

AN OVERVIEW OF THOMAS KUHN'S VIEWS ON PARADIGM SHIFT, AND ITS APPLICATION TO SOCIOLOGY

GARBA MBAVE JOSHUA

Sociology Department, Taraba State University

Jalingo, Taraba State Nigeria.

Tel: 08036265207

joshgarbs02@yahoo.com

ABSTRACT-

In *The Structure of Scientific Revolutions*, Kuhn wrote, "Successive transition from one paradigm to another via revolution is the usual developmental pattern of mature science." Kuhn's idea was itself revolutionary in its time, as it caused a major change in the way that academics talk about science. Thus, it could be argued that it caused or was itself part of a "paradigm shift" in the history and sociology of science. However, Kuhn would not recognize such a paradigm shift. Being in the social sciences, people can still use earlier ideas to discuss the history of science. Philosophers and historians of science, including Kuhn himself, ultimately accepted a modified version of Kuhn's model, which synthesizes his original view with the gradualist model that preceded it. Kuhn's original model is now generally seen as too limited. Society has experienced change in all its facets, social issues are changing continually, while the people battle to adapt and absorb, there are still more and many more questions left unanswered. Kuhn was able to notice the social change that was going on and gave a pragmatic approach to it. In conclusion paradigm shift is applicable to sociology, on the basis that all aspects of sociology are experiencing a shift from what used to be to what is obtainable.

1. INTRODUCTION

Thomas Kuhn (1962) developed an analysis of science which also sees it as being far from the objective pursuit of knowledge. In *The Structure of Scientific Revolutions*, Kuhn posited that science is characterized by a commitment to a scientific paradigm (Haralambos and Holborn 2004).

Paradigm consists of a set of beliefs shared by a group of scientists about what the natural world is composed of, what counts as true and valid knowledge, and what sort of question be asked and also what procedures must be followed to arrive at the answer to these questions.

A vision of science that preceded Kuhn saw science as an accumulation of all that had been learned over history, each new law adding its weight to the mass of science. Kuhn saw something else. He saw a science profoundly altered by a major new law, so that all of the science might be affected. Kuhn envisioned a science as having, at any one time, a world view, or 'paradigm', of its environment. This scientific paradigm describes everything which the science holds, all of its laws, beliefs, procedures, and methods, everything upon which it bases its life. Kuhn felt that most scientists participate in 'normal science' which is any activity consistent with the existing paradigm, with relatively small gains the rule. Eventually, anomalies arise which the paradigm cannot resolve. Then some individual(s) may step out of the paradigm (think out of the box), and propose some new principle or law. If the scientific community accepts the proposed change, the science experiences a 'paradigm shift', and the new science proceeds with a new paradigm.

Since the 1960s, the term has also been used in numerous non-scientific contexts to describe a profound change in a fundamental model or perception of events, even though Kuhn himself restricted the use of the term to the hard (natural) sciences.

2. CHARACTERISTICS OF PARADIGM SHIFT

Be it in the sciences, or in other aspects of our lives, paradigm shifts seem to have some common characteristics which are as follows:

1. Paradigm shifts are a necessary part of life. Things do change, and we have to adjust to that change. By implication it means that the world is not static. So for any individual to function correctly, that individual must have shock absorbers to be able to absorb and adapt to these changes which sometimes may be difficult and unfavourable.
2. Paradigm shifts can be bad. Society needs quite a bit of stability, so that it can depend on its view of the world. Constant shifts in major elements of our paradigm would make our lives very difficult. When things keep changing adaptability becomes very difficult. People find it difficult to cope, this is because before people could settle in the new way of life another one is out, and this becomes cumbersome.
3. Paradigm shifts often come from the young. Older people have more to conserve. They have more of investment, financial and psychological, in their paradigm. Winston Churchill said that any man who is not a liberal at 20 has no heart, and any man who is not a conservative at 40 has no mind. This simply implies that the older people may have to oppose to any new paradigm propounded by the young.
4. You cannot abandon a paradigm until you have one to put in its place, because our paradigm is that which allows us to function. Without a paradigm, be it good or bad, we cannot function. It means it is not possible to function outside of the paradigm. Paradigm rules the world.

5. It usually takes a long time to effect a paradigm shift - often as much as 20 years, about the life of a generation.

3. SOCIOLOGY AND PARADIGM SHIFT

Kuhn's work raised serious questions about other views of science. To Kuhn a scientific subject is one in which there is, at least most of the time, an agreed paradigm. There is no guarantee that however, that the accepted paradigm is correct. It may well be replaced by another paradigm in the future.

If Kuhn's view of science is accepted then it means sociology cannot be regarded as science. The sociological community has not accepted one paradigm (perspective). Marxist, Functionalists, Feminists, Interactionists, Ethnomethodologists and Postmodernist all see the social world in different ways: they ask different questions as such get different answers.

The case of sociology is complicated in the sense that even within a perspective, there is a lack of consensus. Many variations abound within Marxism and feminism. Parson and Durkheim reached different conclusion on many issues, and their analysis of society was not same, yet both of them are functionalists.

A defense Kuhn gives against the objection that his account of science from *The Structure of Scientific Revolutions* results in relativism can be found in an essay by Kuhn called "Objectivity, Value Judgment, and Theory Choice." In this essay, he reiterates five criteria from the *Structure of Scientific Revolutions* that determine (or help determine, more properly) theory choice:

1. Accurate - empirically adequate with experimentation and observation.
2. Consistent - internally consistent, but also externally consistent with other theories.
3. Broad Scope - a theory's consequences should extend beyond that which it was initially designed to explain.
4. Simple - the simplest explanation,
5. Fruitful - a theory should disclose new phenomena or new relationships among phenomena.

He then goes on to show how, although these criteria admittedly determine theory choice, they are imprecise in practice and relative to individual scientists. According to Kuhn, "When scientists must choose between competing theories, two men fully committed to the same list of criteria for choice may nevertheless reach different conclusions."¹ For this reason, basically, the criteria still are not "objective" in the usual sense of the word because individual scientists reach different conclusions with the same criteria due to valuing one criterion over another or even adding additional criteria for selfish or other subjective reasons. Kuhn then goes on to say, "I am suggesting, of course, that the criteria of choice with which I began function not as rules, which determine choice, but as values, which influence it." Because Kuhn utilizes the history of science in his account of science, his criteria or values for theory choice are often understood as descriptive normative rules (or more properly, values) of theory choice for the scientific community rather than prescriptive normative rules in the usual sense of the word "criteria," although there are many varied interpretations of Kuhn's account of science.

4. CRITICISMS OF KUHN

Though influential, Kuhn's work had been criticized. It has been seen as having little or no relevance to social sciences and as being based upon inadequate evidence. Anderson Hughes and Sharrock argued that, Kuhn is doing no more than describing natural science, and his views have little relevance to sociology. Furthermore, they believed he did underestimate the degree to which there is conflict and disagreement in natural science. (Haralambos and Holdborn 2004).

5. THE PAPER'S POSITION

Despite the controversies this paper gives it to Kuhn for prompting the world to see that which they might have left to pass unnoticed. The paper accepts the fact that things change, and that these changes can either be negative or positive. It also accept the fact that most if not all aspects of social science practice plurality of paradigms, most times the paradigms contradicting or conflicting with each other.

The term "paradigm shift" has found uses in other contexts, representing the notion of a major change in a certain thought-pattern — a radical change in personal beliefs, complex systems or organizations, replacing the former way of thinking or organizing with a radically different way of thinking or organizing:

- a. Margaret Mead, noted anthropologist, shows a flashlight to the indigenous New Guinea people. Participating in several field expeditions, Mead conducted notable research in New Guinea, Samoa Islands, and Bali. Much of her work was devoted to a study of patterns of child rearing in various cultures. She also analyzed many problems in contemporary American society, particularly those affecting young people. Her interests were varied, including child care, adolescence, sexual behavior, and American character and culture. Mead (2009)
- b. People blind since birth are suddenly enabled to see. To that individual all he was used to was darkness but he sees light. The person, who depended on another for assistance or guide, now does walk about without a guide. He can even be of a help to other people.
- c. Development of new techniques in genetics impact long-standing assumptions in anthropology. Darwin did the theory of evolution of natural selection. The cross matching of pears was another paradigm shift that made people to have a rethink of who to marry.
- d. An apparently miraculous healing is witnessed by someone who has never believed in miracles.

e. Conversion experiences and the resulting shifts in ideology and social behavior.

Kuhn's work has been extensively used in social sciences; for instance, in the post-positivist/positivist debate within International Relations. Kuhn is credited as a foundational force behind the post-Mertonian Sociology of Scientific Knowledge. Mead (2009)

Be that as it may Kuhn did not take into account the fact that though sociology does not have a single paradigm that will shift, but the social aspects of life keeps changing. For instance religion at its early state was more a less a family thing, largely traditional, it developed to a point that Christianity and Islam came to be the yardstick. Leaving Hindu, Buddhist, and Judaism etc as traditional. This simply means that from the worship of creatures such as cows, trees, rivers, sun, moon etc the sacred worship of a divine being is put in place. It was not easy for people to abandon their former belief to accept Christianity and Islam. In some places it was a fierce battle. The conversion from one faith to another is a paradigm shift.

Politically many nations experienced and are experiencing paradigm shift. The then Union of Soviet Socialist Republics (USSR) moved from Capitalism to socialism. Arab awakening is another point where the people are clamoring for a more people friendly government.

Ivan Illich proposed Deschooling the society, Illich was born in Vienna and became a Roman Catholic priest as a young man. After leaving the priesthood in the late 1960s he began to publish books that expounded on his theories. He argued that modern technology and bureaucratic institutions were destroying peasant skills and self-sufficiency and creating dependency on experts, professionals, and material goods. True liberation, Illich wrote, can be achieved only by abolishing the institutions on which authority rests, such as schools and hospitals. Illich sees educational system as the root of problems of modern industrial society.

As already mentioned Illich sees schools as one case of modern institutions which persuade people to exchange their real lives for packaged substitutes. School education is taken for learning, social services for community spirit and hospitals for health. Education and health are seen as the result of the consumption of certain treatments. Modern poverty is defined by technocrats in terms of lacking these 'essential' services. This is a modern form of colonization.

The poor are in fact further disenfranchised by schooling as they benefit from it proportionally less than the rich. Schooling in developing nations is used to create new elites with a consumerist mentality. Illich sees in these institutions which we see as benign signs of disempowerment. In education he focuses on credentials and the way that education is a about packages designed by technocrats being delivered to 'consumer-pupils'.

Today in Nigeria we have the '**BOKO HARAM**' (western education is evil, as the name implies) to them they believe western education has only succeeded in widening the gap between the rich and poor. It brought about gross indiscipline, and many social vices in the society. If they continue and succeeds it then means that Illich was right. And if the people come to accept (God forbid) that 'boko' is actually 'haram' then a paradigm shift would have been effected.

Gay marriage is now been legalized by even some churches, this was what in the past was not obtainable, but today it is practiced openly without shame or recourse. The national assembly fought hard to resist the passage of such bills in Nigeria. United States was even threatening to withdraw aids and assistance to Africa if they fail to endorse gay marriage.

However, what Kuhn failed to understand is that most of the variables in the field of play in social sciences are not independent. They are to great extend been influenced by many intervening variables.

For any paradigm to come to be in sociology for instance gay marriage, it may not come to bear because both Christianity and Islam will fight it with the last drop of their blood. Saying it is not a practicable ordinance in their religion. On the other hand, polygamy and large family size (extended) is gradually giving way to monogamy and smaller family size.

This paper is of the opinion that Kuhn thought that though sociology is not a mono-paradigm course but there is to great extend a continuous shift in all the paradigms of sociology. This is because of choice of theory and the reason for choice. Most times people (researchers) tend to use only those paradigms that 'fits' what they want. Those other ones who do not 'fit in' are discarded even if they are the correct ones. (Haralambos and Holdborn 2004).

Humans are independent in choice for whatever reason, so manipulation of figures and result cannot be excluded. Kuhn sees sociology as a pre-paradigm, which will eventually have one someday.

6. CONCLUSION

In conclusion, it will be good to point out that our present day generation is in the midst of two similar possible paradigm shift fights, over gays in the military and full participation of women in the military.

Another interesting example of a recent paradigm shift is the movement of society toward recycling. Twenty years ago all of our bottles and glasses, and most of our newspapers went into the trash. Today most communities have recycling programs, and for most of us it has become a psychologically painful experience to throw a can in the trash. We look around for a nearby recycling bin, and increasingly often we find it. It will be good to know that renewable energy is the in thing now. People are now going the way of solar or wind aided power generation. Street lights are now solar powered. This and many more are confronting us.

Our paradigms shift constantly. It is fascinating indeed to watch the early signs of change, the arguments, the debates, and think about the common characteristics of paradigm shifts. What is slowly changing today that will become a part of a new paradigm, what will not change?

Will we come to accept the right of a woman to choose an abortion?

Will the computer revolution have profound effects on how we live our lives?

Will racism decline significantly?

The paper posits that paradigm shift is applicable to sociology, just as it is applicable to the hard or natural science. It has help to further buttress the concept of social change in the society. We have been able to see change in a radical and pragmatic way.

REFERENCES

- [1] Haralambos M., Holborn M. and Heald R. (2004); "Sociology, Themes and Perspectives", Delhi, Oxford University Press.
- [2] Haralambos M., and Heald R. (1980); "Sociology, Themes and Perspectives", London, HarperCollins.
- [3] http://en.wikipedia.org/wiki/Paradigm_shift.
- [4] Kuhn, Thomas, S., "The Structure of Scientific Revolutions", Second Edition, Enlarged, The University of Chicago Press, Chicago, 1970(1962)
- [5] "Margaret Mead." Microsoft® Encarta® 2009 [DVD]. Redmond, WA: Microsoft Corporation, 2008.
- [6] "Thomas Kuhn." Microsoft® Encarta® 2009 [DVD]. Redmond, WA: Microsoft Corporation, 2008.
- [7] Ulack, Richard. "New Guinea." Microsoft® Encarta® 2009 [DVD]. Redmond, WA: Microsoft Corporation, 2008.