



УДК 141:113

<https://doi.org/10.23939/shv2024.02.001>

ПСИХОФІЗИЧНА ПРОБЛЕМА І СВІТ 3: НА ЗАХИСТ ПЛЮРАЛІСТИЧНОГО ІНТЕРАКЦІОНІЗМУ КАРЛА ПОППЕРА

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(Отримано: 16.06.2024. Прийнято: 02.09.2024)

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Психофізична проблема зазвичай обговорюється в межах моністичних (фізикалізм, соліпсизм) або дуалістичних (паралелізм, епіфеноменалізм) підходів. Плюралістичний інтеракціонізм є спробою К. Поппера переформулювати і запропонувати власний пробний варіант вирішення цієї класичної філософської проблеми. Важливими новими ідеями для обґрунтування концепції філософа є метафізичний реалізм, світ 3 як світ культури, емерджентна еволюція і не-редукціонізм, безпосередня та опосередкована взаємодія на всіх рівнях космічної еволюції (мінімум трьох світів), вищі функції мови, ієрархія рівнів психічного, об'єктивне знання. У статті обґрунтовується просвітницький характер плюралістичного інтеракціонізму К. Поппера. З цієї позиції здійснюється його захист від критики тих, хто визнає існування третього царства, але відкидає його у попперівській версії.

Ключові слова: *Карл Поппер, три світи, світ 3, взаємодія, психофізична проблема.*

THE MIND-BODY PROBLEM AND WORLD 3: IN DEFENSE OF KARL POPPER'S PLURALISTIC INTERACTIONISM

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(Received: 16.06.2024. Accepted: 02.09.2024)

The mind-body problem is usually discussed within the framework of monistic (physicalism, solipsism) or dualistic (parallelism, epiphenomenalism) approaches. Pluralistic interactionism is Popper's attempt to reformulate and offer his own tentative solution to this classical philosophical problem. Important new ideas to substantiate Popper's concept are metaphysical realism, World 3 as a world of culture, emergent evolution and non-reductionism, direct and indirect interaction on all levels of cosmic evolution (at least three worlds), higher functions of language, hierarchy of levels of the mind, objective knowledge. The article demonstrates the enlightenment character of Popper's pluralistic interactionism. From this perspective, the author defends it against the criticism of those who recognize the existence of the third realm but reject it in Popper's version.

Key words: *Karl Popper, three worlds, World 3, interaction, mind-body problem.*

Introduction

Karl Popper regarded the mind-body problem as the most profound and challenging problem in philo-

sophy, the central problem of modern metaphysics. This problem encompasses a number of key philosophical issues, among them the fundamental problem of freedom,

including political freedom, and the place of human beings in the physical world [Popper, 1994a: 23–24]. Popper devoted the last three decades of his life in particular to the mind-body problem, developing a novel approach to its tentative solution that can be described as pluralistic interactionism¹. Popper posits that the impossibility of a definitive solution to this problem is related to two factors. First, it concerns consciousness as a “major puzzle”. Second, interactionism is characterized by Popper as a kind of research program [Popper, 1985: 37], which generally follows from his methodological position of critical rationalism. This position entails a number of key concepts, including fallibilism, falsificationism, the distinction between Truth as a cognitive regulator and probability as the limit of the cognitive claims of the subject of knowledge, and so on.

Popper is primarily recognized as a philosopher of science and political philosopher, author of *The Logic of Scientific Discovery* and *The Open Society*. Regarding his concept of the emergence and functioning of consciousness and the interaction between the mental and the physical, it has not yet received the recognition among philosophers that it deserves. Nevertheless, within the scientific community, Popper’s proposals have prompted a spirited debate and further elaboration [Neumann, 2012: 13]. F. Jackson identifies three reasons for this phenomenon: 1) the dominance of materialistic or physicalist approaches, while Popper developed the traditional Cartesian dualism²; 2) the non-standard nature of Popper’s terminology; 3) the controversial nature of his three-world metaphysics³ [Jackson, 2016: 269].

Pluralistic interactionism proved so original and diverse that it was not only «unfashionable»⁴ during the

author’s lifetime, but in many ways remains so to this day. Popper’s ideas are typically either entirely overlooked or, at best, briefly mentioned in passing in the majority of contemporary works on the philosophy of mind [for instance: Bayne, 2022; Heil, 2019; Westphal, 2016]. This is despite the fact that Popper’s pluralistic interactionism is well aligned with the anti-materialist movement in the philosophy of mind of the latter third of the 20th century. The majority of the arguments against physicalist monism put forth by T. Nagel, F. Jackson and D. Chalmers, among others, can be found in Popper’s works. Additionally, he considers the mind-body problem in a broad philosophical context, positioning himself as a rationalist and a proponent of the ideals of “old-fashioned” Enlightenment philosophy. He also highly appreciates Kant’s contribution to the conceptualization of the idea of the human dignity [Popper, 1985: 3]. Accordingly, Popper’s solution to the mind-body problem, in light of the broad philosophical context, merits reconsideration and integration into contemporary discussions on a diverse array of philosophical topics.

The purpose of this article is to substantiate the originality and heuristic nature of pluralistic interactionism. In this regard, I will underscore Popper’s contribution to the reformulation of the mind-body problem and the profound enlightening nature of his theory, if we understand enlightenment in the Kantian sense⁵. In my opinion, the concept of World 3 as the key to Popper’s solution to the mind-body problem should not be viewed in a more Platonic or Fregean sense [Sepetyi, 2019: 6], but in a more Kantian sense. In this perspective, Popper’s pluralistic interactionism can serve as a philosophical background for discussing a range of important philosophical issues, including the problems of reality, cognition, consciousness, language, rationality, freedom, creativity, a just political regime, and other topics.

¹ Popper never employed this designation for his concept, but the term «pluralistic interactionism» generally reflects two key characteristics of his understanding of the nature and solution of the mind-body problem. These are as follows: 1) the universe is a set of at least three levels (or worlds); 2) these levels interact directly or indirectly with each other [Popper, 1978a: 351; Popper, 1978b: 164; Popper, 1985: 36–37; Popper, 1994: 4–8].

² Despite his repeated assertions that he preferred Cartesian dualism to various monistic approaches, Popper ultimately rejected substance dualism in favor of interactionism [Popper, 1972: 231, note 43]. Popper conceptualized the mind as a hierarchical structure, ranging from animal consciousness to the Self or full consciousness, and as a process. The same is true of his vision of the universe as a whole, both at the level of what he called World 1 and World 3.

³ Popper’s World 3 theory, which he considered to be his greatest contribution to the mind-body problem, caused rejection by many of his contemporaries, even among his students and followers [Niemann, 2019: 103].

⁴ Popper himself characterized his theory as utterly old-fashioned [Popper, 1978a: 351]. He also recognized that the prevailing fashion in philosophy was monism [Popper, 1994:

23]. The majority of scientists and philosophers held the conviction that materialism, in its developed form, was in alignment with modern science, its methodological principles, and offered the most efficacious solution to the old problem based on the principles of monism and determinism. Consequently, Popper’s principal contribution to the field of philosophy of mind, *The Self and Its Brain*, co-authored with neuroscientist J. Eccles, was regarded by experts as outmoded and largely non-approved [Gadenne, 2019: 398].

⁵ The classical definition of enlightenment belongs to Kant as the exit from self-incurred immaturity when one dares to use one’s own understanding without the guidance of others [Kant, 1996: 58]. In addition, Kant, like Popper, emphasizes the need for the proper use of all one’s cognitive faculties, which is reflected in the following maxims: not only unprejudiced, but also broad-minded and consistent ways of thinking [Kant, 2000: 174]. Demonstrating the relevance of these Kantian ideas to the Popperian version of the concept of critical thinking, objective knowledge, the possibility of rational discussion, and full consciousness requires a separate discussion and is beyond the scope of this article.

The mind-body problem as a logical paradox: Popper's contribution

J. Westphal characterizes the mind-body problem as a logical paradox [Westphal 2016: IX]. It is typically discussed in terms of various possible relationships between states of consciousness and bodily states [Popper, 1992: 220]. In this context, the problem of mind and body does indeed appear logically paradoxical. Formally, we can express this paradox as four propositions, each of which has seemingly strong arguments in its favor. However, collectively, these four propositions contradict each other. Consequently, all the known solutions to this problem are based on the rejection of one of the four propositions and the justification of the other three in a coherent conceptual framework. The physicalists deny that the mind is a nonphysical thing (1); the spiritualists or solipsists deny that the body is a physical thing (2); the parallelists deny that the mind and the body interact (3); and the dualists deny that the physical and nonphysical things cannot interact (4) [Westphal, 2016: 3]. Upon rejecting one of the statements and comprehending the rationale behind the other three, it becomes evident that human thought appears to navigate a complex labyrinth in an attempt to resolve the mind-body problem.

Popper's conception of interactionism, at first glance, generally fits into this outlined strategy of formulating and solving the mind-body problem. In particular, he accepts the first three propositions (1) The mind is a nonphysical thing; (2) The body is a physical thing; (3) The mind and the body interact) and, like the dualists, rejects the proposition (4) Physical and nonphysical things cannot interact. However, this idea is quite misleading, because Popper essentially reformulates the problem in a new way, which is reflected even in the linguistic aspect: Popper speaks of a body-mind problem, whereas the commonly used phrase is mind-body problem. In his *Autobiography*, he recalls that for many years he thought it was impossible to rationally understand and justify the relationship between body and mind; until he came up with the idea that the body-mind problem could be completely transformed by incorporating a World 3 theory [Popper, 1992: 219]. So, in essence, Popper offers a fifth solution to the mind-body problem by extending the concept of reality to three interacting worlds.

Another important Popperian innovation is the development of a "biological and even evolutionary approach" [Ibid: 220]. The metaphysical basis for justifying this approach is Darwinism as a metaphysical research program. Popper sees the success of this research program in the fact that it poses detailed problems in many areas and suggests what should be expected from an adequate solution of these problems [Ibid: 80, 344]. Taking into account Popper's philoso-

phical self-identification as "a metaphysical realist who accepts the theory of evolution" [Popper, 1999a: 24], it is possible to see the originality of his conception of pluralistic interactionism.

Thus, a new way of formulating and tentatively solving the mind-body problem is that Popper thinks not so much in terms of entities, structures, and possible relations, but in terms of process, hierarchy of levels, and two-way direct or indirect interaction. Moreover, his original theory is consistent with both modern science⁶, and the basic principles of "old-fashioned" rationalist and Enlightenment philosophy [Popper, 1999b: 83].

World 3 and pluralistic interactionism

Popper claims that whatever new he might have to say on the body-mind problem is connected with his views on World 3 [Popper, 1992: 220]. The innovation lies not in the idea of the third realm as such⁷, but in its inherently enlightened interpretation. However, it is the World 3 theory that is perceived by many as inaccurate and inconsistent [Gadenne, 2016: 292], as internally contradictory and untenable because it faces serious and possibly insoluble problems [Sepetyi, 2019: 5], as an extravagant hypothesis that can hardly cope with the problem of interconnection without losing at least some of its original simplicity and metaphysical charm [Cohen, 1980: 177]. The main complaint against Popper's theory by those contemporary authors who, unlike monists and dualists, are willing to accept the idea of the third realm as such, is the inability to consistently justify the reality and autonomy and, at the same time, the dynamism and human origin of the World 3.

As possible ways of solving this problem, they suggest looking at the World 3 either 1) in a more Platonic way [Sepetyi, 2019: 6] or 2) in a less Platonic or non-Platonic way [Gadenne, 2016: 300–302]. How can one respond to these proposals? One could adopt a strategy of responding to the specific critical arguments of each author, but the format of the article does not

⁶ Popper described himself as a philosopher who throughout his life has been dissatisfied with the prevailing schools of philosophy and deeply interested in science [Popper, 1985: IX]. He developed his conception by drawing on the data of modern science in various fields: physics, biology, ethology, psychology, linguistics, mathematics, and logic.

⁷ In various works, Popper mentioned to some extent his predecessors, Plato, Hegel, Bolzano, Frege, and Gompertz, but he always emphasized the uniqueness of his World 3 theory in comparison to their versions of the third realm. To distinguish his pluralistic conception from the previous ones, Popper uses the terminology of Worlds 1, 2, and 3 proposed by Eccles. The mathematical numbering of these three worlds emphasizes Popper's attempt to distance himself from religious and (dogmatic) metaphysical connotations and to place them in a new context that is his own and largely enlightening by nature.

allow this. Or one could try again to emphasize Popper's main ideas, which become clear only in the broad context of his philosophy. After all, if one looks at his theory from a certain perspective and considers only a certain part of his ideas, one can always find contradictions and become an epigone in one's own attempt to go further than Popper.

Popper's main thesis is that World 3 is the world of culture, which is part of an evolutionary, emergent, and open universe [Popper, 1978b: 166]. It develops as a result of the evolution of the world of physical bodies (World 1) and especially the world of subjective experience (World 2). This is the world of products of the human mind, such as languages; fairy tales, stories, and religious myths; mathematical constructs; songs and symphonies; paintings and sculptures; works of engineering [Popper, 1978b: 143–144]; scientific theories (true or false), problems and arguments; and social institutions [Popper, 1985: 38].

According to Popper, World 3 really exists because it influences World 2 and, through it, World 1⁸. Without World 3, there would be no human consciousness at the highest levels, what Popper calls full consciousness, Self or Ego, nor would there be a cultural world distinct from nature as a world of embodied and

non-embodied objects of World 3. By its very nature, World 3 is not a world of Platonic eternal ideal and absolutely true entities, it is a linguistic universe. Its evolution is connected with the evolution of human language at the level of descriptive and especially argumentative functions. Mind represents a hierarchy of levels, from those shared with animal consciousness to the Self, and is rooted in both World 1 and World 3.

The same is true of language: at the lower levels, all animals have it (expressive and signal functions), at the level of descriptive functions, humans and possibly some animals such as bees. At the level of argumentation, however, only humans have language [Popper, 1962: 294]. We can also add thinking, which is inherently associated with solving problems by trial and error. This is a universal method used by the amoeba as well as Einstein. Thus, human thinking is rooted in the characterization of life as such, and can manifest itself as dogmatic, seeking confirmation of its attempts, or as critical, acting on a strategy of seeking refutation.

Arguments in Defense of a World 3 Theory

To better understand Popper's position, it is appropriate to change the modality when talking about the Self and higher levels of language and thought. They are not a given of human nature, but can be developed in each individual person in interaction with World 3 and with other people. Therefore, Popper argues that we take more from World 3 than we give to it [Neumann, 2019: 110–112]. In this point – the justification of the possibility of human self-transcendence – Popper's concept is in line with one of the key ideas of the Enlightenment – the idea of self-development and self-improvement, which is made possible primarily through education and various communication practices.

Popper argues that World 3 indirectly influences World 1. It is true that the human brain changes its structure at the level of neural connections in the course of learning and thus grasping and understanding the objects of World 3. Our way of seeing and hearing, of sensory perception in general, depends on our cultural background. In addition, behind every embodied cultural object, such as a bridge, building, or table, which belongs to World 1, there are problems, ideas, concepts, and discussions that are typical inhabitants of World 3. A book is an object of World 1, but it is significant as an object of World 3.

Thus, World 3 is not only real according to the extended conception of reality [Popper, 1999a: 26], but also partially autonomous, heterogeneous, and hierarchical in its structure. The inhabitants of World 3 can be divided into domains (science, art, mathematics, technological inventions, ethical values, social institutions). Or

⁸ This article defends Popper's pluralistic interactionism against the criticism of those who recognize the existence of a third realm but reject it in Popper's version. Of course, Popper's conception is also criticized by those who deny both pluralism and dualism. I am grateful to the anonymous reviewer for drawing my attention to one of the major problems with Popper's pluralistic interactionism, namely that it requires the openness of World 1 towards World 2 and World 3. And this implies the denial of the principle of causal closure of the physical world. Did Popper really solve the problem of how the immaterial can influence the material? This question requires a separate detailed analysis, which is beyond the scope of this article. In this context, however, it is worth emphasizing that Popper, with deep respect for science, offered his own solution to what he called Compton's and Descartes's problems, notably in [Popper, 1972]. While the former is the problem of the influence of the universe of abstract meanings on human behavior (and thus on the physical universe), the latter is a classical body-mind problem, i.e. the problem of the influence of states of mind on physical states and vice versa [Ibid: 230–231]. In essence, Popper's stance is that only the causal «openness of World 1 towards World 2, and of World 2 towards World 3, and the autonomous and intrinsic openness of World 3» [Popper, 1988: 130] will enable us to provide a rational explanation for the emergence of the new, human creativity and human freedom. An adequate understanding of these purely human phenomena is hindered not only by the “nightmare of the physical determinist” [Popper, 1972: 217, 254], but also by the limitations of indeterminism, which Popper deemed insufficient for explaining these phenomena [Popper, 1988: 113–130]. It is noteworthy that Popper presents his own solution to what can be termed the “Kant's problem”, namely, the question of how freedom is possible in the world of nature.

one can show a hierarchy of its levels: World 3.1 consists of content that is somehow “materialized” or “embodied” (e.g., in the brain or as signs on paper); World 3.2 contains content that has been perceived or understood by the human mind; World 3.3 contains theories, problems, and potential solutions that are not materialized (embodied), are not yet known, and may never be discovered [Popper, 1974: 1050–1052]. This idea demonstrates Popper’s thesis about the partial autonomy of World 3.

Gadenne distinguishes two aspects of Popper’s understanding of the autonomy of World 3: 1) the existence of its objects, objectified through language, independent of our thoughts and actions; 2) objects that we do not invent but discover at the level of 3.3. Gadenne argues that Popper endows World 3 in the sense of 2) with the property of creativity. This does not fit well with his proposal for the human origin of World 3. Emphasizing that only humans are creative, that humans create new ideas, theories, problems, and solutions, Gadenne believes that it is necessary to abandon Popper’s hypothesis about the existence of an autonomous World 3.3 [Gadenne, 2016: 290, 300].

While I largely agree with Gadenne’s arguments and his interpretation of Popper’s World 3 theory, I would like to make an argument in defense of Popper’s own position. World 3.3 should not be thought of in terms of the existing, because then some creative ideal entities are indeed postulated, and Popper’s theory looks inconsistent and contradictory. After all, for Popper, on the one hand the human mind creates objects of World 3, and on the other hand there are unpredictable logical consequences and new problems that no one can even guess about. This gives the impression that some objects of World 3 seem to produce other objects of World 3. Instead, I propose to think of it in terms of the (logically) possible. World 3.3 is something that is in principle accessible and possible to a human being, as a person endowed with reason, can potentially discover as initially unobvious consequences of the inhabitants of World 3 created by World 2. Such consequences, in the form of problems and possible strategies for solving them, can be discovered by humans and thus activate the processes in World 2 towards their solution [Popper, 1985: 39].

It is a Kantian formulation of the question: How is creativity possible? Genius is not enough; additions from the World 3 are needed [Neumann, 2019: 112–113]. Since Popper recognizes the Enlightenment concept of the universal human mind, and probably also the ancient logos in its full range of meanings, it follows that the activation of processes in World 2 in the course of interaction with the inhabitants of World 3, objectified in language, opens up the space of possible paths for human cultural development. It is not cultural objects that create other objects, as Gadenne argues, but people who open

up new horizons by discovering and rethinking what logically follows from what is already known.

Perhaps the emphasis on Popper’s specific view of objectivity will be strengthened by this argument of mine. The objective is not only what is objectified by means of language, which reveals the ontological aspect of this concept and refers to Frege’s interpretation. Popper also understands objectivity as intersubjectivity. To be objective is to think from the perspective of another, to coordinate one’s position and arguments with other people. Here Popper largely follows Kant: the Cyclops needs a second eye. Human beings have no other means of verifying the truth of their reasoning than to appeal to the minds of others. Man is incapable of taking a stand from God’s perspective. However, when human thought becomes critical, when language is used at the highest level of argumentation, new perspectives of the (logically) possible World 3.3 open up to man as the bearer of universal reason. The actualization of the logically possible occurs through the creative activity of the mind at the level of the Self.

In conclusion, World 3 theory, like the concept of an open universe and pluralistic interactionism, is a Popperian explanation of the emergence of a new [Ibid: 117]. According to Popper, novelty can and should arise in the process of evolution [Popper, 1994: 59], first on the biological and later on the socio-cultural level. Therefore, unlike Plato’s world of ideas and Frege’s third realm, Popper’s World 3 is historical and dynamic, and unlike Hegel’s Objective Spirit, it is a product of the human mind and human language. World 3 exist in time but not in space. It evolves according to a universal scheme that all living organisms, including human beings, follow: $P1 \rightarrow TT \rightarrow EE \rightarrow P2$ ⁹. However, TT can mean both tentative trials and tentative theories [Popper, 1992: 55]. The problem in this scheme appears both at the beginning and at the end. At different hierarchical levels of reality, there are different problems: those related to survival, to the realization of goals, and finally to creative artistic, engineering, or scientific problems. P2 can be either an improved and better understood old problem (P1) or a new, previously unknown problem. In any case, problems involve search and creativity, both rational and intuitive aspects, making assumptions, rejecting false ones, and endlessly searching for better solutions. Previous decisions create a new situation and therefore require new attempts and new approaches.

⁹ This is Popper’s simplified problem-solving scheme. P1 means original problem, TT stands for conjectural or tentative solution to the problem, EE means error elimination, particularly through critical discussion, and P2 stands for new problem as a result of a new situation that has arisen. This scheme is universal and constantly repeats itself. Popper extends this scheme by providing for the multiplicity of the tentative solutions or trials [Popper, 1972b: 243].

Conclusions

Popper's pluralistic interactionism is his original and still underappreciated contribution to the reformulation and solution of the mind-body problem. This theory is criticized by monists, dualists, and even those who are willing to accept the idea of a third realm. In this article I have tried to substantiate the claim that what makes Popper's attempt original is the combination of his ideas of emergent cosmic evolution on all three levels and the Enlightenment interpretation of World 3, its emergence, specificity, evolution, and significant influence on World 2, and through it on World 1. One of my main theses was that World 3 theory, as the key to Popper's solution of the mind-body problem, or as he preferred, the body-mind problem, should not be interpreted in a more or less Platonic way, but in a more Kantian way. Popper deeply appreciated Kant as an Enlightenment philosopher, especially for his ethical conception, but he did not explicitly emphasize the connection between his pluralistic interactionism and important ideas of Kantian philosophy. A closer look, however, reveals this connection. The views of Kant and Popper converge in their interpretation of the universal reason, human self-transcendence and self-improvement, the hierarchy of levels of mind development, the dependence of socio-cultural institutions and practices on the level of mind development, and so on.

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