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PROBLEMS OF UNDERSTANDING AND APPLYING METHODOLOGY OF SOCIAL SCIENCES

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Abstract: *The research in social sciences is still very much present in the academic world. This paper is another effort that tries to shed light on the methodology of research in social sciences with the detection of obstacles that interfere with its use, especially regarding values. This paper will explain the nature of research practice in social sciences as well as the difficulties regarding the research method, which would define the objective holding that a researcher has to implement. Furthering from the subject of study is, for that matter, needed especially regarding the values, because very little research in this field is of so-called "pure nature". For that matter, very few people explore the methodology by itself because most of the research is applied research, which is widely used in multiple disciplines. Each science uses different research methods in the areas of its research. They use the methods and procedures that were developed by the research methodologists with the goal of increment of understanding of their own sciences and further development of the base of social knowledge, as well as strengthening and improving their own science. This callback on the methodology of research is focused, primarily on, the aspect of scientific research, and that is the very methodology the scientific research follows with the goal of eliminating mistakes that quite a few researchers make, disregarding the difference between the method and the methodology. A great number of definitions of methodology confirm its complex nature but also state the fact that methodology can be observed with theoretical, technical, and organizational aspects. The theoretical aspect implies the questioning of laid-out hypotheses, theories, comprehensions, styles, terminology, etc. Technical aspects relate to the process of gathering, observing, arranging, and measuring the data, while the organizational aspect relates to securing the rational technology in implementing scientific research.*

Keywords: *Science, methodology, methods, research*

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INTRODUCTION

The study of methodology enables a wider and more comprehensive acquaintance with science and its active side, i.e., an understanding of what scientists do in

their work space or in the field, as well as to become better acquainted with the methods and means by which they arrive at certain knowledge, such as and to understand the logic that connects the various procedures of scientific activity into a thought unit. In more recent scientific works that present the results of some research, it is easy to see the effort to explain the procedures and means used in the research. In this way, the researcher provides other researchers, and everyone else who is interested in those results, with data on how they were arrived at. This is justified, but also useful for several reasons. "First, it facilitates the verification of research results, on the other hand, the transfer and generalization of positive methodological experience is significantly accelerated. However, presenting the methodological experiences gained in individual researches is not enough for a faster development of science. For a broader understanding and faster generalization of the research experiences of a certain science, it is very useful for a special discipline to systematically study the active side of science. That is the task of scientific methodology"

The methodology of scientific research work aims to make the researcher systematic in his thinking, proposals and research, freed from intellectual stagnation, oriented towards creativity, renewal of critical, systematic and organized analysis. The scope of knowledge and experience in scientific methodology and research methods and techniques eliminates any arbitrary judgments of researchers as well as falling into scientific naivety. This approach marks the path leading to the discovery of truth in science by means of a set of general rules that dominate the functioning of the mind and determine its operations until it reaches a certain result.

The scientific approach to the research of certain phenomena does not set any initial limitations and conditions, which is characteristic of a non-scientific approach. The openness of scientific research is confirmed by the theses of Berger (Berger P., 1995), in which he points out that those who need certainty should not accept science. Let them, as he points out, pray in their chosen ideological sanctuary and let them decide their choice with their own conscience. A scientist must not offer the certainty of prophetic truth or an irrefutable hypothesis. It is the moral and intellectual obligation of scientists. Science must be open to change because scientists do not invent the truth, they discover the truth.

By interpreting various phenomena, we increase the scientific value what helps a person to predict. The proces of prediction does not mean metaphysical guesswork or knowing the future, but rather the ability to predict what might happen if things go in a certain direction, and this anticipation includes the meaning of a high degree of possibility. In achieving the three basic goals (interpretation, prediction and control), all sciences depend on the scientific method, because it is characterized by accuracy, objectivity and the testing of facts as a test that removes all doubt, knowing that scientific facts are not fixed, but are facts that have reached high degree of truthfulness.

SCIENCE AND ELEMENTS OF SCIENCE, POSTULATES OF SCIENCE

Even after all our scientific and philosophical explanations and understanding, the secret remains untouched, because if it were clarified and understood, there would be no more secret. If we could know everything, there would be nothing to believe in.

Đuro Šušnjić

About science and social development

It is human to strive for knowledge, says Aristotle (Aristotel, 2001) and thus he showed us man's path to science through the history of his development. Science is immanent to man because knowledge enriches the life of an individual and society, and in it, it is possible to seek theoretical as well as practical application. "Theory is always built on a series of definitions and established connections between the concepts with which we understand and explain experiential facts, or, on the other hand, with which we create the foundations and starting points for some other theories. Practice as the practical application of knowledge in everyday situations is always a conscious human activity that connects the theoretical with the empirical. At the same time, it can always be expected that the empirical verification of theoretical knowledge can confirm the existing knowledge or partially or completely change it. Practice is also taken as a check, a criterion of the truth of a certain theory." (Pavić Ž; Šundalić A., 2021). Today, more than ever before, education and science are particularly positioned in terms of the role they play both for global development and for the development of each individual society, which is best visible in the changes brought to the world by highly sophisticated technologies. The involvement of science in all social processes of modern technologies makes science a primary human activity.

Everywhere people build on foundations that can be seen, says Đ. Šušnjić, but science builds on the invisible. Experiential science is based on supra-experiential assumptions or principles. That is why it is important to notice that everything we think and do in science depends on our assumptions, and assumptions form the foundation of science even though they themselves do not constitute science nor can they be verified by the methods of science. Science rests on certain philosophical assumptions and therefore it cannot be philosophically neutral. The starting point in understanding science is its characteristic discursive (conceptual, logical) thinking and experiential research. The foundation of a scientist's thought means that it rests on certain assumptions that he is convinced are fruitful, but he does not know that they are true. "*The first* assumption that scientists believe in is that truth exists. Only the one who believes there is truth will go in search of it; he who does not believe that it exists will not even look for it (skepticism, agnosticism, solipsism, nihilism). *The second* assumption that scientists believe in is that truth can be known. If it can be known then the search for truth makes sense; if it cannot be found out why should we seek it, except to find out that nothing can be found out. *The third* assumption that scientists believe in is that knowing the truth is valuable in itself, because the truth itself is a value. Only the one who believes that knowing the truth is valuable in itself, will decide to dedicate his life to discovering and creating that value" (Šušnjić Đ., 1999)When a scientist decides *to do* science, he must be aware of the research implications of accepting a value commitment. Also, the passion or thirst for discovering the truth represents the scientist's inner impulse or motive that drives him to search for the truth. There are a large number of definitions that determine the nature and meaning of science as a social activity, and the key question that arises is the question of the position of science in society and society's attitude towards it. In order to understand the methodology of scientific work, the first question that needs to be answered is the question of what science is. Science, therefore, is a kind of rational-experiential knowledge about the world, it is a relatively independent, closed and exclusive system of ideas, beliefs and practices. Scientific

work, that is, scientific thinking represents a specific way of thinking, the goal of which is to be true. If one starts from the many definitions of science that try to define science as a special social activity, a special form of social consciousness, it can be defined as the totality of true knowledge about oneself and the world that surrounds them, which people come to by certain methods, and which are characterized by objectivity, generality, systematicity, precision, and development.

"If in a science there are markedly different understandings about the basic characteristics and basic principles of the scientific method, and not only about the most effective research approaches, that is the best sign that that science has not progressed much in the exact respect. The more exact a science becomes, the more unique its theory becomes, the more agreement among scientists is established on an increasing number of theoretical issues, as a greater number of hypothetical theoretical positions become more and more fully and convincingly proven by their multiple confirmations. By unifying theoretical understandings, viewpoints on the method are also beginning to converge and the differences are no longer related to the general principles of the methods, and especially not to the general criteria used to evaluate the scientificity of various research procedures. Differences begin to arise mainly from other sources, and above all from the different substantive nature of the problems that are examined in a certain case. But if science has reached a certain level of exactness, the existing methodological differences become less obstacles in the mutual understanding of various scientific currents and the mutual use of research results. In any case, the method is very closely connected with the entire scientific activity and as an integral part of it, it can only be understood from that general framework" (Milić V., 1965.).

Without knowledge of scientific laws, an individual's knowledge would be limited to his own experience, and any prediction would be illusory. Every scientist has the intention of reaching general laws, but almost as a rule he discovers special, socially conditioned regularities. Scientific law as a general, constant, necessary and essential relationship between phenomena is reflected in the form of relationships between concepts. Scientific laws describe what happens in reality and how people actually behave. Scientific laws are like statements of a descriptive nature as opposed to social norms which are prescriptive in nature. Social norms prescribe rules and scientific laws describe facts, so social norms are made and scientific laws are discovered. The law is, therefore, something more than an empirical generalization, because it is derived from theory. He relates and explains the facts, and the theory connects and explains the laws. The truth of the law is proven not only by the fact that it logically follows from the theory, but is also verified by the facts. Until the actual conditions under which the laws apply are specified, they are only relations between concepts, not relations between phenomena.

Postulates of science and the ethical dimension of science and scientific research work

Science is a rational effort, points out (Šušnjić Đ., 1999), which task is to discover the truth about part of reality. "A naïve view of science opposes any opinion about science that comes from outside science. One can engage in scientific research without ever asking himself what science is, what is its structure, how it differs from other forms of cognitive and spiritual questioning, what foundations it is built on, what

is a scientific revolution, what is truth and what are the standards of truth in science, is there progress in scientific knowledge, what are the possibilities and limits of science in explaining and understanding significance, what is its ultimate meaning... These questions disturb any naive or pre-critical view of science, in the first place the scientist himself'' (Šušnjić Đ., 1999).

If the term science means human knowledge about nature, man and society that relatively corresponds to objective reality, then three basic characteristics of science emerge from that starting point:

- It is the work of man and is the result of his thought and practical activity;
- Knowledge is objective, because it corresponds to objective reality, and
- Scientific knowledge is relative, because this correspondence is never complete, but always partial and approximate

The mentioned characteristics determine the basis of scientific knowledge. According to the definition of the philosophy of science, that is, the science of scientific knowledge, the system of scientific knowledge about nature, man and society is based on the following constitutive methodological principles, that is, postulates:

- Objectivity,
- Reliability,
- Generality,
- Systematicity.

These methodological postulates of scientific activity on which scientific knowledge is based are not universal and generally valid like logical rules that are valid regardless of time and place. Their content and validity largely depend on the specific circumstances of the historical development of certain sciences. However, they also cannot be changed arbitrarily, because they prescribe which knowledge is scientific and which is not. Each of their changes always means a change in the understanding of science and its limits according to other forms of human activity and human knowledge.

Reflecting on science and sciences, Šušnjić correctly notes that there must be something similar among different sciences, because each of them is a rational construction and reconstruction of reality. If two sciences do not have any common content, feature or relationship, then their inclusion in the same class (science) has no logical and methodological justification. He further points out that if different sciences did not have the same characteristics in their work (logical structure, standards of truth, rules of good work, task, meaning, etc.), then every theory of science would be impossible: the science of science would be a worthless effort.

Ignorance is not dangerous until it is used, but misuse of knowledge can have disastrous consequences. The nuclear bomb that was used in Japan and the nuclear threat today best confirm the previous thesis.

"In the second half of the 20th century, the Cold War relations between East and West brought about a big change in terms of the purpose of science, the way in which scientific research is conducted, as well as the increase in financial resources available to scientists. The development of nuclear weapons and the post-war arms race between the USA and the Soviet Union led to a significant increase in government financial investment in science, which led to important scientific and technological discoveries. This change is usually marked as a shift from "small science", in which science is based on the individual work of individual scientists, towards "big science" characterized by: a)

large budgets, b) a large number of scientists working together and c) large research institutions. At the end of the 20th century, large corporations (industry) become the biggest investors in scientific research, which calls into question the objectivity of scientific research and its general social benefit. Scientists cease to be the "masters" of scientific achievements, their discoveries are appropriated by research clients, mostly large international corporations. Since the use of scientists, science and scientific achievements for the general benefit of humanity is less and less focused on the private and particular interests of individuals and corporations, the question of ethical responsibility has arisen before science and scientists. Today's science is characterized by a combination of uncertainty about the riskiness of applying scientific discoveries and the commercialization of science, which can affect the objectivity of scientists, i.e. on which issues will be researched more and which less" (Pavić Ž; Šundalić A., 2021).

"Technological processes in production have the character of a scientific process and direct application of the results of scientific research of human knowledge and abilities. Science, knowledge and ability of people become the main content of productive forces. It is about new sciences and knowledge, whose change is in interaction with changes in technique, technology, economy and society. Under the influence of scientific and technological progress, new factors appear in the process of production and traffic, such as information, space and time. There is an expansion of education of incredible proportions and dynamics, and the number of scientific organizations and scientific workers is growing by geometric progression. In this way, education escapes social control, and the possibility of misuse of knowledge also increases with geometric progression. military industry, genetic engineering and the production of genetically modified organisms, artificial intelligence, the announcement of the installation of chips in the body of people with data on each person is introducing us at the speed of light into the twilight zone. Multinational companies are winning an absolute monopoly on knowledge, subordinating it to the logic of profit and controlling the human mind, and during that time, schools have lost the race with education that Lock spoke about." (Barašin O., 2015).

Researchers must adhere to ethical norms to ensure trust, accountability, mutual respect and fairness. The generally accepted view of the scientific community is that there are some ethical considerations that researchers must keep in mind, especially during the process of collecting and presenting the collected data. It primarily refers to the right to privacy of the individuals involved. Participation in research must be voluntary and the individuals involved must have the right to partially or completely withdraw from the process. All participants must give their consent to participate in the research process, and the data they provide must be treated as confidential and ensure complete anonymity of participants who could be identified. Ethical considerations include how participants respond to the researcher's methods in the data collection process, as well as how it will affect the way data is analyzed and presented. The behavior and objectivity of the researcher is the basis of the ethical code of the research procedure.

METHODOLOGY OF SCIENTIFIC WORK

Definition and constituent parts of the methodology of scientific work

Methodology is a branch of epistemology that deals with the study of scientific knowledge about things and phenomena. Knowledge of methodology allows for a wid-

er and more comprehensive introduction to science and its active side, i.e., it allows to see what scientists do in the research process, to get to know better the ways and means by which scientists reach certain knowledge and to understand the logic that connects the most diverse scientific procedures activities into a single thought unit. "Ever since Durkheim, social scientists have spared no effort in describing research methods. A huge number of texts have been written on methodology, but they have also given rise to numerous controversies on methodological issues. The twentieth century was a period of great expansion and institutionalization of research into social reality and its methodology. To conclude, not only the methods as such, but also the relationships between different methods and methodological approaches have changed significantly during the observed period." (Alastalo M., 2008). In the continuation of the discussion, Mario Alastalo states that there were numerous methodological discussions both within the quantitative (eg on sampling, questionnaire construction, statistical testing and causality) and qualitative approach. Often, less attention is paid to these controversies than to the clash of paradigms that garners the most attention. The impression is that some problems often appear in writing about methods and methodology. It follows that there is one relationship between theories and methods, and the other is the relationship between qualitative and quantitative methods. The first one went there only wondering if there had been changes in the mutual relations between methods and theory during the past period so that methods were more often seen as things of a technical nature, and not as theories of reality in themselves. The controversy between qualitative and quantitative approaches is the most debated topic, which is why it has often come up with different names (case study vs. statistical method, participant observation vs. survey, qualitative vs. quantitative).

If methodology is viewed as a way of gaining new knowledge, it can be said that it has three parts:

- The logical part, which includes the rules and norms of true thinking,
- Scientific-theoretical, which includes basic scientific-theoretical knowledge, a categorical-conceptual framework important for the subject of research,
- Memory-technical part, which includes research methods, techniques and instruments, as well as actions related to the organization and implementation of research.

When it comes to the classification of methodology, Sakan points out that methodology can be classified according to different criteria, and the main subject is generality. According to the criteria of the subjects, Sakan classifies them into the methodology of natural and social sciences. According to the criterion of generality, the methodology is classified into general methodology, special methodologies and methodologies of certain sciences. Generally speaking, the methodology of science has two basic functions: (Sakan, M., 2005)

- To build criteria and develop procedures for proving the truth of scientific positions and
- To contribute to connecting various theoretical understandings of the subject into a unique theoretical system of science

In the scientific works that present the results of some researches, one can notice the effort to clearly explain the procedures and means used in the research. In this way, the researcher provides other researchers, as well as everyone else who is interested in

the research results, with data on how he got them. This is useful for a number of reasons. First, it ensures the verifiability of the research results, and on the other hand, it significantly speeds up the transmission and generalization of positive methodological experience. However, presenting the methodological experiences gained in individual researches is not enough for a faster development of science. For a broader understanding and faster generalization of the research experiences of a certain science, it is very useful for a special discipline to systematically study the active side of science. That is the task of scientific methodology. "Methodology, on the other hand, as a logical discipline that studies the method, develops its logical principles, tries to systematize and evaluate the research experience of a science, is much more independent in relation to the basic research activity of a particular science. If it were not to a much greater extent independent of the basic research activity of science, it would not be able to successfully perform its primary function, which consists in the logical-epistemological criticism of the entire scientific-research practice in all its logical, technical, organisational and startegic aspetcs." (Milić V., 1965.).

Sakan (Sakan, M., 2005), points out that the true meaning of the term methodology can best be understood from its nominal definition, which states that "methodology is a complex word consisting of two parts: "method" and "logos". The term method (Greek methodos) means a way, a way of examining, a way of thinking and a way of working. The term "logos" (Greek logos; Latin logica) means letter, concept, reason, teaching, word, knowledge, science-science of method. From this nominal definition, two meanings of the term methodology - narrower and broader - are most often derived. In a narrower sense, methodology is the science of scientific methods used in scientific research. In a broader sense, methodology is the science of the entirety of all forms and methods of research, from the methodological approach and design, through the organization and implementation of research to the creation of a press release. In addition to methods, Sakan points out, the subject of methodology includes the entire research process, then planning and organizing research, as well as material support (means) of research. Methodology is, therefore, a criticism of science from the aspect of scientific correctness (objectivity, precision, reliability, validity, etc.) of its findings. Since methodology is close to logic, many theorists consider it a logical discipline.

Methodology cannot be equated with scientific theory.[1] It is primarily a logical-epistemological critical analysis of various methodological procedures and the overall state of a science. One of the key tasks of the methodology is the construction of criteria based on which the veracity and scientific usability of certain findings are determined. Methodology, therefore, develops rules for checking and proving scientific attitudes, because in science it is not enough to discover something, but also to prove the accuracy of each new knowledge. It is extremely important to know that from discovery to proof and from scientific assumption to scientific knowledge is a very

[1] "A hypothesis is an attempt to rationally solve a practical or theoretical problem in order to avoid the path of trial and error. Hypotheses are informed guesses, because they are based on the researcher's previous experience and knowledge of the phenomena he is studying. A hypothesis is the heart of scientific research around which everything revolves." (Šušnjić Đ., 1999). "The large number of definitions of hypotheses that can be found in the methodological literature indicates the fact that, historically, a large number of scientists have dealt with the problem of defining hypotheses and that this problem is still current" (Šušnjić Đ., 1999).

long and arduous journey. In its logical function, and above all when it elaborates the criteria of truthfulness and scientific usability of certain knowledge, as well as the procedures of verification and proof, the methodology cannot be dependent on any particular scientific theory, no matter how general it may be. Binding to any scientific theory puts the methodology in a state where it cannot verify the basic theory. As a result, she is in a very unenviable position when examining the accuracy of narrow knowledge.

Vojin Milić points out that in every more fully developed methodological idea, three main groups of problems can be analytically distinguished: "(1) logical, (2) technical and (3) scientific-strategic." It should be underlined that any reasonable methodological idea must look at these logical, technical and scientific-strategic problems in an inseparable unity." (1965). According to Milić, this is often not achieved. Everything related to the way of forming scientific concepts and the way of analyzing their content constitutes logical problems, as well as the examination of the logical structure of scientific generalizations, laws, theories. In considering the role of hypotheses and their various types and types in scientific research, as well as the very complex tasks of building research procedure rules, it is important to understand that they should enable the most complete verification of scientific knowledge.

The term method is derived from the Greek word "methodos", which in translation means a path towards something. The method can be graphically explained as a path that the researcher should take in order to reach the goal, i.e. to solve a scientific problem. Along the way, the scientist goes through many challenges where he has to make decisions about the conceptualization and reconceptualization of methods. The scientific path is mostly marked, but it still needs to be "cleared" again from time to time, with the use of tools or procedures that are important for solving research problems. In this respect, the scientific method can be explained as a set of cognitive and epistemological premises, logical and procedural rules that science as an activity applies in the scientific research process. The research method can also be seen as a concretization of the scientific method, a way or way of combining several specific procedures depending on the subject, goals and design of the research that leads to new scientific knowledge. The methods of sociological and humanistic sciences are very diverse. There are qualitative and quantitative, and it is about understanding and explaining, case studies and comparative analyses. Through secondary analysis, known data from earlier research can be reanalyzed and processed on the basis of newly posed questions, and if it is primary research, then it under-examines new own knowledge gathered using some of the adequate data collection techniques. The researcher-scientist decides whether to undertake a transversal or longitudinal analysis of the data, whether to choose from a smaller number of cases or whether to conduct a single comprehensive study. Purely theoretical e.g. are often used. scientific theoretical or philosophical issues of research problems, where the issue of methods is determined in a completely different way and they do not have an empirical object of research.

Logical framework of the methodology

The logical side of the research defines basic concepts, principles of classification, etc. Science does not convince itself of the truth of its views by any means and at any cost. The views must be based on logically acceptable testimony. The conceptual definition of the methodology of science comes down to the conclusion that it is a

branch of logic that studies the scientific method and as such must be viewed as an integral part of logic. It is important to note that, in contrast to methods, methodology can be more closely defined as a logical discipline that studies the method as a way of researching and establishing scientific knowledge and thus evaluating the research experience of science. It should be said that logic provides valid or correct thinking and reasoning, while methodology provides verified and true thinking and reasoning. It is very important for the scientist to keep in mind that false statements can be as logical as true statements. It follows from this that a true opinion must be correct, and a correct opinion does not have to be true.

"In science, there are several orientations and systems of logic. One of the important bases of division are the modalities of truth (as forms of existence) and valences of truth that express the essence of logic by containing certain essential properties of logical axioms and logical axiomatics as the essence of a logical system. On the basis of logical valences (*which we define as cognitive values of attitudes and judgments of knowledge*), *we distinguish bivalent, trivalent and polyvalent logics."* (Miljević I. M., 2007)

Classical bivalent logic, when it comes to the truth of knowledge, distinguishes only two cognitive values, namely truth and error, between which and beyond which there is no third value of knowledge. This essential characteristic of the classic logic of simple truth or simple error (delusion) is also expressed in the elementary logical laws of thought, according to which every position is either only true or only false, whereby every question must be answered either with an absolute "yes" or an absolute "no". ". However, even the simplest examples of practical thinking, as stated by Miljević, show that the cognitive value of many views on complex and changing objective determinism cannot be treated either as an exclusively simple truth, or as a simple error, i.e. delusion (for example, a person is not simply "healthy" or simply "sick", the weather is not simply only "beautiful" or only "ugly", and such a situation is even more obvious when it comes to judgments about processes, relationships, future events and phenomena in effort, etc.).

"There is no doubt, therefore, that if one accepts the point of view that the cognitive value of attitudes does not have to be pure truth or pure error, but that there are attitudes whose cognitive value is undetermined or uncertain, that is, whose cognitive value can be partial truth or partial delusion (in different degrees), classic bivalent logic, as one-sided and limited, must be replaced by another logic that allows for a greater number of cognitive values. Therefore, first trivalent and then polyvalent value systems were introduced into logic" (Miljević I. M., 2007). As following, Miljević points out that the multivalent logic of probability, understood as basic logic, is particularly significant for science, according to which the basic logical value of knowledge is precisely probability. All positions on the empirical reality of the organization of matter and material organization are, according to this understanding, only to a lesser or greater degree probable, but never completely probable, that is, true. The main reason for this approach is the understanding that there are statements that cannot be claimed to be either true or false. Of course, the question arises, what is their cognitive value, what is their valence? According to the probabilistic understanding, the answer to that question is that we cannot consider such statements as judgments or assertions (which would have to be true or false), but should be treated as probable propositions, that is, as so-called "positive". The term "posit" means a bet on a certain outcome of some kind of event, which is never certain, but only to a certain extent probable. Therefore, the statement about that

outcome can be neither true nor false, but only probable. And the category of probability itself has a "fictitious meaning", because it is the relative frequency of a series or series of events and attitudes in this series, not an individual event.

SCIENTIFIC METHODS

Definition of methods

Is a method methodology?

There is no single understanding of the term scientific method, and it is most often defined as the way to arrive at scientific truth. Šamić believes that the scientific method is usually a set of various procedures and processes by means of which scientific truths are arrived at. (Šamić M., 1984). Confusion between the terms "methodology" and "methods" in research is common, especially when they are sometimes used interchangeably. Methods and methodology in the research process refer to two related but different things: "method" is the technique used in data collection, and "methodology" is the underlying theory and analysis that explains how research is or should be. is happening. Methodology can also be defined as a set of principles and ideas that influence the design of a research study, and methods are practical procedures used to generate and analyze data. Thus, if these definitions were to be summarized, it can be concluded that methods cover technical procedures or steps in conducting research, and methodology provides an explanation of the basic reasons why certain methods are used in the research process.

In order to better understand the nature and function of methodology, it is crucial to explain the difference between methodology and method. This difference is often neglected, which leads to various misunderstandings, and some important tasks of the methodological study of scientific activity cannot be set clearly enough. A method is a way of research that is applied in a science and it is an inseparable part of its research activity. As an inseparable part of science, the method has almost merged with the theoretical concepts of that science and develops in the closest contact with those tasks that science needs to solve in a certain period. The basic understanding of the method is one of the essential elements of the basic concept of a science and has, in addition to research-operational, constitutive importance for science. Many sciences study the same parts of reality and can be distinguished only on the basis of their different basic cognitive goals and, depending on that, different research approaches. It is not a rare phenomenon that in some science there are several methods and different understandings about the way of organizing scientific activity. These different understandings can arise from different general theoretical viewpoints, but also from the different nature of the problem, especially if a stream or school in science begins to predominantly deal with a certain type of research problem.

As for the scientific method or scientific culture, it is a set of techniques and procedures designed to investigate newly discovered or observed phenomena and knowledge, or to correct and supplement old information or theories. Although the nature of scientific methods varies according to the nature of science, there are distinctive differences that mark the difference between scientific research and research from other forms of research and knowledge development.

According to Šušnjić, four theoretical paths are used for a more concrete explanation and understanding of social reality:

- Individual description or individualization (a method of examining certain phenomena when we describe a certain type through one selected phenomenon),
- Holistic approach or totalization (the principle that emphasizes that the whole is superior to its parts and that the parts must fit harmoniously into the whole because every truth is a whole. the analysis of a phenomenon implies its) separation from the whole with other phenomena, but after the analysis it must be returned to the whole and understood as a whole of real connections.),
- Contextualization - dependence on the environment (every phenomenon can be explained and understood only if it is connected to external conditions),
- Examining form instead of content or formalization (contents are changeable, forms are constant, so it is possible to fit different contents into the same form).

"Scientific techniques can be divided into theoretical and empirical. Thus, for example, linking concepts into hypotheses, including them in a deductive theoretical system and extracting possible connections, belongs to a theoretical technique or skill. Empirical techniques or routines can include those related to performing measurements, methods of collecting and processing data, planning experiments, etc. Theoretical techniques require logical culture and imagination, empirical techniques require practice and repetition" (Šušnjić Đ., 1999). "The classical social analyst avoids any rigid system of procedure; he strives to develop, and to use, social imagination in his work. The method is, above all, a discussion about how to ask questions and how to answer them, with a certain guarantee that the answers are of more or less lasting value. Theory, above all, means the need to pay special attention to the words that are used, especially to the degree of their generality and their logical relationships. The primary goal of both is clarity of conception and economy of procedure and, what is most important right now, the liberation of stimulating the social imagination rather than restricting it. (Mils R., 1998). The method is the way that the researcher chooses between several scientific methods and procedures in proportion to the research object, in order to deal with his problem in accordance with specific research steps, in order to find a solution for it or for some results related to it. "The scientific method, therefore, represents a set of different procedures based on objectivity, reliability, precision, systematicity and generality that are applied in scientific research and work with the aim of researching and presenting the results of scientific research work in a scientific discipline. (Metzinger, T.Č.; Marko, T., 2020).

According to, it can be said that the methodology is more comprehensive. When it comes to methodology, it concerns all parts of scientific research, from specifying its elements, conditions and rules that regulate them. The meaning of the methodology of scientific research as a process or intellectual activity (induction and interpretation of reality) differs from the question of logical methods. The content of the methodology describes the way of organizing and comprehensively presenting the parts of scientific research and the commitment to its implementation in stages. Methodology in its broadest sense is the philosophy of scientific research and the thoughts associated with scientific research. The purpose of knowing the methodology as a general method is aimed at avoiding mistakes that are usually made by a novice researcher.

Classification of scientific methods

Some methods are more suitable for investigating external behavior, while others are more practical for investigating internal experience. To put it more clearly, some methods are more suitable for examining form, and others are more suitable for examining the content of social reality. When it comes to research methods, they can be grouped into two groups:

- For the research of the objective facts of life (statistics, content analysis, survey, comparative method, observation of external behavior, historical method, etc. science of the external man are most often used)
- For the examination of the so-called subjective experiences and experiences (certainly more suitable techniques are: projective techniques, attitude scaling, in-depth interview, diary analysis, case study analysis), confessions, open conversations, self-observation, etc. (the science of the inner man).

"The research method cannot be indifferent to theory, because it determines exactly what and how the scientist will search and select from the world of facts. If I, while researching religion, pay attention exclusively to its institutional form, then it is clear that one or more research techniques suitable for studying the external behavior of believers will come into consideration; if I, in examining religion, pay attention exclusively to its private or personal significance and meaning; then it is clear that I will choose one or more techniques suitable for studying the inner experience of believers. If the research technique is not in the service of theory, then the technique becomes an end in itself" (Šušnjić Đ., 1999).

Research in science is unthinkable without methods and without them not a single step can be taken, but, points out Šušnjić, the true step in science is precisely the one when the old one is abandoned and a new method of thinking and research is discovered.[2] You can never do without a method, sometimes you have to go against

[2] In their methodological analysis, Vidicki and Stojšin follow a partly chronological and partly problematic approach: they show, successively, attempts to overcome methodological dogmatism within the framework of developing first triangulation, then multimethod research, and, finally, combined methods. Triangulation can also exist within the limits of special orientations (qualitative or quantitative). It does not represent a specific effort to overcome the limits of the mentioned orientations (or approaches). Every ambitious sociologist uses multiple methods and sources of data collection. Vidicki and Stojšin see triangulation as equal to multi-method and combined research. Triangulation (or complementarity, whether of sources and methods of data collection, or other procedures), a question in a logical sense more general and different from the problem of the relationship between quantitative, qualitative, multimethod and mixed (or mixed, or combined) research. Triangulation is directly related to validation (the question of whether what is claimed to be researched is researched), as well as to one aspect of objectivity (that is, comprehensiveness) of science. Multimethod and combined methods belong to the issues of the theory of scientific information, that is, to the field of sociological methodology, which Durkheim would call "rules related to the observation of social facts". In other words, unlike triangulation, the latter questions are directly related to the epistemological foundations of the types of measurements and their research consequences. (Ilić V., 2023) or combined) research. Triangulation is directly related to validation (the question of whether what is claimed to be researched is researched), as well as to one aspect of objectivity (that is, comprehensiveness) of science. Multimethod and combined methods belong to the issues of the theory of scientific information, that is, to the field of sociological methodology, which Durkheim would call "rules related to the observation of social facts". In other words, unlike triangulation, the latter questions are directly related to the epistemological foundations of the types

the method, of course the old ones.[3] In this sense, Mills points out that the formulation that well illustrates the classic point of view about the position of methods is that many authors instinctively manage to approach solving problems in the right way. However, after studying the methodology, they become aware of the many hidden and other dangers that lie in wait for them. The result, says Mills, is that they lose their earlier security, which leads them down a wrong or detour route. And that is why Mills advises that such scientists stay away from methodology and calls for each person to be his own methodologist and to focus on work. This means that the development of science is parallel to the development of scientific methods.[4]

General procedure and phases of scientific design and research

Mapping different objects of social sciences is an almost impossible task when it is known that everything related to human behavior as an individual or a member of a community will certainly be the subject of social science studies. This area is quite complex and therefore it is necessary to establish a methodology of scientific research. Social science studies study various aspects of human behavior as a rational being. In this sense, providing methodologies for several disciplines such as economics, politics, anthropology, etc. it seems impractical at first glance. And indeed, all social sciences in their research methodology are based on the collection of various data as a basic technique. The goal is an objective analysis of the collected data, their understanding and,

of measurements and their research consequences. (Ilić V., 2023) or combined) research. Triangulation is directly related to validation (the question of whether what is claimed to be researched is researched), as well as to one aspect of objectivity (that is, comprehensiveness) of science. Multimethod and combined methods belong to the issues of the theory of scientific information, that is, to the field of sociological methodology, which Durkheim would call "rules related to the observation of social facts". In other words, unlike triangulation, the latter questions are directly related to the epistemological foundations of the types of measurements and their research consequences. (Ilić V., 2023) Multimethod and combined methods belong to the issues of the theory of scientific information, that is, to the field of sociological methodology, which Durkheim would call "rules related to the observation of social facts". In other words, unlike triangulation, the latter questions are directly related to the epistemological foundations of the types of measurements and their research consequences. (Ilić V., 2023). Multimethod and combined methods belong to the issues of the theory of scientific information, that is, to the field of sociological methodology, which Durkheim would call "rules related to the observation of social facts". In other words, unlike triangulation, the latter questions are directly related to the epistemological foundations of the types of measurements and their research consequences. (Ilić V., 2023).

[3] The new "synthetic" method of studying history had some important philosophical implications. That method was based on the belief that the historian can gain true insight into the true meaning of the works and activities he studies. However, in order to achieve this, he had to distance himself from the concepts, value standards and categories characteristic of his age and learn to replace them with the appropriate concepts, value standards and categories of the period he is studying. This means that no standards and concepts have timeless value. Every age has its own value system; each age showed its deepest essence only to those who approached it by leaving their own contemporary standards.'' (Manhajm K., 2009)

[4] "Progress in method is, therefore, most likely to be realized in the form of a modest generalization arising from work in progress. Therefore, in our individual practice, and in the organization of our scientific discipline, we should maintain a state of very close reciprocity of influence between methods, on the one hand, and work in the process of realization, on the other." (Mils R., 1998).

above all, their explanation, what takes to the term "explanatory method" (Dirkem E., 2012)and to reach conclusions aimed at improving human experience. In this way, we present the constitutive stages of scientific research methodology, generally accepted stages in social sciences, because they are considered necessary for any research work, whether it is a case study, thesis, or expertise.

In order to describe an effective methodology, it is necessary to present the selected methods and explain the methodological approach that will be used in the research of the defined research problem. The methodological approach can be quantitative, qualitative or mixed. Also, it is necessary to establish a methodological link and explain the relevance of the chosen methodological approach to the overall research design. It should be kept in mind that the connection between the defined methods and the research problem should be clear, which means that the methodology must be adequate to achieve the research goal. In the description of the research methodology, it is necessary to list and describe the instruments for conducting the research and how they will be used in the research process. These tools and instruments can be surveys, interview questionnaires, observations, etc. If the methods involve archival research or analysis of existing data, background information should be provided for the documents, including the name of the original researcher, as well as how the data were originally created and collected. In the continuation of the elaboration of the methodology, it is necessary to explain how the results of the collected data will be analyzed. Depending on the methods used, statistical analyzes can be used or theoretical perspectives explored to support an explanation of the observed behavior.

The sampling procedure is a vital component of the description of the methodology. In this sense, it is important to explain the reason for the described sampling procedure. For example, if statistics are used in research, it is necessary to state why this particular method was chosen, as well as the sampling procedure. If an interview will be conducted, it should be described how the participants will be selected and how the interview will be conducted.

Research limitations should be avoided and possible limitations encountered in the research process should be addressed, such as practical limitations that may affect the data collection process. If there are potential problems that may be encountered in the process, they should be listed and the reason why we choose to use this methodology despite the risk should be explained. In writing the methodology, the inclusion of irrelevant details should be avoided, and the methodology section should be clear and thorough. Details that do not contribute to the understanding of the chosen methods should not be included in the methodology section. Irrelevant information includes unnecessary explanations of basic procedures. Basic procedures should only be explained if they are unconventional and unfamiliar.

CONCLUSION

At the end of this discussion, it can be concluded that the methodology of science describes what scientists do and prescribes how they should work in order to arrive at scientific truth. Methodology is not only a description, but also a regulation that provides the criteria for successful work in science. It is important to understand that methodology is necessarily different from science, because science is descriptive and methodology is mostly prescriptive. The key role of methodology is the prescription of

norms in science such as logical, technical, organizational and strategic. Šušnjić rightly points out that in order to be scientifically true, the methodology must be in accordance with the scientific practice it describes, and to be normative it cannot be in accordance with scientific practice, because it prescribes criteria for how science should be done. This is the reason why the position of methodology is paradoxical because it is both descriptive and normative, i.e. description and regulation at the same time. It is important to know that the methodology does not reveal truths, but shows the paths that lead to the truth. The methodology of science, therefore, shows not only how scientists actually work, but also how they should work in order to reach scientific discoveries or new truths about the world. The language of methodology is twofold and serves to describe what scientists do and to prescribe how they should work in order to arrive at true knowledge about reality. It is important to know that when someone learns the known scientific methods, it does not mean that he will be able to make scientific discoveries, knowing the scientific methods only makes it easier to work on discovering the truth. Science is mostly done by people who do not live from science, but for science.

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