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FREE WILL IN CHOICE SITUATION FROM THE STANDPOINT OF BIOLOGICAL NATURALISM

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The problem of free will as the ability to independent choose is analyzed at the example of conception of biological naturalism, offered by American philosopher J. Searle. Two hypotheses (the first – psychological libertarianism with neurobiological determinism, the second – system causation with consciousness and indeterminacy), proposed by J. Searle to solve the problem of free will, are critically examined. Instead of them author proposes the third hypothesis: formal determinism at mental level differs from the determinism at physical level. It is noted that the problem of free will in contemporary analytic philosophy of mind was established on the background of the debate on mental–physical correlation. Author considered six possible approaches for such correlation and proposed a formal model of choice. He has demonstrated how free will is realized within the model.

Key words: free will, choice situation, biological naturalism, J. Searle, analytic philosophy of mind.

For thousands of years philosophers have been debating on the problem of free will. The problem can be reduced to whether there is free will as such. In other words, can we make a choice regardless of internal and external factors? If so, then we'll need scientific methodology to be used to demonstrate how it is possible. If not, then we'll need to show how to make a choice in choice situation and what mechanical, physical, chemical, biological and social factors determine it. Moreover, if scientists prove that there is no free will, they will need to demonstrate that human behavior is completely predictable (without any exceptions). However, the problem of free will doesn't exist by itself. It is connected with the problems of decision-making in choice situation, moral responsibility, predestination, determinism, libertarianism, compatibilism, incompatibilism and so on. In my opinion, if there was possibility to solve at least one of these problems reliably, the other solutions wouldn't imply any extraordinary difficulties. For now it has not been achieved. Although it appears that we can finally resolve these problems only nowadays – in the age of rapid development of science and technology. Many thinkers suggest theoretical explanation for them (especially in analytic philosophy of mind). For example, one of those modern philosophers, J. Searle, is convinced that free will can be described within his framework of biological naturalism. Obviously the concept of biological naturalism is aimed to solve psychophysical problem. Without understanding of a nature of correlation between mental and physical, without analysis of problems related to this one – problems of intentionality, language, rationality – it is impossible to understand the meaning of “free will” clearly. The aim of the article is a critical analysis of the J. Searle's views on the free will in terms of biological

naturalism. Using the methods of logical analysis, comparative analysis and thought experiment I examine following J. Searle's works: "Minds, Brains and Programs" (1980) [11], "Minds, Brains and Science" (1984) [12], "Rationality in Action" (2001) [13], "Freedom and Neurobiology: Reflections on Free Will, Language, and Political Power" (2004) [10], "Biological Naturalism" (2007) [9] and interview "Wie frei sind wir wirklich?" (2008) [14].

Before we consider the problem of free will I'll point out the basic principles of biological naturalism. According to the latter, consciousness is a complex of all conscious states, including awareness, sentience or feeling. Consciousness has the following features: qualitiveness, subjectivity and unity. The vast majority of conscious states are intentional. But, for example, feeling of anxiety is not intentional. Consciousness doesn't imply self-consciousness as consciousness of higher order. Consciousness really exists and can't be reduced to anything else. However there is a controversial point here, as far as J. Searle also argues that "all conscious states are caused by lower level brain processes" [9, p. 328]. Therefore, he justifies materialism on the one hand, but on the other hand he substantiates dualism. Yet J. Searle considers "mental-physical" distinction to be false: "The traditional assumption is that mind and body, as ordinary understood, name mutually exclusive metaphysical categories. If something is mental then it cannot in that very respect be physical. If it is physical it cannot in that very respect be mental. This is the deepest mistake and it is shared by both materialists and dualists" [9, p. 330]. Mental as opposed to physical is subjective, qualitative, intentional and has a first-person ontology. But it is, moreover, spatially located and spatially extended, causally explainable by microphysical processes and capable of acting causally on physical. However science doesn't know exactly how this happens and how to create an artificial brain. Consciousness is a biological phenomenon such as photosynthesis, digestion, mitosis and so forth. Conscious states (for example, your intention to raise your arm) are characterized by the same causality as all other processes of the physical world. We just describe them at another, non-physical, level. Just like we describe solidity at one level (physical) and molecular structure that causes the solidity – at another level (chemical). However, the fundamental difference between description of consciousness and, for example, description of solidity consists in the fact that if we rewrite consciousness in other (physical) terms, we will lose the concept of consciousness. And this would be a mistake. Although J. Searle considers biological naturalism to be the most scientific conception (he claims that famous neurobiologists such as F. Crick, G. Edelman and C. Koch implicitly or explicitly accept it), there are other ones – in particular, Dennett's [4–5] and Chalmers' [3] conceptions.

J. Searle creates his approach to the problem of free will on the basis of the features of biological naturalism. He defines consciousness as one of the phenomena caused by neural processes in brain and in "Rationality in Action" [13, p. 281–298] considers that in given situation two hypotheses are possible:

I. First hypothesis: psychological libertarianism and neurobiological determinism. According to the hypothesis, there is a gap between physical and mental processes, and mental processes (processes of higher level) are totally determined by physical processes (processes of lower level). But the system of causation that exists on lower level is totally inherited by the causation system of higher level. Accordingly, mental processes appear as some epiphenomenon with different nature that is totally determined by physical processes and doesn't influence on them. This hypothesis is suitable because it allows considering human activity in the unity of its physical causes and mental realizations. However the notion regarding the role of rational motives in the decision-making

process looks a little bit simplified. Human personality loses the possibility of self-determination in the decision-making process.

II. Second hypothesis: system causation with consciousness and indeterminacy. According to this hypothesis, if there are no clear causation relationships at mental level respectively there are no such relationships at physical level. In this manner indeterminacy, impossibility to explain the reason of our actions (why do we act in this way but not in another?) is caused by the absent of precise causation relationship at physical level. However this statement doesn't mean that our organism is not a single system.

This hypothesis doesn't give answer to the question of how to explore the nature of human personality, its rational basis and free will in general. In fact, from one hand, there always are gaps between mental and physical, and on another hand, indeterminacy appears in terminological explanations. The process of designing robots which could imitate human behavior becomes unclear as well. Obviously, in order to show indeterminacy at mental level with the support of robot's actions it would be possible to implement some principle of eventuality at technical level. But correctness of this imitation is questionable. One can notice that J. Searle slightly reduce his categorical attitude (comparing to mental experiment "Chinese room") regarding denying the possibility to construct artificial devices with consciousness. He writes: "As an engineering problem I have no idea how we would go about constructing this, but then at present we have no idea about how we could go about constructing a conscious robot anyway" [13, p. 296]. As we remember, J. Searle in [11] categorically denied such possibility both regarding devices formed based on computational theory of mind and regarding devices functioning based on connectionism principle.

Summarizing above mentioned it should be noted that both hypotheses are mutually exclusive. J. Searle doesn't give the answer which hypothesis is correct. In addition, he writes: "I have no idea which if either of these hypotheses will turn out to be true. Perhaps some third possibility that we cannot even imagine will turn out to be right. These are the two hypotheses I can come up with if I follow relentlessly the lines of investigation suggested by both what we know from our own experience and what we know about the brain" [13, p. 296]. As we can see, while formulating these hypotheses J. Searle uses notion "gap" [cf.: 10, p. 37–78; 14]. Sometimes it seems like there are too many gaps in his explanations. The reason is that J. Searle outlines following elements in the process of free actions execution:

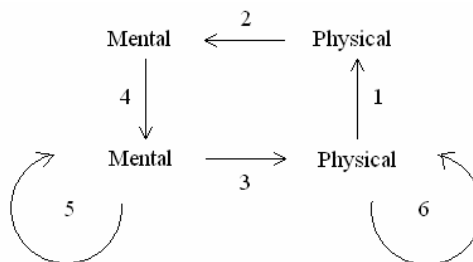
- 1) neurobiological basis – physical brain condition that precedes the moment of decision-making;
- 2) decision is the moment when we choose between two alternatives. Till this moment there were no decision; in some moment it appears, concerning our following actions – in some moments we may still change other decision, in other – it stays irreversible;
- 3) the beginning of decision implementation – the moment when person proceeds from thinking over particular situation to physical, practical implementation of his/her thoughts;
- 4) completion of action – as we know in certain situation action can be suspended.

Difficulty of free will nature explanation lies in a fact that there are three gaps in explanation of causation relationship between these four elements of free action process implementation. The first gap exists between neurobiological basis of thinking processes and thoughts (decisions) that is outcome of this processes, second gap exists between decisions and their direct implementation, the third gap appears between the beginning of action implementation and its completion. J. Searle

notes: “At bottom I think all three gaps are manifestations of the same phenomenon, because all three are manifestations of volitional consciousness” [13, p. 276]. It is difficult to understand what is happening in these gaps and whether causation relationship actually exists between phases of action implementation. Such quantity of gaps casts doubts on the possibility of biological naturalism falsification. Every time when we fail in the process of justification of something we could appeal to gap category and build new potential justification. We can not deduce any mental pattern from physical one with logical necessity because of the gaps. Even more, it will not be possible to state whether these mental patterns exist.

Difficulties regarding correctness of biological naturalism interpretation arise also concerning other questions. If every thought has neural basis how will the neural basis for general notions which aren't in reality look like? General ideas, in particular, very often influence our choice. For example, while choosing between to visit or not to visit our relatives we could follow the ideas of moral duty, responsibility, tact etc. In this case, we can state that mental influences physical. Critics of this approach may argue that in described case we can state that mental has some physical prerequisites. Even more, it seems as it is physical feature. But according to B. Caplan's proper remark, consciousness is not a feature identical, for example, to “whiteness”. In contrast to consciousness, we can not imagine “whiteness” separate from subject or phenomenon. This means that consciousness is not a feature. More obviously it belongs to individually existing subjects [2].

However we will not separately emphasize on other antireductionist arguments proposed by T. Nagel [8], F. Jackson [6], J. Levin [7], D. Chalmers [3] and by others in 1970–1990s of last century. All these ideas concerning possibility of reduction and causality of mental and physical can be described with the following scheme:



Approach 1 rejects the existence of free will, although it can be assumed at quantum mechanics level (recall the uncertainty principle, introduced by W. Heisenberg). However, we presumably just don't know everything correctly. Approach 2 indicates that mental is determined by physical. Now this approach is a key one in materialistic science. But it is associated with a number of difficulties. For example, if our behavior is governed by our brain, we are nothing more than performers of orders given by our neurons. We follow the will of the brain, and therefore we aren't morally responsible for our choices. J. Searle doesn't deny even the possibility of approach 3, although he denies the existence of self: “In order for us to have radical freedom, it looks as if we would have to postulate that inside each of us was a self that was capable of interfering with the causal order of nature. That is, it looks as if we would have to contain some entity that was capable of making molecules swerve from their paths” [12, p. 92]. According to approach 3 physical (lower

level) can be caused by mental (higher level). Approach 4 is exactly the place where free will can be found. I think the causal connections existing at this level have a different nature than physical. The person chooses among several alternatives and uses different criteria simultaneously to choose which one appears before him or her. One can change any of the alternatives, as well as any of the criteria, at any time. Below I propose a formal model of choice. Approaches 5 and 6 currently remain metaphysical because they argue that all things (mental or physical) exist by themselves. There is no free will here [for more, see: 15].

I'll consider a formal model of choice by offering following mental experiment. Let us imagine the situation that at the moment of time t you have to make the choice – choose either A or not- A . This is only your choice and you have almost made it – not- A . What factor has influenced such decision? – For example, c_1 . Let us assume that in some of the possible worlds your psychophysical condition corresponds to the moment of the time t , but factor c_1 is absent. Nevertheless, you still don't want to choose A . You are looking for another reason – for example, c_2 . If factor c_2 is absent, in other possible worlds you can't choose A because of c_3, c_4, c_5 etc. Quantity of these reasons is potentially endless. Some of these reasons are necessary, some are sufficient, some – casual. The consequence of the reasons is the same – not- A . Suddenly at the moment $t+1$ you remember something important about A that you had been interested in for a long time but forgot about it. The struggle of motives starts inside you. Till the moment of time $t+1$ you refused to choose A , but after the moment (when you remembered additional circumstance) you have changed your mind. I may affirm that you will choose the most relevant thing for you at the moment of choice. You will choose the thing that absorbs all your attention. Your choice depends on available active experience.

Accordingly, by choosing between two and more alternatives you are choosing criteria of choice. While choosing you need to do preference in favor of one of the alternatives. This choice should be based on certain criteria or principles of preference. Aristotle in his “Topics” (116a–118b) included following criteria:

- 1) anything permanent and sustained has advantage over inconstant and momentary;
- 2) anything chosen for yourself has advantage over chosen for someone else;
- 3) common good has advantage over good for single person;
- 4) advantage is given to more beautiful; more honorable; more commendable thing;
- 5) advantage is given to possible (practical) over impossible(useless) [1, Book 3, 1–3].

In general while choosing between two alternatives we are choosing between criteria of choice. The scheme of choice looks like the following:

$$(c_1 \vee c_2 \vee \dots \vee c_n) \rightarrow (A \vee B),$$

where c_1, c_2, \dots, c_n – possible list of choice's criteria, and A or B – points we are choosing between.

In the same time, the question of how we are building the hierarchy of criteria arises. The possible answer could be – based on data of our experience. But how do we make the choice when criteria are equal? In this case, criteria differ by their location: first one (that comes to mind), second, third etc. This is the reason why people are choosing by the principle “first is better” or are searching for the criteria that only formally reflects causation relationship. One of the critics' remarks in this case could be the following: don't we need new criteria for choosing the best criteria and for choosing new criteria – some other criteria etc.? As the result we can receive regression into eternity. My answer to this remark is: firstly, we are limited in time while

choosing; secondly, in case of choosing the criteria for criteria people, as a rule, stop on “first is better” or leave it to chance.

Since we choose criteria based on experience, there appears the question: What does the notion “experience” mean? – Innate and acquired knowledge. We gain acquired knowledge intentionally or accidentally. It is almost impossible to foresee the action of another person because his or her experience constantly changes in time. As soon as we start to explore his/her experience we will start influencing on it and that might affect his/her future choice. Sometimes it is impossible to foresee even own choice because (as in our example) force majeure may happen that will influence your choice at the last moment.

Let us continue. What do criteria mean? These are some conceptions (knowledge) which we gain while learning. Conceptions come of summarizing, abstraction. They exist at mental level, but at physical level we observe nothing familiar. Accordingly, at mental level we are dealing with matters of another nature. Likewise, single part differs from general. Since we are dealing separately with mental and physical levels, the question arises: Is the causality at physical level identical to the causality at mental level? In other words, does the causation relationship exist at mental level? Can we predict the choice of certain criteria with necessity? Does the free will exist in our choice?

Earlier I demonstrated that the nature of mental and physical are different. Mental laws differ from physical laws. J. Searle’s hypotheses called to explain the relationship between determinism and free will are unsatisfactory. The third hypothesis seems to be more appropriate: determinism at mental level is formal and differs from the physical level determinism. At mental level we can simultaneously consider all alternatives as well as all choice criteria, combining any of these criteria (as causes) with any alternatives. Another words, we can abstract from processes of choice and change choice criteria at any time. Therefore, free will exists. Difficulties of biological naturalism are related mostly to exaggeration of roles of biological (physical and chemical) character’s factors in question of research of free will’s nature that exists particular at mental level. Since we can’t reduce mental to physical, we can’t explain mental in terms of modern science. However, I think the future science will reveals this secret. As a result, it will discover many new secrets.

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СВОБОДА ВОЛІ В СИТУАЦІЇ ВИБОРУ З ПОГЛЯДУ БІОЛОГІЧНОГО НАТУРАЛІЗМУ

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У статті проаналізовано проблему свободи волі. Автор визначає її як здатність самостійно вчиняти вибір. Довкола цієї проблеми у філософії точаться дискусії вже не одну тисячу років, але лише сьогодні, коли нейронаука отримала суттєвий розвиток, мислителі можуть по-справжньому осягнути її природу. У зв'язку з цим, як зауважує автор, концепція біологічного натуралізму американського філософа Дж. Серля заслуговує на особливу увагу. Адже вона пояснює, як виникає свідомість і як ментальне співвідноситься із фізичним (мозком). Проблема свідомості є підґрунтям для розуміння суті свободи волі. Дж. Серль показав, що свідомість є біологічним феноменом. Її основними характеристиками є квалітативність, суб'єктивність та єдність. Усі свідомі процеси зумовлені процесами нижчого (нейробіологічного) рівня. Утім, свідомість не можна редукувати до фізичних і хімічних властивостей. Особливостями ментальних процесів є суб'єктивність, квалітативність, інтенціональність і онтологія від першої особи. Цим вони відрізняються від фізичних процесів. Але ментальні процеси, як і фізичні, є локалізованими в просторі і детермінованими мікрофізичними процесами. Крім того, вони здатні впливати на фізичні процеси. Свобода волі виникає на рівні сфери ментального.

Критично розглянуто дві гіпотези Дж. Серля, які він висунув для пояснення природи свободи волі: перша – психологічний лібертаріанізм і нейробіологічний детермінізм, друга – системна причиновість, свідомість і невизначеність. Згідно з першою гіпотезою, ментальні процеси детерміновані фізичними і є немов епіфеноменами. Зауважено, що в такому разі не зовсім зрозуміло, наскільки наша поведінка може бути раціональною і чи мають люди нести відповідальність за свій вибір, оскільки процес прийняття рішень детермінований нейробіологічними процесами. Згідно з другою гіпотезою, і на ментальному, і на фізичному

рівнях немає чітких причиново-наслідкових зв'язків. На обох рівнях панує певна невизначеність. Складність цієї гіпотези, на думку автора статті, полягає в тому, що можливість пояснення природи свободи волі видається нездійсненною. Адже і так між ментальним і фізичним існує низка розривів між різними елементами свободної дії: її нейробіологічними основами, рішенням, початком виконання рішення, доведенням дії до кінця. Дж. Серль остаточної відповіді на те, яка з гіпотез правильна, не дає. Він припустив, що правильною, можливо, є якась третя гіпотеза. Недолік концепції біологічного натуралізму, як зауважено автором статті, полягає в тому, що, зважаючи на таку кількість розривів, яка впливає на пояснення природи свободи волі, цю концепцію не можна піддати процедурі фальсифікації. Крім того, незрозуміло, якою має бути нейробіологічна основа для загальних понять. Хоча, як не дивно, часто вибір здійснюють, керуючись саме абстрактними ідеями на кшталт морального обов'язку, відповідальності чи тактовності.

Аналізуючи проблему свободи волі, досліджено шість можливих варіантів співвідношення ментального і фізичного: 1) фізичні процеси впливають на фізичні процеси (за цих умов немає свободи волі); 2) фізичне повністю зумовлює ментальне. Внаслідок цього виникає проблема морального релятивізму. Адже все, що ми робимо, – це лише те, що визначив наш мозок; 3) ментальне може впливати на фізичне. Так існує деяка незалежність ментального від фізичного. Цей варіант причиново-наслідкових зв'язків допускається біологічним натуралізмом Дж. Серля; 4) ментальне детермінує ментальне – що є справжнім рівнем існування свободи волі. Утім, детермінізм цього рівня формальний; 5) і 6) ментальне і фізичне детермінують самі себе (обидва варіанти є, радше, метафізичними і відмежованими від проблеми свободи волі).

Автором запропоновано формальну модель вибору на основі мисленевого експерименту. Обґрунтовано, що, здійснюючи вибір між речами, здійснюють вибір між критеріями, який ґрунтується на нашому попередньому досвіді. Звідси випливає, що можна одночасно поглянути на альтернативи вибору і критерії вибору й змінити свою думку в будь-який момент, вибравши перше-ліпше. Адже процес вибору обмежений у часі. Згідно з гіпотезою автора: формальний детермінізм на ментальному рівні відрізняється від детермінізму фізичного рівня. Саме з погляду цієї гіпотези і можна міркувати про наявність свободи волі.

Ключові слова: свобода волі, ситуація вибору, біологічний натуралізм, Дж. Серль, аналітична філософія свідомості.

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