

A Comparative Analysis on Positivism and Critical Realism in Accounting Research

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Abstract. In posing and answering research questions scientifically, the researcher must apply a collection of methodologies and methods systematically which were both guided by research paradigm. Two research paradigms in accounting research were analyzed in the current paper. A comparative analysis, from three perspectives which is ontology, epistemology, and research method, was carried out in order to critically analysis two research paradigms in mainstream accounting research.

1. Introduction

A research paradigm is “*a general philosophical orientation about the world and the nature of research that a researcher brings to a study (p.6)*”^[1]. Scholarship, in natural and social science (accounting included), is informed by research paradigms, explicitly or implicitly, when they are intended to generate new knowledge^[2]. For several decades, positivism has been and will remain the dominating philosophy of science in knowledge generating in accounting^[3, 4]. Meanwhile, critical realism has “*recently made a large impact on the methodological literature in the social sciences (p.483)*” in general^[5], and in accounting research specifically^[6].

The positivistic research paradigm assumes that people could be certainty/positive that the knowledge is true only when the knowledge is created by using the scientific method^[7]. The positivism has gained popularity in the early 1800s. It has been the dominant paradigm for conducting research until the middle of the 20th century^[8].

Critical realism is a relatively new philosophical approach which combines a realist ontological perspective regarding theory of being with a relativist epistemology in relation to theory of knowledge^[9]. One key player of critical realism is Roy Bhaskar who seeks a realist alternative to positivism that switches the focus form theories of knowledge to theories about reality^[10]. The label “critical realism” comes from “transcendental realism” and “critical naturalism”, with the former is labeled by Bhaskar as his general philosophy of science and the latter as his special philosophy of the human science^[11].

The current research would distinguish the two paradigms by contrasting and comparing a set of selective aspects in relation to three axioms (ontology, epistemology, research methods) underpinning each paradigm.

2. Ontology

The positivistic paradigm believes that the reality is objective, tangible and singular^[12]. The positivistic ontology assumes that the reality is to be dualistic in nature, meaning that “*subject (the researcher) and object (the phenomena in the world that are their focus) to be two separate, independent things (p.5)*”^[13]. Thus, the reality could be separated from the individual who observe it.

Within this objective reality, there exists a set of laws and principles governing how things “work”, and the laws or principles are processes of linear causalities which indicate that “*there are*

no effects without causes, and no causes without effect (p.45) ^[14]. Based on the assumptions regarding the existence of a set of laws and principles, the positivism has articulated the task of researchers is to find reality rather than create or interpret it ^[15]. The positivism promotes a closed-system ontology which posits a system of fixed regularities that are closed to change ^[10]. In other words, positivistic ontology assumes a closed system within which causes act in a consistent manner isolated from other causes. This closed –system ontology implies that scientific observations could be temporal and contextual independence. The task of scientific enquiry attempts to find regularly occurring events or patterns, namely “covering laws” which are a set of cause and effect relationships between variables that transcend space and time, in order to generate explanations and predictions ^[12].

Critical realism stresses the primacy of being over thought and starts from the ontological questions regarding what exist ^[16]. A key difference that distinguish critical realism form other meta-theoretical positions (positivism included) is that it first identifies what “is” or what exists then moves to focus on questions concerning the creation of knowledge about the existence ^[12]. They share the similar idea with positivist of the existence of objective reality independent of the researcher’s perceptions/knowledge of it ^[17]. However, from the perspective of critical realists’ objective reality, there no only exist events, states of affairs, experiences, impressions, and discourses but also underlying structures, powers, and tendencies ^[18]. Furthermore, compared to the positivistic ontology’s reality to be a singular and closed system, the reality in critical realism ontology is a differentiated and stratified open system ^[10, 19].

For one thing, critical realism holds that the reality is stratified into multiple levels or strata, for example, molecular, atomic, and sub-atomic ^[20]. Critical realism identifies three different domains of the reality: the real domain, the actual domain and the empirical domain. Two points are related to the real domain. First, “*it is all that exists (natural or social) despite whether we experience it or not or have knowledge of its disposition (p.171)*” ^[12]. Second, the real domain is where actual structures and causal powers that can produce events in the world reside ^[19]. The actual domain refers to what actually happens when casual powers are activated. The empirical domain where the real and actual are observed and experienced is comprised only of what we experience (directly or indirectly). The domain of the real is distinct and greater than the empirical domain, and is the transitive dimension of science to identify this realm ^[12], meanwhile the empirical domain, although filtered through the hermeneutic process, is the access point to the realm of objects, their structures and powers, namely the real domain ^[19]. The world from this point of view is composed of not only the actual course of events and experiences and/or discourses about them, but also “*complex things (including systems and complexly structured situations) that, by virtue of their structures, possess certain powers, potentials, and capacities to act in certain ways even if those capacities are not always realized (p.223)*” ^[18]. It could differentiate critical realistic ontology from positivistic ontology where the latter engages only with the empirical or the actual domains of reality with on recognition of an independent reality ^[12]. According to critical realism, the aim of scientific enquiry is to study emergent powers and the structures by virtue of which these powers exists, while acknowledging that emergent powers of their own kind could be associated with discrete structures at each level ^[21].

For another, critical realists posit that “*there is necessity in the world; objects-whether natural or social – necessarily have particular powers or ways of acting and particular susceptibilities (p.120)*” ^[22]. Thus, critical realists share the same point with positivists that the primary objective of scientific inquiry is to obtain knowledge about underlying causal mechanisms ^[9]. However, the causal mechanisms in critical realism are fundamentally differences from causal laws related to positivism. On the one hand, Positivists, based their point of view on that the reality is a singular, closed system, advocate causation resting on the constant conjunction of events connected in time and space. On the other hand, critical realism suggests that causalities are context dependent and operate at different layers or strata of reality, rather than constant conjunctures of events, meaning that causal mechanisms may remain latent until specific circumstances activate them. It is the argument that unobservable causal laws interact in contingent ways to produce change at the level

of observable events that deem the reality to be an open and stratified system ^[10]. Thus, critical realists transcend the investigation to what is directly observable within the empirical domain, and pay the same and even more attentions to what is not there and to offer more comprehensive explanations. From this point of view, a significant part of science is the attempt to “*identify the relatively enduring structures, powers, and tendencies, and to understand their characteristic ways of acting (p.223)*”^[18]. It is the casual powers of different levels that the researchers should engage to think about ^[21].

3. Epistemology and Research Methods

The variations regarding ontological stands between positivism and critical realism have implications as listed below:

First, by distinguishing real, actual and empirical domains of reality, critical realistic reality is an intransitive domain which exists independently of our knowledge or perception of it ^[23]. Critical realism supports the idea that the generation of knowledge is a human activity, and is a socially produced knowledge of natural, human dependent things.

This perspective of knowledge generation makes critical realism a middle way between empiricism/positivism. It is sharply contrasted with the positivists’ view of human experience of the world reflects an objective, independent reality and that this reality provides the foundation for human knowledge ^[8].

Actually, the critical realists’ argument that science is a social product makes a fundamental distinction between two dimensions of knowledge, namely, the intransitive and transitive ^[12]. The former is the intransitive domain of reality, while the latter means the transitive domain of scientific theories about reality. The intransitive domain of reality refers to the real entities or objects of scientific knowledge that constitutes the natural and social world, and the transitive domain the “*established facts, theories, models, paradigms, and techniques of inquiry available to a particular scientific discipline or individual (p.173)*”^[12].

For transitive knowledge, as the knowledge arises from scientific inquiry is socially constructed in essence, it is contingent. Thus, science or the production of any kind of knowledge is a social practice. The social conditions and social relations of the production of knowledge would influence its content. There is no indubitable knowledge because of the researchers’ fallibility and unavoidable reliance upon presumptions they have with themselves. Scientific knowledge would be potentially fallible and limited, and thus open to change. Our knowledge of the world is both fallible and theory-laden, and the objective of scientific enquiry is to keep looking for knowledge about causal mechanism in different research contexts ^[24].

However, despite the critical realists’ acknowledging that knowledge generation is a personal and social process and nothing in the methods of science could guarantee the success of arriving at truth, it could be acknowledged that the possibility of truthful knowing could be arrived at, meaning that lacking an indubitable basis for science does not preclude knowledge claims in general ^[17].

Second, positivism suggest that There is a single reality made of discrete elements and when the researchers find them all through the scientific method, they would have a full picture of reality.

Third, both positivism and critical realism advocate the applicable of the same philosophy of social realm and social realm ^[25]. Positivism asserts that there are no significant differences in the methods appropriate to studying social and natural objects. However, critical realism, or “critical naturalism” which has been claimed as Bhaskar’s special philosophy of human sciences, argues for a qualified naturalism which holds that it is possible to “*give account of science under which the proper and more less specific methods of both the natural and social sciences fall (p.96)*”^[11], while admits that there are significant differences in these methods.

With regard to research methods, from the view of positivists, only knowledge claims arising directly from experience, for example empirical observations, are considered important with useful and/or meaning for scientific implications. The scientific method is alleged to be the best way of knowing about the world and seeking evidence to solve problems. The scientific method is defined narrowly and any definition must include a commitment to quantitative methods ^[26]. However, for

critical realists, the objects of scientific enquiry are the mechanisms and/or structures that generate phenomena ^[27]. It could be acknowledged that critical realists search for not only empirical outcomes, such as correlations, but also explanations for contingent relations and in-depth understanding of causal mechanisms. It is from this point of view, that Lipscomb (2008), acknowledging the existence of logical connections between the ontological, epistemological, and methodological premises that underpinning critical realists' work, asserts that critical realists could be epistemological pluralists and that metaphysical obstacles undermining mixed methods research could be circumvented ^[27].

4. Conclusion

The current research distinguished the two paradigms by contrasting and comparing a set of selective aspects underpinning each paradigm. In posing and answering research questions, a researcher must choose suitable research methods and apply a systematic methodology. Methodological choices in a scientific study play a key role in making sense of the deployment and interpretation of specific choices of research methods. Research methods are the actual techniques and procedures of scientific investigation covering aspects such as the types of questions to be addressed, sampling, data collection, data analysis and the reporting of results and are determined by the chosen research paradigm.

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