

On methodological individualism, holism and management in the light “Tectology” by A.A. Bogdanov

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Abstract. The consideration for the improvement of the efficiency of social economy made researchers look for names, views and methods which were not fully appreciated. This includes the general organizational science which occupies a prominent position by A.A. Bogdanov. There is no doubt that the ideas of A.A. Bogdanov are reflected in systems theory, cybernetics, medicine and philosophy of technology, aesthetics, linguistics and other disciplines. However they had little influence on economy, despite the fact that A.A. Bogdanov was a recognized expert in this area. This paper tries to fill this gap to some extent, and show that the ideas of Tectology are very relevant in modern economic discussions, including in the debate between methodological individualism and methodological holism. A.A. Bogdanov did not set out to study the organization of relations between people in the production process. This is the purpose of modern management. However, his approach to the study of the relationship between an individual and a team, the analysis of the conditions for the appearance of emergent effects in industrial cooperation deserve to be considered in economic theory and in management practice. Moreover, this is correlates to the modern trend to discover and study and, ultimately, use intangible factors of increasing the productivity of social economy in favor of man. In addition, the organizational views of the works of A.A. Bogdanov allow taking a fresh look at the real relationship between methodological holism and methodological individualism both in the structure of management and economy in general.

1 Introduction

There are several factors of productivity in history of economics. The classics, including Karl Marx, considered only labor productive. Jean-Baptiste Say expanded this list and included land and capital. Pierre-Joseph Proudhon believed that “... neither land, nor labor, nor capital is unproductive”, [1, p. 118] and the surplus product is formed only through the joint use of these factors. Finally, in 1890 A. Marshall added a new factor of productivity in the economy – organization to the above-mentioned [2, p. 208]. This can be considered the beginning of the theoretical understanding of management.

At the same time, A. Marshall laid the basis of neoclassical theory in economics with its central concept of an economic person making rational choices. Since then, the principle of methodological individualism has become dominant in neoclassical mainstream.

Methodological individualism initially played the same role in management as well. For example F. Taylor noted: “... when working together in a group, each worker becomes less active than when his personal pride is hurt; when working in a group, the productivity of workers invariably decreases to the level of the most sluggish people in this group...” [3, p. 59]. Also the use of the conveyor was by G. Ford also aimed to increase the personal productivity of workers.

However by the twenties of the twentieth century, it became clear that the possibilities for the increase in the intensity of personal labor are not unlimited. As a result, a new source of labor productivity was discovered - the organization of relations between working people.

Within the framework of the program of scientific organization of labor, one of the leading specialists of the People’s Commissariat of the Workers’ and Peasants’ Inspection of the USSR N.A. Vitke formulated the concept of “human relations”. It is possible to say that already in its depths the principle of methodological holism was used (from ancient Greek ὅλος “whole”). This, in particular, is evidenced by the fact that N.A. Vitke actively used concepts such as “collective labor activity”, “human factor of production” etc. However, under the conditions of tough party leadership, the new science of human resources management then seemed superfluous and even suspicious.

It is not surprising that new ideas eventually penetrated into the United States. As a result, in global community, the American researcher E. Mayo became the author of “management of human relations”. After that, the ideas of collective labor activity clearly manifested themselves in the practice of Japanese management.

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2 Problem Statement

How a certain surplus in relations between people is born suddenly due to good organization? If we turn to nature, then, of course, we will find how this happens. As soon as we streamline the internal bonds, we will not get graphite, but diamond from the same carbon atoms.

Methodological individualism considers people as ordinary atoms, but atoms have no will, so they can only be rearranged externally. It is not surprising that this is the path that the American type of management follows today. However just as in the real transformation of graphite into diamond, high pressure is required, so the same pressure is required in the external restructuring of a group. As a result, American management got used to formal, almost cool attitude towards people. The phrase “Nothing personal” is just from the vocabulary of American managers.

At the same time, the American type of management is just the application of neoclassical theory in practice. From the point of view of methodological individualism, “a complex is made up of the simple” (highlighted in bold italics by M.V. Popov – A.A.) [4, p. 7]. Whereas, according the opinion of methodological holists, a complex is always something more than a simple sum.

That is why the issue of the fundamental nature of the principle of methodological individualism in management is the issue of the correctness of neoclassical theory, or at least its completeness.

3 Research Questions

Of all the variety of aspects of management, in this paper we turned to only one of its aspects – the consideration of the manifestation of the principles of methodological individualism and holism in it in the light of “Tectology” by A.A. Bogdanov.

4 Purpose of the Study

The purpose of this paper is to try to show the extent to which the practice of modern management confirms the fundamental principle of methodological individualism in economics.

5 Research Methods

The main methods used in this research are historical-comparative and logical.

6 Findings

Of course, people are not atoms. They are conscious and it seems that this makes them much easier to organize. It is exactly because people are not atoms they turn out to be very different, even when they are doing the same thing in fact, as is evident from the parable of Chartres Cathedral.

Three people pushing carts with stones were asked what they were doing. The first man replied: “I move the damn stones”. The second man said that he was making money for his family and only the third man answered: “I am building Chartres Cathedral”. As we can see, the goals of people participating in joint work almost never coincide in fact.

It follows that joint work must always be managed in order to achieve unity of purpose. As A.A. Bogdanov noted “to organize means to group people for some purpose, coordinate and regulate their actions in the spirit of *expedient unity*” (italics by A.A. Bogdanov – A.A.) [5, p. 69].

However, A.A. Bogdanov had little attention of his fellow economists. First of all, “... there is a shortage of scientific works, where the connection of the general organizational science with management itself is considered” [6, p. 155].

It is A.A. Bogdanov discovered that, unlike atoms, which have no will, the internal orientation of people (or their intentionality) can be different. This means that the actions of people themselves must be described by direction (that is, directed) and not scalar values.

In “Tectology” A.A. Bogdanov studied a clear paradox: two or three people who worked together could do more or less than double or triple work. As A.A. Bogdanov “both cases entirely depended on the method of combining these forces. In the first case, the statement that the whole turned out to be *practically larger* (italics by A.A. Bogdanov – A.A.) was quite legitimate than the simple sum of its parts, in the second case it was practically less than it” [5, p. 114].

From the point of view of everyday consciousness, “here we get some kind of creation out of nothing”. Meanwhile, the emergence effect (most often it is expressed mathematically: $2 + 2 > 4$) can be easily explained if we pay attention to the fact that any of the employees of a team has his own “activity” as A.A. Bogdanov mentioned. Moreover, in terms of its direction, it practically never coincides with the activity of other workers, or it may even meet their “resistance” (that is, oppositely directed activity). The less resistance the activity of workers will meet, the greater will be their total “analytical sum”. This is what determines the “surplus” of jointly organized labor.

Of course, A.A. Bogdanov broke new ground in the creation of organizational science and formulated its laws only in the most general form. That is why he also considered the internal orientations of workers. However, when solving economic problems, it seems that this can be abandoned. Indeed, during the production of goods, it does not matter whether someone hesitates or keeps complete calm. If there is no external activity, there will be no produced goods either. It turns out that it makes no sense to talk about the “analytical sums” of “activities”, taking into account the internal ones, but it is necessary to talk about the vector addition of externally expressed forces and their resultant.

Nevertheless, A.A. Bogdanov clearly shows that vectoriality and expediency are identical only in the

work of the atomic individual. In a joint or “holistic” work, the addition of vector values can give not necessarily a positive, but even a negative result. In fact, in this regard we have the anatomy of the principle of methodological holism. However, this discovery by A.A. Bogdanov did not find understanding among his fellow Marxists, although, it seemed to be that K. Marx agreed that “... the social productive force of labor arose from the cooperation itself” [7, p. 341].

The point is that cooperation was known long before the appearance of capitalism. K. Marx considered it as nothing more than an important and necessary prerequisite. All the advantages that cooperation gave were considered as something like free water or air for the first mills. K. Marx had to discover the law of self-movement of capitalist society itself.

However, it is most important that K. Marx was a methodological individualist in contrast to popular belief and not a holist in theory. Everywhere he viewed capitalist society as atomistic: “In the form of society now under consideration, - wrote K. Marx, - behavior of men in the social process of production is purely atomic” [7, p. 102-103]. This is why he focused on personal “labor” in order to explain the emergence of surplus value and not on the social productive power of labor, born of capitalist cooperation. At the same time, K. Marx for the complete view noted that “... the capitalist form of cooperation from the very beginning presupposed a free hired worker selling his labor power to capital” [7, p. 346].

Pierre-Joseph Proudhon was a methodological holist. He believed that the capitalist was not in hurry to pay for “... the enormous power that arose due to the cooperation of workers, simultaneity and harmony of their efforts. Within a few hours, two hundred grenadiers erected the Luxor obelisk. Is it possible to assume that a person within 200 hours could also do this? After all, according to the calculations of the capitalists the remuneration of these 200 grenadiers and this person should be the equal” [1, p. 86]. Proudhon indicated the very essence of capitalist cooperation, arguing that “even if you paid for all the individual forces, then you did not pay for the collective forces ...” [1, p. 87].

Nevertheless, according to the analysis by A.A. Bogdanov, the methodological individualist K. Marx and the methodological holist P. Zh. Proudhon were clearly mistaken, believing that the “social productive force of labor”, being the resultant of the forces of all workers, arises in cooperation by itself, and even in the form in which the capitalist needs it. For example, as A.F. Sayfutdinova notes “... in practice, it is not uncommon for an accidental synergy of employees to occur, which most often leads to a negative synergy effect at an enterprise” [8, p. 134].

For this reason, in the early stages of the development of capitalism, the bourgeois had to not only invent the necessary form of cooperation, which led to the emergence of the social productive force of labor, but also manually maintain its functioning. Only later this function was transferred to professional managers. And

today, the forms of cooperation that ensure the emergence of the social productive force of labor, as ready-made business models, are already freely sold and leased like ordinary goods, for example, in the form of franchising.

However, it is necessary to admit that unlike P. Zh. Proudhon, Marx was mistaken twice in this case. Indeed, the fact that he replaced labor with “labor force”, in fact changed nothing. In “Capital”, K. Marx assured readers that an ordinary deal between a capitalist and a worker was completely equivalent. Then it turned out that, being a monopoly in terms of the means of production, a capitalist simply forced a worker to agree to his terms.

In this case, what remains of the equivalence of exchange?! After all, any monopoly, in fact, denies the laws of the market. This means that here we have either the exchange of equivalents in the absence of exploitation, or, conversely, the operation without the exchange of equivalents. Karl Marx clearly failed to combine these two extremes.

K. Marx called labor force as “the ability to work” [7, p. 178]. At the same time, according to his own words, “the ability to work does not mean work, just as the ability to digest food does not yet coincide with the actual digestion of food” [7, p. 184]. It seems that we have the right to agree with K. Marx here. After all, as a rule, a worker can hardly know what he has to do with a capitalist. That is why he offers his pure “ability to work” on the market. A capitalist does not buy the same thing from him and it is another matter. “Future labor” or “future commodity” is the precise name of what a capitalist buys from a worker. In fact, this is not an employment contract at all, but a futures transaction.

As K. Marx wrote: “In all countries with a capitalist mode of production, labor is paid only after it has already functioned during the period established by the contract...” [7, p. 185]. This means that in reality a capitalist did not buy Marx's “labor power” from a worker, but simply labor that delayed for a while. In the end, even K. Marx was forced to admit that the “use value” that a worker delivered to a capitalist was not actually labor power, but its function, certain useful labor, the labor of a tailor, shoemaker, spinner, etc.” [7, p. 551]. Thus, in fact, “...labor was bought, although this was mediated by the exchange for labor, and not directly for work ...” [9, p. 62].

It turns out that the substitution of “labor” for “labor power”, which the Marxists declared as a solution to the problem of surplus value, in fact, is not such a solution. The only solution would be such a case when a capitalist have surplus value after he paid all the labor time of all workers at market prices. “These are the conditions of the problem. *Hie Rhodus, hie salta!*” [7, p. 177], as K. Marx himself expressed it in such cases.

It is curious that in practice the capitalists have solved this task long ago. The same cooperation, which is holistic in nature, helped them in it. That is why Proudhon accused the capitalists of the fact that having paid for all “individual forces”, they did not pay for “collective forces”. On the other hand, there is no need

to blame the capitalists for exploitation. After all, they can pay workers the market equivalent sought by K. Marx. To do this, a capitalist only needs to find a suitable form of cooperation of workers with the means of production and with each other and calculate its organizational consequences. To do this, it is not at all necessary to be engaged only in production. In any case, capitalism began with its commercial form both historically and logically.

But, of course, no one will fully pay the workers for their "individual strength", being content only with "collective strength" as long as it is possible to obtain surplus value in the usual way. The surplus of labor generated by management becomes in demand only in conditions of developed competition.

K. Marx ignored these theoretical possibilities because he was a methodological individualist. In all cases, K. Marx considered collective labor as the usual sum of expended personal forces "... from the point of view of the production of value, it is completely indifferent whether 1,200 workers each produce separately, or whether they are united together under the command of the same capital" [7, p. 333-334].

However, according to "Tectology" by A.A. Bogdanov "the workers do not behave like methodological atoms. They all have different degrees of directed activity and as machines are always fully involved in the labor process and always only partly in the process of value formation", [7, p. 399] and workers united by joint labor all participate in the labor process, but not all of them participate in the formation of the social productive force of labor.

In the first volume of Capital, K. Marx considered the organic structure of capital ($c + v$) as an average [7, p. 626-627]. At the same time, K. Marx always studied variable capital (v) as a whole value. This means that in fact, K. Marx always considered the variable capital also as averaged one. Indeed, as it was revealed in "Tectology", behind $V = 1$ the ratio of 50: 50 of Bogdanov's activities and resistances was hidden.

However, in real life, only 40 percent of the staff of a company can actively strive for overall success, while in other firms this proportion may be 35/65, 20/80, 60/40, etc. While capitalism was experiencing a phase of extensive development, the difference in the internal structure of variable capital simply could not be noticeable. However, as soon as competition intensified, managers had to pay attention to those human reserves that they have in their teams.

In this regard it became clear that in order to turn the average statistical team - 50/50 (and even more 40/60 or 30/70) into a monolith aimed at success we need a great organizational work on the exact setting of tasks, distribution of powers, regulation of the responsibilities of each employee, etc. At the same time, the "organizational" increase in labor occurs not in additional, but in the same working time. And here we are not talking about a change in the quality of labor or its intensity, but only about the quality of the

organization of external forms of the same labor that forms the value.

This organizational source of surplus labor will be used in the future in the practice of management. In other words, management has discovered in practice those integral truths that were already theoretically discovered in A. A. Bogdanov's "Tectology".

7 Conclusion

Management clearly showed the limitations of only one principle of methodological individualism. In any case, in Bogdanov's Tectology it is obvious that the profit that managers get from the organization of relations between people nevertheless is entirely holistic in nature although it is based on the activity of individual persons.

This means that the debate between methodological holists and methodological individualists is essentially not productive, because "... two ontological theories can disagree, not because they assert inconsistent claims about the world, but because they are partial representations of aspects of the world, and both perspectives may potentially be valuable for theory and partially true; then the fact that two ontological theories are different and highlight different aspects of the world does not entail that one of the theories must be false." [10, p. 21].

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