

APPLIED SCIENCE.

The Status of Sociology as a Science.

12/1/2023

Question: How is Sociology a science?

INTRODUCTION

Sociology is considered a science because it employs systematic and empirical methods to study and understand human society. It is true that a scientific study of social phenomena is not free from difficulties. Study of society by their very nature cannot be exact like natural and physical sciences. But it is not correct to say that there is no possibility of sociology becoming a science. The critics are over-obsessed with the exactness of conclusions and capacity to predict as the most important criteria of any scientific study. In that case, meteorology cannot be a science since it fails to make an accurate prediction of the weather and natural calamities. Universal validity of conclusions and a complete accuracy of prediction are not the only prerequisites of science. The scientific character of a discipline is best known by its methodology. If the methods, tools and techniques used by any discipline are scientific then the subject can be treated as a science. Sociology uses scientific methods in the study of its subject matter. Therefore, it is entitled to be called a science.

RESULTS AND DISCUSSION

Before going to the discussion it is better to mention here that the sociologists agree with disagreement. Besides, the sociological terms and concepts are also self-explanatory and dubious in nature. So, it is very difficult to establish an opinion on a single thinking. From this spirit it may be easy to discuss this thing from the viewpoints of various sociologists. For the easiness of discussion, the meaning of science can be discussed first.

MEANING OF SCIENCE

At the outset of the discussion of the meaning of science, it can be said that there is no agreed upon definition of science, nor should there be! Generally science refers to a body of systematic knowledge. It is based on reason and evidence. Science collects facts and links them together in their causal sequence to draw valid inferences. It adopts scientific method. Scientific knowledge is acquired through observation, experimentation, generalization etc. Science has the following characteristics such as objectivity, observation, accurate prediction, experimentation, accurate measurement, generalization and cause-effect relationships. The ethics of science is "it is better to know than not to know." As sociology tries to know about the social facts in society, it is undoubtedly a science. Another ethics of science is "knowledge is superior to ignorance."

It is also defined as a systematic body of knowledge and it must possess following characteristics.

- (i) Science employs scientific method and social institution;
- (ii) It is the study of facts;
- (iii) Scientific principles are universal;
- (iv) Science discovers the cause-effect relationships in its subject matter and provides valid laws;
- (v) Scientific laws can be verified and examined at any time and it proves true at all places;
- (vi) Science can make predictions on the basis of universal and valid laws relating to cause-effect relationships.

THE CERTAIN PROBLEMS CHALLENGING THE SCIENTIFIC STATUS OF SOCIOLOGY

In sociological research there are some problems which weaken its status as science. These are

A. The Problem of Objectivity: The objection which is raised to question the claim of sociology being called a science is that an unbiased and objective study cannot be made in sociology. When a phenomenon is observed in its true form without being affected by researcher's own views it may be termed as objective observation. Objectivity should ensure that "the conclusions arrived at the result of inquiry and investigation is independent of the race, color, creed, occupation, nationality, religion, moral preferences, and political predisposition of the investigator. It is claimed that an unbiased and objective study cannot be made in sociology, and hence, free sociology is not possible.

B. The Problem of Accuracy and Reliability: Since the entire world and its people are subject of sociological research, it is argued that such research cannot be totally accurate or reliable. Responses differ from person to person, from place to place and from time to time. Response of an individual may also differ over a period of time or at different intervals. Therefore, reliability and accuracy of sociological studies comes under scrutiny.

C. The Problem of Predictability: Human behavior is too complex to allow sociologists to predict precisely any individual's action. Each individual in the society has his own individualistic approach towards society, which is spontaneous and can be impulsive. This human character or nature makes it difficult for sociologists to predict future responses.

D. The Lack of Laboratory Research: Sociological studies suffer from complete lack of laboratory research. The laboratory method is only one general procedure of accurate observation. Besides the whole social setting is the laboratory of the sociologists. They study on various aspects of people in society. So, laboratory research like natural sciences is difficult in sociology. The physical sciences can have laboratory tests under specified conditions. In this regard, sociology completely lacks such facility. We cannot put human beings to laboratory tests. Society is so complex and variable that it is not possible to separate and analyze its different elements as it is possible in case of physical sciences.

E. The Problem of ex-activity: Sociology cannot be called a real science because various reasons are responsible for this. Firstly, its laws and conclusions cannot be expressed in precise terms. Secondly, its findings are often limited in time and space, owing to the fact that social phenomenon is too vast and human motivations are too complex.

F. The lack of Experimentation: The term science as used for physical sciences includes the twin processes of experiment and prediction. But it is argued that the universally accepted scientific method of observation and experiment cannot be applied in the study of society. It does not possess the

instruments like the microscope and the thermometer to measure human behavior. This argument, though correct, cannot debar sociology from being called a science or being dealt through scientific methods. Some of the physical sciences too like astronomy cannot be put to laboratory test, but nobody can deny that it is a science. As science grows, it is not unlikely that a larger number of social problems may be decided by laboratory tests. When every fact has been examined, classified and coordinated with the rest, then the mission of science is completed”.

G. The Lack of Measurement: It is further argued that sociology is not a science because it cannot measure its subject matter.

In physics or chemistry the subject matter is exhaustively measured by instruments. Sociology does not possess instruments to measure urbanization, cultural assimilation quantitatively. On the basis of above argument it can be said that sociology is not a science. It can be stated that qualitative and quantitative measurements are only different stages in the growth of science. In the beginning most of the sciences are qualitative in nature, but as they gradually develop and become more refined, devices to measure them are adopted. In sociology we notice this kind of tendency. More and more emphasis is being laid upon the use of statistical method and quantitative measures, and various kinds of rating, ranking and scaling techniques have been evolved for this purpose.

H. The Problem of Unpredictability: It has been pointed out that one of the characteristics of science is its predictability. In case of physical sciences a remarkable degree of predictability has been achieved. But it is not so in case of social phenomena. Social behavior is sufficiently irregular and unpredictable. Hence, sociology cannot make predictions. The argument too is partly correct. It is true that behavior of any individual cannot be predicted but behavior of the whole group can certainly be predicted with sufficient accuracy. As our knowledge of social phenomena increases and we are able to judge the effect of various variables involved, it will be possible for us to predict social events with much greater accuracy”. The capacity of sociology to make predictions is constantly increasing.

I. The Problem of Generalization: Sociologists have not been successful in arriving at law like generalization through their studies. The reason for this failure lies in the very nature of the subject matter of the sociology. Human behavior does not follow recurrent patterns like physical objects. Sociology is a social science and not a natural science. It can claim to be called a science because it employs scientific method. In sociology nothing is assumed, and nothing is taken for granted. Research, enquiry and observation are fully drawn upon. Over the time more sophisticated methods have come to be developed and followed.

J. **The problem of terminology:** Sociology also suffers from exact and clear terminology in the sense that same words convey different meanings to different persons. It has not developed an adequate set of scientific terms.

THE CERTAIN PROSPECTS PROVE THE SCIENTIFIC STATUS OF SOCIOLOGY

There are some strong characteristics of sociology which give its position as a science. To put it another way, the role played by the sociologists are like the other sciences. These are

A. Sociology employs **scientific method**: The scientific method is a procedure used in seeking knowledge on the basis of certain assumptions. Sociology makes use of scientific methods in the study of its subject matter. Sociology employs techniques which apply quantitative measurements to social phenomenon. So, these techniques are comparable to the methods of experimentation. The techniques and methodology used by sociologists may differ from those of physical sciences, but they adopt the same scientific methods to systematize knowledge. There are several steps in scientific method in sociology such as formulation of problem of study, collection of data, classification and tabulation of data, testing of hypothesis and generalization etc.

B. The Principles of Sociology are **Verifiable**: The laws of sociology can be verified at any time. For example, the statement “we arrive at the conclusion that illiteracy is the cause of criminality among the people” would be regarded as a scientific fact only when we can verify from our own observation that the number of criminals among the literate is smaller than that among the illiterate.

C. Sociology delineates **cause-effect relationships**: Sociology has discovered a cause-effect relation between the social phenomena. To take an example, one can consider the law that the increase in the number of divorce indicates acceleration of family disorganization. In this case, divorce is a cause and family disorganization is one of its effects. Similarly, illiteracy may be a cause of criminality among the people.

D. Sociology can make **predictions**: On the basis of cause-effect relationships sociology can anticipate the future and make predictions concerning social relationships, activities, incidents etc. If disorganization in the families becomes definite, it can make predictions concerning the number of divorce, illicit relationships and many other things. Sociology frames laws and attempts to predict it.

E. Sociology makes accurate **observation**: Observation is possible in the field of sociology even if it does not possess a laboratory. Accurate observation is also possible outside the laboratory. The whole social world is the laboratory of sociology. Newton did not invent the laws of gravity inside a laboratory.

Sociology makes observation of tribal marriage at the time of occurrence. Even if Sociology does not possess a laboratory still it can make accurate observation. As a matter of fact, laboratory experiment is not the only criteria of science. Hence Sociology is a science.

F. Sociology is considered a science because it employs **systematic and empirical** methods to study and understand human society is possible in sociology: Like natural sciences Sociology also makes objective study. The statement that dowry is a social evil is an objective statement which is based on facts collected by sociologists. Further Survey and revivification proves this. Sociology can also make objective study of social phenomena. New techniques and methods are also introduced to make social phenomena more objective. Hence Sociology is a science.

G. Sociology makes **accurate measurement**: Sociology, like natural sciences, also accurately measures social phenomena or relationships. By using statistical method, socio-metric scale, scales of measurement Sociology effectively and accurately measures social relationships. Hence Sociology is a science.

THE MAIN CHARACTERISTICS OF SOCIOLOGY AS A SCIENCE

Sociology is one of the several social sciences. Each of the sciences represents a particular way of looking at a common subject matter-human behavior. The following are the main characteristics of sociology as a science:

1. Sociology: a **generalizing science**: Sociology is a generalizing sciences and not a particularizing science. It aims to establish general laws of principles about interactions and associations. It seeks to find general principles about the nature, form, content and structure of human groups and societies. Like history, it does not attempt to make a description of particular events or particular societies. History is the study of human behavior from particularizing perspective. But sociology is generalizing in its perspective. Whereas history is concerned with particular wars and revolutions, sociology is concerned with war and revolution in general as social phenomena, as forms of social conflict and not with their particular and concrete manifestations.
2. Sociology: a **generalized science**: Sociology is a general science. It is not a specialized science like history, political science and economics. These social sciences have specialized subject matters and these are all parts of one general subject matter: Man's social behavior, which sociology studies. Only certain kinds of behavior engage their attention. The economist, for example, is interested in one kind of behavior: economic behavior. The political scientist likewise is concerned with political behavior. In contrast to these specialized sciences, the generalized sciences like sociology, psychology and anthropology recognize no such limitations of scope of interest. One may readily speak of noneconomic or nonpolitical behavior. But it simply makes no sense to speak of non-psychological or non-sociological or non-anthropological behavior. All behavior has psychological, sociological and anthropological

dimensions and the scientists in any one of these fields must necessarily take all kinds of behavior into account. Sociology studies social factors that all social phenomena have in common, whether they are economic or political. Like economics, it does not deal with the „economic“ behavior of man as such but sees economic behavior “as simply a partial abstraction from the total social behavior of the individual.”

3. Sociology: a **social science**: Sociology is a social science, a humanistic science. It is a social science like economics, political science, psychology etc. It is not a physical science. Sociology deals with social universe and not with the physical universe. Sociology deals with social facts, social phenomena, man’s social relationships and behavior. “Social sciences cannot escape value judgments, and their damaging influences can be mitigated only by subjecting the thought process to valid thinking procedures.”

4. Sociology: a special kind of **abstraction**: Psychology, anthropology and sociology have, in common, their interest in all aspects of human behavior. The differences between them seem to lie in their different ways of thinking about human behavior in general. These differences may be understood by noting that human behavior is a variable and that these three social sciences represent different systems of explanation of this variability. For the anthropologist, variations in human behavior tend to be explained by variations in culture. Different groups of people have different ideas and moral conceptions, and persons living in groups with different cultures may be expected to display different patterns of behavior. Sociology tends to explain variability in human behavior in terms of variation in society of social structure. These differences among psychology, anthropology and sociology are differences of emphasis rather than absolute ones. However, Sociology is a special kind of abstraction. It has its own system of explanation.

5. Sociology: an **objective science**: Sociology is an objective, but not a normative science. This means that sociology is primarily concerned with facts and not with value judgments upon them. Sociology studies values as social facts but does not deal with the problems of good or bad, desirable or undesirable. It is ethically neutral.

6. Sociology: a **pure or theoretical science**: Sociology is a pure science. It is not an applied science. This means that sociology aims at the acquisition of knowledge and it has no concern whether the acquired knowledge is useful or applied. The aim of sociology is the acquisition of knowledge about human society. Such knowledge can be used to solve social problems, but it is not an applied science. The knowledge acquired by sociology is helpful for administrators, legislators, social workers etc.

7. Sociology: a **rational and empirical science**: Sociology is both a rational and empirical science. It is empirical in the sense that it is based on observation and experimentation

CONCLUSION

In conclusion it can be aptly said that though there are some objections against Sociology to be called a science and it has been regarded as a proto-science, pseudoscience and non-science, it possesses the characteristics, ethics and basic principles of a pure science, and all the requirements of a scientific process. Sociology fulfills all these conditions and, hence, it is entitled to be **a science**. Science is a method and a way of looking at things consisting of systematic steps like collecting and classifying data

or information, testing of hypothesis, theory and generalization. Sociology has a body of knowledge and data or information. It has procedures in organizing the information. Science is described as mass of knowledge about a subject acquired by systematic observations, experience and study and analyzed and classified into a unified whole. Sociology does all these. It studies facts by scientific method under definite conditions. It tries to classify types and forms of social relationships. It tries to deduce general laws from systematic study of its material, and the conclusions drawn from the sociological principles are applied to the solution of social problems. Hence Sociology is a pure science.