Running Head: Critical Realism

A new way of knowing: Critical Realism

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Abstract

How do we know when we know? What is knowledge? Is knowledge what we memorize for standardized tests or is it what we ‘know’ and practice? Is knowledge measurable? This is the ‘centuries old’ question philosophers have grappled with since the Greeks! Descartes reasoned through propositions; Locke, Hume and Bacon examined propositions through experience; [Otto Neurath](http://en.wikipedia.org/wiki/Otto_Neurath), [Moritz Schlick](http://en.wikipedia.org/wiki/Moritz_Schlick) and the rest of the [Vienna Circle](http://en.wikipedia.org/wiki/Vienna_Circle) attempted to codify and standardize propositions while Peirce, James, and Dewey insisted that propositions must be practiced. The purpose of this paper is to explore the theory of critical realism (CR) as a way of knowing. It will define and explain how critical realism combines and synthesizes the limiting aspects of empiricism and neo-Kantian theorist . It will outline how Critical Realism attempts to uphold the objectivity of facts while allowing a transitive dimensions (knowledge produced by antecedently established knowledge) and satisfies criterion by giving knowledge a structure through sequence of models. Finally, this paper will relate critical realism to the author’s own way of knowing.

*Keywords: critical realism; transitive dimensions*

A new way of knowing: Critical Realism

**Introduction**

The journey into ways of knowing has been a minefield of confusion as theory after theory presented with aspects of philosophical limits (acceptable evidence; range of its validity) that disallowed its adoption. For instance, Rationalism, reasoning our world with our knowledge, seemed on first presentation to be a perfectly ‘reasonable’ way of looking at the world until the empiricist suggested that the knowledge used to reason with comes from experience (rejected by rationalists). Positivism, on the other hand, resonated as it offered an objective and prescriptive method for knowing but alas was rejected due to its inability to entertain the social activity of science.

 Hence, this paper will study critical realism, a theory elucidated by Roy Bhaskar. Critical Realism is a theory that embraces ontological (set of entities presupposed to exist independent from human activity) and epistemological elements (evidence, methods and scope) that delineate the structures, entities and mechanisms of the social world. (Burnett, 2007) In his book, *A Realist Theory of Science*, Bhaskar (1998) writes that CR is “distinguished from and is in direct opposition to empirical realism…it is necessary to assume for the intelligibility of science that the order discovered in nature exists independently of men” (p. 26). Moreover, Bhaskar (1999) purports critical realism can sustain the idea of a law-governed world independent of man; and it is this concept, that is necessary to understand science. ” And, this understanding of science is what the next few pages of this paper will attempt to discover and clearly explain.

**Overview of Critical Realism**

German philosophers in rejection of idealistic and phenomenalist theories supported the Kantian view of subjectivity of knowledge but upheld the idea that there is a law-governed world independent of man. In 1970 Ian Barbour in his efforts to link science and religion coined the term ‘critical realism,’ an approach to knowing that included a subjective theory on data, the resistance of comprehensive theories to falsification, and the absence of rules for choice (Vrede van Huysstee, 2003). Barbour’s arguments were developed further by Roy Bhaskar, an economist unhappy with the inability of economic science to do justice to problems of ethics and individual agency who turned philosopher and developed the theory of critical realism. Bhaskar (1999) defines CR as having “three major distinctions: its transcendental and dialectical character; the content of its particular theses; and the fact that it is critical of the nature of reality itself, in the first instance social reality, including the impact of human beings upon the natural world in which they are embedded and in which they are at present creating so much havoc.” (Bhaskar, 1999)

 Roy Bhaskar first introduced the world to Critical realism with publications such as his 1975 book, *A Realist Theory of Knowledge*, in which he states that his aim was to develop a systematic realist account of science to oppose the positivists usurpation of science. Critical realism maintains research performed by positivism is done so in a closed system that cannot be generalized because the world is not a closed system. Indeed, Bhaskar states that his “chief objections to positivism is that it cannot show why or the conditions under which experience is significant in science. (Bhaskar, 1998, p. 13)

We exist in an open system with no constant conjunction of events, yet positivism the realists argue, take the generative mechanisms they observe in experiments to provide causal laws based on tendencies exercised in a controlled environment. These normic universals (transfactual statements not counter-factual) are factual in the laboratory or other closed contexts that constitute their empirical grounds (reproduction) but cannot be sustained in practice in an open system. The positivist/empirical invariance, prediction and parsimony dogmas are rejected by CR and replaced with the idea that contingent conjuntural causality is the norm in open systems like society. (Archer, 2001) Moreover, CR accepts established historical and sociological results (transitive domains) as they are deemed to be the precursors of knowledge. “Knowledge depends upon knowledge-like antecedents,” says Bhakar (1998, p. 22). CR purports scientific theories are revisable and abstract knowledge should be used as reference to propel a theory to evolve as contexts evolve. Critical realism operates within both the historicist and contextualist elements, which yield partial, revisable, abstract, but referential knowledge of the world. Bhaskar suggests that critical realism is a “synthesis of theories that allows science to work: 1) regularity is identified (empiricism); 2) a plausible explanation for it is invented (idealism); and 3) reality of the entities and processes postulated in the explanation is then checked (critical realism).” (p. 14)

**Ontology & Epistemology of Critical Realism**

 First, it is important to establish the distinction most prominent in critical realism according to Bhaskar (1998): “it argues that a constant conjunction of events is not a sufficient nor necessary condition for a scientific law. This is a radical rejection of the causal laws that fashioned the entire post-Humean tradition of empirical realism, and in particular both its positivist and neo-Kantian winds” (p. 65). Next, realists put forth that laws precede the rationale to explain a conjunction, as the experimenter is a causal agent of the sequence of events but not the causal law. Bhaskar concedes that this “creates a ‘prima facie’ problem but one that is easily solved by concluding that theories contain a common accepted or supposed causal or explanatory (mechanisms) that is easily distinguishable from regular events or concomitance” (p. 12). The challenge is to isolate the mechanisms from the events they generate in order to generalize laws outside the ‘closed’ system of a lab/observation in which they are identified. In other words, because research inside a lab is controlled the results may not generalize, as there exists mechanisms outside the lab (open systems) that either go unactivated; or be activated, but not perceived; or be activated, but counteracted by other mechanisms, which results in it having unpredictable effects. Therefore, argues CR, there can be no “adequate rationale for the use of laws to explain phenomena in open systems, where no constant conjunctions prevail.” (Bhaskar 1998, p. 14)

Critical realism offers a solution for this weakness in the orthodox philosophy of science, the nonexistence in science of universal empirical generalizations, and hence the inadequacy of the criteria of explanation, confirmation (or falsification), scientific rationality etc. The answer lies, says Bhaskar (1998), in adopting an ontology of structures and transfactually active things to the philosophy of science (knowledge). There is, Bashkar advances an "ontological distinction between scientific laws and patterns of events” (p. 12). Such laws depend upon the existence of ‘natural mechanisms’, and “it is only if we make the assumption of the real independence of such mechanisms from the events they generate that we are justified in assuming that they endure and go on acting in their normal way outside the experimentally closed conditions that enable us to empirically identify them” (p. 13). Likewise, “events must occur independently of the experiences in which they are apprehended. Structures and mechanisms then are real and distinct from the patterns of events that they generate; just as events are real and distinct from the experiences in which they are apprehended. Mechanisms, events and experiences thus constitute three overlapping domains of reality, viz. the domains of the real, the actual, and the empirical” (p. 56).

The ontology of critical realism is stratified into three domains that include the domain of reality, the actual and the empirical. The domain of the empirical is a subset of the domain of the actual, which in turn is a subset of the domain of the real. The domain of ‘real’ are structures and mechanisms of the world; the domain of ‘actual’ are patterns of events that involve a whole series of causal mechanisms, all operating at multi-levels in the stratified world. The domain of empirical, of course, is evidence found by observation or experimentation in a single level reality.

Elements of the domain of the real are mechanisms and structures. Mechanisms are intransitive objects of scientific theory that are not unknowable or artificial nor are they platonic. Mechanisms and structure are elements of the domain of the real. They can become manifest to men in experience. Mechanism are not power driven but go on acting without being fulfilled or actualized whether or not they are perceived by man. So, phenomena of the world are explained by referencing the tendencies, liabilities and powers of generative mechanisms. And, in contrast to the post-Humean theories, CR is concerned with explaining the essential nature of things by examining the enduring natures and ways of acting of independently existing and transfactually active things rather then predicting what is actually going to happen. (Bhaskar, 1998, p 54)

Finally then, CR is concerned with critically analyzing what [entities](http://en.wikipedia.org/wiki/Entities) exist or can be said to exist, and how such entities can be grouped, related within a [hierarchy](http://en.wikipedia.org/wiki/Hierarchy), and subdivided according to similarities and differences. Bhaskar proposes ontology for critical realism that “is a kind of dialetic in which a regularity is identified, a plausible explanation for it is invented, and the reality of the entities and proceses postulated and the explanation is then checked.” (Bhaskar, 1998) He goes on to explain that the empiricist stop at the first stage and other neo-Kantian (idealist/positivist) stop at the second; but critical realism, Bhaskar promotes, moves on to the third step, thereby giving adequate rationale for the use of laws to explain phenomena in open systems. The activity that leads to the third step is to subject the reality of the mechanisms postulated to empirical scrutiny.

**Conclusion**

In a lecture by Dr. Galluzzo on September 13, he shared, and I will hold fast to the idea, that “none of these traditions **(philosophical theories)** goes away. Someone somewhere embodies any one of these, including us, at any given time. As emerging scholars, it is important to know when you are in what tradition and what that might mean for how you interact with others.” Let this be a warning to myself, in stressing the practical component of experimental activity, I must not forget the theoretical side. Theories must be adequately stated so that replies are unambiguous.

Data, this is what I need to give audience to a truth. But in order to accept it, the truth must be able to be performed as the data evidences. And, it must do so across settings and in all contexts. However, I remain skeptical that there is a ‘one-size-fits-all’ theory. I prefer to think of myself as a medley of many traditions. But, with a strong inclination toward the understanding that atomistic events are necessary but cannot provide the only basis of ontology, ‘the world cannot be rationally changed unless it is adequately interpreted.’ (Bhaskar, as cited in Burnett, 2010, p. 2)

Critical realism may prove to be closer to my philosophical leanings. The idea of studying the phenomenon instead of the causal relationship had occurred to me back in October but it did not clarify itself until I read Bhaskar. However, I do not claim to understand this theory as well as I would like. Bhaskar is a dense and complex writer whose words only made sense to me upon a third reading and only after reading other writer’s interpretation of his works. Nevertheless, CR makes sense to me. It provided the methodology that I value in that it offers a set of ‘conditional’ necessary truths about our ordinary world viz. action by mechanisms within context impacts outcome. CR articulated what I’ve been uneasy about in the study of educational philosophies since September: science must include the conditions under which experience is significant in science: “knowledge as socially produced and transient.” (Burnett, 2010, p. ) Knowledge, according to CR, is fallible because people, society, the world changes.

I’ve grappled with understanding and clearly interpreting theories for myself since Ways of Knowing began back in September. I’ve accepted and then rejected theories for the reason that when they stood alone a critical piece of what I needed to accept them was missing. In the rationalist it was the experience piece that did not convince me; in the empiricist theory it was objective reasoning that was missing; in the positivist it was the lack of accounting for the world outside our perception (context). In critical realism it is the notion that there is an interdependence of objects and method of research that are not independent on each other…if they are not? Then what is basis? And, how can we know the existence or non-existence of entities? How can we come to understand when we have realized the intransitives?

In concluding this research paper, however, it is clear to me that my way of knowing is a mixture of many theories with one or two taking the lead according to the circumstances. Albeit, I must admit, beginning with evidence-based data is more comfortable than data that has been accumulated by reasoning without substantial evidence. In this respect, Critical realism resonates with the special education teacher in me. Further inquiry in this theory is, I believe, in my future, as the reflection theory inside CR goes to heart of who I am as an educator. Constant reflection is a special education teacher’s trademark and the hallmark for successful interactions with diverse learners. Also, the objective or intent of CR is worthy of further research: how is the emancipatory potential dependent on transformation of structures? Emancipatory, is this semantics? (Always a problem with theories).

Silvia, I could watch you grow as you wrote this paper. Your writing at the outset was concrete and reportorial, but the farther you got into this topic, the more comfortable your language and syntax became, and a bit more analytical along the way. In the end, you claim this is a good fit for you. Of course, that was not the purpose of the assignment, but if you now have a lens for examining what comes next for you, then that is a good place for now. A

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