

Critical Theory: Broadening Our Thinking to Explore the Structural Factors at Play in Health Professions Education

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Abstract

As part of the Philosophy of Science series of Invited Commentaries, this article on critical theory describes the origins of this research paradigm and its key concepts and orientations (ontology, epistemology, axiology, methodology, and rigor). The authors frame critical theory as an umbrella term for different theories, including feminism, antiracism, and anticolonialism. They emphasize the *structural* analysis that critical scholars conduct to uncover and sometimes

address the role that social, political, cultural, economic, ethnic, and gender factors play in health professions education. They note the importance of acknowledging one's social location when doing critical research and highlight the core values of democracy and egalitarianism that underpin critical research. Methodologically, the authors stress how critical scholars reject singular truths in favor of more nuanced portraits of concepts and events, mobilize inductive approaches

over deductive ones, and use critical theory to develop their projects and analyze their data. Following upon this elucidation of critical theory, the authors apply this paradigm to analyze the sample case of Lee, a medical resident who was involved in a medication error. The authors conclude that research conducted in the critical tradition has the potential to transcend individualistic accounts by revealing underlying structural forces that constrain or support individual agency.

Editor's Note: This article is part of a collection of Invited Commentaries exploring the Philosophy of Science.

Contemporary health professions education is awash in “critical” conversations. The critical perspective is broad and encapsulates, for example, critical theory,¹ critical reflection,² critical evaluation,³ and critical consciousness.⁴ What is the glue that unites these apparently discordant concepts that are gaining traction in the field? What does it mean to be “critical,” beyond proffering a critique or airing criticisms?

This article aims to provide some clarity around these seemingly divergent issues. Conceptual clarity will allow the health professions education community to invoke critical theory with insight and deliberation, bringing social and cultural advancement to the field.

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In this article, we outline a history of critical theory. We then delineate the core concepts and orientations that define critical theory. Finally, to enhance understanding, we illustrate how a critical theorist would approach studying a specific case (see Box 1).

A Quick History of Critical Theory

In the social sciences, critical theory is the branch of knowledge that originated from the Frankfurt School, a school of social theory developed between World War I and World War II, in Germany.⁵ Critical theorists rejected positivistic approaches such as those embraced by Auguste Comte and Émile Durkheim, among others, and were influenced by the Marxian historical, dialectic, and materialistic approach to knowledge creation. Instead of aiming to find universal rules for human behavior, critical scholars favored approaches that underscore people's material conditions of existence and the impact on social and intellectual life. Over the course of the 20th century, critical theory (the umbrella term) opened the way for strands of critical theories that include feminist, antiracist, anticolonialist, queer, and many other positionalities. Critical theory today represents a space that embraces vast social concerns and other conflict theories—that is, theories that stress

intergroup struggles and anchor their analyses in people's everyday lives, often as they are determined by their ascribed characteristics, defined as individual traits over which one has no control, such as race, ethnicity, gender, sexual orientation, age, etc. Box 2 includes key terms and definitions, and Box 3 provides a list of key references.

Grounding Concepts and Orientations

Ontology: The nature of reality

Critical theory assumes an ontological position in which reality is shaped over time by structures such as social, political, cultural, economic, ethnic, and gender constructs.⁶ These structures, and other institutional and cultural forces, interact dynamically to form the tapestry of social life.⁷ Social structures are elaborate and can determine one's thinking and behavior, often unconsciously.

Examining the globalization of medical education, a postcolonial critical theorist could question the very notion of “universal standards,” particularly as these have mostly been developed by and represent the dominant worldview of Euro-Americans. She would investigate how local populations in Ethiopia, for instance, relate and respond to pressures to harmonize their medical school

Box 1

Sample Case^a

Lee was a resident assigned to monitor a postop patient. The patient had a periodically low respiratory rate and lower-than-normal pulse and blood pressure. Narcan was ordered on an “as needed” basis, to be given in doses of 0.2 mg intravenously. In checking the patient’s vitals, Lee decided it was time to administer an intravenous (IV) dose of Narcan.

Once Lee injected the vial of Narcan into the IV port, Lee noticed it was labeled “2 milligrams per 1 milliliter (ml)” —the entire vial should not have been injected. Feeling panicky, Lee reported the mistake to an attending and rushed back to the patient’s side to monitor the vital signs. Lee was surprised to find that the patient’s vitals had come up to normal rates, and the patient was actually much more alert. When Lee reported this change to the attending surgeon and anesthesiologist, they told Lee to continue to monitor the patient closely, remarking that it may have been just what the patient needed.

Lee felt hugely relieved, but was still overwhelmed and very upset. In most cases, giving 10 times a normal dose of any medication could have led to extremely serious consequences, and even death. Still, Lee managed to remain outwardly composed and took the time to complete an incident report. At the end of the day, when Lee finally sat down to rest, the incident played over and over again. Lee did not sleep.

^aThis sample case is used throughout the Philosophy of Science Invited Commentaries to illustrate each research paradigm.

curricula with these Euro-American “universal standards.” Similarly, a feminist critical theorist might examine how the gendered hierarchies of medical training are created and maintained and how these constrain women trainees’ future achievements. Critical theorists are thus attentive to inequitable power relations, aim to raise consciousness, and, in doing so, some seek to emancipate those entangled in oppressive social dynamics.⁸

Critical theorists and scholars consider social reality as shaped partly through discourses: a set of tacit rules mediated by language and symbols that regulate what can or cannot be said, who has the authority to speak, who must listen and obey, and whose social constructions and experiences are valid or invalid.⁷ Yet these “truths” can always be challenged by competing groups with different

agendas.^{7,9} Disruptive change is made possible by identifying, unpacking, and replacing potentially oppressive discourses, and thus critical theory opens up the possibility of human agency, resistance, and change. Yet critical theory can also seem controlling and hegemonic in its own way, by forcing onto others what they can perceive to be a radical view of a future where differences are overly politicized and often dichotomized.

Epistemology: The nature of knowledge

Critical theory takes an epistemological position that all knowledge is constructed from a specific position and that this position is determined at the intersection of the multiple structures that distribute power in a society.⁶ What the critical theorist *can* know is deeply

influenced by, first, the historical location of the objects she tries to understand; and, second, by her own social location in the socially constructed structures of power. This view is reflected, for example, in the work of feminist epistemologists Donna Haraway¹⁰ and Sandra Harding,¹¹ who have criticized empiricist views of science, arguing that all scientists are contextually situated. And so, while research is often reported as “objective,” these scholars contend that there is no “view from nowhere”¹² and so call on scholars to study the social and historical locations of those who do science, so that the influences of their contexts on the science they develop can be examined. A key goal of critical theorists is to problematize or “make strange” an otherwise assumed normative phenomenon to understand and/or change it.

A distinguishing element of critical theory is that reality is recognized to be mediated by language. One simple, yet telling, example of the power of language in medical education is the fact that researchers need to be able to present and publish their research in English to have an internationally recognized voice in the field. Just think about how challenged many native English-speaking researchers would be if overnight the legitimized language changed to Chinese or Amharic, or if they were thrown back to the olden days of Latin scholarship! Critical theorists emphasize how language regulates and dominates, resists and challenges, empowers and liberates based on preexisting power structures.

Different critical theorists have different views of the relationship between language and power, but most would concur that language is both shaped by reality *and* it constructs reality.⁷ Most critical scholars will therefore be qualitative researchers who will be extremely attentive to the linguistic characteristics of their data, as well as their own role co-constructing data and their meaning. From a critical theory perspective, however, language *always* reflects power structures, and therefore it *cannot* be neutral—and this is true for all scholarship, both quantitative and qualitative, since research articles are primarily constituted of text. Science has an inescapable relationship to language, and thus to relationships of power.

Box 2

Key Terms and Definitions

Discourse: A set of statements and ideas mediated through language and symbols that regulate what can or cannot be said, who has the authority to speak (versus whose voices are silenced), what knowledge is legitimized (versus what knowledge is marginalized), and whose social constructions and experiences are valid (versus whose are considered invalid).

Critical: A type of scholarship or inquiry that aims to question the assumptions of dominant forms of thinking by challenging the power relations that are normative and assumed.

Critical theory: An umbrella term for a set of theories that aim to make social structure visible through an analysis of power relations. Strands of critical theories include feminist theories, postcolonial theories, Marxist theories, intersectionality, etc.

Structure: The political, social, cultural, historical, and economic forces that influence individual behavior and thus create predictable patterns based on someone’s social location.

Making (the familiar) strange: A phrase coined by playwright and director Bertolt Brecht. Challenging the dominant way of seeing a phenomenon by uncovering its underlying assumptions and proposing an alternative explanation of things that are taken for granted.

Box 3

Key References on Critical Theory in Education

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Axiology: The study of values and how they influence the research process

More explicitly and reflexively than most other scholars, critical scholars are moved by a particular axiology. The intrinsic values or axiology of critical theory are democracy and egalitarianism, and thus critical work will tend to pursue such values. Critical scholars will also be moved by the assumption that human action is at once constrained by social structures *and* capable of disrupting them.⁷ A large proportion of critical scholars uses the productive aspects of power to create egalitarian, democratic social structures.^{13,14} A specificity of critical scholarship at the epistemological and methodological levels is therefore an interest in the expansion of consciousness toward power dynamics and disruptive acts of language.⁷

Paying attention to axiology allows critical theorists to ask questions such as what values underpin the militaristic metaphors (such as physician "orders," the "war" on cancer, etc.¹⁵) and why are hierarchical structures so pervasive in health care systems? In another example of how critical theorists would study medical education, these scholars would ask If implicit hierarchical values limit representation of marginalized voices (e.g., the precarious workforce, trainees, patients, loved ones), can we ever achieve the learner-centered and patient-centered goals we so often espouse? Or: How is the knowledge learned in medical school reinforcing preexisting worldviews that deny the importance of the social sciences and humanities?^{16,17}

Methodology: How to conduct scientific research

The epistemological and ontological bases of critical theory have important methodological consequences. First, critical scholars will reject totalizing claims about social realities. For example,

a homogeneous "universal truth" about nature, individuals, groups of people, or phenomena will be challenged critically as a "singular truth": a truth that comes from a limited perspective, captured at a specific time and location. To illustrate, a critical theorist would not assume that any educational tool, be it problem-based learning, interprofessional education (IPE), or competency-based medical education, would be appropriate in contexts other than the ones in which they were developed.

Second, critical scholars will generally favor inductive data collection approaches, where the researcher explores a topic using one or more critical theoretical frames of reference (feminism, colonialism, etc.) rather than tests a hypothesis. These scholars will listen closely to data generated in naturalistic settings rather than collect data for a specific purpose in a laboratory setting. A critical theoretical research design will be flexible and naturalistic, and findings will be anchored in their social and historical realities. For instance, instead of simply trying to "neutrally" translate an IPE model from North America to Addis Ababa, the critical theorist might instead ask a research question about, for example, the cultural and historical interprofessional hierarchies and political influences in both North America and Ethiopia and the ways in which they overlap or diverge.

Third, critical scholars will use strands of critical theory to frame their inquiry, define their research question, help analyze their data, and interpret their findings. Theories will likely be used both deductively and inductively. Scholars will use core concepts deductively to guide data analysis and interpretation—using race, gender, or class as lenses through which to understand the world—and use data to inductively refine theory

in their specific context. For example, critical scholars are *always* sensitized to power structures and their impact on individuals, groups, organizations, or social phenomena, including the scholars' own role in the research at hand. Thus, critical scholars researching IPE in Addis Ababa might draw upon postcolonial or feminist theories to examine implications of this educational intervention in this particular low-resource setting.

Rigor: Criteria for evaluating the quality of research

Criteria for quality and rigor will differ from those used in more positivistic paradigms. Instead of validity, reliability, and objectivity, criteria will include credibility, transferability, dependability, and confirmability,¹⁸ all of which are widely used, but also substantive contribution,¹⁹ holism, evocativeness, and emancipatory potential.^{8,20,21} In assessing quality and rigor, a critical scholar would look for evidence that her research contributed to a contextual understanding of a phenomenon that exposed problematic power relations and pointed to a way to reshape hierarchies. For example, does her research open possibilities for North American trainees and patients to feel more or less empowered in health care settings? How does a research project that seeks to articulate hierarchies in Ethiopian health care systems lead to relevant Ethiopian models of education for collaboration? It is in this sense that holism, evocativeness, and emancipatory potential are all facets of high-quality critical research.

Investigating the Case of Lee

In reading the case of Lee (Box 1), a critical scholar would start by situating Lee within their structural, organizational, and interpersonal context. This would include questioning how their environment contributes to their sense of disempowerment and distress about "their" error. Key questions would include how are the structure of health systems, the culture of medicine, expectations of Lee's specific residency program, and interpersonal relationships with peers and authority figures contributing to their emotional response to the event? Depending on Lee's gender identity, a critical scholar might also question the role of gender in Lee's responsibility for administering the drug, instead of

the nurse. If Lee is a woman, was she given this role by a nurse who saw it as Lee's job, and how does this impact the meaning Lee brings to her work? A critical perspective could also focus on other hierarchies and oppressions within the case, for example, the missing perspective of the patient: Where are the patient and family in this story? What are their roles in co-constructing Lee's understanding of the event and later response? What is the historical, cultural, organizational, and political context for this omission? Finally, critical scholars would pay close attention to the language used in the vignette and in any data collected. When studying language in use, does it highlight or veil relationships of influence that contribute to Lee's distress?

In conclusion, we want to encourage readers to use critical theory as a paradigm to conduct health professions education research when their research aims to transcend individualistic and reductionist perspectives. Critical theory broadens our thinking by exploring how a range of different structures influence human organizations, interactions, and behavior. It is of particular relevance when examining social and historical processes through a social justice or discursive lens, and is perfectly suited for the study of power, resistance, and emancipation.

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