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SOCIAL REALITY AND MODERN SCIENCE

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Abstract

As science developed many of the established facts tended to appear in a new light and were seen from an aspect that had earlier been ignored and as a rule new scientific theory originated from the clash of old theories and new facts. Not only that, science has reached at the highest peak of its development. Nevertheless, in this era of science and technology, it has not been fully harnessed to the welfare of humanity. The world today is in a serious crisis and humanity is being constantly threatened or misuse of science. Science 'therefore' is not only a blessing but also presents an unprecedented threat to the very existence of the human race. This unhappy consequence is not because of science itself but because of the antagonistic nature of social relationships. It is very clear that, social reality is distinct from biological relating or individual cognitive reality representing as it does a phenomenological level created

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> through social interaction and transcending thereby individual motives and actions. We cannot hope to understand the role of a social scientist properly unless we have some idea of the reality with which he is supposed to be involved either passionately or dispassionately.

Introduction

A scientist is obviously, in the best position to give an account of the scientific view of the world. Any account attempted by a non-scientist like myself is likely to look presumptuous, and is also liable to gaps and mistakes. Since the rise of man's intellect has been trying to unfold the nature of reality which, to my mind is a mysterious one. To a speculative philosopher science is of limited relevance whereas to a philosopher science is of limited relevance, whereas to a philosopher of science and, still more, to a scientific philosopher a profounded understanding of the basic findings of science is of vital importance. The conclusion reached here in so far as a I understand metaphysical attempts to know and introduce that reality have in some way or other been not very satisfactory.

What is Modern Science?

We live in an age of science. We cannot think of our modern life without the blessing of science. Science has given us many things. Modern civilisation is the gift of science. Science is progressing day by day. Modern science has invented such amazing things that people never thought before. It has made the impossible things to reality. We are fully blessed with science. I think the computer is the biggest invention of modern science. it has developed human life in a vast way. We can do lots of things through it. Science has brought huge changes to the communication system.

We can be connected with anyone from any where in the world. It takes seconds to connect with them. There are huge changes in education, business and medical care too. Overall modern science is blessing for us. Electricity, Telephone, Television, Radio, Camera, Airplane, Rocket, Telegraph, Computer, E-mail, Internet, X-ray, Nuclear, Energy etc. are the highest blessings and wonders of modern science. We need science in everyday life. The gift of science should be utilized for the welfare of mankind. Inventions of modern science should be used as blessings.

Social Science vs. Social Reality

'Social reality' is as good a genetic term as a 'social scientist'. There are social scientists as there are social realities which they address according to their preference and scholarly aptitude.[1] There are men, their performances, actions and behaviors, cultures, traditions, institutions, organizations, conditions each constituting a genre of social reality in its own right. The use of the term in such a broad sense may invoke protest but if we recall the view and opinions of some of the outstanding thinker, whose analysis and interpretation of one such genre or another has profoundly influenced the course of social science research, we may secure some bases for our use. In the past, science and philosophy unjustifiable raised one property of matter or another, which was characteristic i.e. only of certain state of matter, to the level of an 'absolute', a 'universal property of matter' so turning it into an 'invariable element', the universal essence of things.'[2]

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[1] T. Parsons, *The Social System*, New York: Free Press, 1953, P. 9-11.

[2] Danieal Danin*, Probabilities of the Quantum World*, Moscow: Mir Publishers, 1983, P. 102-105.

It is true that science cannot be an end in itself. It means of bringing nearer a happy future for mankind. It's a common property of every human race. Science should therefore be used for the common good of all people. Generally speaking science is a special branch of knowledge, a systematic body of knowledge relating to a particular department of nature, e.g. physics deals with matter and biology with living beings. Under this discussion, some people hold that science deals only with an inquiry into a particular branch of nature. But the fact is that, science is characterised not only by its 'particular' branch of inquiry but also by the means of bringing about a form of social consciousness very keen to elevate the socio-economic condition of mankind as a whole through social change.[3] In fact, science as a form of social consciousness is a system of man's knowledge of nature, society and thought. [4]

Max Weber whom Aron calls 'the sociologist' defines sociology as the science of social actions. Since Weber most of the sociologists accept the phenomenon of action-relevance to sociology, although every few still feel any inclination for attaching importance to Weber's conception of value-relevance for action. Weber considers behaviour as events in nature but his characterises human actions as involving rationality and values. Behaviours become actions as they receive interpretation of meanings and get characterised by values. Weber places actions in between behaviours and the transcendent realms of meanings and values. His understanding of social reality must involve actors as much as actions for actions without actors are

[3] Allan Issacs, *The Survival of God is the Scientific Age*, Great Britain: Penguin Book Agencies, 1966, P. 49.

[4] John Passmore, *A Hundred Years of Philosophy*, U.K.: Penguin Books, 1968, P. 69-76.

impossible. Never-the-less, if 'man' or his 'action' is a part of social reality, then Weber's man 'is a sensible-supersensible unity, a combination of natural elements pertaining to action.'[5] Weber's conception of man as the meeting-ground of the sensible and the super-sensible, the phenomenal and the transcendent links his theoretical work with those of all who leave a role for the transcendent in human life.

Science vs. Religion

Science appears a revolt against religion and against the metaphysical system. In the primitive environment, man had to face a lot of problems in his everyday life which he could not even begin to understand. He was absolutely backed not by reason but by emotions; much of his behaviour was dominated by fear. Under this situation, man did not stop at this stage of his emotions. Understating the problems of his life he has come to know the art of struggling against the forces of nature. Thus man has acquired power over mighty forces of nature. At this time his emotions and religious beliefs have been replaced by rational and scientific thinking. As a result philosophy, science and other branches of human knowledge have emerged.[6] In the history of mankind scientific thought emerges when certain and exact knowledge has accumulated; and comes into conflict with traditional beliefs.[7]

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[5] Bas C. Van Foraassen, *The Scientific Image*, Oxford: Oxford Printing Press, 1983. P. 119-123.

[6] V.I.Lenin, *Materialism and Empirio-Criticism*, Colleted Works, Vol. 14, Moscow: Progress Publishers, 1942, P. 262.

[7] R.D. Laing, The Politics of Experience, U.K.: London Books House, 1984, P. 65.

This is to say that religious notions are based on faith. On the other hand, scientific thought is based on knowledge and opposed to blind faith. Thus the birth of scientific thought is the beginning of man's struggle against faith. The mission of science in history is to make the world scientific. Thus science fulfills its tasks in a struggle against religion which alienates and distorts human relations and makes men hostile to one another.[8]

Modern science, however, has not only changed our view of nature of physical substance; it presents a strange picture of the cosmic structure as a whole. Classical physics culminating in Newtonians Systems, was based on a belief in absolute space and absolute time.[9] In this scheme physical objects are located in a three dimentional space and a two dimentional time. The spatial and the temporal features of an object were believed, as in common sense, to be completely distinct and susceptial of indepdent measurement. Space and time were taken to be objective and uniform, all over the universe, there being absolute 'herer' and 'theres' and absolute divisions of time into past, present and future.[10]

A rather large number of questions arise in this philosophy of science. There are some methodological questions no doubt, and there are also questions asked from the moral and that are religious points of view. Bertrand Russell wrote a titled book

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[8] P. Yudin, A. *Dictionary of Philosophy*, Moscow: Progress Publishers, 1967, P. 263.

[9] Daniel Danin, *Probabilities of the Quantum World,* Moscow: Mir Publishes, 1983, P. 105-109.

[10] W.D. Hudson, *Modern Moral Philosophy*, London: Macmillan Education Ltd., 1991, P. 93-97.

Science and Religion and American author, asking whether a scientist can believe in God, answers in the affirmative and gives his own reasons for belief in the Divine. The more fundamental, however, are the ontological and the epistemological questions, one related to the other, and our task will be to consider them in belief.[11]

Science Developed in Itself

The latest developments in science have produced devastating effects on the old metaphysical conception of the world. The classical description of nature could not stand but steadily gave place to the new revolutionary conceptions and theories. As the old metaphysical and mechanistic conceptions of reality which included the concepts of matter and motion, time and space etc. began to collapse, the scientists who brought about these revolutions in modern science, were thrown deep into frustration. By the abrupt break up of the old and established conceptions, they became puzzled because, first, they were firm believers in the classical mechanics which in essence was metaphysical and second, since they were ignorant of the dialectic of natural phenomena, their explanations were unilinear and mechanistic. That is the way they often feel prey to the influence of positivism, a subjective idealist trend in philosophy and energiticism and took the collapse of the old mechanistic and matephysical conception of matter for the collapse of materialism.[12]

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[11] W. James, *The Varieties of Religious Experience*, New York: New American Library, 1958, P. 9.

[12] I. Khlyabich, *An Outline History of Philosophy,* Moscow: Deep Publishers, 1973, P. 100.

The social realities and the disparities of financial capability are such that the East will remain east and the west, will west although this inequality in the progress of science is not desirable. We can speak on the socio-economic realities and the need of a scientific outlook for imbibing the dynamic forces of the dialectics of nature in our social sphere. We can also speak on it here if we choose the concept of social reality in modern sciences.[13]

The influences of scientific realism, neo-realism and logical empiricism have worked very pronouncedly upon the classicial metaphysical realism. The problem of identification and reference has taken a complicated from. As for example, Bertrand Russell has logically shown in his theory of description that the statements 'Scott is the author of Waverly' and 'Round square does not exist' do not entail any unique thing except the existence or non-existence of this or that description. For this, we do not have to assume whether Scott really exists or whether, reality, the nature of space makes the concept of a round square impossible.

Role of Scientific Reality and Social Sciences

Scientific realism gives us some descriptions of physical reality on the basis of the investigations of the physical sciences into the nature of their objects, such as space, time, matter, motion, force, energy, laws of nature, causality, facts and events, which are considered as real and which obey some rules of mathematical function.[14]

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[13] James Jeans, *Physics and Philosophy*, N.Y: K.L.M. Ltd., 1942, P. 216.

[14] C.G. Hempel, *Philosophy of Natural Science*, London: Printing Hall, 1966, P. 81.

This mathematical function of quantitative analysis, a statement regarding their ultimate nature, truth or goodness, meaning and values is taken to be a metaphysical statement. A physical scientist scrupulously avoids metaphysics in his experimental work, but his definite answers on the nature of space, time and matter, on natural laws and relation of man with these objects of his knowledge constitute a critical epistemology, and usually a positivistic metaphysics.[15]

Before Marx, it was community believed that philosophy provide with ultimate answers to literally every question concerning the problems of life and the universe. The attempts made by the German philosophers like Leibniz, Kant, Fichte and Hegel provide ultimate solutions of all cardinal problems where essential scientific evidence was not yet available. Pre-Marxist philosophers were limited in their work by the historical framework within which they lived in; they could not create a scientific philosophy. Pre Marxian Philosophers had no notion of philosophy as a form of social consciousness.[16] They had the conception of philosophy as a science or a super scientific form of knowledge independent of historically determined social relations.

Hegel's philosophy is a new stride forward on the path from pre-scientific philosophical wisdom to scientific philosophical knowledge which is to be understood as the dialectical treatment of this wisdom its negation and preservation. Hegel holds that the task of learning in his time is to raise philosophy to the rank of science. It is true that Hegel has freed history from

[15] V.I. Lenin, *Materialism and Empirior-Criticism*, Collected Works, Vol. 14, Moscow: Progress Publishers, 1942, P. 262.

[16] S. Das Gupta, *Obscure Religious Cults*, Calcutta: Firma K.L.M. Ltd; 1946, P. 109-115.

metaphysics he has made it dialectic: but his conception of history is essentially idealistic which has nothing to do with the material world i.e. with the real history of mankind.[17] In spite of their idealism the Hegelians have made significant contributions to man's quest for scientific knowledge.

Hegel's conception of philosophy as the science of sciences is not tenable. Marx and Engels have demonstrated the untenability of Hegel's claim to placing philosophy to other social sciences. He argues that the problems and laws deals with by any particular sciences concern merely one sphere of reality. Yet there are many problems and laws concerning every sphere of nature society and thought which are not dealt with by any particular science. They are investigated by philosophy. Philosophy examines and compares the facts and laws discovered by different sciences, sums up this material, and draws the conclusion that necessarily follow from it. Thus, philosophy is the science of the more general laws governing the development of nature, society and thought.[18] In the history of philosophy Marx is the first to create a scientific form of social consciousness which helps understanding the emergence and development of Social Philosophy. According to Marx, the social function of philosophy is inseparably linked with its subject of inquiry, with the most general laws of the mutation and cognition of all natural, social and human existence.[19]

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[17] Robert N. Beck, *A Hand Book of Social Philosophy*, New York: Macmillian Publishing Co., 1979, P. 43.

[18] Daniel Beli, *Socialism: An International Encyclopedia of Social Sciences*, N.Y.: 1960, P. 68.

[19] Ceil Kaye, *Communism in India*, Calcutta: New Central Book Agency (Pvt.), Ltd; 1931, P. 19.

In science, not only objective reality but also its reflection are subjective to analyse. Science is a particular type of reflection, but this can't be said of the forms of social consciousness. Consciousness of social existence implies knowledge of it, but this cannot be scientific knowledge unless there is a dialectical relationship between the objective content and subjective imagination.

Each scientific development depends on the economic relations which are dominant in a society and on the nature of its socio-political system. The economic and socio-political systems determine the aims and the peace of the development of science and the application of its achievements in every society. It is true that, scientific and technological development is possible in a capitalist system, but the fact is that because of its system of exploitation capitalism creates antagonistic social relations by making economic inequalities among the people.[20] In the period of the establishment of capitalism, capitalist relations of production were a mighty factors of scientific development.[21] But this is attended by the deepening of all social contradictions.

Summary of Findings

Social realities can dictate how we view the world around us and how in turn, influence our choice and decisions. Social reality does not depend on individual subjects as individual experiences and volitions do. Social reality does require social acts, namely interactions of a certain kind among individuals. Modern science is important because it facilitates the process of learning,

[20] T. Parsons, *The Social System*, New York: Free Press, 1953, P. 17.

[21] N.G. Majumder, *Inscriptions of Bengal*, Rajshahi: Barandra Research Society, 1929, P. 99.

understanding, synthesising, revising and repeating the process for a better understanding of the world around us. Science has simplified and shortened our communication. Ships, boats, train, buses and cars can be found on the seas, rivers and roads. All of these are scientific gifts. Telegraph, telephone, fax and wireless are also important modes of communication. During the scientific revolution during the 16th century, the modern science emerged. It opposed the ancient science which was dominated by religion and observations, rather than experimentations and evidences. The modern science was derived from natural philosophy that was used before the 16th century.

As a branch of human activity science depends on society not only for its development but for its existence. Modern science is not a peripheral entity but an organic component of society which becomes part of its very essence. Each every socialist social science is a component of its socio-economic and cultural policy, the aim of which is to raise the material well-being for the people. Here if any where lies the basic mysteriousness of the universe; and possible here, if any where can traces of divinity be most certainiy discovered. Thus, whether or not the apparent purposiveness of some scientific facts ultimately imply the existence of some divine or intelligent agent working underneath the phenomena, the idealist or the religious mystic can derive at least some reassurance from the mysteriousness of the world in the sense just explained.[22]

Conclusion

Similarly every new discovery in natural science and every new qualitative revolution in society had a tremendous effect

[22] J.N. Sinha, *Indian Realism*, London: Keyan Paul Co. Ltd; 1938, P. 48.

on philosophy. As a result, philosophy emerged which in turn created tremendous impact on the further scientific development. In this process, both science and philosophy developed and man's cognition of the reality went deeper and deeper into nature, from macro to micro world. In my present essay, we shall see how the science has affected the old beliefs in reality and shaped a new philosophy which is radically different from all the philosophies of the past. According to this world outlook, the struggle against capitalism must be transformed into a class struggle. Marxist scientific philosophy as the weapon of the working class (the proletariat class) helps them to get the society free from the capitalist system of exploitation and finally to build a classless society, i. e., socialist society. Thus only in a socialist system, science serves the interest of humanity as a whole.

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