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## Karl Popper and the Problem of Essentialism in Philosophy

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**Abstract.** In modern philosophy, essentialism is in most cases regarded as an outdated and, in fact, incorrect philosophical trend. And one of the scientists who created such a reputation of essentialism was the famous English philosopher of Austrian origin Karl Popper. The success of his book “The Open Society and its Enemies” led to the fact that in the West essentialism began to be considered not only cognitively untenable, but also suspicious as the theoretical basis of fascism, communism and totalitarianism. In the article, K. Popper’s arguments against essentialism are reviewed all over again, and it is shown that K. Popper’s criticism of essentialism as an anti-scientific and outdated doctrine is not the point of view of the philosophy as a whole, but it is just the position of empirical positivism. Essentialism deals with the reality that lies on the other side of phenomena. And this, according to K. Popper, necessarily leads to “ultimate” definitions. However, in accordance with the doctrine of falsification by K. Popper himself, every scientific conclusion within its expiration date is “ultimate”. The article shows that in reality essentialism did not only play an extraordinary role in the classical metaphysical theory of knowledge, but also continues to do so within the framework of modern ontology. Moreover, in the latter case, he does it with the help of abduction which is a specific form of logical inference generating scientific hypotheses. The existence of abduction in science, which generates new knowledge, suggests that essentialism is not something, at best, tolerable and excusable. This is the main way to development of sciences in general. In all cases, the author of the article considers only logical entities, but not legal, theological or any other.

**Keywords:** K. Popper, essentialism, metaphysics, ontology, cognition, abduction

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### K. Popper about Essentialism in Cognition

The concept of “methodological essentialism” was introduced into philosophy by Karl Raimund Popper (1902—1994) “...to characterize the view, held by Plato and many of his followers, that it is the task of pure knowledge or science to discover and to describe the true nature of things, i.e. their hidden reality or essence” [1. P. 29].

Essentialism deals with the reality that lies behind the phenomena. However, according to K. Popper: “For it entails the doctrine of the existence of *ultimate explanations* (italics by K. Popper — A.A.); that is to say, of the existence of explanatory theories which in their turn are neither in need of any further explanation nor capable of being further explained” [2. P. 452].

Actually, this “ultimate of explanation” is the subject of K. Popper's criticism. After all, according to his theory, there is nothing ultimate and cannot be anything ultimate in science. All theories will eventually be falsified. Therefore, “ultimativity” is beyond the demarcation line separating science from non-science.

It cannot be said that this was a feature only of K. Popper's personal position. This was the general platform of philosophical positivism. And the main argument against essentialism was its non-empirical nature. Indeed, from the point of view of the same K. Popper, “...all these essentialist views stand in the strongest possible contrast to the methods of modern science. (I have the empirical sciences in mind, not perhaps pure mathematics)” [1. P. 229]. As appears from the above, K. Popper and other positivists recognized only the methods of natural sciences as the only scientific methods of cognition.

For example, Rudolf Carnap (1891—1970) assumed, “...that someone formed a new word ‘babig’ and claimed that there are things that are ‘babigious’ and those that are not. To find out the meaning of the word, we ask this person about the criterion: how, in a particular case, to establish whether a certain thing is ‘babigious’ or not? It is supposed that the respondent did not answer the question: he said that there are no empirical characteristics for a ‘babignty’. In this case, we consider the use of the word unacceptable” [3. S. 223].

It is clear that such a philosophical position is directed precisely against essentialism. After all, he is dealing with entities that are not empirical by their very nature. However, R. Carnap does not notice at the same time that the Democritus' atoms were once upon a time also “babigs”. Nevertheless, under the influence of arguments outlined above, essentialism is now considered to be an outdated and already historically obsolete form of philosophical thought. And Mark Blaug, well-known representative of the philosophy of science, even allows himself a remark about the “ugly head” of essentialism [4. P. 108].

Meanwhile, it seems that K. Popper is not at all at war with essentialism but only with the word “ultimate”. Yes, he does it in vain because in full accordance with the doctrine of falsification of K. Popper himself, every scientific conclusion within its expiry date is the “ultimate” and the last word of science.

K. Popper presents essentialism as an obviously absurd trend in its anti-scientific nature and hence victoriously smashes it to smithereens. In addition, for K. Popper essentialism is unacceptable not only scientifically but also socially. After all, any appeal of philosophers to essentialism “...leads to anti-scientific, anti-rationalist and anti-liberal thinking. /.../ Their appeal to the term ‘essence’ (from lat. ‘essence’) inevitably leads to an archaic and anti-modern perception of life, totalitarian thinking” [5. P. 137]. It should be recognized that the success of the book *The Open Society and its Enemies* has led to the fact that essentialism in the West has gained a reputation of the theoretical basis of fascism, communism and totalitarianism.

However, the peculiarity of the books *The Open Society and its Enemies* and *The Poverty of Historicism* is that they are only half philosophical. For this reason, in these books K. Popper argues sometimes as a philosopher, sometimes as an ideologist. For example, as a philosopher K. Popper “...therefore readily concede to essentialism that much is hidden from us, and that much of what is hidden may be discovered” [6. P. 105].

K. Popper also admits the existence of the entities themselves. According to him: “...my criticism of essentialism does not aim at establishing the nonexistence of essences; it rather aims at showing the obscurantist character of the role played by the idea of essences in the Galilean philosophy of science (down to Maxwell, who was inclined to believe in them but whose work destroyed this belief). In other words, my criticism tries to show that whether essences exist or not the belief in them does not help us in any way and indeed is likely to hamper us; so that there is no reason why the scientist should assume their existence” [6. P. 105].

But what does it mean “whether essences exist or not”? If they exist, then disbelief in them, on the contrary, makes obscurants the scientists themselves, as in fact, it happened with the French Academy of Sciences which denied in the 70s of the XVIII century the fact of falling stones from the sky. According to Occam's razor, a scientist should not believe only in superfluous essences, but not in essences at all. Therefore, in this case, K. Popper's call to disbelief in essences looks like a call to an inadequate view of things.

Reasoning as a philosopher, K. Popper cannot help to notice that “essentialism may have been introduced on the ground that it enables us to detect an identity in things that change, but it furnishes in its turn some of the most powerful arguments in support of the doctrine that the social sciences must adopt a historical method; that is to say, in support of the doctrine of historicism” [7. P. 34]. After all, K. Popper agrees that “...we cannot speak, in the social sciences, of changes or developments without presupposing an unchanging essence, and hence without proceeding in accordance with methodological essentialism” [7. P. 32]. All this significantly weakens K. Popper's criticism of essentialism.

Reasoning as an ideologist, K. Popper, in fact, is not fighting with real essentialism but with its intentionally simplified image. In addition, K. Popper everywhere considers essentialism as an unchangeable trend that is inseparably linked with metaphysics.

### From Metaphysics to Ontology

Meanwhile, metaphysics itself, and hence essentialism closely related to it have not been unchanged at all over the centuries. Plato has already clarified the picture of the supersensible world opened by Parmenides. Plato's supersensible world is based on the World Soul which is essentially something like an operating system that accommodates various kinds of eidoses. The World Mind compares them with each other. As the criterion for comparing eidoses, Plato considers the eidos of Good as the most perfect of them.

The Eidos of the Good is different from all the others, and therefore it is sometimes called the Idea of the Good. However, in the Greek language the word “to know” has a different character depending on the sources of knowledge. The term εἶδος (“eidos”) comes from the verb εἶδεναι (“to know through reflection”), whereas ἰδέα (“idea”) comes from the verb ἰδέειν (“to know by means of observation”). In Platonic times, these words were used as synonyms. Perhaps, that is why Plato himself used them inconsistently, although in most cases he called “eidos” something intelligible.

The result of identification of the eidos and the idea can be seen by the example of the Aristotelian classical objection, which in the Middle Ages was called the “third man”. According to Aristotle, if “eidoses” are “common in difference”, then in addition to a real person and his “eidos” (“the second person”), we must admit the existence of another “eidos” that would express “the common” that exists between a real person and his “eidos” (it will be the “third person”). For the same reasons, the “eidos” of the fourth, fifth person and so on should be added to it. And since there is nothing in the “eidos” of a person that would not exist in real people, Aristotle concludes that “eidoses” are simply an unjustified doubling of the world. In Soviet philosophy, this was considered a refutation of idealism.

However, it is easy to see that a real person is something sensible. This means that “the common” that can be formed from this fact will be an “idea”, that is, in Hegel's words, an “abstract determinations of *sensory intuitions*” [8. P. 296] (italics by G.W.F. Hegel — A.A.), but not at all an “eidos”. If we try to form “the common” from something intelligible, for example, from the Good, then we will be convinced that “eidos” of the Good will not differ in any way from the Good itself, since the Good already has something “common” for all other kinds of goods [9. P. 122–126].

Later Plotinus, who said about himself that he understood the Plato's system better than Plato himself, drew attention to the fact that the Platonic Good as a criterion of comparison could not be the most perfect without having a sign of existence. So in fact, the Platonic Good is an Essence but not “a part of the essence”. In addition, Plotinus has shown that Platonic principles are in fact a single whole.

Unlike metaphysics of Plato, Aristotle's metaphysics was not a projection of the soul, but of our real practice. Just as people on earth create things by giving a form to substances, so the supersensible Being or God gives forms to everything material.

As for the Christianity which eventually conquered the ancient world, it was originally an ordinary religion. It was Saint Augustine who made Christianity a philosophy. He did not only connect the Platonic-Plotinus “trinity” and the “single” God of Aristotle but also identified them with the Trinity of Christianity. However, at first this synthesis was still too mechanistic, since the God of Saint Augustine was not much different from the God the creator of Aristotle.

However, in the Middle Ages Thomas Aquinas (1225—1274) corrected this mistake attaching fundamental importance to the fact that the Christian God had also created the Matter itself. As a result, the matter could not be as passive as it was by Aristotle any longer. The matter concealed a latent activity divine in nature. As a consequence, nature no longer needed divine emanations, as Saint Augustine implied. Everything was happening within the matter for some instrumental reasons, as leaving things to themselves.

In fact, the nature received its activity already from Thomas Aquinas, although formally the idea of pantheism or God dissolved in nature was formulated by Nicolaus Cusanus. And later the resulting single essence or “divine nature” became the substance or *causa sui* of Benedictus Spinoza.

Afterwards, when the contradiction between active God and passive matter had *de facto* disappeared, a new contradiction arose in metaphysics, that is a contradiction between a subject and an object. In order to reflect these changes in philosophy a new term “ontology” has appeared. Ontology has not become just a doctrine of being as such but, of course, the doctrine of the being of an object and a subject as such and of the relationship between them.

The difference between ontology and metaphysics is precisely in the presence of an active principle of the subject only. According to the observations of such a connoisseur of antiquity as A.F. Losev, at that time there was not even the word “personality” in Greek or Latin yet. This opinion is also confirmed by A.A. Kovalenok, the modern researcher of Plato and Plotinus ontology: “Antiquity did not know any centering on the Self, the subject, the emphasis on the personal principle” [10. P. 110].

Beginning from the works of B. Spinoza, the subject-object ontology found its continuation in the systems of German classical philosophy and Marxism. And already as their heritage, the subject-object ontology has reached our days. This is confirmed by the fact that, as V.E. Budenkova notes, for example: “Despite the diversity of specific ontological doctrines, in the classical philosophical tradition there are only two ways of constructing ontology: ‘from the subject’ and ‘from the object’” [11. P. 67].

However, since the late 1970s of the twentieth century, the philosophers began talking about an ontological turn. The initiator of this turn, Roy Bhaskar, has simply

made subject-object ontology the subject of open discussions, which were the essence of the turn. Despite the fact that, according to R. Bhaskar, in scientific research “...ontology is absolutely unavoidable” [12. P. 98], no one has discussed these problems before him. Thus, the ontology of positivism which was limited to the world of phenomena was accepted. R. Bhaskar also presumed that science should study not only phenomena, but also essences. And thereby, he restored the rights of the ontology of critical realism, adherent of which he was himself, as well as the ontologies of phenomenology and essentialism.

### **Features of Cognition in Metaphysics**

Essentialism played an extraordinary role in the metaphysical theory of knowledge. According to Aristotle, things are the matter put into shape. Moreover, this form itself can be abstracted from things in the process of cognition. Thomas Aquinas developed this major position of Aristotle. Distinguishing between “vision” and “cognition”, he emphasized: “...the first thing intelligently cognized is the likeness of the thing, in intellect, and the second thing intelligently cognized is the thing itself, which is intelligently cognized through that likeness” [13. P. 201].

Moreover, it is true even in these cases when something absolutely unknown appears before our eyes, for example, a UFO. Externally, the UFO resembles a plate, and internally we refer to this entity. Having made sure that there is not exactly the same option as an UFO in the set of meanings of our inner essence of “a plate”, we return to the “plate-like” object that is coming to us, and arbitrarily attach to its generic quality a specific feature characteristic of this object, such as the property of flying. As a result, we have a new concept — a “flying plate”. (Nothing would have changed because initially we would have internally classified an UFO by referring it to the essence of “something flying”. Simply in the first case the transition from vision to cognition looks more visual).

In any case, a thing is known to us due to the unity of its external and internal forms. In Thomas Aquinas' theory of cognition, the form outside the intellect and the form inside it represent one and the same entity. That is why the first part of the process, in fact, is the “identification” of a thing, or its summing up under an essential category. Obviously, this part of the trajectory of cognition is also the most vulnerable. This is the point where the problem of “seeming” or “being” arises. How well the Georgian poet Simon Chikovani said about it: “Everything is given a double honor — to be this and that. An object happens to be that which it really is, and that which it resembles” [14. P. 217]. This is especially evident in biological typology, where due to the mimicry found in nature, you can sometimes confuse some raccoon dog with the raccoon itself.

That is why, the establishment of identity (and not similarity, which is always only external) is a necessary second point of the metaphysical process of cognition. Following the establishment of an external connection between the type of an object revealed to us and one of the universal forms within us, an empirical verification of the materiality of the established connection is required. Classical essentialistic

cognition cannot live without this test. There is the folk saying about it: “A pig looks like a hedgehog but the wool is not the same”. Therefore, the accusation of essentialism in isolation from reality is the reduction of the two-stage process of metaphysical cognition to its first stage.

In any case, it is clear from the above said that essentialism is organically inherent in the metaphysical form of cognition.

### **Features of Cognition in Ontology**

However, after transformation of metaphysics into ontology, such a theory of knowledge became impossible. The “view” as an image standing before us was no longer evoked by the outside world itself. Images of material objects were no longer outcome of “view” as was the case with Democritus and Epicurus, and, in fact, also with Plato and Aristotle. From now on, activity in cognition has become the lot of only one subject.

The subject captures the object in cognition at the expense of its own intentionality, which in the absence of an internal “appearance” — this “ghostly entity located between the intellect and the outside world” — can only be explained as an a priori form, which was in fact subsequently done by I. Kant. It is enough for the subject to turn its attention to the object, as the cognitive act itself immediately arises.

Hence it can be seen that metaphysical and ontological theories of knowledge are simply incompatible with each other. According to Aristotle and Thomas Aquinas, the impulse of cognition came from a material thing. It was reflected in the subject, and the subject only passively perceived it with the help of the tools of cognition available to it. If there were no such instruments certifying the similarity of the external and essential internal “appearance”, there would be no cognition itself.

In ontology, everything that is external to the subject immediately becomes an object, whether it is the “kind” of Thomas Aquinas (Platonic “idea” or Aristotelian “form”). Even if the “view” suddenly appeared from our memory, it would immediately become an object but not an internal means of cognition — an essential form, as it was before. But this means that an abyss opens up in ontology between the object and the subject, since the intermediary in the form of “similarity” disappears.

This means that it is unclear how the subject perceives objects of the external world in general in order to cognize them. After all, it does not send any special cognitive rays to them. The objects of the outside world, since an object is absolutely passive, cannot jump into our intellect themselves. An external object becomes our simple notion.

However, if an object is just our notion, how can the intellect be sure that it really reflects the outside World? At least it is difficult to explain some phenomena without the theory of a common essential form. For example, when we look at color photos, we see the landscape, people or animals instead of colored spots. Isn't there

a kind of intermediary structure required here, so to speak, tertium comparationis (the third for comparison), so that we can compare upcoming images with it, and thanks to this comparison determine what do we finally see?

Alas, Plato's theory of ideas and J. Locke's theory of ideas are the same only in name. In any case, Plato's ideas, Aristotle's forms and Thomas Aquinas' kinds make external objects something “own” for the cognizing intellect, but J. Locke's ideas do not, because in J. Locke's metaphysics there is not a hint of the position of the dual existence of forms (kinds or ideas).

Hilary Putnam (1926—2016) drew attention to the fact that in the theory of knowledge it is difficult to do without the theory of forms when we are trying to explain the relationship between a subject and an object in our days in his article with the characteristic title “Aristotle after Wittgenstein”: “...what we are missing is precisely the notion that events have a *form*. Efficient causation, as currently conceived, will not provide us with enough *form*” [15. P. 68]. (italics by H. Putnam — A.A.)

In any case, the rejection of essentialism in philosophy really complicates our knowledge of reality.

### **Essentialist Abduction as a Form of bridging the Gap between a Subject and an Object in Ontology**

It may seem that due to the processes described above, essentialism has generally remained in the philosophical past. However, despite the obvious triumph of nominalism in science, essentialism, remains as before the mainstay of scientific knowledge. And the way in which essentialism continues to be relevant for cognition is its participation in the construction of scientific hypotheses with the help of a special form of logical inference – abduction. The classic of American philosophy Charles Sanders Peirce, who actually introduced this concept, defined it as follows: “abduction is the process of forming an explanatory hypothesis” [16. P. 216]. At the same time, Ch.S. Pierce relied on Aristotle, whose retroduction (or in modern terms, abduction) as a process of logical inference was mentioned, but did not receive proper development.

However, the situation with abduction in modern logic remains debatable, since “A conclusion drawn by abductive inference is an intelligent guess. But it is still a guess, because it is tied to an incomplete body of evidence. As new evidence comes in, the guess could be shown to be wrong. Logicians have tended to be not very welcoming to the idea of allowing abductive inference as part of logic, because logic is supposed to be an exact science, and abductive inference appears to be inexact” [17. P. 3—4].

But what does abduction and its guess have to do with essentialism at all? It turns out, there is the most direct connection. After all, a guess, from the point of view of logic, is just an ordinary classification, which can be carried out according to different principles including the principle of attitude to the essence. This

question is considered in the article “Categories and induction in young children” by Susan Gelman and Helen Markman.

The authors of the article describe the results of an experiment during which they presented four-year-old children with special cards with drawings of a cobra, an earthworm and a small brown snake that looks very similar to an earthworm [18. P. 197]. The experimenters asked the children to predict, will the little brown snake eat meat like a cobra or eat plants like an earthworm. (For some unknown reason, the authors of the article S. Gelman and E. Markman believe that snakes, not earthworms, feed on plants. Although in nature, the case is quite the contrary. Therefore, we are eliminating here this annoying misunderstanding without distorting the general logic of the article — A.A.).

The idea of the experiment was to determine a criterion serving children to make their choice. If they make a choice in favor of meat, it means that their choice was made not on the basis of external similarity of a small brown snake with an earthworm but on the basis of logical reasoning while classifying a small brown snake to its essential category, i.e. snakes.

Alexios Arvanitis, a specialist in social psychology from the Business College of Athens, used the results of this experiment in his article “Essentialization as a Distinct Form of Abductive Reasoning”. (At the same time, A. Arvanitis retained the confusion that we noted in S. Gelman's and E. Markman's, works so we are forced to correct this error again — A.A.).

According to A. Arvanitis, the abductive logical conclusion that children make in this case should look like this:

“Snakes eat meat (Rule)  
The cobra eats meat (Result)  
...The cobra is a snake (Case)” [19. P. 246].

However, the reasoning presented by A. Arvanitis looks like a mistake because it does not talk about a “little brown snake” at all. But the experimenters asked the children exactly about a small brown snake. For this reason, it seems to us that the abductive expression in this case should look like this:

Snakes eat meat (Rule)  
Cobra eats meat (Result)  
...A small brown snake feeds on meat (Case).

The hypothesis here consists in the instant discretion of the general rule that “all snakes eat meat” in a single “result”, as A. Arvanitis calls it, or the simple fact that “cobra eats meat”. According to Ch. Peirce: “Abduction makes its start from the facts, without, at the outset, having any particular theory in view...” [20. P. 106].

But, the next train of thought is the search for the fact that cobras eat meat. The logical meaning of the term abduction confirms the aforesaid. As Douglas Walton, a Canadian expert on argumentation and informal logic, explains: “The word ‘abductive’ is from *ab* and *duco* (italics by D. Walton — A.A.), leading back. An abductive inference goes backward from a given conclusion to search for the

premises that conclusion was based on” [17. P. 34]. And the simplest explanation is that all snakes eat meat. This means that a small brown creature, if we consider it a snake, should do the same.

And this is not at all equivalent to a simple inductive generalization, although it is very similar to it. In vain A. Arvanitis states that “...the rule ‘Snakes eat meat’ can initially be inferred through induction, not abduction” [19. P. 247].

Alas, with the help of induction it is impossible to achieve a common rule implying no exceptions such as the maxim “Snakes eat meat”.

The sun rose yesterday.

The sun rose today.

Therefore, it will rise tomorrow. The conclusion is in this case only probable. Of course, we can strengthen our example:

The sun has been rising for millions of years.

The sun rose today.

Therefore, it will rise tomorrow. In this case the conclusion will remain only probable. The probability here will be just greater. The advantage of abduction is that it allows you to reach the Absolute instantly, and in the twinkling of an eye move from induction to deduction, that is from unreliability to reliability, even if only assumed.

The strength and weakness of abduction is that its essence is just an assumption. Hence it is clear that abduction is not a strictly logical procedure. That is why, in our opinion, the well-known Finnish logician Jaakko Hintikka wrote unequivocally about abduction: “As far as the status of abduction as a special form of inference is concerned, the basic conclusion here is: no, there is no such form of inference (in any natural sense of inference) as abduction” [21. P. 523].

However, this is true only in the sense that abduction is theoretically impossible though practically useful. After all, this is the only bridge that connects the world of a subject and an object torn apart in ontology. Abduction is *de facto* the logical analogue of infinitesimals in mathematics. This is an instantaneous (with the help of a guess) jump over the abyss, since it is impossible to cross it step by step.

At his time, George Berkeley proved that differential and integral calculus are also logically impossible. As G. Berkeley noted, both I. Newton and G. Leibniz in their reasoning proceed from the fact that if an infinitesimal quantity is added to or, conversely, subtracted from the finite quantity, the value of the first quantity will not change at all. In outward appearance this postulate looks quite acceptable. However, G. Berkeley carefully traces what it leads to in practice.

In particular, investigating what an increase in the speed of movement by an infinitesimal amount leads to, I. Newton initially considers it to be quite definite, and finds the corresponding increment value. Then, continuing the reasoning, I. Newton considers the opposite case when the infinitesimal value by which the velocity increases is zero. And in this second attempt, obviously guided by the

accepted postulate, I. Newton suddenly retains as a result the increment value ... obtained in the first case.

G. Berkeley objects to the logical “illegality” of this procedure. “Whether you reason with words or symbols,” he writes, “the rules of common sense remain the same” [22. P. 408]. Therefore, if in the second case the infinitesimal quantity is zero, then the speed increment according to the general rule of multiplication should also be zero.

Using concrete examples, G. Berkeley shows that justifying differential and integral calculus, both I. Newton and G. Leibniz resorted to the same, logically “illegal” technique. At the intermediate stages of calculations, they at first imperceptibly added an “infinitesimal quantity” and then subtracted it also imperceptibly, which allowed them to come to the right results every time. And these people, as G. Berkeley ironically says, demand much stricter evidence from theists in matters of religion.

Nevertheless, neither G. Berkeley himself, nor any other of the philosophers or mathematicians themselves have ever raised the question of abandoning integral and differential calculus because of their logical “illegality”. For the same reasons, by illustrating incalculable practical benefit, it is possible to state that it makes no sense to abandon abduction.

Of course, an abductive guess always gives an essence that only temporarily fulfills the duties of the Absolute. This is how it differs from genuine deduction. But everybody knows that every hypothesis needs verification. After all, the “identification” of a thing in metaphysics was in fact also a hypothesis.

In any case, abduction exists in science while generating hypotheses and new knowledge with them. This fact convinces us that essentialism is not, at best, something tolerable and excusable. This is the main way to development of sciences in general.

K. Popper opposed both essentialism and induction because of its unreliability. His principle of falsification is aimed at refuting theories. But theories are formed with the help of abduction thanks to its incredible essential leap. So what was K. Popper going to falsify? Induction does not give trustworthiness. Deduction gives reliability, but you cannot falsify it. It turns out that it is possible to falsify only the results of abductive, that is, hypothetical assumptions. Thus, it turns out that, rejecting essentialism, K. Popper, in fact, spent his whole life sawing at the branch on which his falsification theory could only sit.

Of course, in order an abductive “throw of thought”, as a discretion of an object's belonging to a new essence, would be possible, a certain intuition is needed. And K. Popper drew attention to the fact that: “Aristotle held with Plato that we possess a faculty, intellectual intuition, by which we can visualize essences and find out which definition is the correct one...” [1. P. 232]. But K. Popper himself denied that a person has such an opportunity.

And yet, contrary to K. Popper, the mechanism of abduction shows that without essentialism, cognition is in fact impossible.

## Conclusions

Abduction is possible where and when it comes to explaining facts on the basis of their classifying belonging to a particular essence. Formally abduction has nothing to do with the search for entities. However, in the 40s of the twentieth century, in the experiments of American psychologists J. Bruner and L. Postman [23. P. 300—308], it was found that “perception involves an act of categorization. In fact, the experiment implies the following; we present the subject the corresponding object, and he responds by referring the perceived stimulus to one or another class of things or events” [24. P. 13]. J. Bruner comes to the conclusion that “if any perception turned out to be not included in the system of categories, that is, free from being assigned to any category, it would be doomed to remain an inaccessible pearl, a firebird, buried in the silence of individual experience” [24. P. 16]. At the same time, J. Bruner notes that the “laws of perception” are completely analogous to the “laws of conceptual activity”.

A guess is always a general conclusion. And generalization is a direct path to essence. Thus, it is clear that essentialization is not a psychological, but a logical process. And from the point of view of logic, a hypothesis is just a new classification of facts with their assignment to a more general category, which is the basis of theories, concepts and research programs.

All abductive intuitions consist in the perception that any fact belongs to a deeper and universal essence. However, from the point of view of Ch. Pierce, abduction “...is an act of *insight* (italics by Ch. Pierce — A.A.), although of extremely fallible insight” [25. P. 227 (CP 5.181)]. In this connection, the question arises: how can the insight that “any fact belongs to a deeper and universal essence” be called “extremely fallible”?

Meanwhile, using the previously used example, it is easy to understand that this contradiction is apparent. It becomes an “insight” that in an indefinite mammal we suddenly discern its true essence, for example, a raccoon. And it turns out to be “fallible” when, on closer inspection, we see only a raccoon dog in front of us. And most often, abduction is born as an answer to an articulated or not articulated question about the category including this or that fact, for example, the same “small brown snake” from the article by S. Gelman and E. Markman.

The inextricable connection of abduction with essential categories suggests that even today essentialism is a living and developing form of philosophical and scientific thinking. That is why we can agree with the assessment of the American-Israeli researcher Irfan Khawaja that the tradition of essentialism in the philosophy of the XXI century is still urgent. I. Khawaja writes: “Philosophers continue to discuss essentialism as a live alternative, and one can find lively and technical discussions of the topic simply by browsing top-tier journals in the field” [26. P. 691].

## References

- [1] Popper KR. *The Open Society and its Enemies*. Princeton and Oxford: Princeton University Press; 2013.
- [2] Popper KR. *The Logic of Scientific Discovery*. London and New York: Taylor & Francis e-Library; 2005.
- [3] Carnap R. Überwindung der Metaphysik durch logische Analyse der Sprache. *Erkenntnis*. 1931;2(1):219–241. <https://doi.org/10.1007/bf02028153>
- [4] Blaug M. *The methodology of economics or how Economists explain*. New York: Cambridge University Press; 2006.
- [5] Przhilenskij VI. Sotsial'no-istoricheskij kontekst stanovlenija analitiki prisutstvija [Socio-historical Context of the Formation of Presence Analytics]. *Izvestija vuzov. Severo-Kavkazskij region. Obshchestvennye nauki*. 2010;(4):137–140. (In Russian).
- [6] Popper KR. *Conjectures and Refutations. The Growth of Scientific Knowledge*. New York and London: Basic Books; 1962.
- [7] Popper KR. *The Poverty of Historicism*. Frome and London: The Beacon Press; 1957.
- [8] Hegel GWF. *Encyclopedia of the Philosophical Sciences in Basic Outline. Part I: Science of Logic*. New York: Cambridge University Press; 2010.
- [9] Antonov AV. *Osnovanie sociologii. Ch. I. Chelovek myshl'onij, ili O proishozhdenii logicheskogo myshlenija i soznanija [The Foundation of Sociology. Part I. An Intelligent Person, or About the Origin of Logical Thinking and Consciousness]*. Perm': Izdatel'stvo Permskogo nacional'nogo issledovatel'skogo politehnicheskogo universiteta; 2012. (In Russian).
- [10] Kovalenok AA. Ontologija Platona i Plotina: shodstva i razlichija [The Ontology of Plato and Plotinus: Similarities and Differences]. *Vestnik Nizhegorodskogo universiteta im. N.I. Lobachevskogo. Serija Sotsial'nye nauki*. 2008;4(12):110–116. (In Russian).
- [11] Budenkova VE. Dva sposoba postroenija ontologii i perspektivy neklassicheskoj epistemologii [Two ways of constructing ontology and perspectives of non-classical epistemology]. *Vestnik Tomskogo gosudarstvennogo universiteta*. 2007;(298):66–71. (In Russian).
- [12] Bhaskar R., Callinicos A. Marxism and critical Realism. A Debate. *Journal of Critical Realism*. 2003;1(2):89–114. <https://doi.org/10.1558/jocr.v1i2.89>
- [13] Pasnau R. *Theories of cognition in the later Middle Ages*. Cambridge: Cambridge University Press; 1997.
- [14] Chikovani S. *Stihotvorenija i poemy [Verses and Poems]*. Leningrad: Sovetskij pisatel'. Leningradskoe otdelenie; 1983. (In Russian).
- [15] Putnam H. *Words and Life*. Conant J, editor. Cambridge, Massachusetts, London: Harvard University Press; 1995.
- [16] Peirce Ch. *The Nature of Meaning*. In: *The essential Peirce: Selected philosophical writings*. Vol. 2. Bloomington and Indianapolis: Indiana University Press; 1998. p. 208–225.
- [17] Walton D. *Abductive Reasoning*. Tuscaloosa: University of Alabama Press; 2005.
- [18] Gelman S., Markman E. Categories and induction in young children. *Cognition*. 1986;(23):183–209. [https://doi.org/10.1016/0010-0277\(86\)90034-x](https://doi.org/10.1016/0010-0277(86)90034-x)
- [19] Arvanitis A. Essentialization as a Distinct Form of Abductive Reasoning. *Journal of Theoretical and Philosophical Psychology*. 2014;34(4):243–256. <https://doi.org/10.1037/a0036182>
- [20] Peirce Ch. *On the Logic of Drawing History from Ancient Documents, Especially from Testimonies*. In: *The essential Peirce: Selected philosophical writings*. Vol. 2. Bloomington and Indianapolis: Indiana University Press; 1998. p. 75–114.

- [21] Hintikka J. What is Abduction? The Fundamental Problem of Contemporary Epistemology. *Transactions of the Charles S. Peirce Society*. 1998;34(3):503–533. <https://doi.org/10.2307/40320712>
- [22] Berkeley G. *Analitik, ili Rassuzhdenie, adresovannoe neverujushchemu matematiku, gde issleduetsja, javljaetsja li predmet, printsipy i zakljuchenija sovremennogo analiza bolee otchetlivo poznavаемymi i s ochevidnostju vyvodimymi, chem religioznye tainstva i polozhenija very [An Analyst, or a Reasoning addressed to an unbeliever mathematician, where it is investigated whether the subject, principles and conclusions of modern analysis are more clearly cognizable and clearly deducible than religious sacraments and positions of faith]*. In: Berkeley G. *Sochinenija [Essays]*. Moscow: Mysl' publ.: 1978. p. 149–248 (In Russian).
- [23] Bruner J., Postman L. Tension and tension release as organizing factors in perception. *Journal of Personality*. 1947;15(4):300–308. <https://doi.org/10.1111/j.1467-6494.1947.tb01070.x>
- [24] Bruner J. *Psichologija poznanija. Za predelami neposredstvennoj informacii [Psychology of cognition. Beyond the immediate information]*. Moscow: Progress publ.: 1977. (In Russian).
- [25] Peirce Ch. *Pragmatism as the logic of Abduction*. In: *The Essential Peirce: Selected Philosophical Writings*. Vol. 2. Bloomington and Indianapolis: Indiana University Press; 1998. p. 226–241.
- [26] Khawaja I. Essentialism, Consistency and Islam: A Critique of Edward Said's Orientalism. *Israel Affairs*. 2007;13(4):689–713. <https://doi.org/10.1080/13537120701444961>

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## **К. Поппер и проблема эссенциализма в философии**

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**Аннотация.** В современной философии эссенциализм в большинстве случаев рассматривается как отсталое и, по сути, неверное философское направление. И одним из ученых, создавших ему такую репутацию был известный английский философ австрийского происхождения Карл Поппер. Успех его книги «Открытое общество и его враги» привел к тому, что, фактически, эссенциализм не только стал считаться на Западе несостоятельным когнитивно, но и подозрительным как теоретическая основа фашизма, коммунизма и тоталитаризма. В статье доводы К. Поппера против эссенциализма рассмотрены заново, и показано, что критика К. Поппером эссенциализма как антинаучной и устаревшей доктрины – это не точка зрения всей философии, а всего лишь позиция эмпирического в своей основе позитивизма. Эссенциализм имеет дело с реальностью,

которая лежит по ту сторону явлений. И это, по мнению К. Поппера, необходимо ведет к «окончательным» определениям. Однако в соответствии с учением о фальсификации самого К. Поппера, всякий научный вывод в пределах своего срока годности является «окончательным». В статье показано, что в действительности эссенциализм не только играл чрезвычайную роль в классической метафизической теории познания, но и продолжает это делать в рамках современной онтологии. Причем в последнем случае он делает это с помощью абдукции — специфической формы логического вывода, порождающей научные гипотезы. Существование же в науке абдукции, порождающей новое знание, говорит о том, что эссенциализм — это не нечто, в лучшем случае, терпимое и извинительное. Это — магистральный путь развития наук вообще. Во всех случаях автор статьи рассматривает только логические сущности, а не юридические, теологические или какие бы то ни было еще.

**Ключевые слова:** К. Поппер, эссенциализм, метафизика, онтология, познание, абдукция

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