

A CASUAL ANALYSIS IN RESEARCH ON HISTORY OF EDUCATION

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ABSTRACT

Aim. The purpose of the study is to reveal the cognitive potential and limitations of causal analysis in historical and pedagogical research and to consider alternative methods of explaining historical and pedagogical facts.

Methods. Methodological significance for the study were the principles of historicism, objectivity, historiographical tradition, taking into account the totality of facts. To implement the goal a set of theoretical methods was used: analysis, synthesis, comparison, generalisation, and systematisation of scientific positions, historical-genetic, historical-comparative, historical actualisation of the problem.

Results. The essence of causality as one of the most important forms of interconnection and interdependence of phenomena and processes of being, expressing a special genetic relationship between them, reveals the specificity of functional and stochastic (random) causality. Historical forms of determinism were characterised: classical (linear), non-classical (non-linear) and neoclassical (fractal).



Conclusion. The search for monocausal determination in the study of historical and pedagogical processes seems unproductive. To get a more complete and reliable picture of the cause-effect relations the causal analysis should be complemented by teleological analysis, which will make it possible to find out not only why, but also for what purpose certain actions were carried out. Only in this case is it possible to provide scientific and objective historical explanations and interpretations, the adequacy of understanding of historical and pedagogical facts, to find ideas and meanings in the past experience, which will help to solve contemporary educational problems, to predict the development of education in the future.

Keywords: causality, determinism, causal analysis, teleological analysis, cause, effect, history of education

INTRODUCTION

The central place in modern studies on the history of education is traditionally taken by causal analysis, aimed at identifying the causes of the emergence and evolution of various pedagogical phenomena. The task of studying the cause-effect relations in the field of education, in most cases, is seen as establishing the “real” reasons that caused changes in the theory and practice of education in different historical periods. It is believed that the establishment of an unambiguous cause-and-effect relationship will ensure the objectivity of assessments, conclusions, and interpretations and allow creating a genuine, truly scientific history of education and pedagogical thought.

In the last decades, historians began to have doubts about the possibility of establishing a single “real” cause of an event, and they began to talk about the crisis of causality (Chapman, 2015; Morrison & Werf, 2016; Pearl, 2009). This was due to the fact that each researcher suggested his own set of causes, preconditions, and factors (often opposite and incompatible) that conditioned the development of the same historical phenomenon. As a consequence, there were doubts about the possibility of establishing an unambiguous objective cause-effect relationship, which greatly complicated the idea of historical reality and the ways of its interpretation.

In studies on the history of education and pedagogical thought, identifying the preconditions, the factors that determined the vector of historical dynamics in education, remains, as before, the most common research task. Scholars who belong to this branch of science, traditionally build a chain of causes and consequences, creating a linear model of the history of education. At the same time, causality, unfortunately, is not recognised by them as a complex and unresolved cognitive problem.

Scientific publications on the methodology of historical and pedagogical research (Alexander, 2008; Baldwin, 2004; Bruner, 1960; Heckman, 2005) most often analyse the methodological situation in historical and pedagogical science, consider different methodological approaches, principles, methods, individual cognitive procedures. The issues related to cognitive

possibilities of causal analysis in the history of education and pedagogical thought are practically not touched upon.

An exception is a book by Mikhail Lukatsky, *Pedagogical science: History and modernity*, which generally presents a scheme of causal explanation of historical and pedagogical phenomena (Lukatsky, 2012). The use of the causal approach in historical and pedagogical research is mentioned in the works of Svetlana Bryzgalova (2003) and Yelena Klyuyeva (2014). They called the expression of the causal approach to a person a variant of pedagogical anthropology by the German researcher Max Liedtke (1972).

An indirect call for the use of causal and other approaches to explaining historical-pedagogical experience can be found in Ion Albulescu's article "The Historical Method in Educational Research." The author believes that discourses and debates on education are always linked to time, as we use the past to understand the present and prepare for the future. This means that educational history can be a source of inspiration for decision makers, for reformers of contemporary and future education, thus contributing to the development of educational science (Albulescu, 2018). To fulfil this task this scientific discipline must not only collect and describe historical and pedagogical facts but also explain them, and find ideas and meanings that can shape the present and future of the field of education.

As we can see, in the works on the methodology of historical and pedagogical research the problem of using causal analysis is considered fragmentarily and superficially. As a consequence, in real research practice, the search for causal relationships is largely spontaneous and conditioned mainly by subjective factors, such as the researcher's interest, motivation, historical curiosity, educational level, etc.

The purpose of our article is to reveal the cognitive potential and limitations of causal analysis in historical and pedagogical research, to consider alternative methods of explaining historical and pedagogical facts.

CAUSALITY AND DETERMINISM

Modern historical science uses several notions concerning causal relations between objects and phenomena of the surrounding world. The most important concept, of course, is "causality," which is understood as one of the most important forms of interrelation and interdependence of phenomena and processes of being, expressing such genetic connection between them, in which one phenomenon (process), called cause, under certain conditions inevitably brings to life another phenomenon (process), called consequence (or action). Any changes in the state of objects and systems of reality have their bases, and the idea of causality is aimed at revealing these bases (Schneider et al., 2007).

It should be remembered that causality is a multidimensional and complex phenomenon, an important aspect of the study of which is the characterisation of causal relationships and connections. A distinction is

made between functional and stochastic (random) causal relationships. In functional relationships, the influence of causal factors leads to predictable results, in stochastic ones, the result of factors may be different, including little expected. The final stage of causality analysis is always associated with explanation, with the answer to the question of why the version of events that became reality was realised (Spirtes et al., 2000).

For a deeper understanding of the concept of “causality,” it should be correlated with the category of “determinism.” In the scientific literature “determinism” is defined as a philosophical doctrine on objective regular interrelation and interdependence of phenomena of the material and spiritual world. If we talk about historical determinism, its central core is the recognition of causality, i.e. such a relationship of phenomena, when one of them (the cause) with necessity under certain conditions generates another – the consequence (Pearl, 2009).

The development of science, the change of standards of scientificity caused a change in the ideas about the essence of determinism and causality as part of it. Gennady Menchikov (2014) notes that historically there are three types of determinism: classical (linear), non-classical (non-linear) and neoclassical (fractal), which correspond to the stages of the development of world philosophy. Classical (linear) determinism is based on monocausal causality, according to which each phenomenon under fixed conditions strictly unambiguously causes another phenomenon. Within this type of determinism causality is also understood in a broader sense – as including not only monocausal but also probabilistic (statistical) causality, as well as causal conditioning. Despite some expansion of the ideas about determinism, its first type is identified with different kinds of causality, or with the so-called causal conditionality.

Non-classical (non-linear) determinism is seen as a connection that expresses the dependence of things (the properties of things, events, processes, states and the relations between them) on any factors. As a result, there is a blurring of causality (more precisely, the chain of cause-effect), and attention is drawn to the active interconnection of things and phenomena. Non-classical type can also include “neo-determinism,” which appeared within the framework of synergetics, in which the emphasis is shifted to the dominance of internal spontaneous moments in any system, contrasting them to external ones.

Neoclassical fractal determinism, unlike classical and non-classical, considers the universe as an open system and is based on the non-determination of being. This system is connected with the synergetic self-organising world order and worldview, with the discovery of fractality in it (fractional rather than linear or non-linear space-time dimension), with the post-non-classical type of rationality, with another level of understanding the complexity of being (Menchikov, 2014).

The French historian Marc Bloch called determinism a “universal law of thought,” from the power of which historians can hardly ever escape. At the same time, he argued that we should not bow down to a single cause, because determinism in history is complex, non-transparent and often confusing (Lyon, 1987).

According to Peter Spirtes, Clask Glymour and Richard Scheines (2000), political, psychological or biological factors, rather than economic ones, may take precedence in historical determination at a certain time. The result is a social condition that no one could have anticipated completely. The historical process is ambivalent, for it contains both objective and subjective origins, which are not reducible to each other and form its “involuntary” determination. Modern historical determinism rejects the predetermination of the course of history, committed with fatal inevitability, but, on the other hand, recognises the natural character of society (Spirtes et al., 2000).

As we can see, the concept of “determinism” is broader than the concept of “causality,” because it reflects not only cause-effect but the entire spectrum of relations between phenomena of the material and spiritual world. The ideas about causality, about the nature of cause-and-effect relations, have also changed historically. In addition to the monocausal form of causality, probabilistic (statistical) causality and the so-called causal conditioning have been substantiated.

In the context of our study, Fedor Blyukher’s (2004) attempt to formulate Kant’s antinomies of pure reason in relation to historical cognition is interesting and productive. As we know, the third antinomy contains two mutually exclusive provisions concerning causality. Fedor Blucher formulates them as follows:

1. All events in history are causally determined. There is not a single event in history, which would be impossible to describe, using only the causal system of coordinates.
2. The free will of the subject of the historical process is fundamentally impossible to exclude from the historical description, so it is impossible to describe the historical process exclusively in a deterministic way (Blyukher, 2004, p. 61).

HOW IS THIS ANTINOMY RESOLVED IN HISTORICAL KNOWLEDGE?

Blyukher (2004), not without reason, believes that the second side of this antinomy is more popular in modern literature, and historians declare a crisis of causality. At the same time, no scholar would deny that there are relations of consequence between the recorded events of the same problem field, and therefore he will not take the liberty to reject the need for a causal description of the historical process. At the same time, a historian should be aware of the various characteristics of causal relations and understand that causes can be varied (expedient, systemic, probabilistic). The exclusion of the causal coordinate system is unacceptable because the certainty of the historical event is eliminated from history.

However, we cannot ignore the second antithesis and not recognise that each historical figure or subject of history, although not entirely determines the nature of subsequent historical events, nevertheless has a significant

impact on the specific trajectory of a particular segment of the historical process (Blyukher, 2004).

CAUSAL ANALYSIS

As we have already noted, studies on the history of education use a predominantly simplified version of the understanding of causality, which is based on moncausality. A set of main, "real" preconditions and reasons are sought, which with necessity gave rise to certain events and actions. In this case, often the causes of events belonging to the same time and to the same problem field, are interpreted differently, which leads to a haphazard accumulation of conditions, preconditions, and factors and undermines the scientific explanation of the historical and pedagogical process.

To identify causal relationships in the study of the history of education the method of causal analysis is used. In general sociological terms, causal analysis involves the study of dependence relations in the system of variables to check the compliance of the identified causal relationships with certain data (Woodward, 2003).

In historical-pedagogical research, causal analysis is aimed at identifying the causes of the emergence and evolution of various phenomena and its main question is "why?". In this regard, Georg Wright (1984) noted that the search for the causes of some event or its properties was carried out, as a rule, in the process of movement in time from the present to the past. As a consequence, causal explanation points predominantly to the past and its typical linguistic construction is: This happened because that had happened. The use of causal analysis in this variant establishes nomic (regular) connections between factor-causal and factor-sequence (Wright, 1984).

However, according to Wright (1984), causal analysis can be conducted not only from the given state of a system to the past but also to its future state. Because of the parallelism between the irreversibility of time, on the one hand, and the asymmetry of the causal relation, on the other hand, the causal analysis of the first type is mainly aimed at finding the causes of given consequences, while the analysis of the second type is aimed at finding the consequences of given causes (Wright, 1984).

That is why causal analysis and causal explanation, which usually points to the past, is contrasted with teleological explanation, which, on the contrary, points to the future and answers the question "what for?", using another typical language construction: "This happened in order for that to happen." Thus causality and causal analysis create the effect of explanation, and teleology and teleological analysis create the effect of understanding (Woodward, 2003). In this regard, teleological analysis is seen as something necessary for the "continuation" of causal investigation (Suppes, 1970).

Based on the aforementioned, we can present the procedure of causal analysis in the study of the history of education as a set of several successive steps.

Step 1: Identifying the essential characteristics of the pedagogical phenomenon whose history is being studied

Before covering the historical and pedagogical aspects of a particular phenomenon, or process, to identify the cause-effect relations, it should be considered from the perspective of modern science. For example, if the study is dedicated to studying the history of teaching methods, to identify the causes that led to their historical dynamics, then first it is necessary to find out how the concept of "teaching method" is defined, how it is characterised in modern pedagogical science. This way of knowledge – from theory to history – will allow to more accurately identify the range of prerequisites, conditions, factors, determine the specific weight of each of them in the system of internal and external influences and, ultimately, will ensure the adequacy of explanation and understanding of historical and pedagogical facts.

Step 2: Analysing the broad socio-historical and pedagogical context

Preconditions, factors of historical transformations in the sphere of education can be established only by taking into account the general trends of socio-economic, socio-political, and cultural development of the country during the historical period under study. Socio-historical contextualisation will allow us to find out how the general trends were manifested in a particular process, to take into account how the development of education was related to the economic needs of the country, the political situation, and the state of the social sphere and culture. It is also important to analyse the pedagogical context, which involves identifying the features of educational policy, considering the situation in pedagogical science and other sciences of education.

Step 3: Identifying specific conditions, occasions, events that caused educational phenomena, processes, designated as a consequence (finding an answer to the question "why?")

The reason is a set of conditions - prerequisites and occasions, which in unity create a new historical reality. The prerequisites reflect certain historical patterns, and the cause acts as an eventual manifestation of the existing causes.

It is appropriate, in our opinion, to classify the reasons, dividing them, first of all, into external and internal, objective and subjective. As already noted, the state and development of education is largely determined by the context, i.e. external conditions that either inhibit or stimulate the development of the educational sphere. But, on the other hand, the internal problems existing in education also force us to make changes and reforms.

There are objective and subjective conditions that act as reasons for the development of the historical and pedagogical process. Each new generation of people, entering life, does not start the history of education anew, but continues what has been done by predecessors. This heritage is the objective (independent of human consciousness and will) conditions that determine the nature, orientation of activities in the field of education, forms of social activity. Objective conditions also include the mode of pro-

duction, the system of social relations, existing social institutions, the form of power, traditions, customs, beliefs, etc.

But, on the other hand, individuals, social groups, having free will, affect the objective conditions, implementing their own goals in education, realising their needs and interests. This is the role of the subjective factor, which acts as a conscious, purposeful activity aimed at improving education. It can be not only a factor of creation but also an obstacle to development, hindering it.

The task of causal analysis is not only to identify prerequisites, conditions, and factors but also to establish the nature of causal links and relationships, as well as the combination of causes that triggered the version of events that became a reality.

Step 4: Teleological explanation in order to identify cause-and-effect (finding an answer to the question "what for?")

In order to explain and understand cause-and-effect relationships, traditional causality must be supplemented by teleological analysis, the task of which is to find out not only "why?" but also "what for?" certain actions were taken. For example, the historical-pedagogical literature associates the radical reorganisation of Soviet school education in the first half of the 1930s with the politicisation and ideologisation of education, the strengthening of Stalin's personal power, centralisation, and the desire to create a uniform school education system for the whole country, etc. But it is important to answer the question, what was the purpose of this reorganisation? By and large, it was meant to improve the quality of education. The use of innovative approaches in school education in the 20s (integrated programs, Dalton Plan, the method of projects) helped to intensify the cognitive activity of children, strengthening the connection of learning with real life. But unfortunately, students did not receive systematic knowledge and were not ready to fully continue learning at higher levels of secondary school. It was to overcome the current situation in school education that the reorganisation was carried out, which, of course, had political and ideological implications.

As we can see, the teleological analysis makes it possible to understand the situation more deeply, to explain and adequately understand the cause-and-effect relations, and provides credibility to the interpretation of historical and pedagogical facts.

CONCLUSION

Thus, causal analysis, aimed at identifying causal relationships in the historical and pedagogical process, occupies an important place in modern research on the history of education. Considering that causality is a multi-dimensional and complex phenomenon, the search for monocausal determination in the study of historical and pedagogical aspects of educational processes seems counterproductive. It is required to identify the totality of

prerequisites, conditions, factors (internal, external, objective, subjective), as well as to establish the nature of causal relationships and correlations and the extent of their influence on the events that have become a reality. In order to get a more complete and reliable picture of cause-and-effect relations, the causal analysis must be supplemented by teleological analysis, in order to find out not only why, but also for what purpose certain actions were performed. Only in this case, it is possible to provide scientific and objective historical explanations and interpretations, the adequacy of understanding of historical and pedagogical facts, to find ideas and meanings in the past experience, which will help to solve modern problems of education, to predict its development in the future.

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