

## MEDICAL ETHICS AS AN APPLIED THEORY OF DEVELOPMENT

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A new approach to medical ethics when it is interpreted as an applied theory of development has been investigated in this article. Relying on the ideas of German classical philosophy and Russian philosophy of unitotality, the development is defined based on the idea of any system as a set of basic polarities (thesis and antithesis). Their composition expresses deep polar definitions of the system and its polar portrait. A simulation model of this methodology is suggested using vector spaces with a scalar product. The development measure is introduced using the basis, the development law is defined, polar portraits of health and diseases are determined, the highest moral law is formulated as the law of development in the ethical sphere. To display medical ethics as an applied theory of development, three standards of classical medical ethics such as standards of mercy, 'no harm' and medical secrecy are analyzed, their polar interpretation is performed taking into account the suggested models. It is also displayed that all these standards express specific cases of the development law. Hypothesis of medical ethics as an applied section of development theory is supported, and a new research program of similar reinterpretation of other standards of medical ethics is suggested.

**Keywords:** ethics, integral ethics, medical ethics, theory of development, law of development, measure of development, deontologism, utilitarianism, polar portrait

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## МЕДИЦИНСКАЯ ЭТИКА КАК ПРИКЛАДНАЯ ТЕОРИЯ РАЗВИТИЯ

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В статье исследуется новый подход к медицинской этике, предполагающий ее трактовку как прикладной теории развития. Опираясь на идеи немецкой классической философии и русской философии всеединства, развитие определяется на основе представления любой системы как совокупности базовых полярностей (тезисов и антитезисов), та или иная композиция которых выражает глубинные полярные определения системы, ее полярный портрет. Предлагается математическая модель данной методологии с использованием векторных пространств со скалярным произведением. На этой основе вводится мера развития, дается определение закона развития, определения полярных портретов здоровья и болезни, формулировка высшего нравственного закона как закона развития в нравственной сфере. Чтобы показать медицинскую этику как прикладную теорию развития, анализируются три нормы классической медицинской этики — нормы милосердия, «не навреди» и врачебной тайны, проводится их полярная интерпретация с точки зрения предложенных моделей и показывается, что все эти нормы так или иначе выражают частные случаи закона развития. На этой основе подкрепляется гипотеза медицинской этики как прикладного раздела теории развития и предлагается новая научно-исследовательская программа подобной переинтерпретации других норм медицинской этики.

**Ключевые слова:** этика, интегральная этика, медицинская этика, теория развития, закон развития, мера развития, деонтологизм, утилитаризм, полярный портрет

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Humanitarian knowledge is currently lagging behind the scientific knowledge. If the latter consists of fundamental theoretical systems, universal laws and generalization of an enormous number of factors, humanitarian sciences are still at the descriptive stage of development (collection of facts and their primary systematization). It relates to ethics and applied ethics. Ethics is still based on a multiple of particular rules, each of which regulates certain private forms of behavior. Immanuel Kant attempted to make ethics be more universal, when all private norms are brought under the unified ethical law, which is a categorical imperative [1]. This is how a deontological approach in theoretical ethics has emerged. However, it did not result in sufficient universality of ethical knowledge, as the approach was opposed to another ethical trend such as utilitarianism. As deontologism is too tough about the idea of ethical standards irrespective of certain circumstances (context), utilitarianism, on the contrary, ties its estimates to the current context and relies on a more pragmatic criterion of profit and benefit of an act.

In the end, ethics fails to integrate more private branches of deontologism and utilitarianism, and is again doomed to domination of the specific over the general. The unsatisfactory

ethical knowledge produces a strong influence on applied ethical branches, and medical ethics, in particular. The point is that any particular rule is always conditional, it seems moral unless it comes across any other very similar rule, when accomplishment of one rule denies accomplishment of the other rule. For instance, should we tell the patient the truth about the fatal diagnosis (truth) or not (mercy)? Such situations occur all the time, and need to be solved primarily with ethical theory. But while ethics is built on a multiple of specific standards, it can't offer qualitative solutions when there is a conflict of rules. It is, however, necessary to follow Kant and move towards integral ethics based on the universal moral law.

But unlike moral rigidity of Kant and taking into account a more flexible methodology of utilitarianism, a more flexible and rather universal image of integration into the modern ethical knowledge is required. A possible project of building integral ethics and its applications in medical ethics will be presented below. According to our hypothesis, the *principal moral law is the law of development*. Good ultimately means something aimed at the development of a human being and society or support of the already achieved level of development. Evil is,

on the contrary, something that prevents a human being and society to be developed or destructs the balance that has already been achieved. The law of development is universal, it acts both within the society and nature (prehuman and inorganic nature). But in the society the act of development goes through the freedom of intelligent beings and is ethically defined.

## MATERIALS AND METHODS

Hypothesis of the highest moral law as the law of development requires first and foremost to determine the path of development. The global thought in this area has already done some work and provided a few solutions. In this direction, the outcomes were mainly obtained by the school of German classical philosophy [2]. Ideas expressed by these philosophers are very simple. Any event or system is based on certain basic contrasting qualities (*basic polarities* include thesis and antithesis), whereas any conditions represent certain compositions of basic polarities that ideally strive for synthesis. Transition from the polarities of thesis and antithesis to synthesis is the simplest case of development. Find the 'portrait of polarity' for every system, i.e., which basic polarities form its basis and what type of composition is typical of the system (*polar portrait is a composition type of basic polarities*). Subsequently, it becomes evident how the system can be synthesized or developed.

German philosophers repeatedly used this methodology in all spheres of existence such as nature, society, spirit, art, religion and ethics. Attempts were made to create polar portraits of any systems and restore some properly organized existence thereupon.

Subsequently, the methodology of building polar portraits was developed in some subsequent philosophical systems. In our opinion, the new stage of its development was achieved in the Russian philosophy of all-unity founded by Solovyov VS [3]. In particular, it shifts away from the rigid triadic methodology of development and pays more attention to facts and certain organization of private systems used to create portraits in a more seamless fashion. There is no need to have two basic polarities only. It is a special case of any set of these polarities, which can result both in multilayer and multidimensional synthesis. In 'Justification of good', Solovyov is coming close to formulation of the law of good as the law of development [4]. Development is the growth of unitotality whereas the good is the same unitotality, that has been duly achieved in the life of the society and human being.

In his work, the author [5] takes another step to develop this methodology. A new mathematical appliance that expresses basic polarities and their compositions has been suggested. The Euclidian structures of vector space (vector space with scalar product [6]) with basic polarities being interpreted as orthogonal (perpendicular) base vectors within some multidimensional space. In this case, the polar portrait of the system looks like the vector superposition of basic polarities:

$$P = \sum_{i=1}^n a_i P_i \quad (1)$$

where  $P$  is the current polar vector as the polar portrait of the system,  $P_i$  means basic polarities as basic polar vectors; numbers  $a_i$ , where  $0 \leq a_i \leq 1$  represent coefficients with which basic vectors are included into current polar vector  $P$ .

Here, vector of synthesis  $C$  is the vector sum of basic polarities

$$C = \sum_{i=1}^n P_i \quad (2)$$

In this case, it is suggested to use a simple *measure of development* as the value of the projection of current polar vector  $P$  on  $C$  synthesis vector:

$$M(P) = (P, e_c) = |P| \cos(P \wedge C), \quad (3)$$

where  $e_c = C/|C|$  is vector  $C$  ort (vector with the same unit length and direction as vector  $C$ ),  $(P, e_c)$  is the scalar product of vectors  $P$  and  $e_c$ ,  $|P|$  is the value of vector  $P$ ,  $\cos(P \wedge C)$  is angle cosine between vectors  $P$  and  $C$ .

The measure of development is simple enough: the polar vector is more developed when it is closer to the synthesis vector (the more synthesis it has).

Thus, intuition and qualitative methods of representatives of German and Russian philosophy acquire a stricter and qualitative expression.

On that basis, the *law of development* can be formulated as follows:  $S(t)$  system,  $t$  that changes over time and has  $P(t)$  polar vector in the system of basic polarities ( $P_i$ ) as its polar portrait,  $i = 1 \dots n$  is being developed if the relation is fulfilled:

$$dM(P(t))/dt \geq 0, \quad (4)$$

i.e. the system measure of development ( $M(P(t))$ ) is growing ( $dM(P(t))/dt > 0$ ) until it achieves its maximum value within the system of polarities ( $dM(P(t))/dt = 0$ ).

The formulation reminds of the second well-known law of thermodynamics ( $dH/dt \geq 0$ , where  $H$  means entropy of the system), law of growth (non-decrease) of entropy within the isolated thermodynamic system with the law of development being formulated for another measure such as the polar measure of development (3).

The basics of integral ethics can be formulated with the mentioned structures and methods. In the first turn, the highest ethical law (*the law of good*) can be defined as follows: *the good is an act of an intelligent subject aimed to maximize the measure of development within this context of implementing this act and is committed by the subject in a free and conscious way.*

The formulation needs to be clarified to some extent.

*First*, an act means an action or inaction of a subject (human being or community).

*Second*, maximization of the development measure means to select the maximum measure of development among all possible alternatives, including, if it is not possible otherwise, selection of the alternative when the measure of development is decreasing though less than in case with all other alternatives (choosing 'the lesser of two evils'). In a stricter way, this can be represented as follows:

Let's admit that subject  $S$  faces the current situation  $A$ . Under these circumstances, only acts of subject  $D_1 \dots D_n$  are possible, that change the situation  $A$  into some situations  $B_1 \dots B_n$  respectively, i.e.  $B_i = D_i(A)$ , where  $i = 1 \dots n$ . Subsequently, polar portraits of situations  $A$  и  $B_i$  are suggested, i.e.  $P(A)$  is a polar portrait (polar vector) of situation  $A$ ,  $P(B_i)$  is a polar portrait of situation  $B_i$ . Measures of situation development are determined such as  $M(P(A)) = M(A)$  is a measure of development of situation  $A$ ,  $M(P(B_i)) = M(B_i)$  are measures of development of situations  $B_i$ . In this case, it is assumed that *within the described context*, the good for the subject will be act  $D^+$  in relation to which the following condition is applied:

$$M(D^+) - M(A) = \max_i \{M(D_i(A)) - M(A)\}, \quad (5)$$

i.e., gain of the development measure in act  $D^+$  will constitute the maximum of all possible effects within the context of  $D_i$  acts. A  $D^+$  act is an act of  $D_i$ .

Based on the maximization principle (5), it is offered to solve the conflict of rules, when every  $D_i$  act is followed by the respective standard. Then it is necessary to select the standard,

which maximizes the measure of development within the context, i.e. the one being assumed by act  $D^+$ . The methodology is used to achieve integration of universality of the highest ethical law according to a deontological approach, and a possibility of a more flexible value calculation typical of utilitarianism.

*Third*, it is assumed that subject S should be a reasonable subject, i.e. be free to commit acts. It should also select act  $D^+$  deliberately, because the act maximizes a measure of development within the context. There is no need for a subject to calculate the measure and be aware of the math of vector spaces. The subject should have an intuitive sense of the development measure and combine intuition with rational measures used to interpret the good as methodology of maximization of the development measure.

Integral ethics as an applied theory of development is built on the formulated methodology. The theory of development is the most common knowledge in relation to which any ethics (even the most integral one) is only a supplement to the universal theory of development in relation to ethical and moral spheres of life of rational subjects and their communities.

Some basic standards of medical ethics have been analyzed using the methodology described. It has been shown that they are well correlated with the described methodology of maximization of the development measure in certain context. It is, thus, shown that medical ethics is also an applied section of integral ethics and theory of development.

## RESEARCH OUTCOMES

The methodology described above is used to examine three basic rules of classical medical ethics such as the standard of mercy ('do good'), the 'no harm' standard and the 'medical privacy' (confidentiality) standard. Prior to their direct analysis, the polar portrait of sickness and health should be analyzed.

In general, an organism, a living being can be represented as a complex system with multiple basic polarities and current condition in the polar basis. In this case, *health constitutes such conditions of a living system, when the polar portrait is close to the synthesis vector, whereas any types of a disease can be expressed through the loss of system integrity represented as a polar vector deviating from the synthesis vector in a more or less significant way and reducing the measure of development within the system of basic polarities.*

In this case, a physician is facing the following tasks: first, to understand the current condition of a person (*empathy*), second, help the person avoid sufferings and acquire a more favorable condition (developing reflexion) by distancing from the dominant current condition. In terms of polarities, it can be expressed as follows: 1) understand the current polar portrait of system  $P$ , 2) make the polar portrait approaching synthesis  $C$ .

It is the same as rescuing of those drowning: first, we need to dive into the water and go down with the drowning person to determine his location and how to help. Then we catch a person and take him to the surface. Here, we deal with two basic acts such as 1) diving (immersion into a disease) and 2) taking to the surface (improved health). We need to be strong enough not just to dive, but also to be able coming up from the depth, taking the drowning person to the surface. A physician's activity should be of the same structure: first, dive into the disease to understand it and see it from the inside, feeling for the patients and his sufferings, understand the 'internal portrait of the disease', and then take the patient to the surface of health. Thus, a process of treatment is a unity of empathy and developing reflexion.

Taking into consideration the presented definitions and images, let us consider the standards of medical ethics mentioned below from the point of the theory of development.

### 1. The standard of mercy ('do good')

According to the standard, the profession of a physician is the good for a patient. Taking into account the polar portrait of health and disease described above, a physician first dives into a disease, determines a patient's condition as a current polar portrait of the disease, and then changes the polar portrait towards the synthesis vector. Let's express the process in a stricter way.

Let a patient have polar portrait  $P$  within some polar space with the basis of basic polarities  $P_1 \dots P_n$ . The disease availability means that the measure of development is insignificant in this case ( $M(P) < |C|$ ). A doctor needs to determine the polar portrait  $P$  for the disease (a patient's condition) and do good for the patient. This can be expressed as a change in the current polar portrait  $P$  for the patient until a new condition of  $P'$  has been reached, where  $M(P') > M(P)$ , the integrity of a patient will be increased (measures of synthesis), i.e., transformation into a new condition with the polar portrait  $P'$  and a greater measure of development. Within the vector model, the polar vector  $P'$  will provide a projection of a greater value on the vector of synthesis  $C$  as compared with the initial vector  $P$ . In this case, a change in the polar portrait from  $P$  to  $P'$ , which can be expressed through the increment vector  $\Delta P = P' - P$ , will be presented as a physician's act. Using the properties of the scalar product, we can determine the measure of development both of  $P$  and  $P'$ , and  $\Delta P$ :

$$M(\Delta P) = M(P' - P) = (P' - P, e_C) = (P', e_C) - (P, e_C) = M(P') - M(P) \quad (6).$$

If  $M(P') > M(P)$ , then  $M(P') - M(P) > 0$ , i.e.  $M(\Delta P) > 0$ . Thus, the standard of mercy urges a doctor to commit such acts towards a patient that will involve the growth of the development measure, i.e., strategy of maximization for the measure of development which is a selection of  $\Delta P$  with a positive measure of development  $M(\Delta P) > 0$ . In the presence of several acts, a measure of development with a maximum increase is selected according to (5).

Thus, the standard of mercy will be interpreted as a special case of the development law.

### 2. The 'no harm' standard

This standard urges a doctor to help a patient and, at least, not to harm him. This can be interpreted as prohibition of such acts of a physician that will reduce the measure of a patient's development, i.e. prohibit  $\Delta P$  acts, where  $M(\Delta P) < 0$ . The prohibition is the same as inequality  $M(\Delta P) \geq 0$ . As we have found out, the standard of mercy within the inequality of  $M(\Delta P) \geq 0$  expresses the moment of strict inequality  $M(\Delta P) > 0$ . Then the 'no harm' standard is valid only in relation to  $M(\Delta P) = 0$ . If you fail to provide aid, i.e., to commit  $\Delta P$ , where  $M(\Delta P) > 0$ , then you should use act  $\Delta P$  only, where  $M(\Delta P) = 0$ , meaning that a patient's condition should remain the same.

Thus, if within the standard of mercy, a physician chooses among positive alternatives, where  $M(\Delta P) > 0$ , then within 'the no harm' standard a physician moves in the space of negative ( $M(\Delta P) < 0$ ) and zero ( $M(\Delta P) = 0$ ) alternatives, which is expressed through the principle of maximization of development measure (5) as selection of the zero alternative. Generally, the mercy and 'no harm' standards determine the activity of a physician as certain special maximization cases of the development measures. So, they are special cases of the development law and the law of good.

### 3. Privileged medical information

This standard preserves the space of trust between a physician and a patient, as the patient has to entrust the doctor with personal data, which should not become property of the third persons. The information can be delivered to a physician only if it remains confidential to others. In its turn, the personal information is essential to build a complete portrait of the disease, its symptoms and history of development, which is a necessary condition of proper diagnosis and treatment.

Thus, the privacy of personal information is a condition for creating an adequate portrait of disease  $P$ , the lack of which makes subsequent acts of physician  $\Delta P$  impossible; if  $M(\Delta P) > 0$ , the patient will go through convalescence as an increased measure of development. Based on the principle of medical confidential information, the patient provides the physician with access to personal information, allowing for empathy, including immersion into the internal portrait of a disease, and coming across additional data, which are commonly required to restore a true portrait of the disease. Let's remember the example with the drowning person. The confidentiality standard means that the patient allowed the physicians to dive into deep waters to bring him back to the surface of health.

It should also be noted that personal data, which can be shared by a patient only if the standards of confidentiality are followed, constitute a part of complete data about a disease, some symptoms used to restore a complete portrait of a disease. Shifting from symptoms to nosology is also a special case of synthesis, i.e., law of development, when a physician integrates facts in his consciousness, including personal information, and turns them into a synthetic model of a disease, which can embrace all available facts. Here, we deal with some polar basis  $P_1 \dots P_n$ , which expresses the special factual knowledge of a disease, with the polar portrait of the diseases as a synthesis vector  $C = \sum_{i=1}^n P_i$  of the facts. Establishing diagnosis is a case of moving from basis  $P_i, i = 1 \dots n$ , to the integral portrait of a disease as the vector of synthesis  $C$  for basic polarity symptoms.

Thus, the standard of confidentiality also expresses the ideas of synthesis and development in medical ethics and medical profession supporting the necessary (personal) part of the polar symptomatic basis. Without it, complete diagnostics as a private case of synthesis and uniting factors into the integral portrait of a disease is impossible. Creating a complete image of a disease, a physician is engaged in medical empathy, identifying himself as a patient, trying on signs of the patient and, owing to that, restoring an adequate portrait of a patient's abnormal condition.

During the unified process of diagnostics and treatment as a unity of medical empathy and developing reflexion, the

standard of medical confidentiality means the first moment of empathy, whereas the standards of mercy and 'no harm' constitute the second moment of developing reflexion. The three standards are different parts of the expression and provision of a common process of medical activity as a special case of the development law.

### DISCUSSION OF RESULTS

Three important standards of classical medical ethics (mercy (do good), no harm and medical confidential information) were taken as special cases of the development law. It has been shown that the fundamental foundations of these standards are based on the intuition of development and its various aspects. It is, thus, suggested that subsequently the same should be done in relation to other standards of medical ethics. It is an inductive generalization, which requires a subsequent extensive study and implementation of a new research project. We are now declaring that the project can be possible. At the same time, during the analysis of three standards some common methodology can be observed; we can assume a rather regular pattern in medical and ethical definitions. If ethics is based on the law of development as the principle of maximizing the development measure, it is logical to suggest that special ethical standards will constitute implementation of the universal strategy. It should, however, be repeated that the topic is new enough. It requires subsequent research. We encourage the scientific society to pay attention to the methodology presented within the work and discuss its possibilities and perspectives.

### CONCLUSIONS

If the obtained findings are generalized, a fundamental conclusion should be made that medical ethics is not just an applied aspect of general ethics. First, common ethical theory can be redefined differently in many ways such as an applied direction of universal theory of development and as integral ethics. Second, medical ethics is an applied direction of integral ethics in this case. The latter should be taken as a variant of general ethics based on the principles of theory and law of development.

Such an approach to interpretation of medical ethics denotes its closer relation to purely medical aspects of medical activity. Both natural-science, and humanitarian parts of a medical profession act as a fundamental unity: somatic or mental and spiritual. The process of diagnostics and treatment is of a single nature as well, which shows that a medical profession is aimed at preservation and intensification of the development measure of a suffering person.

### References

1. Kant I. *Kritika prakticheskogo razuma*. M.: iNauka. 2007; 530 s. Russian.
2. Gulyga AV. *Nemeckaja klassicheskaja filosofija*. M.: Rol'f. 2001; 416 s. Russian.
3. Moiseev VI. *Logika vseedinstva*. M.: izdatel'stvo «PER SJE». 2002; 415 s. Russian.
4. Solov'ev VS. *Opravdanie dobra*. M.: Institut ruskoj civilizacii, Algoritm. 2012; 656 s. Russian.
5. Moiseev VI. *Oчерки po filosofii neo-vseedinstva*. M.: LENAND. 2018; 632 s. Russian.
6. Loginov VN, Shirokova ZV. *Linejnaja algebra*. Komsomol'sk-na-Amure: KnAGT U. 2015; 152 s. Russian.

### Литература

1. Кант И. *Критика практического разума*. М.: Наука. 2007; 530 с.
2. Гулыга А. В. *Немецкая классическая философия*. М.: Рольф. 2001; 416 с.
3. Моисеев В. И. *Логика всеединства*. М.: ПЕР СЭ. 2002; 415 с.
4. Соловьев В. С. *Оправдание добра*. М.: Институт русской цивилизации, Алгоритм. 2012; 656 с.
5. Моисеев В. И. *Очерки по философии неовсединства*. М.: ЛЕНАНД, 2018; 632 с.
6. Логинов В. Н, Широкова З. В. *Линейная алгебра*. Комсомольск-на-Амуре: КНАГТ У. 2015; 152 с.