

A Critique of the Positivist Paradigm in Human Sciences

Jaja, Ibifuro Robert¹, Idoniboye, Omiete², Amadi, Cornelius Chukwudi PhD³

^{1,2,3}*Department of Philosophy, Rivers State University, Port Harcourt, Rivers State, Nigeria*

Abstract: Positivism is prominent term in the human sciences due to its cherished claim of objective knowledge. However, the continuous scrutiny of our knowledge claims has shook the very foundation in which positivism stands on. The rather slow reaction of proponents of positivism to the criticisms levied on their paradigm have also truncated the development of the human sciences. This paper therefore critically appraises the positivism with the intention to make clear its strong points and pitfalls. We established the philosophical foundations of the positivist paradigm and the philosophical implication of the tenets of positivism was highlighted. The study contended that the attainment of objective knowledge and generalizable laws in the human sciences is almost impossible. In conclusion, this paper calls for the accommodation of other methodologies or paradigms in the human sciences and a reconsideration of the objective of the human sciences.

Keywords: Human Sciences, Positivism, Methodology, Philosophy, Objective Knowledge.

I. INTRODUCTION

Man has been perplexed by his very own existence from time immemorial. This perplexity prompted philosophy as a field of study. The Ionian philosophers sought to know the *ex qui material constitu mundi* (constituting material of the universe) and arrived at different answers. These answers were not finalizing, they however raised more questions and spurred more persons to philosophize. Over the years, philosophers came up with various answers to the perplexing questions of the universe. This many takes from various philosophers was not satisfactory, hence philosophers began to search for objective answers to the questions alike. This search birth positivism which initiated a shift from abstract and speculative metaphysics to a more systematic search for objective and infallible knowledge.

The scientific study of the “given” (in Latin *datum* or, in the plural, *data*)¹ the positivists believe, will lead to the revelation of objective knowledge that is replicable world over. They also believe that the scientific method is applicable in the social phenomena and achieve as much successes as in the study of natural phenomena. The peak of the success of this endeavor is hinged on their discovery of objective and generalizable in the human sciences. This feat is yet to be achieved. However the tenets of positivism remains widespread in the study of social phenomena.

The methodologies, objective and questions asked in the human sciences are still largely influenced by the positivist paradigm. The million dollar question raised is, can we attain objective knowledge in the human sciences or is the scientific study of social phenomena an effort in futility? This paper will attempt to answer this question. By so doing, it will uncover the ontological foundation of positivism and its implication for the human sciences and consequently, highlight the strengths and weaknesses of the positivist school of thought.

A Highlight of the Tenets of Positivism

Positivism in Western philosophy is generally any system that confines itself to the data of experience and excludes a priori or metaphysical speculations.² The positivist school of thought have gone through several alterations over the years, however the core principles have endured.

The positivist paradigm was popularized by August Comte who opines in his *Course of Positive Philosophy* that the various sciences developed through three stages - theological, metaphysical, and, eventually, positive science.³⁴ Comte repudiates metaphysics and insists that reality can be known through the systematic study of observable data. He also asserts that we can arrive at infallible knowledge when we apply the systematic methods of science to our sensory experiences. Generalizable laws and infallible knowledge for the positivist, can be achieved both in the study of natural phenomena and social phenomena. In studying social phenomena, causal relationships can be established. The establishment of causal relationship in social phenomena hence, makes it possible to make predictions about the future. This prediction will in turn aid in the control and reorganization of social reality.

Comte’s positivism is different to that held by its adherents today, yet its commitment to scientific methodologies and the search for objective truth in the study of natural and social phenomena renders it sufficiently

² Feigl, H. Positivism. Encyclopedia Britannica, 2019, <https://www.britannica.com/topic/positivism> accessed July 16, 2020.

³ Outhwaite, R.W. Positivism: Sociological. Researchgate.net, n.d., <https://www.researchgate.net/publication/30>

⁴ [_Positivism_Sociological/link/5a2e62260f7e9b63e53d6795/download](https://www.researchgate.net/publication/30).access ed July 16, 2020

similar.⁵ Positivism was taken to a somewhat different direction by the Vienna circle that took Vienna circle took positivism towards the empiricist direction. According to Outhwaite,

Viennese positivism or logical empiricism drew more on the formalization of logic and mathematics in the early years of the twentieth century and its extension to the philosophical analysis of language by Ludwig Wittgenstein (1889-1951), whose *Tractatus Logico-Philosophicus* (1922) was a strong influence on members of the Circle.⁵

Comte had initially opposed the use of mathematics in the study of social phenomena, warning that „mathematical analysis itself may betray us into substituting signs for ideas, and that it conceals inanity of conception under an imposing verbiage“⁶ He went further to make a clear distinction between the sciences, the Vienna circle on the hand moved towards the unification of the sciences. Karl Popper also contributed largely to the Vienna circle’s model of positivism through critique of the verification principle of the logical empiricists is a major distinctive feature of the Vienna circle model of positivism. According to this criterion, a statement is cognitively meaningful, if and only if it is, in principle, possible to verify. What this means is that scientific statements are meaningful if they can be proven by sensory observations. Popper debunked this principle as he, in the words of Bredan Shea notes:

it counts existential statements (like “unicorns exist”) as scientific, even though there is no way of definitively showing that they are false. After all, the mere fact that one has failed to see a unicorn in a particular place does not establish that unicorns could not be observed in some other place. Second, it inappropriately counts universal statements (like “all swans are white”) as meaningless simply because they can never be conclusively verified. These sorts of universal claims, though, are common within science, and certain observations (like the observation of a black swan) can clearly show them to be false. Finally, the verifiability criterion is by its own light not meaningful, since it cannot be verified.⁷

Popper did not just debunk the principle of verification, he went further to postulate an alternative theory which he termed the theory of falsification. According to this theory, attempts should be made at falsifying scientific theories rather than proving it. Popper notes that the idea behind the theory of falsification is, science progresses when a theory is shown to be wrong and a new theory is introduced which better explains the phenomena.⁸ Thus, scientists should look for

instances that contradicts their theories rather than confirm it. According to Popper, the potential to be falsified demarcates science from non-science as non-scientific theories or statements could most times be corroborated but barely falsifiable.

Today, proponents of positivism are more modest and less enthusiastic about their search for objective knowledge and generalizable laws. However, positivism still emphasizes the role of empiricism, a unity of the sciences, and the ability to discover meaning from objects.⁹

A Discourse of the Philosophical Foundation of Positivism

It is no gain saying that philosophy is the mother of all disciplines. All the different disciplines as we know it now broke out from philosophy. The human sciences are the most recent ones. Every research paradigm in the human sciences reflects a school of thought in philosophy. The methodology or paradigm a researcher in the human sciences chooses highlights his answer to the respective ontological and epistemological questions: What is the fundamental nature of reality? and how is being or reality to be studied? All scientific research rests on assumptions and principles from these two areas whether or not a researcher acknowledges them.¹⁰ Newman citing Collier corroborates this thought as he notes:

Existing sciences, particularly social sciences, are not innocent of philosophy. Many of them from their onset assumed some philosophical position about what a science should look like and tried to initiate it. Further, their practitioners have often forgotten their philosophical premises...there by turning these premises into unchallengeable dogmas.¹¹

The celebration of science and its claim to objective knowledge has made a lot of human science researchers disregard the underlying philosophical assumptions of their paradigms or chosen methodologies. Positivism is one of such paradigm that have fought tooth and nail to be separated from philosophy. This is however an effort in futility as their prescribed methodologies and research questions reflects an ontological and epistemological stand point.

The two predominant positions in ontology are realism and nominalism. Realism is a philosophical school of thought that opines that reality exists independent of the observer. Nominalism on the other hand, is a philosophical school of thought that opines that reality is dependent on the observer, thus it is subjective. For the realists, reality is out there, waiting to be observed and can be observed through the senses. The answer to the philosophical question: If a tree falls in a forest with no one present, does it make a sound? Makes the distinction between realism and nominalism very clear.

⁵ Zammito, J. H. *A Nice Derangement of Epistemes: Post-positivism in the study of Science from Quine to Latour*. Chicago: University of Chicago Press, 2004, p.6-8. ⁵Outhwaite, op.cit.

⁶ Crotty, op.cit., p.22

⁷ Ibid

⁸ Mcleod, S.Karl Popper-Theory of Falsification. [Simplypsychology.org](https://www.simplypsychology.org/ Karl-Popper.html), 2017, <https://www.simplypsychology.org/ Karl-Popper.html>. accessed July 16, 2020.

⁹ Marsh, D. and Stoker, G., eds. *Theory and Methods in Political Science*, 2nd ed. Basingstoke: Palgrave Macmillan, 2002, pp-22-3

¹⁰ Newman, W. L. *Social research methods: Qualitative and quantitative approaches* 7th ed. Edinburgh: Pearson Educational Limited, 2014, p.93

¹¹ Ibid

For the nominalist, the tree does not make a sound because there is no one there to hear it fall. What this means is that reality is human dependent hence, hinged on what they can observe. For the realist on the other hand, the tree makes a sound regardless of whether someone is there to hear it or not. This answer makes glaring the belief of the realists that reality is „out there“ regardless of man’s acknowledgement of it or not. If reality is out there and exists independent of the observer, it implies that reality is one and objective.

Hence, reality is the same for all people regardless of their experience and background.

The ontological standpoint influences their epistemological stance. Thus, for the realist, reality can be known by making observations of it. The senses for the realists, provide us with sufficient information about reality. The positivists adopt the realist ontology and expands on it. Ideas that are consistent with empirical evidences for the positivist, are true while those inconsistent with empirical evidences are discarded as false. The organization of the verified ideas the positivist believe, will lead to a discovery of broad principles or laws to explain what reality contains and how it works.¹² If there are universal causal laws and the universe has a pattern, by implication, human beings respond to stimuli in a patterned way. Thus, the ultimate reason for conducting scientific research for the positivists, is to discover universal causal laws that guides the behaviors and actions of things and human beings alike.

The realist ontology that the positivists adopt has many implications. By virtue of adopting the realist ontology the Positivist subscribes to the mechanical model of man and impliedly determinism. A theory that implies that human beings are in fact just machines and subject to unexplainable phenomena such as consciousness.¹³ The positivists subscription to the mechanical model of man and determinism informs the positivists emphasis on a value-free science. This value-free science for the positivist, applies to both the scientist and the subject of research. Thus, it is expected of natural scientists and human scientists alike to carry out research without bias or personal prejudices as well as pay no attention to the unobservable impulses or motivations of their subject matter. To achieve their goal of a value free science, proponents of positivism use figures in the analysis of their research findings.

A Critique of the Positivist Paradigm in the Human Sciences

There is more than one paradigm in carrying out human sciences. Various nations stick to one or more paradigms. Positivism is the most popularly used paradigms in the human sciences in Nigeria, the locale where this paper is written. The

notion held onto, is positivism is synonymous to science. This notion has made the postulations and tenets of positivism go unchallenged. The fact is, although positivism as a paradigm has made considerable progress, it is not without pitfalls. A critique of the positivist paradigm in the human sciences which is the main crux of this paper will highlight the strengths and weaknesses of positivism. Positivism as a paradigm in the human sciences has achieved a lot of feat. It has helped in understanding social phenomena. The emphasis on replicability as a criterion for conferment of validity on a research has limited wild guesses in the human sciences. The intolerance for wild guesses has is in turnspurred rigorous research and experimentation in the human sciences which has aided in making near perfect predictions about the future. Dowding corroborates this point, as he writes „ . . . all good political scientists produce models with definite predictions . . . which they can then test one way or another against data gathered from the actual world.“¹⁴ The goal of human sciences is not just to understand man and his existence but to make predictions about the future in order to reorganize the society. Hence, all research carried out is done towards achieving this goal. This goal though hasn’t been achieved in its entirety, there has been considerable progress. Psychology has made progress over the years and aided in expanding human behaviors and what motivates it. Ivan Pavlov a famous psychologist, after carrying out a research on dogs and the responses to stimuli founded the classical conditioning theory, this discovery has a number of real-life applications including in the treatment of phobias and for aversion therapy.¹⁵ There are some who still proclaim that psychology’s greatest achievement is buried somewhere in Sigmund Freud’s psychoanalytic papers.¹⁶ The basic assumption of psychoanalysis is that people have unconscious thoughts and repressed experiences that influences them without their awareness. The aim of psychoanalysis is to help people come to terms with the repressed experiences or thoughts in order to gain insight. Psychoanalysis has made enormous progress in the treatment of treatment of depression and anxiety disorders. Other than this, psychoanalysis has aided in making near perfect predictions and control. Past experiences have shown that people with traumatic experiences have often times fallen into depression. Today, people who have experienced traumas are been watched closely and advised to seek therapy. This has aided in controlling and curbing suicides. Furthermore, the positivist paradigm in the human science has aided in debunking agelong dogmas. Marsh and Smith elaborated this line of thought as they note:

¹⁴ Dowding, K. Model or Metaphor? A Critical Review of the Policy of Network Approach. Political Studies, 1995, Vol. 45, Issue. 1, pp. 136-158

¹⁵ Rasheed, R. Ten famous psychology achievements. Thecompleteuniversityguide.co.2020, <https://www.thecompleteuniversityguide.co.uk/student-advice/what-to-study/ten-famous-psychologyachievements>. Accessed 17 July, 2020.

¹⁶ Jason, L. What is psychology’s greatest achievement? Blog.oup, 2014, <https://blog.oup.com/2014/12/psychologysgreatest-achievement/> Accessed 17 July, 2020.

¹² Newman, op.cit., p.95

¹³ Pams, N. Mechanical-Man concept. Psychologydictionary.org. 2013. <https://psychologydictionary.org/mechanical-man-concept/#/~text=is%20a%20theory%20which%20implies,concepts%20of%20determinism%20and%20behaviourism>. Accessed 9 July, 2020.

By approaching the social sciences from a positivist position, social scientists are able to cut away from existing „knowledge“ many prejudices, suppositions, superstitions and other non-scientific opinions that have gathered about these social phenomena.¹⁷

For so long, women were thought to be the weaker sex and as such beneath men. Eboh citing Simon De Beauvoir Aristotle and Thomas Aquinas considered females as defective males.¹⁸ This supposition led to women been downtrodden in the society. However, at the inception of the positivist human sciences, the belief that women are inferior was declared baseless and stereotypical. As the positivist paradigm in the human sciences postulated glaring evidences that proved that women are biologically the same with the man and equally possess the trait of ratiocination. This scientific revelation has informed people and prompted gender mainstreaming. The achievements of the positivist paradigm have been nothing short of commendable. There are however pitfalls that the positivists are slow to acknowledge. The greatest weakness and hence disadvantage of positivism generally, and with respect to the social sciences in particular, has been its insistence upon methodological absoluteness.¹⁹ The positivists reject common sense knowledge in its entirety. As they believe scientific knowledge is the only valid knowledge there is. Science for the positivists, is equivalent to positivism, hence, their insistence on their laid down methodology. The insistence and continuous tutelage of the positivist method has prompted the malady of *'methodolatory'* (*worship of method*).²⁰ Citing St.

Pierre, Amadi explains worship of method as the “uncritical application of a methodology regardless of its misalignment with the onto-epistemology of a study.”²¹ This worship of method has mitigated research ingenuity and creativity in the Human sciences. The ripple effect of this, is the truncation of progress in the human sciences. As much as achieving objective knowledge is quite appealing and laudable, can we really attain objective knowledge in the human sciences as the positivist claim? A lot of scholars have criticized the positivist claim to objective and certain knowledge in the human sciences. Popper is at the forefront of the backlash. Popper argued that

„every scientific statement must remain tentative forever.²¹ This should be the standard especially in the human sciences.

¹⁷ Marsh, David & Smith, Martin. „There Is More Than One Way to Do Social Science: On Different Ways to Study Political Networks“ 2001, Vol. 49, Number 3, pp. 528-541

¹⁸ Eboh, M. P. Philosophic Thought & Gynist Deconstruction of Gender. Port Harcourt: Pearl Publishers International. 2015, p.159

¹⁹ UKEssays. Advantages and Disadvantages of Positivism. [online]. 2018, <https://www.ukessays.com/essays/sociology/advantages-disadvantages-positivism-9924.php?vref=1> Accessed 20 July 2020

²⁰ Amadi, F. Posthumanism and Elastic Re-articulation of Method, Methodology and Data. 2019, Unpublished Paper 21
Ibid

²¹ Popper, K. The Logic of Scientific Discovery. (New York: Basic Books, 1959), p.280

This freedom and intrinsic dignity that comes with been human limits the human scientist. Observation is a main method of acquiring scientific knowledge. Controlled observation which is experimentation is also a cardinal method of attaining scientific knowledge. In the natural sciences, it is easy. However, it can pose a threat when it comes to the human sciences. The intrinsic dignity that comes with been human prevents the scientist from carrying out some research on humans. Humans have to give their consent to be studied else it will be an infringement on their right to privacy. Other than this, humans are very conscious beings, and are very capable of pretending. People tend to change and act better than they usually do when they know they are been watched. There are a lot of instances of people that have exhibited certain personality traits on tv but are quite different at their comfort zones. It is hence possible to get wrong data for analysis. The proponent of positivism might argue that it is okay, since the mantra of positivism is “what you see is what you get” (reliance on the senses) This however has a negative implication for making predictions which positivism is passionate about.

The positivist claim to objective knowledge implies that humans are static. This is however not the case as people change. A person can tick yes or no in a questionnaire and have a change in opinion or perspective yes later. It is then not justifiable to hold on to the person’s former opinion and claim objective knowledge. In a bid to achieve the cherished objective knowledge the positivists also prescribe a value-free science. That is, the researcher must arrive at conclusions without it been blemished by their own opinions and experiences. The question raised is a value-free science possible? We argue in this paper that it is not possible. Psychologists posits that humans are a product of nature/nurture. Nature denotes our genetic build up while nurture denotes our experiences, upbringing and environment. Human beings are value laden. Every person including the scientist is influenced by their culture capital whether or not they are aware of them. Francis bacon reiterates this point in what he terms the idols of the cave. According to Bacon,

The Idols of the Cave are the idols of the individual man. For everyone (besides the errors common to human nature in general) has a cave or den of his own, which refracts and discolors the light of nature, owing either to his own proper and peculiar nature; or to his education and conversation with others; or to the reading of books, and the authority of those whom he esteems and admires; or to the differences of impressions.²²

Humans are emotional and passionate beings. It is this passion that spurs them into scientific research. The scientist is not free from this idol, in fact they are entwined in them. The human scientist researches an issue that he is passionate and enthusiastic about. In their formulation of hypothesis and

²² Fs.blog, Francis Bacon and the Four Idols of the Mind. 2016, <https://fs.blog/2016/05/francis-bacon-four-idolmind/> Accessed 18 July, 2020

research questions and objectives, the positivist takes a stand which their scientific research confirms or falsifies. We can hardly boast of neutrality when studying social phenomena in which as beings we are part of. The stance of the writers of this paper is influenced by their educational background. Being philosophers has informed our critique of the positivist paradigm that repudiates metaphysics. The naivety of the positivist search for objective knowledge has blinded them to other bodies of knowledge which would have pushed the limits of the human sciences. It is important to note here that most modern positivists are beginning to renege on their search for objective knowledge as they have realized the very nature of their subject matter makes is near impossible.

Another weakness of positivism lies in their search for generalizable laws. The assumption of determinism which is the basis of their search for generalizable laws is flawed. If human beings are determined to act by some law, the concept of ethics and morality will make no sense since ethics and morality is hinged on the notion that humans are free to take decisions and should be held accountable for their actions. Human beings are not determined, they are free beings capable of taking their own decisions. We see things differently that is why there is a diversity in opinions. In America for instance, they all subscribe to the American dream. However, there are liberals and conservatives. There are also those that take a middle stance.

People can take in same information but interpret it differently, history has proven this. Quine argues that there is no way of classifying, or even describing, experience without interpreting it.²³ There are various interpretations of sense experience and this is as a result of the varying nature/nurture. It is thus, safe to say that the positivists search for generalizable laws is an effort in futility. This search and yearning to confirm a generalizable law has served as a blinker that have prevented human science researchers from having a deep understanding of the researched. It has also mitigated the founding of indigenous theories or laws for explaining peculiar cases as every research is carried out with recourse to laid down theories and laws.

II. CONCLUSION

Positivism as a paradigm in the human sciences has achieved a lot of progress but has sort of hit a road block in recent time. One can argue that this as a result of their insistence on their methodology and disregard for other methods in the search for knowledge. Before the sciences came to be what it is known to be today, the study of man and his environs was done and is still been done in philosophy. There have also been a lot of progress achieved in speculative philosophy. The problem of positivism we argue here, lies in their very definition of science. The positivist view of science as synonymous with positivism is myopic. There is science as scire that is

If science is looked at from this perspective there will be an end to the discrimination of knowledge or theories that don't fit into positivism. For the Human sciences to continue to make progress, a re-orientation is necessary. Human beings which are the subject matter of the human sciences are fundamentally different from the subject matter of the natural sciences. Thus, it is naïve for one to begin to search for objective knowledge or generalizable laws as it is in the natural sciences. All we can have in the human sciences is subjective knowledge but that's okay because that is all that is available to us. Every researcher should carry out research in the human sciences with cognizance of the fact that his conclusion is tainted with his culture capital. It is an enormous disservice to the human sciences to boast of objective knowledge or finalizing conclusions. This is stagnating because humans are always evolving and so should our conclusions and theories. Conclusions in the human sciences should not be taken as finalizing but rather as a prelude to further discussions and study

BIBLIOGRAPHY

- [1] Amadi, F. Posthumanism and Elastic Re-articulation of Method, Methodology and Data. 2019, Unpublished Paper
- [2] Crotty, M. *The Foundations of Social Research: Meaning and perspective in the research process* London: Sage Publications, 2002.
- [3] Dowding, K. Model or Metaphor? A Critical Review of the Policy of Network Approach. *Political Studies*, 1995, Vol. 45, Issue.
- [4] Eboh, M. P. *Philosophic Thought & Gynist Deconstruction of Gender*. Port Harcourt: Pearl Publishers International Ltd. 2015.
- [5] Feigl, H. Positivism. *Encyclopedia Britannica*, 2019, <https://www.britannica.com/topic/positivism> accessed July 16, 2020.
- [6] Fs.blog, Francis Bacon and the Four Idols of the Mind. 2016, <https://fs.blog/2016/05/francis-bacon-four-idols-mind/> Accessed 18 July, 2020
- [7] Jason, L. What is psychology's greatest achievement? Blog.oup, 2014, <https://blog.oup.com/2014/12/psychologys-greatest-achievement/> Accessed 17 July, 2020.
- [8] Marsh, D. and Stoker, G., eds. *Theory and Methods in Political Science*, 2nd edn Basingstoke: Palgrave Macmillan, 2002.
- [9] Mcleod, S. Karl Popper - Theory of Falsification simplypsychology.org, 2017, <https://www.simplypsychology.org/Karl-Popper.html> accessed July 16, 2020.
- [10] Newman, W. L. *Social research methods: Qualitative and quantitative approaches* 7th ed. Edinburgh: Pearson Educational Limited, 2014.
- [11] Outhwaite, R.W. Positivism: Sociological. Researchgate.net, n.d., https://www.researchgate.net/publication/304193463_Positivism_Sociological/link/5a2e62260f7e9b63e53d6795/download. accessed July 16, 2020
- [12] Popper, K. *The Logic of Scientific Discovery*. New York: Basic Books. 1959.
- [13] Rasheed, R. Ten famous psychology achievements. Thecompleteuniversityguide.co. 2020, <https://www.thecompleteuniversityguide.co.uk/student-advice/what-to-study/ten-famous-psychology-achievements>. Accessed 17 July, 2020
- [14] Shea, Brendan. Karl Popper: Philosophy of Science. Researchgate.net, 2016, <https://www.researchgate.net/publication/29991943>
- [15] Karl popper philosophy of science accessed July 16, 2020
- [16] UKEssays. November 2018. Advantages and Disadvantages of Positivism. [online]. 2018,

²³ Marsh D. and Stoker, loc.cit.

<https://www.ukessays.com/essays/sociology/advantages-disadvantages-positivism-9924.php?vref=1> Accessed 20 July 2020

[17] Zammito, J. H. (2004) *A Nice Derangement of Epistemes: Post-positivism in the study of Science from Quine to Latour*. Chicago: University of Chicago Press, 2004.