

# Thomas Kuhn And The Idea of Social Science

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*Abstract: The subject matter of Social science has often been subjected to different conceptualizations, descriptions and reinvention depending on the vantage position championed at the point of scrutiny. For some scholars, social science should not be viewed from the same vista through which the pure and applied sciences are viewed because of the conspicuous difference in methods of approach or study. For others, the subject matter differs, hence they do not deserve to be equated or seen as performing the same objectives. On the background of this dichotomy, this paper examines Thomas Kuhn's description of the social sciences as borne out of a constant paradigm shift from the rigours of science to a form of objectivity which centers practical social problems as the reason for the equation of the two subject matters.*

**Keywords: Science, Social Science, Paradigm Shift, Objectivity, Subjectivity**

## I. INTRODUCTION

The concept of social science can be understood as the study of man in his environment. It has also been oftentimes depicted as attempts to apply scientific methods of reasoning to study the fundamental aspects of human behaviour or the scientific study of man in his society. It attempts to look at human interaction that is, the relationships between people within a given environment. However, there is the argument on the justification of the word science as used in 'social science' this argument stems from the debate that science can only be studied with the precision, exactitude and method of physics or chemistry thereby raising the question of whether there can be a science of the society? Scientists argue that the method of the sciences can not be applied to other disciplines because it thrives on objectivity. Philosophers of social science have tried to answer this question in so many different ways. 'One important attempt tries to define social science in a way that it will be accommodated within the ambits of the sciences. This approach defines social science broadly as the rational and systematic study of human society in all its forms with the aim of arriving at an enduring understanding, acknowledged as such by a broad consensus of researchers of social phenomena'. Thomas Kuhn belongs to this group which seeks to erase the seemingly over-emphasized differences

which exist between the sciences and the social sciences. He sought to erase the bias on which natural science had hitherto thrived and replace it with a more 'realistic' foundation which is brought about by revolutions in the history of science.

## II. WHAT IS SOCIAL SCIENCE?

Disparities abound in the depiction and description of what the social sciences is and entails, some have argued that there is really no definition which can aptly capture the categories or disciplines which we describe as the social sciences, however a defining factor common to all these various conceptions gives prominence to the study of man in his society. It can also be defined as "sciences concerned with the origin and development of human society, and the institutions, relationships, and ideas involved in social life"<sup>2</sup>.

The social sciences cover a wide area of human existence which includes the exploration and exploitation of nature for the betterment of man in particular and his society in general. One of the conditions necessary to a discipline is that the activities of its practitioners results in a substantial body of knowledge and without gainsaying it is appropriate to argue that the social sciences fulfill this condition. Social science can be studied in two ways, methodologically and or

ontologically. The methodological approach of the social sciences is more concerned about the tools of study, that is, “the methodology looks at the questions to do with nature of observations, laws and theories etc. the ontology looks at the question to do with what the discipline posits” or put succinctly the subject matter or content of the discipline itself.

Having made an outline of what social science essentially is we would now go on to examine Kuhn’s description of science from where we would begin to see his idea of the Social sciences

### III. KUHN’S DESCRIPTION OF SCIENCE

Thomas Kuhn was an erudite scholar, his academic life started in physics. He then moved to history of science. Kuhn describes normal science as ‘puzzle solving’. His position was against the argument of the logical positivist, he in fact intended to create a revolution and thereby change the way science is conceived and seen because of certain fundamental problems he observed.

Kuhn’s major works is titled ‘*Structure of Scientific Revolutions*’ where he said the ‘crises in the science arises when confidence is lost in the ability of the paradigm to solve particularly worrying puzzles called anomalies’. According to him, these crises are followed by a review of all those scientific theories through a revolution that seeks to upstage all existing paradigm. From this position we begin to understand that Kuhn does not believe in the fact that there exist an unshakeable and indubitable foundation for the sciences which stands it out and places it above the social sciences.

This argument is further propounded thus, ‘According to Kuhn, the sciences do not uniformly progress strictly by scientific method. Rather, there are two fundamentally different phases of scientific development in the sciences. In the first phase, scientists work within a *paradigm* (set of accepted beliefs). When the foundation of the paradigm weakens and new theories and scientific methods begin to replace it, the next phase of scientific discovery takes place. Kuhn believes that scientific progress—that is, progress from one paradigm to another—has no logical reasoning. Kuhn’s theory has triggered widespread, controversial discussion across many scientific disciplines’. Kuhn by this postulation appears and in fact was emphasizing the fact that from time to time the basis of science and its theories are re-examined and consequently re-structured in the light of new discoveries that supersede the hitherto existing ones.

A depiction of Thomas Kuhn’s argument is seen in this remark, where he tried to show us a history of scientific discoveries and their subsequent replacement in the course of time. ‘Copernicus complained that in his day astronomers were so inconsistent in these astronomical investigations...that they cannot even explain or observe the constant length of the seasonal year with them, he continued, it is as though an artist were to gather the hands, feet, head and other members for his images from diverse models, each part excellently drawn, but not related to a single body, and since they in no way match each other, the result would be monster rather than man...’.

From the foregoing we begin to understand that science changes its theories from time to time, and that in the restructuring of science which takes place periodically, ‘all crises begin with the blurring of a paradigm and the consequent loosening of the rules for normal research...or finally, the case that will most concern us here, a crisis may end with the emergence of a new candidate for paradigm and with the ensuing battle over its acceptance’.

A critical study of this position as held by Thomas Kuhn would show us how it affects the claim of precision and exactitude in the natural sciences. According to Kuhn, for every paradigm shift, the consistence of science and scientific theories is called to question.

In the *Structure of Scientific Revolution*, he paints a picture of the development of science which is different from the historical thesis that has gone before him. He highlighted a carefully articulated account of scientific change which exposes the fact that there are instances where incoming theories subsumes the hitherto existing ones. He expects us to see this paradigm shift in the light of a progressive change which helps rejuvenate the dying embers of science. This idea also represents a well articulated alternative account of how science should not be seen as superior to the social sciences. Thomas Kuhn denies that logic, observation or any rational consideration plays any role in an account of theory formation or theory choice. Rather, in place of good reasons, rational deliberations, or objective regard for empirical facts, Kuhn says that idiosyncratic, subjective and psychological feelings are paramount in the process of building up theories and choosing between theories in the scientific enterprise’. With these words Jac Aigbodoh was able to conceptualise and make lucid the idea of social science which Kuhn proposes through the reconstruction of the sciences. ‘During revolutions scientists see new and different things when looking with familiar instruments in places where they have looked before. it is rather as if the professional community has been suddenly transported to another planet where familiar objects are seen in a different light and are joined by unfamiliar ones as well’. This unfamiliar ones are the result of the revolution which Kuhn proposes. From the foregoing it becomes apparent that the conception of science in the view of Kuhn is similar to P. O Bodurin’s position that disciplines are not in water-tight compartments, and areas of interest overlap...scholars in each discipline generally adopt the methods accepted by their age, and work within the backgrounds of their disciplines, at least till their assumptions boil over”.

### IV. THE PARADIGM SHIFT

“The single most important and, at the same time, one of the most controversial aspect of Kuhn’s analysis of science is that it is paradigm based”<sup>11</sup>. Thomas Kuhn by espousing the paradigm shift, showed that the precision of science changes over time there by given it a pragmatic undertone, by implication, the point holds that science falls victim to the crisis of subjectivity in the sense that some of its theories cannot be adjudged as constant and eternal and therefore

should not be seen as sacrosanct and suitable for all purposes at all times and devoid of probable mistakes.

This position gives the social sciences a pedestal on which it can creditably contest with the natural sciences because we then begin to see that rationality in the social sciences is not as widely displaced from the sciences as much as Peter Winch would want us to accept.

The paradigm as it were, is a common belief in a theory and its principles, Kuhn was correct when he wrote that the principles of reality were not known and thus this incomplete knowledge always left puzzles which makes the scientific theories susceptible to queries about their claims and postulations. These queries eventually leads us to the discovery of a better theory which replaces the hitherto existing ones. According to him, In the first phase, scientists work within a *paradigm* or set of accepted beliefs, when the foundation of the paradigm weakens and new theories and scientific methods begin to replace it, the next phase of scientific discovery takes place. Kuhn believes that scientific progress—that is, progress from one paradigm to another—has no logical reasoning and therefore none should be attributed to it. Kuhn's theory has triggered widespread, controversial discussion across many scientific disciplines such that we begin to see science in a new light. From the foregoing it becomes apparent that the conception of science and especially the notion of paradigm shift and revolutions in the history of science in the view of Kuhn is similar to P. O Bodurin's position earlier stated that 'disciplines are not in water-tight compartments, and areas of interest overlap. And what in one generation belongs to one discipline may in another generation belong to another discipline. Scholars in each discipline generally adopt the methods accepted by their age, and work within their disciplines—at least until the assumption boils over background of the basic assumptions'.

#### V. APPRAISAL OF KUHN'S IDEA OF SOCIAL SCIENCE

The general overview of natural sciences as put forward by Thomas Kuhn seeks to equate it with the social sciences. This position which is further championed by philosophers such as by the likes of Alesdair MacIntyre goes against the position of Peter Winch in his book *'The Idea of Social Sciences'* where he argued that the study of human beings and inanimate objects can not be done by the same tools. He argues that the method of the natural sciences is not adaptable to the social sciences and therefore they can not be viewed through the same lens.

This disparity between the two sciences raises a serious question on the criteria which we adopt in describing a particular discipline or field of study as scientific, is it a function of the methods adopted in its practice, the subject matter discussed or other factors different from the ones mentioned above?

This disparity is further pronounced by the supposition that one studies animate subjects in its environment while the other studies inanimate objects, however in the true sense these two disciplines can not be strictly separated from each other because the subject matters although not of same nature,

play roles that are actually interwoven to say the least. The subject of the social sciences depend largely on the outcome of the studies and researches carried out by the scientists and the two can not be strictly separated from each other.

Where the scientists put forward certain criteria which they call the 'ideals of the sciences' namely objectivity, neutrality, universality, clarity, truth, foundationality, impartiality e.t.c, we would find out that these features or ideals are not actually peculiar to the sciences as such, in fact if we take a cursory look at Thomas Kuhn's position we would see that these ideals sometimes do not stand as incontrovertible as they appear.

This argument is further championed by Auguste Comte when he said that the natural sciences have established laws and principles which guide their findings based on rationality. For the scientist, the laws of the natural sciences can be extended to the social sciences in the making of decisions and problem solving. Comte argued that it is possible to use the approach of the natural sciences to solve social problems. He seeks to affirm that there are certain attributes between these two disciplines which unites them in more ways than we are prepared to accept.

For Paul Feyerabend all "the events and results that constitute the sciences have no common structure" and that there are no elements that occur in every scientific investigation but are missing elsewhere". By this he posits that all these ideals ascribed to the sciences are not culture independent, rather they are the results of historical developments which are embedded in the cultural orientation of the individual and this cannot exist independently of the circumstances surrounding its discovery. For him, we can not totally separate these two disciplines. Feyerabend's approach gives credence to Thomas Kuhn's position on the social sciences which we have considered in the early part of this paper.

Feyerabend is opposed to all forms of Methodism, especially that which is claimed by the sciences 'this involves the idea of a method that contains firm, unchanging and absolutely binding principles for conducting the business of science'. This position as held by Feyerabend puts him in line with Kuhn such that we begin to see a kind of similarity in their positions. He went further to support the paradigmatic approach to science by saying that 'researches starts with a problem, a conflict between an expectation and an observation. This situation is followed by an attempt to find a solution to the problem and this consists in inventing a relevant theory'. While putting forward his postulations he towed the line of argument put forward by Kuhn in order to properly elucidate the fact that science can not be given the prime of positions which sets it apart from the social sciences because they are actually disciplines of like nature.

#### VI. CONCLUSION

Thomas Kuhn succeeded in creating a wave of criticism against the stoical nature of science in the first instance, and subsequently his own view was also thoroughly criticized by those who where averred to his position but we can arguably say that the most important new direction in the course of

philosophical investigation into nature of science and scientific method can be traced to the appearance of 'The Structure of Scientific Revolutions'. His rather radical approach to the issue however shows that the issue of the perceived differences between these two disciplines is not pedestrian rather it plays a defining role in the way we see the social sciences as a field of study or discipline.

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