

Critical Realism as a Form of Economical Ontology

Alexey Antonov

Philosophy and Law Department
Perm National Research Polytechnic University
Perm, Russia
E-mail: akvizit@yandex.ru

Andrey Orekhov

Department of Social Philosophy
Peoples' Friendship University of Russia (RUDN
University)
Moscow, Russia
E-mail: orekhovandrey@yandex.ru

Abstract—The article is dedicated to the analysis of critical realism as one of the most noticeable trends in modern methodology of economy. The authors of the article note that Tony Lawson quite reasonably criticized an economic mainstream against enthusiasm for mathematical models which often have problematic links with reality. T. Lawson's merit is that the concept of ontology was included firmly into an arsenal of the economic theory of the 21st century. Meanwhile, authors of the article are of the opinion that the ontologic pluralism supported by T. Lawson, did not allow him to penetrate the economic reality itself, and limited his researches only to ontology of economic science.

Keywords—*philosophy of economics; methodology of economics; critical realism; Lawson; ontology*

I. INTRODUCTION

The philosophical ontology is defined most often as the doctrine about the Real, or about reality and its laws. The economy is a part of the Real. Therefore, at first sight, the ontology in economy has to be the doctrine of economic reality. However, the specialists consider ontology from wider positions. In particular, A.P. Ogurtsov allocates even seven philosophical concepts of ontology:

- Naturphilosophical;
- Relationistic;
- Structural;
- Personalistic;
- Evolutionistic;
- Historical;
- Possibilistic. [1]

No wonder, when many researchers conceive ontology in economy differently. Here comes both "world picture" and "kernel" of any research program, "basic model" and the most general concepts and categories. And nevertheless, despite a variety of treatments and opinions it is possible to classify most of them in two main concepts:

- Ontology of the most economic reality itself and
- Ontology of economic science.

Both of these points of view are differently distributed between numerous economic schools and the directions.

For example, it is obvious to O.I. Ananyin that economic ontology represents "a picture of economic reality". [2] At the same time, he allocates three types of economic reality: product, behavioural and institutional. At A.S. Filipenko adhering to similar methodological positions "the structure of economic life" looks as follows:

- "Economic reality (the Real of the first order);
- Economic reality (the Real of the second order);
- The art of economy (economic policy) (the Real of the third order)". [3]

On the contrary, from the point of view of the neoclassical theory which position expresses, for example, I. Boldyrev, economic ontology is "... this doctrine concerns *not the economic world itself but only its representation* (I. Boldyrev's italics — A.A., A.O.) in scientific theories and models". [4] I. Boldyrev understands process of "clarification" and clearing of categories as economic ontology. Therefore, quite consistently, he comes to a conclusion that an ontologic basis of a so-called a mainstream is the mathematics.

Today it is already difficult to imagine economic methodology without any ontologic manifestations. And meanwhile, the ontologic turn in economy happened rather recently — in the late eighties of the XX century. Then by efforts, first of all, of Tony Lawson the main ideas of a trend in economic methodology which received the name of "critical realism" were formulated. The criticism of this realism was directed against "... fundamentally incorrect theory", [5] according to T. Lawson, the neoclassical economic theory. Recently his enthusiasm for mathematical models began to remind not scientific research but a certain abstract game like chess. That is why, T. Lawson set as his purpose "... to bring reality (or more of it) back into economics". [6] How much he and his supporters have succeeded we will try to find out in this article.

II. TIME AND REASONS OF EMERGENCE OF CRITICAL REALISM

By itself, the ontology was not a revelation in economy. At its birth at the end of the 18th century the economy

inherited the ontology from natural sciences with all their metaphysical forces and the principles among which there was also A. Smith's idea of the "an invisible hand" of providence approving efforts of the independent agents acting on the market.

However, positivistic revolution of the 19th century, first of all, was directed against psychologism and metaphysics in sciences that gradually led to their actual deontologization. From now the sciences began to recognize as "real" only "the things which are observable". [7] It has also set its seal to economy.

The Process of a deontologization of sciences continued also in the XX century. Revolution in the physics which stepped deep into atom actually reduced it to mathematics. In the mathematics Karl Weierstrass managed to reduce geometry to arithmetics. David Gilbert and Bertr an Russell offered programs of a reduction of logic which is the major methodological tool of the humanities to mathematics. Against the background of this progress even E. Gussler interpreted philosophy as a "strict science".

It is no wonder that following a methodological course of other sciences the economy, at the suggestion of L on Walras, has also moved towards mathematics. Of course, the economy used mathematics also before L. Walras. But he was the first who considered mathematical models as reflection of economic reality, in fact, as reality itself. Eventually, by the time of emergence of critical realism the natural-science methodology became to be used in the economy so often that on ironic note of Edward Fullbrok, Paul Samuelson in the Nobel speech of 1970 4 times referred to Albert Einstein, 2 times on Niels Bohr and 8 more times on other physicists so, "if he were part of this family". [8]

Of course, there is nothing bad that the economy uses mathematical models for the solution of the tasks. Another thing is that these models have weak links with reality. These mathematical models are confirmed or disproved not by means of experiments but by purely formal and logical means. Let's consider, for example, the following task. For construction of the house one boy brought from the wood 120 logs while another boy — 150 logs. It is asked how many more logs were brought by the second boy from the wood? From the point of view of mathematics, the answer is obvious — 30 logs. And from the point of view of practice? Can a real boy but not a "mathematical" boy lift at least one log? Whether it is worth saying that difference of this primitive task from real business cases lies only in complexity of a mathematical apparatus, their attitude towards reality appears not less problematic. This is, first of all, the reason of critical realists' opposition.

III. RESEARCH FIELD OF CRITICAL REALISM

One would think, "... Realism is the NOA, the natural ontological attitude", [9] is characteristic of people from the very beginning. And meanwhile, the contradictory nature of development of economy led to the fact that at the end of the XX century the critical realism had to reopen the ontology again.

At the same time, the critical realism can be considered from several points of view:

- As a critical performance against a mainstream;
- As one of the options of economic ontology;
- As abductive method of studying economic events;
- As materialistic direction in economy;
- As promising (or on the contrary) direction of development of economic methodologies.

However in this article, having mentioned the first and fifth direction of researches of critical realism, we will pay preferential attention to the problems of economic ontology, first of all, to what extent the critical realism managed to break through to economic reality itself.

IV. CRITICAL REALISM OF TONY LAWSON

That "... contemporary economics is not in a fit state" [10] by T. Lawson does not raise doubts. The neoclassical theory demonstrates only superficial knowledge of the problem. Representatives of a mainstream are not confused at all by that fact that "... results of modeling always do not match with the results observed. It *is normal* (italics of O.B. Koshovets and P.A. Orekhovskiy - A.A., A.O.). On the contrary, if the use of a model gives coincidence close to 100% to empirical data there are suspicions of special "adjustment", fraud". [11]

T. Lawson considers that it happens so not because of some separate shortcomings of the dominating economic theory but because of its whole system of a scientific explanation of reality is incorrect. T. Lawson opposes to a mainstream an alternative approach which he calls transcendental realism. "According to this approach, T. Lawson writes, the world which is subject to scientific research consists not only of the events given us in experience or in perception but also of structures, mechanisms (but not reduced to them), driving forces and tendencies which though are not directly observable but nevertheless are the cornerstone of real events, they manage real events or facilitate their implementation". [12]

To take at least, for example, a falling autumn leaf, we do not see the gravitation force. However, this force but not the wind is an actual reason of the fall of a leaf. "Thus, T. Lawson continues, — three areas of reality are allocated: *empirical* (experience and perception), *not empirical, real-life* (events and states of affairs) and "*deep*" (T. Lawson's italics — A.A., A.O.) (structures, mechanisms, driving forces and tendencies)". [13] All these areas of reality are ontologically independent, and their movements cannot match with each other.

T. Lawson emphasizes that the dominating economic theory and the transcendental realism offered by him are essentially different ontologically. "According to empirical realism the science and a scientific explanation limited to search of continuous links between events (including their models stated in terms of the probabilistic analysis). In

compliance with transcendental realism the main object of science and a scientific explanation are not events (or continuous links between them for which existence it is only possible to hope), but establishment and a research of the structures and mechanisms which are their cornerstone". [14]

However, it is impossible in principle to reach the most "deep" layers of economy by means of the methods applied by a mainstream. In his numerous works "reorienting" economy, Tony Lawson, first of all, criticizes orthodox economy for its organic "deductivism". "Despite the confidence with which representatives of the orthodox direction in the economic theory support a deductive method of an explanation its legitimacy also raises my doubts", - he notes. [15] Deductive inferences give reliable conclusions only in that case when all their premises are right. However, premises and axioms from which adherents of a mainstream make a start in the reasonings arouse the greatest mistrust of critical realists.

One of such premises of the dominating economic theory is so-called, "methodological individualism" or reductive idea that the behavior of complex macroeconomic and social systems can actually be reduced to behavior of certain economic actors. At the same time, mechanisms of human associations are involuntarily identified with natural mechanisms, for example, with forces of adhesion of ordinary water which properties irrespective of its quantity will always be same as well as the properties of an only molecule. "But molecules do not have intentions", as Kevin Hoover has caustically remarked. [16] The behavior of economic agents in the orthodox theory is considered invariable. However, as T. Lawson notes, people are not so permanent in their preferences. "It means that any economic laws should be interpreted as the tendencies which are proved only partly". [17]

According to T. Lawson, the methods describing behavior of economic agents cannot copy the methods applied in natural sciences. "Within empirical realism, he notes, permanent debates on comparative advantages and shortcomings of induction and deduction were conducted. In the modern economic theory the methodological discussions are often held on the same level. Within a transcendental and realistic paradigm the main method of conclusions is not induction or deduction, but *abduction* (T. Lawson's italics — A.A., A.O.) or arguing "as though". [18] It is impossible to discover something new by means of deduction. It is no coincidence that T. Lawson pins his hopes on heuristic opportunities of an analogy and a metaphor.

The main reproach of T. Lawson upon the dominating economic theory consists in conclusion that it is impossible to reach understanding of "deep" structures and driving forces of economy by methods of induction and deduction. This understanding is the main goal of critical realists. "To explain is to reveal by means of economic theory the real economic causes which generate the observable economic phenomena". [19]

It was the ontologic aspect of critical realism that enjoyed the greatest support in economic community. "As for the definition of critical realism, — Cheng Ping Cheng writes,

for example, — one would say that science is not the search for the regular causal relations among empirical events but the identification of deep social structures, such as trends, tendencies, with power, and mechanisms". [20] "Critical realism allows the researcher to dig deeper into the lower stratum of entrepreneurial activity in order to understand the structures, powers and mechanisms underlying the observable results of entrepreneurial action within a defined historical period", also Gerry Kurvisanos and Stewart Mackenzie agree with him. [21]

V. CRITICAL REALISM AND ITS PLACE IN ECONOMY METHODOLOGY

The performance of critical realists was like a whiff of fresh wind in the economy. They unproduced the word "ontology" which was included firmly into an arsenal of modern methodology of economy. But did they really manage to offer the world the alternative economic theory? Many economists consider that "the positive program" of T. Lawson "... does not convince, especially regarding its applicability whether it helps to solve particularly scientific (not philosophical and methodological) problems of economic science. It occurs so because the economic ontology created by Lawson is *closed in a philosophical discourse* while the problems of economic science actually move to a wide context of philosophical discussions. As a result, his concept is capable to perform only *critical function* (italics of O.B. Koshovets, I.E. Frolova and A.V. Chusova — A.A., A.O.) in relation to the existing economic theory". [22]

To what extent these objections are fair? To our opinion, the methodology also should not solve "especially scientific (not philosophical and methodological) problems of economic science". O.B. Koshovets, I.E. Frolov and A.V. Chusov consider that "... it is impossible to compare directly ontology of some theory and real economic practice; it is only possible to compare ontology with ontology". [23] But any scientific theory only then costs something if it is related to reality. The economy representing just the solution of mathematical puzzles is a too expensive pleasure for society. Even the classics of neoclassics agree with this opinion.

In his program work "The Methodology of Positive Economics" M. Friedman also states that "... the only relevant test of the *validity* (M. Friedman's italics — A.A., A.O.) of a hypothesis is comparison of its predictions with experience. [24] On the contrary, O.B. Koshovets, I.E. Frolov and A.V. Chusov believe that "... the check of many theoretical judgments on their compliance of reality is strongly complicated (and sometimes and it is impossible) because of a number of conditions, therefore, *we have to be satisfied with their logical validity*, (italics of O.B. Koshovets, I.E. Frolova and A.V. Chusova - A.A., A.O.) and also their reproducibility (perhaps, partial) in the theoretical practices accepted at specific school of sciences". [25] However, this is just the main thesis to be opposed by critical realism.

It is possible to agree with O.B. Koshovets, I.E. Frolov and A.V. Chusov that the critical basis by T. Lawson

dominates the positive one. According to an apt to expression of J. Palermo, "The model of perfect competition does not serve to understand how the Real world works but how it does not work", [26] as well the critical performance of T. Lawson against a mainstream is an illustration of how the economy should not work.

The reason why the positive program of T. Lawson was not so impressive should be highly likely explained by its vague determination of the concept "realism". To his opinion, "... any point of view called (philosophical) realism is characterized by confidence in existence of some special object, while its existence raises doubts of other people". [27] It appears from the above that the ontologic pluralism is a program purpose of T. Lawson.

In one of his interview he also speaks about it: "... my own project is to draw on the best of heterodox traditions to try to develop them - and the best include Post Keynesians, Institutionalists, Feminists, Marxists and Austrians.

Does this make me a Post Keynesian, or an Institutionalist or a Marxist? I'm happy to see myself as any and all of these". [28] As a result, the number of economic ontologies is equal to the number of available economic schools. But all of them speak different languages and occasionally badly understand each other. Thus, it turns out actually that contrary to the proclaimed intentions, T. Lawson talks not about ontology of the most economic reality but only about ontology of economic science. In that way, T. Lawson makes a methodological mistake about which Benedikt Spinoza in his time wrote: "For it is one thing to inquire into the nature of things, and quite another to inquire into the modes by which we perceive things". [29]

In fact, many questions connected with ontology of economic reality still remain obscure. For example, the question of value, whether it is only a method of reflection of reality in a Marxist paradigm or the value reveals the real economic relations. Not less fundamental ontologic category of economy is the property without clearing of the nature of which it is impossible even to discuss problems of social justice.

Among other aspects, T. Lawson speaks about driving forces of economy which have to be studied. However, the question of what forces are moving modern society remains open. The theory equilibrium cannot alone explain not only sources of growth but even the reason of emergence of capitalist society. "Once it is admitted that neoclassical economics is a static framework, dynamic for social change in history must come from somewhere else". [30]

A concept of the power also demands the scientific explanation in economy. Whether the power, at least that is appearing at the firms, an economic concept as the institutionalists try to assure us or it is something external in relation to an economic system? It is also the question which is going beyond competence of a mainstream. "The power cannot essentially become an object of studying of empirical realism because it is disseminated as a force or a system mechanism in the system of intersubject interactions

organized under laws of the ideal (Valrasian) competition". [31]

T. Lawson also tells nothing about the nature of the adequacy reflection of economic reality. It is a question of the correctness only or as well of the completeness of the reflected picture? Without these essential additions of the criticism by T. Lawson of the dominating economic theory looks like only as a simple wish of those mathematical models were closer to reality. But the supporters of a mainstream also agree with it.

VI. CONCLUSION

The critical realism has rendered and continues to exert an indisputable positive impact on development of economic methodology. Thanks to it the ontologic problems already stopped being alien for economy. And, after all, the biggest achievement of T. Lawson can be considered the fact that he destroyed monopoly of positivism in the modern economic methodology. At first the philosophy of economy was simple appendix of positivistic philosophy of science to economy. T. Lawson removed here the sign of equality between positivism and philosophy. He showed that "The mainstream's model of scientific knowledge, based on the deductive methods, grows directly from positivism and the related ontology". [32]

Thereby, consciously or involuntarily, T. Lawson rehabilitated also other philosophical approaches to economy. And, if the positivistic mainstream, according to him, is a "fundamentally incorrect theory", then therefore, many theories alternative to a mainstream, whether it be post-keynesianism, institutionalism, feminist economy, not popular in Russia, or Marxism can be potentially true. In any case, by means of his the flexible formulations T. Lawson did not exclude any of the forgotten or latest "ontologic" directions.

REFERENCES

- [1] Ogurtsov A.P. From History Methodology to Metaphysics of History. In: Science: from Methodology to Ontology. / Edition of A.P. Ogurtsov and V.M. Rozin. M.: Institute of Philosophy of Russian Academy of Science. 2009. P. 204 (in Russian)
- [2] Ananyin O.I. Structure of Economical and Theoretical Knowledge: Methodological Analysis. M.: Science. 2005. P. 46 (in Russian)
- [3] Filipenko A.S. Economic World: Ontology. / Economic Theory, 2014. Volume 11. No. 3(38), P. 40 (in Russian)
- [4] Boldyrev I. Ontology of Orthodox Economic Science: Problems of Creation and Interpretation. / Economy Questions, 2008. No. 7, P. 101 (in Russian)
- [5] Lawson T. A Realist Perspective on Contemporary "Economic Theory". / Economy Questions, 2006. No. 2, P. 81 (in Russian)
- [6] Lawson T. Economics and Reality. London and New York: Routledge. 1997. P. XII
- [7] Miryasov Yu.A. Ontology of the Power and its Interpretation in the Economic Theory. / Business Inform, 2016. No. 4, P. 9 (in Russian)
- [8] Fullbrook E. Lawson's Reorientation. Introduction to Ontology and Economics. / Real-World Economics Review, 2009. Issue No. 49, P. 76
- [9] Spohn W. How Essentialism Properly Understood Might Reconcile Realism and Social Constructivism. In: New Directions in the

- Philosophy of Science. / Edition of Maria Carla Galvanotti. Cham: Springer. 2014. P. 255
- [10] Lawson T. *Economics and Reality*. London and New York: Routledge. 1997. P. 14
- [11] Koshovets O.B., Orekhovskiy P.A. "Economy" contra "Economic System": Structuralist Analysis: Report. M.: Institute of Economy of Russian Academy of Science. 2018. P. 28 (in Russian)
- [12] Lawson T. A Realist Perspective on Contemporary "Economic Theory". / *Economy Questions*, 2006. No. 2, P. 86 (in Russian)
- [13] *Ibid.*, P. 87
- [14] *Ibid.*, P. 87
- [15] *Ibid.*, P. 83
- [16] Hoover K. Microfoundations and the Ontology of Macroeconomics. Chapter 14. In: *The Oxford Handbook of Philosophy of Economics*. Oxford: University Press. 2009. P. 398
- [17] Lawson T. A Realist Perspective on Contemporary "Economic Theory". / *Economy Questions*, 2006. No. 2, P. 90 (in Russian)
- [18] *Ibid.*, P. 87
- [19] Boylan T., O'Gorman P. *Beyond Rhetoric and Realism in Economics. Towards a Reformulation of Economic Methodology*. London and New York: Taylor & Francis e-Library. 2006. P. 3
- [20] Cheng Ch.-P. Critical Realism and Institutionalism: Integrating the Scientific Method of John R. Commons and Douglass C. North. / *Soochow Journal of Economics and Business*, 2005. No. 51 (December), P. 308
- [21] Courvisanos J., Mackenzie S. Role of History in Economic Theory: Critical Realism and Joseph Schumpeter's Plea for Entrepreneurial History. In: 24th Conference of the History of Economic Thought Society of Australia HETSA 2011. 6-8 July. 2011. RMIT University. Melbourne. P. 2
- [22] Koshovets O.B., Frolov I.E., Chusov A.V. The Ontologic Analysis of the Relation of the Theory and Reality in Methodology of Economic Science? / *Philosophy and Society*, 2015. No. 1, P. 164 (in Russian)
- [23] *Ibid.*, P. 176
- [24] Friedman M. *The Methodology of Positive Economics*. In: M. Friedman. *Essays in Positive Economics*. Chicago and London: The University of Chicago Press. 1966. P. 8-9
- [25] Koshovets O.B., Frolov I.E., Chusov A.V. Ontologic Analysis of the Relation Theories and Realities in Methodology of Economic Science. / *Philosophy and Society*, 2015. No. 1, P. 169 (in Russian)
- [26] Palermo G. The Economic Debate on Power: A Marxist Critique. / *Journal of Economic Methodology*, 2014. Volume 21, No. 2 (June), P. 133
- [27] Lawson T. A Realist Perspective on Contemporary "Economic Theory". / *Economy Questions*, 2006. No. 2, P. 85 (in Russian)
- [28] Dunn S. *Cambridge Economics, Heterodoxy and Ontology: An Interview with Tony Lawson*. / *Review of Political Economy*, 2009. Volume 21, No. 3 (July), P. 492
- [29] Spinoza B. Appendix Containing Metaphysical Thoughts. In: Spinoza B. *Complete Works*. / Spinoza; translated by Samuel Shirley; edited, with introduction and notes, by Michael L. Morgan. Indianapolis: Hackett Publishing Company Inc. 2002. P. 179
- [30] Ankarloo D. *New Institutional Economics and Economic History*. / *Capital & Class*, 2002. Volume 26. No. 3, P. 22
- [31] Miryasov Yu.A. Ontology of the Power and its Interpretation in the Economic Theory. / *Business Inform*, 2016. No. 4, P. 9 (in Russian)
- [32] Lawson T. A Realist Perspective on Contemporary "Economic Theory". / *Economy Questions*, 2006. No. 2, P. 85 (in Russian)