

# A Critique of the Philosophical Underpinnings of Mainstream Social Science Research

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## Abstract

The progress of the social science disciplines depends on conducting relevant research. However, research methodology adopted and choices made during the course of the research project are underpinned by varying ontological, epistemological and axiological positions that may be known or unknown to the researcher. This paper sought to critically explore the philosophical underpinnings of the social science research. It was suggested that a “multiversal” ontological position, positivist-hermeneutic epistemological position and value-laden axiological position should be adopted for social science research by non-western scholars as alternative to the dominant naïve realist, positivist, and value-free orientation. Against the backdrop of producing context-relevant knowledge, non-western scholars are encouraged to re-examine their philosophical positions in the conduct of social science research.

**Keywords:** epistemology; ontology; axiology; social science research; indigenization

## Introduction

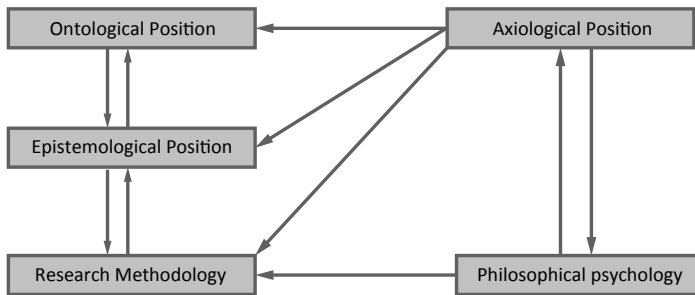
At the heart of social science is research. Indeed, it is research that distinguishes social studies from the social sciences. Whether publicly acknowledged or not, each research project in the social science is underpinned some epistemological, ontological, and axiological positions. Ontology is the philosophical position about the nature of reality whiles epistemology focuses on what constitutes valid knowledge and how we can obtain such knowledge (West & Turner, 2000; Oppong, 2013). They further describe axiology as the philosophical position that addresses itself to the place of value in theory and research.

Similarly, in an examination of the epistemological Smith and Darlington (1996) views that philosophical questions of ontology as perceptions about the world (realism or idealism) and identified epistemological questions relating to origin of behaviour (determinism or free-will) and nature of the mind (materialism or mentalism). These philosophical positions inform choices made in terms of research design and tools for data collection as well as data analysis techniques adopted in social science research. However, these underlying philosophies promote subtly the dominant Eurocentric perspective that often serves to undermine endogenous systems for knowledge production. The purpose of this paper is to provide a critique of the dominant

philosophies that are adopted in social science research globally with the objective of providing alternative perspectives that are more decolonial in nature.

## Philosophical Underpinnings

As stated earlier, social science research is underpinned by different ontological, epistemological, and axiological positions and that their relationships may be conceptualized as in the figure below. In Figure 1, philosophical psychology refers to the ethno-philosophy.



*Figure 1: Relationship between the Various Philosophical Positions Underlying Social Science Research<sup>1</sup>*

Figure 1 suggests that the ontological position adopted by the social science researcher influences his or her choice of an epistemological position. In addition, the research methodology adopted is influenced by the epistemology. This indicates that lying deep underneath the decisions about research methodology are the ontological and epistemological positions. Again, the ontology and epistemology are influenced by the axiological positions which are also influenced by the philosophical psychology or ethno-philosophies of the researchers.

However, the dominant ethno-philosophy influencing social science researchers is western-centric. Noting that the mainstream body of knowledge of the social science disciplines does not serve non-western societies well (Ndlovu-Gatsheni, 2013; Oppong, 2013a, 2013b), it is only reasonable to critically examine the paradigms that inform the production of such knowledge. Thus, in the ensuing paragraphs, a critique of each of the philosophical positions is presented.

## Ontological Position

As indicated earlier, ontological question focuses on the nature of reality (West & Turner, 2000) or perceptions about the world (Smith & Darlington, 1996). There are two opposites

<sup>1</sup> Source: Author's Own Construct

that a researcher can adopt as the ontological position for any given research. On one hand, there are those who subscribe to the fact that reality exists independent of the individual perceiving it; this position is referred to as realism. This position characterizes both positivism (Breen & Darlaston-Jones, 2008; Smith & Darlington, 1996) and, to some extent, critical realism (Sayer, 1993; Lawson & Staeheli, 1991; Bergene, 2007; Pratt, 2009). For instance, Smith and Darlington (1996, p.14) wrote:

Realism argues that we perceive the world as it really is, that cognition is a relation between subject (the perceiver) and object (the perceived), that the existence of the object does not depend upon the subject perceiving it.

This suggests that reality exists out there and that the researcher's responsibility is to access and assess this reality by means of "objective" data collection techniques. It also suggests that thoughts of people expressed through language adequately represent the reality. This is largely the positivist ontological position. However, critical realists have criticized this form of realism as naïve as it fails to appreciate the differences among empirical, actual, and real world (Sayer, 1993; Lawson & Staeheli, 1991; Bergene, 2007; Pratt, 2009). The empirical world is what we observed, actual world consists of the events that form the basis of our observation and the real world consists of the structures and mechanisms that produce the events (Bergene, 2007). What the positivist does is to equate empirical world of data (of language) to the real world of mechanism. The assumption that such an independent reality exists results in the belief in a universal truth equally exists, a belief that has been challenged by critical realists (Lawson & Staeheli, 1991) and postmodernists (Sayer, 1993).

Related to this is the search of empirical regularity that characterizes the positivist philosophy. Owing to the fact that positivist philosophy subscribes to realism or naïve realism (Sayer, 1993; Lawson & Staeheli, 1991), the empirical regularity observed are but statistical artifacts and not a representation of the real world of mechanism. This is to say that any kind of relationship can be observed in a given data set but may make less meaning in practical terms. Again, critical realists ascribe causal powers to human reasons and social structures (Yeung, 1997); thus, context is important in social science research. This marks another point of departure from positivism. Indeed, the structures and mechanisms that lie deep underneath the empirical world are "distinct from the patterns of events they generate, and, in turn, our experience of the events. In other words, mechanisms do not act actualistically, that is, they do not result in the same actual events or outcomes, but *transfactually*, meaning that they are always in play regardless of the outcome" (Bergene, 2007, p. 13).

Pratt (2009, p.3) reemphasizes the point that there is the need for social science researchers to recognize "the notion, and degree, of ontological depth: ontology being the nature of things, and ontological depth being the assertion that there is more

to things than is immediately apparent in observation". Thus, the simple presence of structure and mechanism does not necessarily mean that they would produce an action in the same way across time and space. Pratt (2009) further argues that because the mere presence of mechanisms does not generate action, context (or space and time) becomes important in social science research. Despite this flaw, the naïve realist philosophy underlies the quantitative approaches to research that have been dominant over decades.

On the other hand, idealism argues that our perception may not reflect accurately the world and that the nature of the perceiver may affect the object of perception; as a result, "we can never be absolutely sure that our perceptions of the world are accurate" (Smith & Darlington, 1996, p.14). This position acknowledges that perception of the world is constrained by who we are and even the context within which such perception takes place. This seems to agree with the critical realist ontological position that the world or reality can be analyzed at three different levels of empirical (data or observation), actual (events) and real (mechanisms underlying the events) worlds (Lawson & Staeheli, 1991). Indeed, critical realist ontology "implies that reality exists relatively or absolutely independently of human consciousness of it" (Bergene, 2007, p. 11). This suggests that data collected during research cannot adequately and accurately reflect reality and that universal truth cannot be derived based on empirical world.

This philosophical position ties in with the interpretivist approach of hermeneutics as opposed to positivism. In terms of methodological choices, this interpretative philosophy underpins the general approach of qualitative research as the focus is on understanding as opposed to explanations (identification of cause and effect relationships). However, researchers are cautioned about limits to such interpretations as it over-interpretation has the potential to result in what Teo (2008, 2010) terms as epistemological violence. This term is coined not to refer the misuse of research in general but to a hermeneutic process (interpretative speculations of data) that has negative consequences for the 'Other' (Teo, 2008, p.57). This is to say that researchers and policy makers ought not to over-interpret the findings of the study as that might lead to carrying out the impossible exercise of representing or describing the mechanisms giving rise to events observed (real world) based on the empirical regularities (empirical world). Such an enterprise may lead to epistemological violence.

### **Epistemological Position**

As stated earlier, epistemology focuses on what constitutes valid knowledge and how we can obtain such knowledge (West & Turner, 2000; Oppong, 2013). Similarly, Toohey (1952/2007) describes it as relating to human knowledge and its sources. There are two principal opposing epistemological positions, namely: positivism and antipositivist tradition of interpretivism or constructivism (Breen & Darlston-Jones, 2008; Mack, 2010). The positivist

philosophy holds that knowledge is objective (exists independent of the subject) and value-free and is obtained through the application of the scientific method. It aims at describing, predicting, controlling and explaining a phenomenon while its overarching objective is the production of universal laws or generalizable findings (Breen & Darlaston-Jones, 2008; Mack, 2010). Positivism is also characterized by hypothetico-deductive approach of hypothesis testing, experimentation, and statistical analysis.

However, as has been pointed out earlier, positivism is not without its limitations. The generalizable findings reflect naïve reality (Lawson & Staeheli, 1991). It is also challenged for being value-neutral as it claims. Teo (2008, 2010) has demonstrated that scientific psychology has not weaned itself completely of speculation as discussion of findings constitutes *interpretative speculations*. By this Teo (2008, 2010) showed that even within the positivist tradition, there is hermeneutics in the process of interpreting results of statistical analysis. Indeed, it is during the interpretative speculation that values of the researcher are introduced into the research process. However, such interpretations are not viewed as the researcher's interpretations but assume epistemological status as knowledge in the same way as the data that gave rise to such interpretations.

It can be intimated that social science research that has been informed by positivist philosophy can best be described as *positivist-hermeneutic*. This is to say that it is not possible to carry out any social science research project and avoid interpretations. Thus, it is reasonable to educate young scholars outside the existing epistemic centres to embrace informed interpretations as part of their research. This also questions the existence of any universal, objective truth as the truth is interpretations of other social science researchers from their privileged positions of their ethno-philosophies or world-views. In other words, different truths exist according to who interpret the results of any social science research.

On the other hand, the interpretivist philosophy holds that reality can never be objectively observed from the outside; as a result, it must be observed from inside through the direct experience of the people. It also posits that no universal laws can be established in the study of human behaviour or social sciences though it is possible in the natural sciences uniform (Mack, 2010). Thus, the researcher's role is to "understand, explain, and demystify social reality through the eyes of different participants" (Cohen, Manion, & Morrison, 2007, p.19). Hermeneutics and phenomenology represents different strands of interpretivism (Mack, 2010).

One limitation of interpretivism is that "it abandons the scientific procedures of verification and therefore results cannot be generalized to other situations" (Mack, 2010, p.8). Yet, the search for generalization or universal truth in the form of empirical regularities has been shown to be futile by critical realists (Bergene, 2007; Pratt, 2009). For instance, psychological studies, which over the years have been informed by the

positivist philosophy, have been shown to be inaccurate description of behaviours in all contexts. This has given rise to cross-cultural psychological research which has continually shown that many psychological principles and concepts are not culturally universal (Matsumoto & Juang, 2004). It has also given rise to the emergence of indigenous psychology movement which ensures that psychological studies embrace and account for the culture (Oppong, Oppong Asante & Kumako, 2013; Oppong, under review). Similarly, interpretivist-oriented social science research tends to inform and improve practice (Padgett, 2004).

Epistemologically, the critical realists also prescribe the use of extensive and intensive methods.

Pratt (2009) argues that this epistemological prescription was based on Sayer's (1984) statement that argues for the combination of intensive and extensive methods. According to Pratt (2009, p. 10), extensive methods are "usually glossed as sample data collections of *whole populations*: this shows generalized outcomes. Intensive methods, using fine-grained qualitative approaches, are usually advocated *for examining the causal processes*. The argument was that intensive and extensive approaches should be used to complement one another". Thus, the epistemological prescription from critical realism is a mixed method in which census studies rather than sample surveys constitute the extensive method and a qualitative component that investigates the underlying causal process. Thus, in practical terms a critical realist-informed epistemological advice will be:

- collect data from representative sample and apply statistical techniques that enable you to generate the population parameters from the sample estimates and
- use grounded theory methodology to uncover the causal process of the empirical regularities observed in the quantitative phase.

This leaves out the interpretative speculation that leads to epistemological violence (see Teo, 2008, 2010) The grounded theory approach has been described as a "qualitative research design in which the inquirer generates a general explanation (theory) of a process, an action, or an interaction shaped by the views of a large number of participants" (Creswell, 2013, p. 83).

Again, as alternative bodies of knowledge are sought by scholars in non-western societies to support nation-building, qualitative inquiries can facilitate the production of context-relevant or context-specific knowledge. This becomes very important as existing knowledge have failed to provide policy-makers and scholars from non-western societies context relevant knowledge (Oppong, 2013a). This is to say that non-western scholars should become more concerned with uncovering truths that are relevant to their context rather a blind search for empirical regularities towards a

non-existing universal truth. Non-western social science researchers also stand to gain from following the derived epistemological prescriptions of mixed methods with representative sample studies with inferential statistics and grounded theory design with a focus on uncovering the underlying causal process observed through the quantitative study. Thus, non-western scholars should develop competences in the use of qualitative research methods to support the efforts of developing endogenous theories or models for improvement of the livelihood of the members of the societies.

### **Axiological Position**

Axiology focuses on the place of values in the research process (West & Turner, 2000). There are different positions associated with axiology:

- science must be value-free and
- it is not possible to eliminate values from any part of science, and
- values are not only inevitable but desirable aspects of the research process.

The position that science must be value-free is associated with the positivist philosophy (Breen & Darlaston-Jones, 2008; Mack, 2010; West & Turner, 2000). This is because the positivist philosophy which dominates social science claims to be objective and as a result, its practitioners ought to not allow their values influence the research process. Notwithstanding, there are other researchers who hold the position that it is not possible to entirely eliminate values from the research process (West & Turner, 2000). They argue that “some values are so embedded in researchers’ culture that researchers are unconscious that they hold them” (West & Turner, 2000, p.49). However, the third position which holds that values are not only inevitable but desirable aspects of the research process further compounds the debate by offering three different positions (West & Turner, 2000). These are:

- Avoid values that influence verification
- Recognize how values influence the entire research process
- Advocate that values should be closely intertwined with the research process

The axiological position that ought to be adopted in social inquiry is that values have always influenced social science research; as a result, researchers should admit and deliberately include their cultural orientation in the research process. This is because Teo (2008, 2010) has demonstrated that speculation was and is still part of scientific psychological research and this manifests itself in interpretative speculation or discussion of results obtained from the analyses of quantitative data.

Again, it ought to be held in the social inquiry process that social science has imperialistic tendencies (Ake, 2012; Teo & Febbraro, 2003; Teo, 2008, 2010) and that current social science paradigms are Anglo-Saxon, Christian-centric, patriarchal, capitalist,

hetero-normative and racially hierarchized (Ndlovu-Gatsheni, 2013; Oppong, 2012). Indeed, Teo and Febraro (2003, p.676) wrote:

Psychologists usually, quasi-naturally, perceive psychological phenomena based on how they have experienced them and how they have learned to perceive them in their particular cultural context, which includes their academic institutions. In this sense, epistemological ethnocentrism is an a priori principle before any empirical research is conducted (and 'empirical research' itself assumes a particular cultural perspective).

Teo (2010, p.298) made similar comments in respect of the empirical sciences as perpetuating what he describes as epistemological violence (EV); it arises whenever "theoretical interpretations regarding empirical results implicitly or explicitly construct the *Other* as inferior or problematic, despite the fact that alternative interpretations, equally viable based on the data, are available". He further argues that EV is a practice that is executed in empirical articles empirical social sciences. Indeed, Teo (2011, p.195) has argued that positivist theory (that applied logic and mathematics) is "ideological in hiding the social function of science, the social formation of facts, and the historical character of research objects".

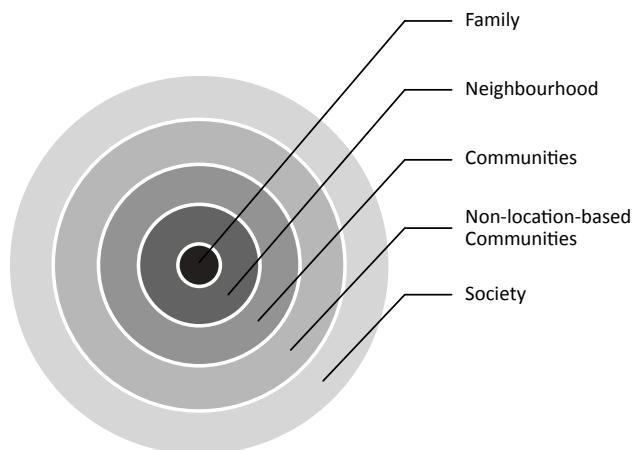
As a result, there is an urgent need to decolonize social science (Ndlovu, 2013; Ndlovu-Gatsheni, 2013); it is against this background that such a decolonial epistemic perspective ought to be adopted in the social inquiry process by non-western scholars. Indeed, Ndlovu (2013) argues that African scholars should not be oblivious to the invisible hierarchies of linguistic and racial arrangements that underpin the global designs within which knowledge production and dissemination take place. Thus, it is futile to attempt to project value-free research findings. The decolonial epistemic perspective is critical of mainstream or western social science. Consequently, it rightly assumes that though the process of colonialism (in all its forms) has ended, there remains a legacy of an unbalanced power "that produces, uses and legitimizes differences between societies and forms of knowledge" that operates to the present day (Ndlovu, 2013, p.16). It has been suggested that interventions at indigenizing knowledge will involve adopting a problem-centred approach to research and using oral literature (folktales, proverbs, and ethnic cosmologies) as frame of reference (Mate-Kole, 2013; Oppong, 2013a, 2013b; Oppong & Oppong, 2012): As a result, African folk and philosophical psychologies should be adopted as part of the framework for understanding and guiding social science research.

Besides, the discussion that the researcher should not allow his or her values to influence the research process can be shown to be the result of the naïve realism of the positivist philosophy. Failure of the positivist philosophy to recognize that empirical regularity does not tell us anything about the mechanisms that may be giving rise to such observation and failure to appreciate the existence of degrees of ontology produces such axiological position. This is to say that because positivist philosophy



has no appreciation for degree of ontological depth (Pratt, 2009) and equates what is observed to what reality is (Bergene, 2007), there is also the possibility that positivists would also hold the belief that the observed equals the underlying mechanisms. Thus, there is a high tendency for positivists to also believe that a given empirical regularity observed would hold regardless of the context. This has led to a situation where many of the concepts in social science disciplines built on the positivist philosophy have been shown to lack ecological validity – degree of applicability of research findings to people and settings other those in a given research. This suggests that any contemporary social science research that fails to take in account the cultural milieu of the research participants and settings and temporality still operates under the illusion of the positivist’s naïve realism.

An illustration will suffice. Based on the thesis of communalism presented by Gyekye (2003), Nukunya (2003) and Assimeng (2007), the author sought to formulate a more culture-relevant understanding of Ghanaian managers’ willingness to engage in corporate social responsibility (see Figure 2). Gyekye’s (2003) argues that communalism finds its greatest expression within the family context. It is expected that managers are more likely to make CSR decision if it is likely to impact their immediate family members than when it will affect an entire community.



*Figure 2: Ecological Zones of Relevance for Decision-Making and Actions<sup>2</sup>*

Indeed, this axiological position is consistent with the efforts to indigenize psychology (Mate-Kole, 2013; Oppong, 2013a, 2013b; Oppong, Oppong, & Steve, 2013; Oppong & Oppong, 2012; Oppong, Under Review). Thus, this axiological position enables the researcher to develop and test hypotheses and models that reflect the understanding of behaviour within the local frame of reference. As a result, it increases the ecological validity of results of social science research in non-western societies.

<sup>2</sup> Source: Author’s Own Construct

## Alternative Philosophical Positions

So what alternatives exist for the non-western scholars? Social science researchers will have to examine their own ontology as to whether a reality exists out there for them to uncover. It is important to appreciate that no absolute truths exist that can be discovered. This is because so-called universal truths happen to be the interpretations given to observations by others (Teo, 2008) and such interpretations often misrepresent the other by way of epistemological violence (Teo, 2010). Thus, the non-western social science researcher must position himself or herself to project his or her own interpretations as alternative to the imported interpretations of the western scholars. Thus, there is a need for researchers to become open to social science disciplines that encourages “plura-versalims” or “multi-versalism” that recognizes relative truths. This then compels the non-western scholar to view imported truths from western scholars as other interpretations and evaluate them accordingly.

Following from this ontological position of “multiversal” realities, non-western scholars should adopt a positivist-hermeneutic philosophy and axiological position that seeks to incorporate their endogenous paradigms or ethno-philosophies. This is to say that scholars outside the Anglo-American epistemic centres should abandon their current purely positivist orientation that seeks to eliminate interpretations. In response, such scholars should deliberately adopt and appropriate their cultural world-views in the conduct of social science research. The purpose is to ensure that the ‘hermeneutic’ element of the positivist-hermeneutic orientations derives from the ‘local’ instead of a non-existing ‘global’ worldview. This caution derives from the suggestion by Yankah (2012) that globalization means nothing more than the promotion of one local culture to the world stage and Ake’s (2012) concern that development, in the final analysis, reduces to westernization. Thus, an axiological position that accepts values as part of research should be adopted for social science research in non-western societies.

Epistemologically, the adoption of mixed method design is highly recommended. In this context, the social science researcher would benefit more from the critical realist prescriptions. Thus, the design should combine the traditional quantitative techniques with grounded theory method or any other qualitative design that enables researchers to uncover the causal process. However, grounded theory method is highly recommended here given that, at the current limits of our knowledge, it is the qualitative method that enables researchers to generate a theory or an explanation about the process (Creswel, 2013).

## Conclusion

This paper sought to critically explore the philosophical underpinnings of the social science research. In particular, ontological, epistemological and axiological positions often adopted in social science research were examined. It was pointed out that the oppositions between realism and idealism on one hand and positivism and interpretivism on the other are needless as both positions have inherent strengths and shortfalls. However, it was intimated that since values have also been part of social science research, the axiological position that researchers should adopt is one that deliberately include their cultural orientation. It is, however, important to note that overall the interpretations and applications of the theories should be influenced by a decolonial epistemic perspective. Epistemologically, a mixed method design combining the traditional quantitative techniques with grounded theory method is recommended.

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