information, and build causal links.

Free choice and informed consent with the medical intervention and clinical trials is the mandatory condition of the patient's autonomy (in accord with the fundamental document and based on analysis of dedicated literature). The informed consent is truly such if it is made voluntarily (without intervention and control) with the understanding of full and essential information, and with the account for the existing circumstances and prospective plans of the patient. It should be given on rational grounds. However, as it has been shown above, true implementation of the principle of the patient's autonomy is very unlikely. It is explained by the patients' lacking skills to make independent decisions which include understanding, systematization and analysis of coming information, bringing to the conclusion, correlation with conditions, accounting for prospective plans and goals of the patient, readiness for bearing the responsibility for the made choice and decisions. Such factors as the chronic or acute course of the disease, which changes the patient's worldview and the system of vital meanings and decreases such important component of the principle of the patient's autonomy as

informed consent and competence in decision-making, play a certain negative role as well.

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