Relief for the exhausted post-positivist: New epistemological choices transcend positivism, relativism, and even post-positivism

Un soulagement pour le post-positiviste épuisé : les nouveaux choix épistémologiques transcendent le positivisme, le relativisme, et même le post-positivisme

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In this article, I take up Editor D’Eon’s collegial and generous invitation to respond to articles published in this journal—in this case, his own editorial on the difficulties of being a post-positivist.1* Post-positivism as an epistemology is committed to the pursuit of truth while at the same time acknowledging the difficulty of ever getting there. In line with Dr. D’Eon’s argument, I agree that this is the most rational response to the extremes of postmodern relativism and positivism’s overly optimistic assertion that certain and universal truths can be definitively established.

Where I differ, however, is in accepting that this continuum is our only choice, epistemologically speaking. In recent decades, new theories of learning and knowing have proposed more complex yet pragmatic ways of understanding the relationship between knowers and the world. If you are looking for labels, this new way of thinking is often associated with pragmatism, enactivism, complexity science, sociomaterial, inter-objectivity, and post-human thinking.2

These theories describe human knowing as relating to the world in a similar way to how organisms relate to their environment, how lungs relate to the atmosphere, or how people relate to their workplace: They fit their current context. Whether embodied in individuals or in professions, then, human knowing is about adapting our mental and behavioural networks to cope with our physical and social environments.3

Coherence with current, practical, local situations—rather than correspondence with universal and eternal truths—is what “grounds” this new approach to knowing.

To say that people know something means that they can interact effectively with something else. Knowing is thus an evolving relation, influenced by both the knowers and the things in the world that they interact with. It is NOT an objective fact divorced from human
knowers, NOR a purely subjective social construction divorced from the world, NOR even some kind of post-positivist negotiation between these two positions.

I realize that this argument invites readers to let go of many entrenched and comforting notions of objectivity, subjectivity, truth and research. But this new participatory, relational epistemological position offers several benefits. First, it fits the actual history of science quite well. For instance, it accommodates Kuhn’s description of how scientific paradigms undergo regular and fundamental reformations, rather than closing in on a singular and unchanging objective truth.4

Second, it allows us to meet the postmodern critique that research and knowledge are always political. They are, but that does not mean that our research is merely a relativistic social construction, since the things we study (for example, atoms or organs) also play a big role in what counts as knowledge. For example, our knowledge of how to carry out an immunization campaign will depend not only on political factors, but also the relationship between vaccines and pathogens.

Third, this new epistemological position leads us to reconsider what we do in education. We need to recognize that the curricula we teach are not objective and unchanging facts but rather valuable tools and practices that help us to interact with the world in (hopefully) ever-more effective, nuanced and ethical ways. Our job as educators is to engage students in the collective human enterprise of exploring, expanding, critiquing and improving these tools. As professionals, we certainly need working models to do our jobs, but we need to understand that these models will continue to evolve.

To summarize, I do not think we need anchor our epistemology, research, and teaching in the (elusive) goal of pursuing final, certain and universal truths. I think we now have more productive and practical ways to understand human knowing and the job it does for us. The world may be “out there,” but our knowledge is not. Knowing is a relationship that we continually negotiate and re-negotiate with our world, including other objects, organisms, ecosystems, people and professional or social norms. Such knowledge is incredibly valuable; we don’t need dreams of eternal truths to justify our pursuit of it.

*Editor’s note: From the moment that I contemplated my open invitation to critique the articles in issue 11(5) until I received this letter, never once did it enter my mind that someone would actually comment on or even critique my editorial. I’m not a very good post-positivist.

References

Complex operations require complex mental models. Our traditional model for developing and disseminating professional military knowledge has been tied to a kind of pseudoscience and as such doctrine has historically been akin to finding independent variables (e.g., variations of offensive and defensive activities), that when scripted correctly, are believed to create military effectiveness (with the dependent variables include variations of enemy outcomes, such as defeated or destroyed). The eighteenth century tradition of the Western positivist world view demands a single, best solution – derived “objectively” from the best analysis and best course of action that together drive effects in a focused, Jominian-style pathway. We are on the cusp of shifting paradigms because a doctrine based in positivist philosophy is not working well for us. The text of the new Army FM 3-0, Operations, is an example of how the Army-at-war is transitioning from a positivist to a postpositivist philosophy.

Postpositivism with Respect to Postpositivism

Positivism is a belief system first described by French eighteenth century philosopher, Auguste Comte. Comte argued that there is objective truth only to be found through strict physical scientific method (i.e. isolation and manipulation of variables, hypothesis testing, objective experimentation, replication, and so on). Positivism served the foundation of traditional, post-WW II, US doctrine and tends to neglect the uniqueness and dynamic qualities of complex operations. In that regard, positivist principled approaches to doctrine have failed to account for the emergent properties of complexity where the production of knowledge is both ephemeral (i.e. something being learned now will not apply later) and difficult to describe (i.e. a kind of tacit understanding is achieved by those engaged but cannot be readily transmitted to others). Positivist doctrine focuses on reductionism, empiricism, linearity, mathematical logic, and predictable cause-and-effect relationships.

Postpositivism is nested in the worldview that humans always are biased in their “objective” perceptions of reality; hence, this orientation permits going beyond an empirical sense of reality (i.e. we can never be positive about the way the world of military operations works). Postpositivism suggest that we can only approach the truth of reality, but can never really explain it fully; hence, to appreciate the complexity of life we humans must learn to value multiple perspectives. There can be no one best way of examining the complicated truth; hence, interdisciplinary interpretations are necessary to study reality. Rather than pursuing a quest for an objective, physical sense of reality, postpositivism demands we have to make sense of it all (and accept that this sensemaking
is *subject* to change). Postpositivism does not reject positivism outright, but subordinates the view.

### How Can We “See” the Cusp?

As we stand at the historic juncture between positivist- and emergent postpositivist-philosophies, we need a mental model that will help us to better perceive this transition. Two continua can help us rate where on the scale between positivism and postpositivism our doctrine falls: (1) the endurance continuum (how stable/unstable and unchanging/changing our doctrine is); and, (2) the exclusivity continuum (whether the doctrine relies on one core concept or several, often competing ones). The proposed model (Figure 1) suggests that all types of doctrine must be considered simultaneously to better portray the patterns associated with doctrinal approaches to complex operations.

#### Figure 1. A COMPLEX VIEW OF DOCTRINE

There are four types of doctrinal approaches and they have different relationship to practice, schooling, knowledge and time orientations. An example of *highly positivist* doctrine would be like a UH60 pilot’s preflight checklist. Moderately positivist doctrine would involve more conceptualization and mixing of “known knowns” and “knowable unknowns,” such as the MDMP generated COA and CCIR (both of which may not be relevant after “first contact”). Moderately postpositivist doctrine would involve incorporating...
Let us now examine different aspects of this model separately – temporarily suspending the interconnectedness of the whole. The following sections will refer to this diagram, one portion at a time, beginning with the Type 1, Highly Positivist approach.

**Type 1 Doctrine, Highly Positivist.** Some things during even the most complex operations are predictable and certain and can be addressed through routinized or highly programmed operations (i.e. the “known knowns”). Best practices can be incrementally refined and developed over time; nevertheless, doctrinal solutions remain relatively stable, with small-step, evolutionary improvements. Doctrinal remedies (like independent variables) for a standing list of problems (like dependent variables) can be expressed in predetermined terms of tasks and standards. For example, doctrine expressing how a Soldier, Sailor, Airman, Marine, or Coast Guardsman (military practitioner) must qualify on his or her assigned weapon can be quite effective.

Effectiveness of Type 1 doctrine is assessed as much more objective than subjective, using mathematical probabilities and measures of effectiveness. The conditions for implementing this doctrine would include compliant, regimented, and disciplined military practitioners supervised by a training cadre of noncommissioned officers. Rule-based, sequential, well-oiled, machine-like command and control works well in executing this type of doctrine. The dominant organizational values that support this type of doctrine are associated with stability and control with the chain of command focused on enforcing internal standards, clearly defined standing operating procedures, checklists, and regulations. The time orientation of the doctrine is focused on present-to-past as well-knowing military practitioners try what has worked before and the application is linked tightly to watches, calendars, and schedules. For example, a view of the 1976 edition of Army FM 100-5 (the precursor to 3-0) could be categorized as a positivist doctrine focused on simplicity, linearity, and predictability (see Figure 2). A “trade school” (basic and advanced individual training) approach is suitable for indoctrination of Soldiers in this type.
Figure 2. A 1976 US ARMY HIGHLY POSITIVIST VIEW OF DOCTRINE. A lot of the text in the 1976 Army FM 100-5, Operations, was based in the “science” of estimating probability of kills and how the advancements in high technology has improved them.

Type 2 Doctrine, Moderately Positivist. Multiple things during complex operations can be analyzed (reduced in size and scope), processed, addressed with a blending of known military activities, and by forecasting acceptable risk. For example, rational decision-making processes or templated campaign planning might work well depending on factor analysis of such things as mission, enemy, time and troops available, and terrain and weather. Staffs can develop best practices in estimating processes that help do this well. Doctrine is process oriented and requires well-controlled, hard-science-like research methods to generate creative hypotheses, identify critical factors (variables) and courses of action as well as plans for contingencies if things do not go as planned. Type 2 doctrine prescribes process rather than preset solutions (found in Type 1) and requires military staff practitioners with specialized and practiced analytical skills where hierarchical (commander-centric) decision making works well.
Indeed, in Type 2, the commander is the centerpiece of this doctrine because s/he has been given the legitimate authority and is held accountable and responsible for providing intentions, making decisions and approving contingencies. Subordinate commanders execute these and ensure each level of organization imbeds its part in the whole scheme. As such, there is can be block-and-wire diagrams and auditable trail of responsibilities, like that published in the Chairman’s *Universal Joint Task List*, which are believed to aggregate together to form the macro-level mission performance (Figure 3). Here doctrine attempts to account for all probable contingencies in planning with the same task structure that gives the impression of engineered precision. The dominant values that drive this type of doctrine are, like with Type 1, associated primarily with exclusivity; however, practitioners are much more willing to speculate on what can possibly happen outside the conventional organization of “troop-to-task” and perhaps into the interagency realm. The prevalent time orientation is present-to-future, that is, the doctrinaire should sense a more unstable, low endurance knowledge. Type 2 doctrine moderately positivist approaches call for planned activities are driven by forecasted conditions. A “professional school” setting (like the traditional command and general staff college) is appropriate for training and educating Soldiers for this type.

![Diagram](image)

**Figure 3.** “War as Hierarchy.” This is a diagram borrowed from page B-A-3 of the *Universal Joint Task List*, Chairman of the Joint Chiefs of Staff Manual 3500.04, dated 1 July 2002. There are layers of sub-tasks to these tasks later in the manual.
It represents a moderately positivistic, “building block” approach to explaining of operations.

Type 3 Doctrine, Moderately Postpositivist. Some things in complex operations appear irrational to doctrinaires, sparked by human emotions, aesthetic appeal, interorganizational squabbles, and subjective beliefs. In light of these conditions, events cannot be very well predicted or planned, but can better be studied retrospectively and farmed for “lessons.” In that regard, Type 3 doctrine can best be described as the use of competing interpretations and for developing historic analogies. Qualities can be described in Type 3 as enduring aspects of the craftwork of conducting complex operations. For example, one could describe successful counterinsurgency operations as "a statue in that piece of marble somewhere -- I just have to chip away until I can ‘see’ the patterns emerge; and what I make of this may not appeal to all." This is not to say that types 1 and 2 doctrines are ignored.

On the contrary, competing images in moderately positivist approaches require a lot of improvisation -- a *bricolage* approach (i.e. creating new somethings from new ways of configuring old somethings). Using Type 3 doctrine is analogous to performing in an advanced painting class, which is when the practitioner is armed with some proven techniques and makes something work with tools, materials, and concepts in hand. The “art critics” (in the civil-military context -- the “policymakers”) may like the result and may not, or assess performance somewhere in between. Each “art student” (from various agencies and organizations involved in complex operations) can “make” something different and yet still “sell” their work. The effectiveness of Type 3 doctrine is in the eyes of many beholders, to include the good guys, the bad guys, the neutrals, and so on (the old adage “where you stand depends on where you sit” comes to mind).

Like Type 1, Type 3 doctrinal meanings are inherently more enduring than in types 2 and 3. For Type 3 doctrine, however, “principles of war” may be better seen as patterned tradeoffs than a list. Instead of categorically describing doctrine (as positivistic approaches would call for), more postpositivist methods would call for viewing the world through overlapping continua (Figure 4). As a result, this type of doctrine requires improvisation, mentally agility, and collaborative military practitioners to act and learn (and perhaps purposefully forget) in tandem. Military practitioners attempt to communicate with rich description and shared sensemaking associated with emergent mental models that might work better than the ones available or published in types 1 and 2. Rather than taking cues from so-called “lessons learned” associated with more exclusive meanings found in Types 1 and 2 doctrines, meaningfulness is an ongoing and fluid process of mutual adjustment that takes the form of "collaborative inquiry" as one would in a graduate seminar at a university with a diversity of students and faculty participating. The prevailing time orientation is *past-to-present*, in that history plays an important part in framing complex situations, and the realization that different organizations and social cultures bring different interpretations the context at hand.
Type 4, Highly Postpositivist. At the far reaches of Type 4 doctrine, the "context" is understood only by the few who are “in it” and because no one outside the context knows what “right” looks like until “it” is being experienced. The dominant conditions that create the need for competing images doctrine are military practitioners that respect alternative interpretations, value resilience, flexibility, experiential learning, and local initiative in the face of highly unstable operational situations. Meaning in this doctrine type (perhaps this should be better named the “anti-doctrine”) is more contextual and fleeting because high complexity prohibits the ability to even imagine what is happening or what will happen next. In this type, how we make sense is paradoxically "non-routine" where learning too ephemeral in a real-time dynamic. Doctrinaires who have prepared doctrine in Types 1, 2, and 3 modes now contemplate how to describe ephemeral knowledge that may not be relevant in a minute, hour, week, or month later or three blocks over. Marine General Chuck Krulak used the metaphor of the “three-block war” to attempt to describe a more complex view of operations, but even his metaphor only applies up to Type 3 doctrine. Ideally, military practitioners who appreciate complexity are well aware that what they do or do not do now may so affect the operation dramatically in the next few minutes and realize there is neither a way to isolate those variables nor to predict the outcome of their interaction.

Operational participants (the good, the bad, the neutral, and so on) at many levels see things work and not work in various and always changing combinations and among multiple time orientations. From the Type 4 perspective, interactive feedback loops may sometimes come too fast to react and sometimes too slow to be useful, so perceptions of
failure now may be ultimate successful later. Or, what we see now as success may eventually turn out to be failure (our sense of mission accomplishment in 2003 with retrospect to the emergent conditions in Iraq of today). Military practitioners cannot "invent doctrine" along the way as with Type 3; therefore, must appreciate that professional knowledge will never be stable and may need to be different at different times and in different units. Expertise is short-lived and is neither linked to positional authority nor rank. Contrary to the prevailing folklore of the positivist military, hope becomes a method because positive and negative effects appear serendipitously rather than with probable cause. The time orientation or Type 4 doctrine is characterized by future-to-present (i.e. with the temporal quality of, at best, accepting the ambiguity of exploration, or at worst, feeling hopeless in the constant surprises of the unknowable future). The emerging concept of “Commander’s Appreciation” may lead to a highly postpositivist view of Army operations in the future as indicated with the publication of TRADOC PAM 525-5-500 (Figure 5).

**d. Complex Adaptive Systems.** The speed with which even irregular forces learn and adapt adds a temporal dimension to complexity. The ability to learn and adapt while fighting marks future adversaries and the societies from which they come as complex adaptive systems. Such systems “exhibit coherence under change, via conditional action and anticipation, and they do so without central direction.” Irregular forces, because they are less segmented and hierarchical, can change not only their fighting techniques, but also their organization and the very objectives for which they are fighting.

(3) Every ill-structured problem is essentially unique and novel. Historical analogies may provide useful insights—particularly on individual aspects of a larger problem—but the differences between even similar situations are profound and significant. The political goals at stake, stakeholders involved, cultural milieu, histories, and other dynamics will all be novel and unique to a particular situation.

**Figure 5. EVIDENCE OF AN EMERGENT HIGHLY POSTPOSITIVIST VIEW.** These are two extracts from the 28 January 2008 TRADOC PAM 525-5-500, Commander's Appreciation and Campaign Design (p. 7 and p. 10, respectively). Note the shift toward the highly postpositivist view of operations.

The impending release of FM 3-0, Operations, is based roughly in Types 1 and 2 (with a growing incremental increase of Type 3), is still too tightly linked to positivism. Figure 6 demonstrates the pattern of positivism-postpositivism presently documented in the next FM 3-0.
Figure 6. A SNAPSHOT PATTERN OF THE NEW FM 3-0. This is the author’s subjective rating of the pattern of positivist and postpositivist approaches found in the Army’s new *Operations* field manual.

The proposed way ahead is to think of these simultaneous versions of doctrine and develop the kinds of military practitioners who are mindful of a more patterned view of complex operations. The effective military practitioner attempts to diagnose the situation s/he is in and reflect on which pattern of doctrine seems appropriate. Perhaps uncomfortable to today’s military culture, paradox, irony, and surprise are aspects of complex operations that will require a pronounced shift in the way we construct reality and communicate that reality with each other and those outside the profession. Building on an impending postpositivist movement in the military profession, this essay has proposed a typology of doctrine that will aid both doctrinaires and practitioners enhance the professional military construction of knowledge.

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Postpositivism or postempiricism is a metatheoretical stance that critiques and amends positivism and has impacted theories and practices across philosophy, social sciences, and various models of scientific inquiry. While positivists emphasize independence between the researcher and the researched person (or object), postpositivists argue that theories, hypotheses, background knowledge and values of the researcher can influence what is observed. Postpositivists pursue objectivity by recognizing the possible effects of biases. While positivists emphasize quantitative methods, postpositivists consider both quantitative and qualitative methods to be valid approaches.

Postpositivists believe that human knowledge is based not on a priori assessments from an objective individual, but rather upon human conjectures. As human knowledge is thus unavoidably conjectural, the assertion of these conjectures are warranted, or more specifically, justified by a set of warrants, which can be modified or withdrawn in the light of further investigation. However, postpositivism is not a form of relativism, and generally retains the idea of objective truth.

Ontology

Postpositivists believe that a reality exists, but, unlike positivists, they believe reality can be known only imperfectly and probabilistically. Postpositivists also draw from social constructionism in forming their understanding and definition of reality.
While positivists believe that research is or can be value-free or value-neutral, postpositivists take the position that bias is undesired but inevitable, and therefore the investigator must work to detect and try to correct it. Postpositivists work to understand how their axiology (i.e. values and beliefs) may have influenced their research, including through their choice of measures, populations, questions, and definitions, as well as through their interpretation and analysis of their work.[3]

**History**

Historians identify two types of positivism: classical positivism, an empirical tradition first described by Henri de Saint-Simon and Auguste Comte,[1] and logical positivism, which is most strongly associated with the Vienna Circle, which met near Vienna, Austria, in the 1920s and 1930s.[3] Postpositivism is the name D.C. Phillips[3] gave to a group of critiques and amendments which apply to both forms of positivism.[3]

One of the first thinkers to criticize logical positivism was Karl Popper. He advanced falsification in lieu of the logical positivist idea of verificationism.[3] Falsificationism argues that it is impossible to verify that beliefs about universals or unobservables are true, though it is possible to reject false beliefs if they are phrased in a way amenable to falsification. Thomas Kuhn's idea of paradigm shifts offers a broader critique of logical positivism, arguing that it is not simply individual theories but whole worldviews that must occasionally shift in response to evidence.[3]

Postpositivism is not a rejection of the scientific method, but rather a reformation of positivism to meet these critiques. It reintroduces the basic assumptions of positivism: the possibility and desirability of objective truth, and the use of experimental methodology. The work of philosophers Nancy Cartwright and Ian Hacking are representative of these ideas. Postpositivism of this type is described in social science guides to research methods.[5]

**Structure of a postpositivist theory**

Robert Dubin describes the basic components of a postpositivist theory as being composed of basic "units" or ideas and topics of interest, "laws of interactions" among the units, and a description of the "boundaries" for the theory.[3] A postpositivist theory also includes "empirical indicators" to connect the theory to observable phenomena, and hypotheses that are testable using the scientific method.[3]

According to Thomas Kuhn, a postpositivist theory can be assessed on the basis of whether it is "accurate", "consistent", "has broad scope", "parsimonious", and "fruitful".[3]

**Main publications**

- Karl Popper (1934) *Logik der Forschung*, rewritten in English as *The Logic of Scientific Discovery* (1959)
- Thomas Kuhn (1962) *The Structure of Scientific Revolutions*
- Karl Popper (1963) *Conjectures and Refutations*
- Ian Hacking (1983) *Representing and Intervening*
- Andrew Pickering (1984) *Constructing Quarks*
- Peter Galison (1987) *How Experiments End*
- Nancy Cartwright (1989) *Nature's Capacities and Their Measurement*
See also

- Antipositivism
- Philosophy of science
- Scientism
- Sociology of scientific knowledge

Notes


References

- Moore, R. (2009), Towards the Sociology of Truth, London; Continuum.

External links

- Positivism and Post-positivism (http://www.socialresearchmethods.net/kb/positvsm.php)

Abstract

Before carrying out the empirical analysis of the role of management culture in corporate social responsibility, identification of the philosophical approach and the paradigm on which the research carried out is based is necessary. Therefore, this chapter deals with the philosophical systems and paradigms of scientific research, the epistemology, evaluating understanding and application of various theories and practices used in the scientific research. The key components of the scientific research paradigm are highlighted. Theories on the basis of which this research was focused on identification of the level of development of the management culture in order to implement corporate social responsibility are identified, and the stages of its implementation are described.

Keywords: philosophy of scientific research, paradigm, epistemology, artifacts, values and beliefs, basic beliefs, formal and informal factors

1. Introduction

1.1. Relevance of the research

Scientific research philosophy is a system of the researcher’s thought, following which new, reliable knowledge about the research object is obtained. In other words, it is the basis of the research, which involves the choice of research strategy, formulation of the problem, data collection, processing, and analysis. The paradigm of scientific research, in turn, consists of ontology, epistemology methodology, and methods. Methodological choice, according to Holden and Lynch [1], should be related to the philosophical position of the researcher and the analyzed social science phenomenon. In the field of research, several philosophical approaches are possible; however, according to the authors, more extreme approaches can be delimiting. Only intermediary philosophical approach allows the researcher to reconcile philosophy, methodology, and the problem of research. However, Crossan [2] drew attention to the fact that sometimes
there is a big difference between quantitative and qualitative research philosophies and methods, and triangulation of modern research methods is common. It is therefore very important to understand the strengths and weaknesses of each approach. This allows preparing for the research and understanding the analyzed problem better. The theories of research philosophy and paradigms, on the basis of which the research in the monograph focuses on identifying the level of development of the management culture in order to implement corporate social responsibility, are presented in figures that distinguish the levels of organizational culture and their interaction, that is, corporate social responsibility stages, which reflect the philosophy and paradigm of this research.

The problem of the research is raised by the following questions: what are the essential principles of research philosophy and paradigm? and how to apply them to form the research position?

The level of problem exploration. The chapter presents the thoughts of the authors who analyze research philosophy [3–8] and paradigm [3, 9–11], relating them to the key researches of this monograph.

The object of this study is to understand essential principles of research philosophy and paradigm.

The purpose of the research is to analyze the essential principles of research philosophy and paradigm, substantiating the position of the key researches of this monograph.

The objectives of this research are (1) to discuss the fundamental aspects of research philosophy and paradigm; and (2) to substantiate the position of culture management and corporate social responsibility research.

Methods of the research. The descriptive method, analysis of academic sources, generalization, and systematization were used as the methods in this study. Graphical representation and modeling methods were used to convey the position of the research.

2. Philosophy and paradigm of scientific research

2.1. Scientific research philosophy

Each researcher is guided by their own approach to the research itself. It is said that Mill [12] was the first who called representatives of social sciences to compete with ancient sciences, promising that if his advice was followed, the sudden maturity in these sciences would appear. In the same way as their education appeared from philosophical and theological frames that limited them. Social sciences accepted this advice (probably to a level that would have surprised Mill himself if he were alive) for other reasons as well [3, 13]. Research philosophy can be defined as the development of research assumption, its knowledge, and nature [7]. The assumption is perceived as a preliminary statement of reasoning, but it is based on the philosophizing person’s knowledge and insights that are born as a product of intellectual activity. Hitchcock and Hughes [4] also claim that research stems from assumptions. This
means that different researchers may have different assumptions about the nature of truth and knowledge and its acquisition [6]. Scientific research philosophy is a method which, when applied, allows the scientists to generate ideas into knowledge in the context of research. There are four main trends of research philosophy that are distinguished and discussed in the works by many authors: the positivist research philosophy, interpretivist research philosophy, pragmatist research philosophy, and realistic research philosophy.

**Positivist research philosophy.** It claims that the social world can be understood in an objective way. In this research philosophy, the scientist is an objective analyst and, on the basis of it, dissociates himself from personal values and works independently.

The opposite to the above-mentioned research philosophy is the interpretivist research philosophy, when a researcher states that on the basis of the principles it is not easy to understand the social world. Interpretivist research philosophy says that the social world can be interpreted in a subjective manner. The greatest attention here is given to understanding of the ways through which people experience the social world. Interpretivist research philosophy is based on the principle which states that the researcher performs a specific role in observing the social world. According to this research philosophy, the research is based and depends on what the researcher’s interests are.

**Pragmatist research philosophy** deals with the facts. It claims that the choice of research philosophy is mostly determined by the research problem. In this research philosophy, the practical results are considered important [5]. In addition, according to Alghamdi and Li [14], pragmatism does not belong to any philosophical system and reality. Researchers have freedom of choice. They are “free” to choose the methods, techniques, and procedures that best meet their needs and scientific research aims. Pragmatists do not see the world as absolute unity. The truth is what is currently in action; it does not depend on the mind that is not subject to reality and the mind dualism.

**Realistic research philosophy** [5] is based on the principles of positivist and interpretivist research philosophies. Realistic research philosophy is based on assumptions that are necessary for the perception of subjective nature of the human.

2.1.1. **Scientific research paradigm**

The scientific research paradigm helps to define scientific research philosophy. Literature on scientific research claims that the researcher must have a clear vision of paradigms or worldview which provides the researcher with philosophical, theoretical, instrumental, and methodological foundations. Research of paradigms depends on these foundations [14]. According to Cohen et al. [6], the scientific research paradigm can be defined as a wide structure encompassing perception, beliefs, and awareness of different theories and practices used to carry out scientific research. The scientific research paradigm is also characterized by a precise procedure consisting of several stages. The researcher, getting over the mentioned stages, creates a relationship between research aims and questions. The term of paradigm is closely related to the “normal science” concept. Scientists who work within the same paradigm frame are guided by the same rules and standards of scientific practice. “That is how the scientific community supports itself,” claims Ružas [15] citing the French post-positivist Kuhn [16].
The scientific research paradigm and philosophy depend on various factors, such as the individual's mental model, his worldview, different perception, many beliefs, and attitudes related to the perception of reality, etc. Researchers' beliefs and values are important in this concept in order to provide good arguments and terminology for obtaining reliable results. The researcher's position in certain cases can have a significant impact on the outcome of the research [11]. Norkus [17] draws attention to the fact that the specialists of some subjects of natural science are able by using free discussion to come to general conclusions the innovations of which are really “discoveries,” some of them are significant and some are not. Such consensus is difficult to achieve in social sciences. Academic philosophers claim this fact by the statement that “multi-paradigmatism” is characteristic to the humanities and social sciences, i.e., the permanent coexistence and competition of many different theoretical paradigms.

Gliner and Morgan [9] describe the scientific research paradigm as the approach or thinking about the research, the accomplishing process, and the method of implementation. It is not a methodology, but rather a philosophy which provides the process of carrying out research, i.e., directs the process of carrying out research in a particular direction. Ontology, epistemology, methodology, and methods describe all research paradigms [3, 10, 14]. Easterby-Smith et al. [18] discuss three main components of the scientific research paradigm, or three ways in order to understand the philosophy of research (Table 1).

The three paradigms (positivist, constructivist, and critical) which are different by ontological, epistemological, and methodological aspects are also often included in the classification of scholarly paradigms [19]. In addition, Mackenzie and Knipe [20] present unique analysis of research paradigms with the most common terms associated with them. According to Mackenzie and Knipe [20], the description of the terminology is consistent with the descriptions by Leedy and Ormrod [21] and Schram [22] appearing in literature most often, despite the fact that it is general rather than specific to disciplines or research. Somekh and Lewin [23] describe methodology as a set of methods and rules, on the basis of which the research is carried out, and as “the principles, theories and values underlying certain approach to research.” In Walter’s [24] opinion, methodology is the support research structure, which is influenced by the paradigm in which our theoretical perspective “lives” or develops. Mackenzie and Knipe [20] state that in most common definitions, it is claimed that methodology is a general approach to research related to the paradigm or theoretical foundation, and the method includes the systematic ways, procedures, or tools used for data collection and analysis (Figure 1).

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<th>Components of research paradigm</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Epistemology</td>
<td>General parameters and assumptions associated with an excellent way to explore the real world nature.</td>
</tr>
<tr>
<td>Ontology</td>
<td>General assumptions created to perceive the real nature of society (in order to understand the real nature of society).</td>
</tr>
<tr>
<td>Methodology</td>
<td>Combination of different techniques used by the scientists to explore different situations.</td>
</tr>
</tbody>
</table>

Source: Easterby-Smith et al. [18].

Table 1. Three components of scientific research paradigm.
**Basic methods**

Terminology often associated with basic research paradigms

- Experimental
- Half experimental
- Correlating
- Reductionism
- Theory examination
- Causal relative
- Determination
- Regulatory

**Data collection measures (examples)**

- Experiments
- Half experiments
- Tests
- Scales

**Qualitative, quantitative and mixed methods.**

A wide spectrum of measures, a special need to prevent discrimination, for example, sexism, racism and homophobia.

- Interview
- Observation
- Document study
- Image data analysis

- Action consequences
- Focused on the problems
- Pluralist
- Focused on the application in the real world
- Mixed methods

Figure 1. Paradigms: terminology, methods, and means of data collection. Source: Adapted by the authors: Mackenzie and Knipe [20], Mertens [25], Creswell [10].
Mackenzie and Knipe [20] state that it is the paradigm and the research question that should determine which data collection and analysis methods (qualitative/quantitative or mixed) would be the most appropriate for research. In this way, the researchers do not become “the researchers of quantitative, qualitative or mixed methods,” but they adapt the data collection and analysis method that is most suitable for a specific research. According to the authors, the use of several methods may be possible to adapt to any and all paradigms instead of having one single method that could potentially dilute and unnecessarily limit the depth and richness of the research project.

The scientific paradigm refers to a range of problems, by presenting ways of their solutions. The methods are detailed and compared in Table 2 with regard to the basic paradigms.

Although the paradigm has already been mentioned, but for the researcher, in order to understand different combinations of research methods, it is necessary to analyze the basic concepts and to perceive the philosophical position of research problems.

<table>
<thead>
<tr>
<th>Paradigm</th>
<th>Ontology</th>
<th>Epistemology</th>
<th>Research methods</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>↓</strong></td>
<td><strong>↓</strong></td>
<td><strong>↓</strong></td>
</tr>
<tr>
<td>The whole of theoretical and methodological assumptions (adopted by the scientific community), a specific research of which is based on</td>
<td>Existence theory, focused on what exists, is based on a particular paradigm assertions about reality and truth, and it is a theory about the nature of reality</td>
<td>The theory interested in how the researcher can gain knowledge about the phenomena of interest to him, namely, examination of what separates a reasonable assurance from the opinion</td>
<td>They include systematic ways, procedures, and tools used for data collection and analysis</td>
</tr>
<tr>
<td>Constructivism</td>
<td>Relativistic reality is socially or experimentally based, local, and specific in nature</td>
<td>The knowledge consists of mental structures that are surrounded by the relative agreements</td>
<td>Case studies, interview</td>
</tr>
<tr>
<td>Interpretivism</td>
<td>Researcher and reality are inseparable</td>
<td>Knowledge is based on the abstract descriptions of meanings, formed of human experiences</td>
<td>Case studies, interviews, phenomenology, ethnography, ethnomethodology</td>
</tr>
<tr>
<td>Symbolic interpretivism</td>
<td>Research and reality intertwine</td>
<td>Knowledge is created through social interactions and their resulting meanings</td>
<td>Grounded theory</td>
</tr>
<tr>
<td>Pragmatism</td>
<td>The reality is ambiguous, but based on the language, history, and culture respect</td>
<td>Knowledge is derived from experience. The researcher restores subjectively assigned and “objective” meaning of other actions</td>
<td>Interview, case study, surveys</td>
</tr>
<tr>
<td>Positivism</td>
<td>The reality is objective and perceived</td>
<td>Acquisition of knowledge is not related to values and moral content</td>
<td>Survey, experiment, quasi-experiment</td>
</tr>
</tbody>
</table>

*Source:* Adapted by the authors according to Hitchcock and Hughes [4], Kuhn [16], Mackenzie and Knipe [20], Walker and Evers [26], Brewerton and Millward [27], Delanty and Strydom [28], Bagdonas [29], Phiri [30], etc.

**Table 2.** Comparison of the main paradigms with regard to ontology, epistemology, and research methods.
Kuhn [16] introduced the concept of paradigm (gr. paradeigma—example model) in the science philosophy. Kuhn calls a paradigm a generally accepted scientific knowledge achievement which provides the scientists with problem raising and solving methods for a period of time. According to the author, when some old ideas are being replaced by the new ones, i.e., better, more advanced, etc., then the progress in science is stated. In natural sciences, this is going on confirming the hypothesis by logical arguments and empirical research. When the scientific community reaches a consensus, there appears accepted theory on its basis [16]. Bagdonas [29] describes a paradigm as the whole of theoretical and methodological regulations, that is, regulations adopted by the scientific community at a certain stage of development of science and applied as an example, the model, the standard for scientific research, interpretations, evaluation, and hypotheses to understand and solve objectives arising in the process of scientific knowledge. The transition from one competing paradigm to another is the transition from one non-commensurable thing to the other, and it cannot go step by step, promoted by logical and neutral experience [31].

A more detailed discussion of ontology requires the emphasis of the insights of various scientists. Hitchcock and Hughes [4] state that ontology is the theory of existence, interested in what exists, and is based on assertions of a particular paradigm about reality and truth. Other authors [28] simply identify it as a theory about the nature of reality. Hatch [32] notes that ontology is related to our assumptions about reality, i.e., whether reality is objective or subjective (existing in our minds). The most important questions that differentiated the research by far are threefold and depend on whether differences among assumptions are associated with different reality construction techniques (ontology) where, according to Denzin and Lincoln [33], the majority of questions asked are “what are the things in reality?” and “how do they really happen?”. Ontological questions are usually associated with real existence and operation matters [33], varying forms of knowledge about reality (epistemology), since epistemological questions help to ascertain the nature of relationship between the researcher and the respondent, and it is postulated that in order to make an assumption about the true reality, the researcher must follow the “objectivity and value distancing position” to find out what things are in reality, how they occur [33], and certain reality cognition techniques (methodology). With the help of methodological questions, the researcher mostly tries to figure out ways by which he can get to know his concerns [33].

Further analysis of the epistemology terminology presents different interpretations by various authors. For example, according to Brewerton and Millward [27], epistemology refers to the examination of what separates reasonable assurance from the opinion. According to Walker and Evers [26], generally speaking, epistemology is interested in how the researcher can receive knowledge about the phenomena of interest to him. Wiersma and Jurs [11] describe epistemology as a research which attempts to clarify the possibilities of knowledge, the boundaries, the origin, the structure, methods and justice, and the ways in which this knowledge can be obtained, confirmed, and adjusted. Hitchcock and Hughes [4], talking about the impact on epistemology, emphasize that it is very big for both data collection methods and research methodology. Hatch [32] highlights the idea that epistemology is concerned with knowledge—specific questions presented by the epistemology researchers are how people create knowledge, what the criteria enabling the distinction of good and bad knowledge are, and how
should reality be represented or described? Epistemology is closely related to ontology, because the answers to these questions depend on the ontological assumptions about the nature of reality and, in turn, help to create them. Sale et al. [34], Cohen et al. [6], and Denzin and Lincoln [33] note that epistemological assumptions often arise from ontological assumptions. The former encourage a tendency to focus on methods and procedures in the course of research. Šaulauskas [35] points out that, in general, modern Western philosophy is a “pure” epistemology establishment, and its systemic dissemination vector is basically the reduction of the whole theoretical vision of gender in epistemological discussion.

It is said that in order to understand the reality there are three main types of paradigms to be employed, namely positivism, interpretivism, and realism. The conception of positivism is directly related to the idea of objectivism. Using this philosophical approach, the researchers express their views in order to assess the social world, and instead of subjectivity, they refer to objectivity [36]. Under this paradigm, researchers are interested in general information and large-scale social data collection rather than focusing on details of the research. In line with this position, the researchers’ own personal attitudes are not relevant and do not affect the scientific research. Positivist philosophical approach is most closely associated with the observations and experiments, used for collection of numerical data [18]. In the sphere of management research, interpretivism can still be called social constructionism. With this philosophical point of view, the researchers take into account their views and values so that they could justify the problem posed in the research [18]. Kirtiklis [37] notes that while positivistic philosophy critical trend encourages strict separation of scientific problems solved by research from “speculative” philosophical problems and thus rejects the philosophy, the other trend, called interpretivism, on the contrary, states that philosophy cannot be strictly separated from social sciences, but it must be incorporated or blended into them. With the help of this philosophy, the scientists focus on the facts and figures corresponding to the research problem. This type of philosophical approach makes it possible to understand specific business situations. Using it, the researchers use small data samples and assess them very carefully in order to grasp the attitudes of larger population segments [38]. Realism, as a research philosophy, focuses on reality and beliefs existing in a certain environment. Two main branches of this philosophical approach are direct and critical realism [39]. Direct realism is what an individual feels, sees, hears, etc. On the other hand, in critical realism, the individuals discuss their experience in specific situations [40]. It is a matter of social constructivism, as individuals try to justify their own values and beliefs.

Analyzing other types of paradigms, in a sense, not qualified as the main, constructivism, symbolic interpretivism, pragmatism should be mentioned. The constructivism paradigm in some classifications of paradigms is called the “interpretative paradigm” [19]. There is no other definition in ontology, epistemology, and methodology; both approaches [41] have a common understanding of the complex world experience from the perspective of the individuals having this experience. The constructivists point out that various interpretations are possible because we have multiple realities. According to Onwuegbuzie [42], the reality for constructivists is a product of the human mind, which develops socially, and this changes the reality. The author states that there is dependence between what is known and who knows. So, for this reason, the researcher must become more familiar with what is being researched.
Analyzing symbolic interpretivism through the prism of ontology, it can be said that it is the belief that we cannot know the external or objective existence apart from our subjective understanding of it; that, what exists, is what we agree on that it exists (emotion and intuition: experience forms behind the limits of the five senses). Analyzing symbolic interpretivism through epistemological aspect, all knowledge is related to the one who knows and can be understood only in terms of directly related individuals; the truth is socially created through multiple interpretations of knowledge objects created in this way, and therefore they change over time [32]. Pikturnaitė and Paužuolienė [43] note that scientists in most cases when analyzing organizational culture communication and dissemination examine the behavior, language, and other informal aspects that need to be observed, understood, and interpreted. Pragmatism, as a philosophy trend, considers practical thinking and action ways as the main, and the criterion of truth is considered for its practical application. However, as noted by Ružas [15] who analyzed Kuhn’s approach [16], since there are many ways of the world outlook and it is impossible to prove that one of them is more correct than the other, it should be stated only that in the science development process, they change each other.

The theories, according to which this research concentrates on the management culture development-level setting for the implementation of corporate social responsibility, are presented in Figure 2, which distinguishes organizational culture levels and their interaction. Figure 3 defines corporate social responsibility stages that reflect the scientific research philosophy and the paradigm of this survey.

In order to relatively “separate” management culture from organizational culture, one must look into their component elements of culture. For this reason, below organizational culture levels and components forming them are discussed in detail.

According to Schein [45, 46], artifacts are described as the “easiest” observed level, that is, what we see, hear, and feel. The author presents a model that if you happen to go to organizations, you can immediately feel their uniqueness in the way “they perform the work,” that is, open-space office against closed-door offices; employees freely communicating with each other against the muted environment; and formal clothing against informal clothing. However, according to the author, “you should be careful by appealing to these attributes when deciding whether we like or do not like the organization, whether it is operating successfully or unsuccessfully, as at this observation stage it is not clear why organizations present themselves and interact with one another in such a particular way.” Schein [45, 46] elaborates the supported values by considerations that “in order to better understand and decipher why the observed matters happen on the first level, people within the organization should be asked to explain that. For example, what happens when it is established that two similar organizations have very similar company values recorded in documents and published, principles, ethics and visions in which their employees believe and adhere to – i.e., described as their culture and reflecting their core values – for all that, the natural formation and working styles of the two organizations are very different, even if they have similar supported values?” According to the author, in order to see these “imbalances,” you need to realize that “unhindered behavior leads to a deeper level of thought and perception.” In shared mental models, for understanding this “deeper” level of culture, one should study the history of the organization, that is, what were
the original values, beliefs, and assumptions of its founders and key leaders, which led to the success of the organization? Over time they have become common and are accepted as self-evident as soon as new members of the organization realized that the original values, beliefs, and assumptions of its founders led to organizational success, that is, through common
cognition/assimilation of “correct” values, beliefs, and assumptions. Cultural levels distinguished by Schein [45, 46] can be “transferred” to the organizational culture iceberg levels formed by French and Bel [44]. According to the authors [45–48, 51], visible organizational structures consist of ceremonies, communication, heroes, habits, management methods, and so on. French and Bel [44] distinguish between these formal and informal elements of organizational culture: formal—aims, technology, structure, skills and abilities, financial resources;
informal—approaches, values; feelings—anger, fear, frustration, etc.; and interaction group
rates. Franklin and Pagan [50] detail the formal and informal structure of organizational
culture factors, allocating them into tangible and intangible factors. Tangible factors (formal
or officially authorized) are socialization and/or acculturation experience (if the organization
takes care of timely and detailed orientation, it is more likely that the manager will use the
process of formal discipline); written documents (if the manager is presented with the relevant
policy and relevant procedures, it is more likely that the manager will use the formal discipline
process); training (if the organization organizes training on discipline issues, it is more likely
that the manager will use the formal discipline process); and structure of the organization (if
the organization provides the power to the manager and if the manager has more control, it is
more likely that the manager will use the formal discipline process). Intangible factors (informal
or informally developed) [50] include problematic employees (if the employee does not
have good professional skills or high position, it is more likely that the manager will use the
formal discipline process); socialization/acculturation which manifests itself in the human
resource management subdivision activities (if the manager’s solutions are supported and
not devalued by organizational management, it is more likely that the manager will use the
formal discipline process); the same social status people (if other managers focus on formal
discipline process, it is more likely that the manager will use the formal discipline process);
groups outside work (if systems of values, partly overlapping, cherished by groups outside,
strengthen the organizational culture-supported expectations, it is more likely that the man-
ger will use the formal discipline process). Krüger [49] formed the change management
iceberg which deals with both visible and invisible barriers in the organization. With the help
of this iceberg, there is an attempt to force the management to look into the hidden challenges
that need to be overcome in order to implement changes in the organization. Iceberg model is
relevant to the submitted research presented in this book in the way that implementation of
corporate social responsibility is considered as a strong change in the activities of the organi-
zation. As stated by Krüger [49], the change management iceberg is best perceived by man-
gagers who understand that the most obvious change obstacles that need to be overcome, such
as cost, quality, and time, are only the top of the iceberg, and more complicated obstacles,
which have more influence, lie below. The foundation of change management theory is based
on the fact that many managers tend to focus only on the obvious obstacles, instead of paying
more attention to more complex issues, such as perceptions, beliefs, power, and politics. The
theory also distinguishes implementation types (based on what change must take place) and
the strategy that should be used. Another aspect of this theory is the people involved in the
changes and to what extent they can promote changes or contradict them. So, Krüger [49]
arues that the basis for change is directly related to the management of perceptions, beliefs,
power, and politics. If managers understand how this is related to the creation of obstacles,
according to the author, they will be able to better implement the changes that they want to
perform in their organizations.

It is not enough to analyze only a single component of management culture without evaluation
of the entirety. Management culture analysis and changes require a systematic approach, on
the basis of which management culture system is presented in the research and its diagnostics
is carried out. Having discussed the management culture through formal and informal
organizational culture elements, it is appropriate to introduce imputed corporate social responsibility development stages. Figure 4 presents the corporate social responsibility implementation guidelines and corporate social responsibility application plan [52], together with the supplements of the authors of the book that extend implementation guidelines identified in the plan for the preparation aiming for corporate social responsibility establishment and management system evaluation, which are significant in further process of corporate social responsibility implementation.

Although the plan recommended by Ruževičius [52] is meant for the companies managed by the public sector, it is estimated that it was prepared in accordance with standards applied in companies operating in the free market, regardless of the origin of the capital. Control system evaluation, which is associated with the previously discussed management culture, is an

Figure 4. Research philosophy: the main aspects of the research. Source: Adapted by the authors according to Flowers [53].
important process chain because the volume of resource use, cost amounts, and timing as well as ultimate effect depend on its functionality. In addition, it is proposed to assess the possibility of the organization’s retreat from corporate social responsibility (shareholders’ change, company restructuring, economic conditions and other relevant circumstances, changes influencing decisions), but it could be part of separate research that this study does not develop.

The research position. Guba and Lincoln [3] pointed out that the fragmentation of paradigm differences can occur only when there is a new paradigm which is more sophisticated than the existing ones. It is most likely, according to the authors, “if and when the proponents of different approaches meet to discuss the differences rather than argue about their opinion holiness.” All supporters’ dialogue with each other will provide an opportunity to move toward congenial (like-minded) relations. In this research, considering its versatility, one strictly defined position is not complied with. There is compliance with the principle of positivism when a scientist is an objective analyst, isolates himself from personal values, and works independently; in addition, thought and access freedom provided by pragmatism philosophical system is evaluated. Figure 4 summarizes the main elements of the study. The main aim of the research presented in this book is to define the management culture development level which creates an opportunity for organizations to pursue the implementation of corporate social responsibility. The analysis has shown that there is a lack of theoretical insights and empirical research, systematically linking management culture and corporate social responsibility aspects; still this work is not intended to cast a new challenge to already existing theories, but they are connected.

When preparing the research, it was based on academic literature and the insights of experts by using the original questionnaires made by the authors. The employees of two groups of companies, having different socio-demographic characteristics, occupying different positions in organizations are interviewed, and the data obtained are analyzed statistically and interpreted. In this study, the reliability of a specially developed research instrument is argued, and the main focus is on the factors of management culture that influences the implementation of corporate social responsibility at organizational level, as well as evaluating the corporate staff reactions and participation in processes. During the interviews with managers, the management culture as a formal expression of the organizational culture aiming at implementation of corporate social responsibility is revealed.

In this book, great attention is paid to statistical verification of instruments and model in order to be able to make recommendations to the organization management practitioners.

Philosophy of expert evaluation is based on the increasing demand of the versatility of the compiled instrument, and its content suitability for distinguished scales and subscales. The target of this research is to determine the surplus statements, not giving enough necessary information, as well as setting the statements where the content information not only verifies the honesty of the respondent, but also obviously reiterates. Philosophy of expert assessment is based on the research instrument content quality assurance, so that it would consist of statements, revealing in detail the research phenomena and enabling the achievement of the set goal of the research.
The philosophy of expert evaluation is based on the need to increase the versatility of the compiled instrument and its content suitability for derived scales and subscales. This research aims to determine the methodological and psychometric characteristics of the questionnaire with respect to a relatively small sample size, representing the situation of one organization. After eliminating the documented shortcomings during the exploratory research, the aim is to prepare an instrument featuring high methodological and psychometric characteristics, suitable for further research analyzing the cases of different sample sizes and different organizations.

The basic (quantitative and qualitative) research philosophy is based on perception of research data significance, importance for the public, and the principle of objectivity. In order to minimize subjectivity and guarantee reliability and the possibility of further discussions, quantitative research findings are based on conclusion (statistical generalization) and qualitative contextual understanding (analytic generalization). Both research results are presented in detail, openly showing the research organization and implementation process.

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Mapping qualitative research in psychology across five Central-Eastern European countries: Contemporary trends: A paradigm analysis

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Mapping qualitative research in psychology across five Central-Eastern European countries: Contemporary trends: A paradigm analysis

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ABSTRACT

This study describes the current state of qualitative psychology and gives an overview of the philosophical paradigms used in English language qualitative psychology studies from the post-socialist countries of Central Eastern Europe. For political and historical reasons, academic life of this area is unique, providing a special field for investigation. This study explored the following research questions: Which philosophical paradigms are used in qualitative psychology? What kind of methods are applied? What kind of fields in psychology are examined? Thirty-five articles were analysed from five countries. Articles were examined through their paradigmatic considerations, using a dichotomous qualitative quasi-testing to distinguish positivist/postpositivist from interpretive/constructivist paradigms. We examined the methodology and content of various articles and analysed the keywords to explore common themes of interest. A dominant constructivist philosophical approach was present. Pure positivist articles were found to be quite rare, but mixed paradigms seemed to be frequent. Most of the methodologies were not specified. In terms of interest, the most commonly examined field was found to be social psychology. In the postsocialist era, mixed paradigms were conspicuous since culture and tradition might have had a significant effect on ontology, epistemology, and knowledge of the researcher.

KEYWORDS

postsocialist; Central Eastern Europe; qualitative mapping; qualitative methods; qualitative trends; paradigm; postpositivism; constructivism; content analysis

Introduction

Rationale

The aim of this study was to assess the status of qualitative psychology in the academic life of Central-Eastern Europe. The common political and historical background of these countries made the evaluation of academic life in Central-Eastern European different from the one of the “Western World”\textsuperscript{1} (Tímár 2004; Stenning & Hörschelmann 2008), thereby providing a special field for investigation. This study aims for a comprehensive understanding of the modern trends of qualitative psychology in Central-Eastern Europe. We
examined five countries of the area with the most similar socio-cultural background among Central-Eastern European countries. They gained their scientific foundation under the successful educational system of the Austro-Hungarian Monarchy (Buklijas & Lafferton 2007) and later under the influence of the Soviet Union.

Our particular focus was on the presence and state of psychological qualitative research in the scientific life of five Central-Eastern European postsocialist countries (Hungary, Slovakia, Czech Republic, Poland, and Romania). Our aim was to analyse the current articles, which were written after the countries had joined the European Union (Hungary, Poland, Czech Republic, and Slovakia in 2004; Romania in 2007), since the Europeanization might have had effects on the scientific trends. We focused on the paradigmatic considerations under which studies are completed. As we had not yet found any regional surveys on this field, we aimed to provide support for such research in psychology.

**Psychology in Central-Eastern Europe**

After World War II, during communist and socialist periods, the selected countries were under the influence of the Soviet Union. The Communist regime was efficient in maintaining control over the collective memory and social discourse (Gille 2010). Academic life became a target of the ideological clearings and the “bolshevization” of science, which meant the subordination and prohibition of “Western” psychology (Szokolszky 2016; Kovai 2016). This led to the prohibition of psychoanalysis, the Gestalt approach in psychology (Wertz 2014). Instead of following Western science, a so-called “pavlovization” took place based on the theories of the famous Russian scientist Ivan Pavlov. This led to the medicalization of psychology, which actually saved it from becoming the part of the ideological movement. Other less clinical medical fields of psychology were prohibited. In the 1960s, the political regime weakened and psychology became “tolerated” (Szokolszky 2016). In 1967, the Transnational Committee established the first conference in Vienna where Eastern and Western social scientists could meet. However, the discussion of philosophical and ideological considerations was excluded from the meetings (Moscovici & Marková 2006). In 1968, the crisis in Prague and later the student revolution at many Western European and American universities challenged the cooperation of the two “worlds.” Socialist countries were excluded from the ballooning internationalization of Western psychology (Danziger 2006).

The change of regime in 1989 caused a political and economic shift in Central-Eastern Europe. It resulted in a complex situation in the context of the contracting world economy. Because of the rapid change of ideologies, politics, economics, and society, this area became a special laboratory for
social (Schwarts, Bardi & Bianchi 2000), economic, and political investigations (Stanilov 2007). However, politicians of the fallen regime managed to transform their political influence into economic values, enabling them to keep their influence and power in the new system. Ex-communist professionals were kept in politics because there was no one to replace them (Bunce & Csanádi 2015). The singularity is caused by the peculiarities of the fallen regime, with politics having effects on family norms and individual preferences (Robila & Krishnakumar 2004) as well as values and priorities (Schwarts, Bardi & Bianchi 2000), leading to a long-standing change that affected forthcoming generations (Alesina & Fuchs-Schündeln 2007). This influence had a deep-rooted effect on the concept of trust and honesty (Rose-Ackerman 2001), thus establishing a political-geographical-social postsocialist condition (Gille 2010). As psychology science and practice were considered suspicious in the eyes of the regime, psychology had a different history, traditions, and evaluation than its “Western” counterpart.

**Qualitative research trends**

Qualitative research has received much more attention in the past 25 years (Rennie, Watson & Monteiro 2000). Numerous studies have been implemented to monitor trends in qualitative methods (e.g., Sexton 1996; Ponterotto 2010; O’Neill 2002). These studies claimed to detect an increasing presence of qualitative psychology research, especially in the fields of counseling (Berrios & Lucca 2006) and health psychology (Davidsen 2013), albeit the increasing qualitative interest is present in most psychological fields (Stainton-Rogers & Willig 2017).

Qualitative psychological studies are based on different philosophical approaches of reality and epistemology (Guba & Lincoln 1994, 1982). This results in diverse methodological choices and even multiple variations of a single method. In other words, there are no “standard methods.” Different methods and approaches might lead to several interpretations and diverse knowledge (Gale 1993). For this reason, Morrow (2005) emphasizes the importance of self-reflexivity and indicates the necessity of the researchers’ ability to explain the used paradigms clearly, in addition to making the research transparent (Morrow & Smith 2000).

Transparency means the clear explanation of the study’s purpose (Morrow 2005; Guba & Lincoln 1994), goals, methods, and procedures (Elliott, Fischer & Rennie 1999). These are embedded in the researcher’s perspective and basic belief system (Gehart, Ratliff & Lyle 2001). These beliefs might be presented in a philosophical frame alias paradigmatic knowledge (Morrow 2005; Guba & Lincoln 1994; Gehart, Ratliff & Lyle 2001; Ponterotto 2005). In some qualitative studies, transparency might be missing, leading to the distortion of the results (Ponterotto 2010). Therefore, paradigms are
established to gain some standards to help make qualitative research easy to 
evaluate (Guba & Lincoln 1989).

**Qualitative psychology in Europe**

Marecek et al. (1997) state that qualitative research blossomed in Europe as 
European psychologists became more familiar with philosophies that sup-
ported new methodologies (Wertz 2014). However, qualitative research is 
still considered to be secondary in psychological research in Europe (Symon 
& Cassel 2016). The author’s representation of Europe seems to be based on 
Western European countries, such as the United Kingdom, Germany, and 
France. Other parts of Europe, such as Central-Eastern Europe, received little 
attention. Steps were made to improve the usage of qualitative methods; for 
example, the Centre for Qualitative Psychology was founded in 1999 in 
Tubingen, Germany, and held an annual meeting in Europe and in Israel. 
Some articles (Angermüller 2005; Konecki 2005; Bruni & Gobo 2005) were 
written (mainly on sociology) on comparing European and American quali-
tative research, but they focused only on Western European countries. Wretz 
(2014) considered qualitative psychology as causing the reblossoming of 
humanistic psychology, which had deep roots in Europe.

According to previous findings, common topics of qualitative research in 
the “Western World”1 are social issues, gender, ethnicity (Marchel & Owens 
2007), and sexual identity (Peel, Clarke & Drescher 2007). Common fields 
include education, cultural psychology (Swartz & Rohleder 2017), counseling 
(Marchel & Owens 2007), and drug abuse (Olsen et al. 2015). However, 
qualitative studies seem to appear in every field of psychology (Stainton-
Rogers & Willig 2017).

**Paradigm shift, blurring paradigms**

Leading researchers categorize qualitative studies into four main philosop-
ical paradigms: positivism, postpositivism, critical theory, and constructivism 
(Guba & Lincoln 1994; Lincoln, Lynham & Guba 2011; Patton 2002; 
Rossman & Rallis 2003; Gehart, Ratliff & Lyle 2001), supplemented with 
their combinations (Ponterotto, Park-Taylor & Chen 2017). The character-
istics of the four paradigms, according to Guba and Lincoln (1984), are 1) 
The positivist paradigm is mainly used in hard science; it is focused on the 
examination of one objective reality, uses deductive, manipulative, and 
mainly quantitative methods. 2) Postpositivism states there is one “real” 
reality, but it is imperfectly understood. It is objectivist and the methodology 
concentrates on hypothesis falsification. 3) Critical theory states virtual 
reality is influenced and shaped by social, cultural, political, economic, 
ethnic, and gender evaluations, so subjective interpretations can be
examined. 4) Constructionism claims reality is constructed due to local, individual and specific influences and contexts, and thus parallel realities might exist. It focuses on subjective interpretations.

Ponterotto (2005) claims simultaneous usage of different paradigms might occur in one study. He primarily examined international journals (mainly North American) and found that positivism continued to be the primary concept in psychological research, although the prevalence of constructionist views had been increasing since 1995. Between 2013 and 2015, an increase was detected in the number of constructivist/interpretivist studies (Ponterotto, Park-Taylor & Chen 2017).

Having considered the theoretical background and fields of qualitative research, we reached three explorative research questions:

(1) Which philosophical paradigms are used dominantly in psychological research in Central-Eastern Europe?
(2) Which methods are frequently used and under what considerations?
(3) Which fields of psychology are usually examined with qualitative approaches?

Methods

Data collection

The selection criteria of the articles were that one of the authors had to belong to one of the universities of the above-mentioned countries (e.g., Krahé et al. 2015). First-authorship was not obligatory. Studies available on scientific databases were not categorized by the universities, countries, or nationalities of the authors. This led us to three data collection methods:

(1) We searched the EBSCO host, ResearchGate, ScienceDirect, and Google Scholar. We searched by country name or author nationality and used some of the keywords used by Rennie, Watson and Monteiro (2002). These were “qualitative” “qualitative psychology” “qualitative analysis,” “qualitative research,” “phenomenology,” “discursive psychology,” “content analysis,” and “case study.” Thirty-nine articles were found this way.

(2) On SCImago Journal, we searched for English-language psychological journals of the above-mentioned countries publishing qualitative articles of national authors: the Slovakian Studia Psychologica, the Polish Psychological Bulletin, the Romanian Journal of Applied Psychology, the Czech Cyberpsychology, and the Hungarian European Journal of Mental Health. As most of the journals were operating on an international-level, it was difficult to find articles for our goals. In some cases we found psychology journals such as Ceskoslovaka psychologie, but we could not
reach whole texts of English language articles. Twenty-five national qualitative articles were found that met the inclusion criteria.

(3) We collected the e-mail addresses of all psychology institutions, associations, and universities in the target geographic area based on the list of psychology-resources.org. We sent 46 e-mails asking for information about qualitative education, research, and publications. We received 16 answers with 18 articles and 8 lists of publications.

The study included 82 English language articles in total from which we analyzed 35, the most current 7 by each country. The earliest article was published in 2005 and the most recent one in 2018. The smallest number of articles (seven) was found in the group of Romanian qualitative researchers. To have a balanced sample, the seven most recent articles from each country were analyzed.

**Data analysis**

This study is not a meta-analysis since it is not collecting and reanalysing the relevant empirical literature. Neither could our research be called a systematic review because we did not want to collect evidence to answer a research question. Our research focused on the manifest content of texts: their philosophical considerations. That is why we created the phrase “paradigm analysis,” similarly to Chandler’s paradigmatic analysis in linguistics (1994).

**Deductive content analysis — first research question**

A theory-driven deductive content analysis was carried out (Elo & Kyngäs 2008; Hsieh & Shannon 2005). Due to clarity and simplicity issues, the categories of our content analysis were based on a two-paradigm system introduced by Petty, Thomson and Stew (2012, p. 269). In this system, the two main paradigms are positivism/postpositivism and interpretivism/constructivism. We added the category of modes of representation and type of research phenomenon from Harré’s (2004) distinction between the philosophical perspectives of natural science and human science. The deductive content analysis was based on our criteria system with opposing aspects. The coding system is presented in Table 1.

The coding process was the following: The first author read the articles and took notes on the description and usage of the qualitative approach. Then the second and third authors tested the categorization. Discrepancies were discussed and a consensus was reached. We classified the articles into the following five categories: 1) interpretivist/constructivist, 2) positivist/postpositivist (mixed methods, quantifying qualitative approach), 3) mixed paradigms with postpositivist dominance, 4) mixed paradigms with constructionist dominance, and 5) cannot be clearly identified.
We classified the articles by the detachment between the first and second broad categories first. Then according to the complexity of previously used paradigms, we created the third, fourth, and fifth dimensions. We divided the articles into the most suitable categories, with the sensibility to the dominantly used paradigms (third and fourth categories). Those which used elements and considerations simultaneously from both paradigms more than two times or were problematic to be categorized were put into the fifth “cannot be clearly identified” category. On some occasions, it was difficult to categorize an article because little information was given about the data analysis (e.g., Adamczyk 2016). In these instances, we used the context to form conclusions as they seemed to use a kind of content analysis, but research questions were hypotheses. There was no reflection on whether the research used inductive or deductive coding systems. In such cases, we put a question mark in the categorization table. This way we found more than three problematic categories, so we put the questionable article into the fifth category (cannot be classified).

**Analysis of methods — second research question**

Cited methodologies and references were collected from the articles following the research method of Marchel and Owens (2007). We put them into inductive categories according to which method was stated to be used in the study. **Table 2** depicts some examples from the reviewed articles which led us to the conclusion of categorizations.

**Content analysis — third research question**

The third focus of our study was to explore the topics of the examined articles. We collected the keywords of the articles or used the words of the
<table>
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<th>Table 2. Examples for the usage of our deductive paradigm analysis table.</th>
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title. A simple form of content analysis (Neuendorf 2016; Elo & Kyngäs 2008) had been carried out on the collected words to order them in higher categories according to their scientific fields within psychology. This way we included subcategories. When all the keywords were put into subcategories, we systematized them and divided them into supra categories.

Results

Our first step was to analyze the underlying paradigmatic considerations, focusing on the frequencies of the different aspects. Table 3 depicts the density of our previously defined subcategories in the articles and differentiates the positivist/postpositivist and the interpretive/constructivist aspects used.

Our findings show that 80% of the articles shared the concept of multiple realities, which is the basis of the interpretivist/constructionalist view. Strong constructivist dominance appeared in the aspects of the researchers’ activity (71%), participants’ activity (85,71%), undefined and noncontrolled variables (65,61%), and discursive representation (74,29%).

According to our results, generalization was the most commonly used postpositivist aspect, which suggests that even the authors of these qualitative researchers try to generalize their results. Interestingly, the category where

| Table 3. Frequencies of the different paradigmatic aspects used in the articles. |
|-----------------------------------------------|-----------------|-------------------|----------|----------|-----------|
| Positivist Aspect                        | Frequency | Constructivist aspect | Frequency | Both | No data |
| One objective reality                     | 4 (11,43%) | Multiple realities   | 28 (80%)  | 3 (8,57%) | 0 |
| Absolutist epistemology                  | 5 (14,23%) | Relativist epistemology | 20 (57,14%) | 9 (25,71%) | 1 (2,86%) |
| Objective, direct, theory-driven, hypothesis-focused knowledge | 4 (11,43%) | Subjective, nondirect, data-driven, interpretative knowledge | 20 (57,14%) | 10 (28,57%) | 1 (2,86%) |
| Material phenomenon                      | 0 | Human/intentional phenomenon | 33 (94,29%) | 2 (5,71%) | 0 |
| Metrically represented                   | 2 (5,71%) | Discursively represented | 26 (74,29%) | 7 (20%) | 0 |
| Deductively analysed                     | 4 (11,43%) | Inductively analysed | 19 (54,29%) | 11 (31,43%) | 1 (2,86%) |
| Generalizing                             | 16 (45,71%) | Staying on descriptive level | 13 (37,14%) | 5 (14,29%) | 1 (2,86%) |
| Previously given (narrow/fix) research question | 8 (22,85%) | Flexible (broad) research question | 22 (64,86%) | 4 (11,43%) | 1 (2,86%) |
| Neutral (passive) researcher             | 6 (17,14%) | Involved (active) researcher | 25 (71,43%) | 3 (8,57%) | 1 (2,86%) |
| Passive participant                      | 4 (11,43%) | Active participant | 30 (85,71%) | 1 (2,86%) | 0 |
| Defined and controlled variables         | 4 (11,43%) | Undefined and noncontrolled variables | 23 (65,71%) | 7 (20%) | 1 (2,86%) |
| Scientific presentation                  | 3 (8,57%) | Lay (quotations) | 26 (74,29%) | 6 (17,14%) | 0 |
| Reproducibility need for replication     | 8 (22,86%) | Reproduction not relevant, not important | 20 (57,14%) | 3 (8,57%) | 4 (11,43%) |
both considerations reached relatively high frequency was the method of coding. Deductive 4 (11.43%) and inductive 19 (54.29%) coding systems seemed to be used. In 11 articles both theory-driven and data-driven research appeared to be used simultaneously. In some cases interviews and the coding process followed some theories, or inductive coding was completed with the coding system of a handbook (Ghorghe & Liao 2012). In such cases, research questions coming from a theoretical standpoint might have an effect on the coding process and the results. The barrier between theory influenced coding process and the inductive coding was ambiguous.

Among Czech and Polish articles we found interpretive/constructive paradigmatic considerations (five Czech and three Polish articles), while “cannot be identified” articles were the most common among the Romanian (four), Slovakian and Hungarian articles examined (three, three). All in one presence of the used paradigms are depicted in Table 5.

Most of the articles could not be clearly classified into the first four clusters because of the lack of description provided or the opposing paradigmatic aspects they used simultaneously. Constructivist dominance appeared among the studies analyzed (11). However, clearly positivist articles were found to be rare (two). Mixed paradigms seemed to be frequent (10).

Twelve articles were put in the fifth category because they used simultaneously the postpositivist and the interpretive considerations or not enough information was given for the categorization. The interpretivist/constructivist paradigm seemed to be used in almost one-third of the articles examined, and two used a dominantly interpretivist paradigm. Postpositivist was the

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<th>Table 4. Number of used paradigms of the articles by country (n=35).</th>
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<tr>
<td>Interpretivist/constructionist</td>
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<td>mixed paradigms with postpositivist dominance</td>
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<td>mixed paradigms with interpretive/constructionist dominance</td>
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<td>cannot be identified</td>
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| Slovakia | 1 (2.86%) | 1 (2.86%) | 1 (2.86%) | 1 (2.86%) | 3 (8.57%) |
| Romania | – | – | – | 3 (8.57%) | 4 (11.43%) |
| Poland | 3 (8.57%) | – | 1 (2.86%) | 2 (5.71%) | 1 (2.86%) |
| Czech Republic | 5 (14.29%) | – | – | – | – |
| Hungary | 2 (5.71%) | 1 (2.86%) | – | 1 (2.86%) | 3 (8.57%) |

<table>
<thead>
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<th>Table 5. Frequencies of the paradigms used (n=35)</th>
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<tr>
<td>1. interpretive/constructivist</td>
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<td>2. positivist/postpositivist (mixed methods, quantifying qualitative approach)</td>
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<td>3. mixed paradigms with postpositivist dominance</td>
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<tr>
<td>4. mixed paradigms with constructionist dominance</td>
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<td>5. cannot be identified</td>
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least frequently used. We found two pure postpositivist articles and two dominantly postpositivist ones.

Our second research goal was to analyze the frequency of the different methods used in the articles. Figure 1 shows the distribution of the methods.

Twenty-two percent of the article's accurate methodology was unspecified. These articles did not name or cite their applied methods. The second most popular choices were content analysis, thematic analysis, and methods, which were said to be based on grounded theory.

Our third goal was to detect the fields of qualitative research in Central-Eastern Europe. The categorization of the keywords of the articles is depicted in Figure 2.

Five categories emerged in the analysis of the keywords. The titles are written in capital italics, and subtitles are written in bold with a capital initial letter.

The keywords are presented in simple letters, and the sizes of them represent their frequencies. Figure 2 represents the prevalence of each of the five categories. They were social psychology (42,95%), health and clinical

![Figure 1](image_url)
psychology (31.54%), methodology (16.1%), developmental psychology (7.38%) and religion (2.01%).

**Discussion**

The aim of this study was to assess qualitative psychology in Central-Eastern Europe. We analysed the paradigms, the methods, and the fields of 35 qualitative research articles of five countries: the Czech Republic, Hungary, Poland, Romania, and Slovakia. Our findings show constructivist/interpretivist considerations seem to be dominant among the analyzed qualitative articles. In our study, postpositivist elements, such as generalization and deductive coding, also occurred. We found a substantial presence of paradigmatic eclecticism and confusion with the simultaneous usage of both constructivist/interpretivist and postpositivist considerations. According to the methodological analysis of the 35 articles, unspecified methods are used most frequently. Moreover, methodological descriptions were laconic and not detailed.
The content analysis of the keywords presented that the most commonly examined field is social psychology, which is in line with previous studies (Stainton-Rogers & Willig 2017). In the brief literature of qualitative research paradigms, counseling journals are analyzed by Ponterotto et al. (2017) and Gehart et al. (2001) because qualitative studies are the most used in the field of psychological counselling. Our study found counseling was mentioned only once.

The seeming paradigmatic inconsistency might be rooted in the sociological and ethnographical traditions where a study is considered to be qualitative when it uses interviews or focus groups (Demuth 2015). As sociology and ethnography have a longer tradition in the examined countries, this might cause a mixture of considerations and less strict methodology and epistemology than mainstream qualitative psychology. In psychology the reliability and transparency of qualitative studies have become vital and rigorous. However, qualitative psychology is still looking for its own identity and formula in the global psychological discourse, which might result in ambiguity (Gürtler & Huber 2006). Knoblauch et al. (2005) state that research questions in which qualitative methods are used might be influenced by political, economic, social, and cultural backgrounds of the researcher.

We suggest paradigms might be used in a mixed way unless the researcher uses them consistently and transparently by the description of the epistemological foundation, the methodological choices, and the process of analysis.

**Reflections and limitations**

Our aim was not to conduct a critical study but rather to explore the circumstances of postsocialist qualitative approaches and suggest some possible explanations for their state. Our study used postpositivist and interpretive/constructivist paradigmatic considerations at the same time in almost every coding aspect. As our study was based on our presupposition of the existence of paradigms, both deductive and inductive categories, theory and data-driven categorizations were used. Multiple realities and the objective existence of philosophical paradigms occurred at the same time. This study is neither a postpositivist nor an interpretivist/constructivist study, but rather is a mixture of them. Self-reflectively, we would put our study in the “cannot be categorized” category. But our examining process appeared to be a suitable one, providing a frame for the examination of paradigms. As a result, we could concentrate on the exact aspect of the paradigm considerations, and decisions were easier to make as they were dichotomous questions. However, we must state our method is reductionist and further refinements are needed, such as observing the interconnections of the categories and introducing the theoretical considerations of our method in a theoretical article.
Finding suitable articles proved to be difficult. We suppose that due to searching issues and because we could only analyze English language articles, our study could reach only a small part of the qualitative studies published in this area. Thus, we could present only a small section of it. As sampling turned out to be difficult and time-consuming, a small number of qualitative research papers were found. This is why we did not have the option of selecting articles based on their quality or using other criteria. Because of the small number of articles we had access to, which included studies carried out by a multinational research team where at least one author was Central-Eastern European were analyzed. We considered them to be connected to the research trends in this geographic area. However, it might lead to imprecision. The small amount of English language qualitative psychology research might be because of the language sensitivity of qualitative research, or the lack of proper language skills as well.

The 16 answers received from the Central-Eastern European universities were not enough to make generalizations or valid statements for the whole area. Information about the situation of qualitative psychology at universities was rarely available in English.

As we used deductive coding categorization, we focused on the hypothetical paradigms and fields of the studies in which the exact logic of the articles was not presented or discussed.

Without many previous studies on this topic, we had to create most of our research tools, such as our paradigm-analysis coding system, which requires further discussions, reviews, applications and refinement.

**Suggestions for further research**

The examination of qualitative paradigms and qualitative psychology in a geographic area is an unexamined field of the psychological discourse. We believe that because of its cultural and scientific background, it might be an important pathway for further studies as precious knowledge could be gained on the intercultural interpretations of epistemology, methodology, and ontology in a newly growing and progressing theoretical approach in psychological qualitative research. We consider it to be vital for qualitative research to create such reflections, mappings, and reviews to detect the quality of studies and also to examine the paradigms used and work on the paradigm theory as well.

**Conclusions**

The examination of how it is possible to manage plural epistemologies, methodologies, and ontologies simultaneously might also be needed in the theory of qualitative psychology. The American trend of qualitative
psychology suggests making qualitative research more transparent and adopting higher standards in the description of qualitative methods (Bluhm et al. 2011). However, Symon et al. (2018) draw criticism about whether the standardization of quality in qualitative research would be inappropriate and lead to the marginalization of alternative methods.

All in all, the rise of qualitative research was a paradigm shift; an answer to the positivist psychology’s expanded anomalies. Perhaps the true nature of the qualitative approach is that it does not require a rigorously defined identity and formula or systematically structured frames.

Notes on contributors

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Szilvia Kassai is Ph.D. candidate in Doctoral School of Psychology at Eötvös Loránd University, Budapest. Her main research topic is examining drug users’ experiences with qualitative methods, which determined her research inquiry during the PhD years. She assessed experiences of novel psychoactive substance users by using Interpretative phenomenological analysis. She is also working as a desk officer for drug issues at the Hungarian Ministry of Human Capacities, and she is also involved in projects about examining and monitoring drug problem and related interventions.

Eszter Pados is a Ph.D. student in Psychology at the Eötvös Loránd University (ELTE, Budapest, Hungary). Her research focuses on participatory action researches and art-based action researches. She received her BA as a Special Need Educator and Therapist, and Master’s degree from Criminology. She works in a Detention Center and with marginalised groups in different fields.

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at Eötvös University. He has studied people who inject drugs and the use of new psychoactive substances. He has got his clinical experience at Blue Point Drug Counselling Centre.

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**Analyzed articles**


Epistemological Oppression and the Road to Awakening: A Boot Camp, a Twitter Storm, and a Call to Action!

Victoria F. Burns¹, Mary Ellen Macdonald², and Franco A. Carnevale³

Abstract
Increasingly, it is becoming evident that qualitative research methodologies have much to contribute to producing health knowledge. Notwithstanding such advances, some would say the “paradigm war” continues, privileging postpositivist epistemologies. Our own experiences working within a post-positivist-dominated health research arena inspired the implementation of an “Epistemological Boot Camp” qualitative research training series. The central goal of the boot camp was to query the hypothesis that we are still in a paradigmatic “war zone” while imagining productive ways to both survive and thrive in the current climate. Moving forward, our hope is that our boot camp methodology can inspire other scholars to develop creative local initiatives that provide a platform to work toward recognizing the unique contributions of qualitative health research.

Keywords
epistemology, paradigm war, politics of science, qualitative inquiry, qualitative health research, training

What Is Already Known?
• Qualitative research approaches are contributing important insights into health research.
• There is a well-established body of “paradigm war” literature arguing that health research remains dominated by a postpositivist paradigm.

What This Article Adds?
• By engaging with and building on the “paradigm war” literature, this article introduces and discusses a novel “Epistemological Boot Camp” qualitative health research training series.
• It describes how we created and delivered the boot camp series that provided a safe space to share, grapple with, strategize around, and “awaken participants to epistemological tensions commonly faced by qualitative health researchers.
• It encourages other qualitative health researchers to develop creative local initiatives that help provide the necessary tools to not only survive but also thrive in health research arenas and beyond

Introduction
Qualitative health research is being studied and practiced across a variety of disciplines and is contributing to the way health care is understood, experienced, and delivered (Eakin, 2015; Morse, 2012). Notwithstanding such advances, qualitative health researchers continue to experience the consequences of a health research arena that privileges postpositivist¹ ways of knowing (Eakin, 2015). The pitting of postpositivist health research (that typically but not exclusively employs quantitative methods) against nonpositivist health research (that relies chiefly on qualitative methods; Guba & Lincoln, 1994; Morse, 2006, 2012) has led to what some authors have summed up as a “paradigm war”² (Gage, 1989).

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In this “war zone,” nonpositivist qualitative health research emerging from paradigms including critical, constructivist, and participatory perspectives (Lincoln & Guba, 2000) is experiencing a form of “epistemological oppression” (Nagel, Burns, Tilley, & Aubin, 2015, p. 370), which refers broadly to the systemic devaluing of qualitative ways of knowing. Furthermore, qualitative health researchers are facing unique challenges and uncertainties as they struggle to remain committed to qualitative traditions in research arenas where generalizability, objectivity, and the randomized control trial are viewed as “gold” standards (Christ, 2014; Eakin, 2015; Nagel et al., 2015).

Although some scholars have argued that the paradigm war metaphor is overdrawn (Bryman, 2008; Guba & Lincoln, 1994), in agreement with Given (2017), our experiences suggest it is “alive and well” (p. 1). We are members of a group of qualitative health researchers who came together to strategize around our own experiences of epistemological oppression in relation to working in a climate that privileges postpositivist epistemologies. Guided by the rhetorical question, “Is the paradigm war still going on?” we used the platform of the McGill Qualitative Health Research Group (MQHRG; https://www.mcgill.ca/mqhrg/) to design and deliver an “Epistemological Boot Camp” for the qualitative health research community in Montreal, Canada.

Following is a brief discussion of epistemological oppression and an analysis of how it has manifested in health research. We then describe our boot camp methodology, which we hope inspires other communities to develop creative local initiatives that help ensure qualitative health researchers not only survive but thrive in the academy and beyond.

**Epistemological Oppression: Bumping Up Against and Responding to the Epistemological Unconscious**

Much has been written about the historical context, consequences, and various forms of “epistemological oppression” in academic settings (Cheek, 2011, 2018; Denzin & Lincoln, 2011, 2018; Eakin, 2015; Nagel et al., 2015; Staller, 2012). Recently, scholars including but not limited to health have highlighted how the systemic marginalization of nonpositivist ways of knowing continues to manifest in novel, subtle, and “unconscious” ways (Steinmetz, 2005) through the increased corporatization of academia (Berg & Seeber, 2016; Brownlee, 2013; Burns, MacDonald, & Carnevale, 2016; Cheek, 2018; Côte & Allahar, 2011; Denzin & Giardina, 2008, 2017; Lincoln, 2012; Janjua, Gastaldo, & Bender, 2016).

Steinmetz (2005) aptly refers to the tacit, institutionalized privileging of objectivist, postpositivist ways of knowing as the “epistemological unconscious” (p. 109). Staller (2012) advances Steinmetz’s theory suggesting that qualitative researchers frequently “bump up against the epistemological unconscious” (p. 5) as they work against the postpositivist grain (see pp. 5–8); thus, need “to recognize that they sit in a disadvantaged position relative to the dominant culture and therefore should take extra steps to protect themselves and their work for misplaced critique” (p. 8). Common examples of epistemological unconscious in health and social science research circles include being required to continuously field “Catholic questions directed to a Methodist audience” (Lincoln & Guba, 2000, p. 75; e.g., “Why such a small sample size?”), fewer learning opportunities for advanced qualitative research training (Eakin, 2015; Nagel et al., 2015; Staller, 2012), and outright rejections from research funding bodies and peer-reviewed journals on the grounds of being qualitative (Albert & Paradis, 2014; Given, 2017; Greenhalgh et al., 2016; Janjua et al., 2016; Staller, 2012; Ungar, 2006).

In facing what can feel like almost daily encounters with the epistemological unconscious in academic settings, qualitative researchers have not remained silent. Some have shared strategies on how to best work within the confines of postpositivist dominance, offering practical tips such as how to downplay the subjective, and critical aspects of research traditions to appear more objective and thus credible to postpositivist reviewers (Graham et al., 2011); how to maneuver “ethics creep” (Haggerty, 2004) by adapting the language in research ethics proposals to be more in line with postpositivist assumptions (e.g., indicating the sample size a priori; Janjua et al., 2016; Nagel et al., 2015; Staller, 2012); and providing tips on how to get published in high-ranking peer-reviewed health journals (Clark & Thompson, 2016). Some have gone so far as to declare a “call to arms” (Denzin, 2010), while others have rallied together, writing manifestos directing collective concern at funding bodies and scientific journals (e.g., Graham et al., 2011; Greenhalgh et al., 2016).

Recently, an unprecedented example of collective mobilization and resistance to epistemological oppression occurred on the social media platform Twitter. A flurry of activity erupted in response to a rejection letter issued to a qualitative health researcher by the, formerly, *British Medical Journal* (BMJ), a high-impact peer-reviewed publication. The rejection letter, shared over 30,000 times on Twitter, reads:

> Thank you for sending us your paper. We read it with interest but I am sorry to say that qualitative studies are an extremely low priority for the *BMJ*. Our research shows that they are not as widely accessed, downloaded or cited as other research. We receive over 8000 submissions a year and accept less than 4%. We do therefore have to make hard decisions on just how interesting an article will be to our general clinical readers, how much it adds, and how much practical value it will be. (*BMJ* Editors, 2016)

In response to the *BMJ*’s rejection letter, the global qualitative health research community rapidly took to action. Under the hashtag #BMJnoQual (Bekker, 2015; Clark & Thompson, 2016), a subsequent letter to the *BMJ* editor signed by over 75 researchers went viral (Greenhalgh et al., 2016). This global virtual mobilization effort eventually led to the *BMJ* formally calling for more qualitative research and increasing their expertise in reviews boards:
Over the next few months we will be consulting with qualitative researchers to learn more about how we can recognise the very best qualitative work, especially that which is likely to be relevant to our international readers and help doctors make better decisions. In addition, we will shortly issue a formal call for research methods and reporting articles about qualitative research. We hope that proposals for these articles will come from some of the authors of the Greenhalgh et al. letter. (Loder, 2016)

The *BMJ* controversy provided a clear and concrete example of how epistemological oppression was affecting qualitative research in the peer-reviewed publishing world. The three of us had experienced epistemological oppression in overt ways (e.g., similar to the *BMJ* example), as well as more covert, “unconscious” ways. Further, we realized that we lacked a space to discuss, work through, and respond to experiences related to its impact in a local context. As one response, we conceptualized and implemented an innovative “Epistemological Boot Camp” qualitative research training series.

**Epistemological Boot Camp Methodology: From Paradigms to Knowledge Translation (KT)**

The authors of this article came together first through MQHRG. Founded in 2003, MQHRG is an interdisciplinary group of researchers, aiming to provide advanced, yet informal learning environment for qualitative health researchers at McGill University as well as the broader community in Montreal, Quebec. Members range from junior trainees (master and doctoral students) to senior researchers, including practitioners from various health fields with diverse paradigmatic commitments to research and training. Approximately 15–25 members meet several times per semester to discuss issues related to qualitative health research (e.g., the peer review process), as well as to provide a constructive safe space for trainees to present works in progress, and explore methodological questions. Our LISTSERV has increasing reach, with over 250 members from North and South America and Europe.

Our goal for the boot camp was two-fold: (1) to explore the question is a “paradigm war” still going on? and (2) to collectively share, grapple with, strategize around, and awaken participants to epistemological tensions commonly faced by qualitative health researchers within post-positivist-dominated research domains.

To address these goals, we conceptualized our boot camp into four thematic “drills.” The content for each drill stemmed from our real-life experiences of “bumping up against the epistemological unconscious” (Staller, 2012, p. 3) in relation to the following themes: (1) the nature of the qualitative paradigms, (2) rigor, (3) sample size, and (4) knowledge translation (KT).

The first author coordinated and facilitated each drill, beginning with an introductory 30- to 45-min analytic overview of the assigned and recommended readings. For three of the drills, we invited guest speakers to share their experience on the topic at hand. Following the introductory presentations, we allowed time for interactive group discussion during which participants had the opportunity to share their reflections and questions related to the preassigned readings and guiding questions. Facilitation and participation in the boot camp was voluntary, and we provided no formal credits. Although our title makes specific reference to epistemology, we also focused on the paradigmatic tensions present at all levels of qualitative research including ontology, epistemology, methodology, and methods.

The first drill, titled *Surveying the paradigmatic battlefield: Articulating and nourishing your paradigm*, had three overarching aims: (1) to highlight the importance of ensuring that each element of research design fits within its overarching paradigm, (2) to demonstrate how this “fit” is a sound determinant of the overall study quality and rigor, and (3) to provide examples of real-life consequences when paradigmatic worldviews clash, such as when nonpositivist research is evaluated from a postpositivist standpoint.

Lincoln and Guba’s (2000) widely cited “Paradigmatic Controversies, Contradictions, and Emerging Confluences” was assigned to provide an overview of four main paradigms commonly referenced in qualitative health research (positivism/postpositivism, critical realism, constructivism, and participatory research). For some novice participants, this article was their first introduction to research paradigms. Thus, while we highlighted the pioneering nature of the article, we discussed how the field has evolved in the 20 years since, and foregrounded critiques of what some suggest is an oversimplification of the complexity of the research landscape.

This session reinforced the importance of a study having a well thought out “vertical hierarchy” (Staller, 2012), meaning that all aspects of a research design vertically fit together, starting from the most abstract (ontology and epistemology) to the more concrete (methodology and methods). Nagel et al. (2015) brought the discussion of paradigms to a concrete level by providing practical strategies to navigate common epistemological tensions that occur when conducting constructivist grounded theory studies in postpositivist institutional contexts. Nagel (doctoral candidate in nursing) cofacilitated the discussion via Skype.

The second drill, *Is your research “rigorous”*? *Interpreting and articulating rigor within your paradigm*, built on the first drill by exploring some of the contentions and debates concerning the “beguiling problem of rigor” (Sandelowski, 1993, p. 2) and addressing these tensions in qualitative data analysis. Participants were asked to come prepared to discuss how and why they have previously understood, used, and articulated rigor in their research and how it had changed (or not) after reading the three assigned articles.

Sandelowski’s (1993) “Rigor or Rigor Mortis” was helpful to enter the rigor debate, interrogating the concept of rigor and contending that qualitative researchers need to move away from the rigidity of an orthodox checklist approach that makes fetish of technique “at the expense of perfecting a craft and of
making rigor an unyielding end in itself” (p. 1). She goes on to write:

It is as if, in our quasi-militaristic zeal to neutralize bias and to defend our projects against threats to validity, we were more preoccupied with building fortifications against attack than with creating evocative, true-to-life, and meaningful portraits, stories, and landscapes of human experience that constitute the best test of rigor in qualitative work. (p. 1)

Davies and Dodd’s (2002) “Qualitative Research and the Question of Rigor” complemented the discussion by offering a doctoral student perspective that argued for critical awareness of the postpositivist bias in the concept of rigor. The two authors suggest that rather than viewing rigor as an afterthought, it should be integrated into one’s ethical stance, by continually approaching each research encounter with attentiveness, empathy, carefulness, sensitivity, respect, and reflection.

Similarly, Eakin and Mykaliovsky’s (2003) “Reframing the Evaluation of Qualitative Health Research: Reflections on a Review of Appraisal Guidelines in the Health Sciences” provided a novel reframing of rigor, making a convincing case to shift away from postpositivist language and checklist approaches to what they call a “substantive approach.” Such an approach involves transparent explanations regarding planning, implementation, and dissemination of the study (e.g., how and why the research question changed over the course of the research, sampling rationale, and linking findings to existing theory).

In contrast, Morse (2015) offered an important counterargument by suggesting that appropriating a parallel language of rigor, such as “trustworthiness” (Lincoln & Guba, 1985) paradoxically acts to further marginalize qualitative health research. Morse suggests a more promising strategy to gain legitimacy vis-à-vis mainstream science would be for qualitative health researchers to adapt postpositivist terminology of reliability, validity, and generalizability.

The third drill, titled Sample size, saturation, and participant selection: Locating your justifications within your paradigm, addressed a common question of novice qualitative researchers: How big does my sample size have to be? Two McGill alumni (form nursing and social work) cofacilitated the discussion, sharing their experiences with determining sample size in their respective ethnographic and phenomenological doctoral research projects. We began the drill by discussing Mason’s (2010) empirical study that brought attention to the arbitrary nature of sample size (Christ’s 2014) “gold” standards in qualitative research as found in a number of handbooks (e.g., Creswell & Poth, 2017).

Sandelowski’s (1995) insights added further depth to the discussion by suggesting that sample size is not simply the number of participants but can include “numbers of interviews, and observations conducted or number of events sampled” (p. 180). Finally, Baker and Edwards (2012) provided a helpful compilation of 14 senior scholars’ responses to the question: How many qualitative interviews is enough? Among the varying expert accounts, Charmaz, a constructivist grounded theorist, suggested that the number of interviews is best determined by assessing excellence in one’s own field. In contrast, Becker, a phenomenologist, argued that the decision to continue interviewing should be based on whether the researcher feels the evidence is strong enough to convince the most “ardent critics” (p. 6) and that an “n” of one is sometimes sufficient. Given the heterogeneity of disciplines, paradigmatic orientations, and research designs among MQHRG members, this article provoked a particularly fruitful discussion.

The fourth and final drill, titled Ending the mission: Knowledge mobilization and making use of qualitative research, used four diverse readings on the topic of KT to inspire reflection and discussion. I. D. Graham and colleagues’ (2006), “Lost in Knowledge Translation: Time for a Map?,” provided a number of useful definitions and helped unpack the complex web of KT terminology and related theoretical models.

Botorff’s (2015) editorial, “Knowledge Translation: Where Are the Qualitative Health Researchers?,” further illuminated the complexity and some of the unique KT challenges in health-related fields (i.e., long delays between end of study and findings being taken up in health policy and practice). Greenhalgh and Wieringa (2011) interrogated the concept of KT from a more critical perspective, suggesting that assumptions about KT are often too narrow and overlook important clinical components.

Finally, Kontos and Poland (2009) extended Greenhalgh and Wieringa’s (2011) critique by presenting a creative arts-based KT model: critical realism and the arts research utilization model. The two authors contend that arts-based KT is a particularly promising approach because the “arts nurture empathy” (p. 1) and also make research findings more accessible to a wider audience. This final drill concluded with a presentation by Franco A. Carnevale (third author) who described how the findings from one research project were creatively translated into a song in collaboration with study participants.

A Call to Action

The Epistemological Boot Camp series was developed to engage and awaken MQHRG members and the broader Montreal qualitative research community to issues and challenges related to epistemological oppression. During the boot camp’s final drill, we returned to our initial guiding question: “Is the paradigm war still going on?” There was a general consensus that a paradigm war was indeed “alive and well” (Given, 2017, p. 1). However, some participants argued against the war metaphor, suggesting it was time to rethink this entrenched divide and wondering if it would be more fruitful to proactively work on educating “the other side.” In contrast, others were committed to the idea that postpositivist and nonpositivist health research is ultimately “incommensurable” (Lincoln & Guba, 2000, p. 172), contending that qualitative health researchers should focus more time, energy, and
resources on developing parallel tracks for funding and knowledge mobilization activities.

In responding to Given’s (2017) recent question: “So, how can we stop the paradigm wars?,” while our singular boot camp effort certainly will not end the paradigm war, it is a promising step forward in terms of “educating research students and colleagues about the nature of the qualitative paradigms and how it influences our methods, our analyses, and our writing techniques” (p. 2). Clearly, if qualitative researchers are going to make any progress in the paradigm war, additional networks and spaces are needed to ensure qualitative researchers are able to acquire advanced-level training and mentorship, two necessary components to performing high-quality research (Eakin, 2015). In addition to providing vital qualitative research skills training, creating local qualitative health research initiatives such as the boot camp may create networks that help foster change on a larger scale, as the #BMJnoQual mobilization efforts demonstrated.

Until qualitative health research gains more formal recognition of its worth within academia (e.g., more funding, advanced supervisory training, and explicit inclusion in curricula), we hope that by sharing our boot camp experience we can inspire qualitative research communities to implement their own grassroots initiatives and/or become involved with existing networks around the globe. Importantly, whether it is face-to-face or virtual interactions, we encourage qualitative health researchers to continue rallying together in local and global contexts to collectively promote research that values nuance, complexity, and human experiences.

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Notes
1. For textual simplicity, the term postpositivist is used to refer to both positivism and postpositivism. The authors recognize the complex distinctions that have been drawn between these terms.
2. In acknowledging there are flaws in construing the issues discussed in this article as warlike, we are using war metaphors that are already prevalent in the cited literature.
3. The Qualitative Caf´e (College of Nursing, New Mexico), the International Congress of Qualitative Inquiry’s Coalition for Critical Qualitative Inquiry, the University of Toronto’s Centre for Critical Qualitative Health Research, and the University of Alberta’s International Institute for Qualitative Inquiry.

References


The redundancy of positivism as a paradigm for nursing research.


Abstract

New nursing researchers are faced with a smorgasbord of competing methodologies. Sometimes, they are encouraged to adopt the research paradigms beloved of their senior colleagues. This is a problem if those paradigms are no longer of contemporary methodological relevance. The aim of this paper was to provide clarity about current research paradigms. It seeks to interrogate the continuing viability of positivism as a guiding paradigm for nursing research. It does this by critically analysing the methodological literature. Five major paradigms are addressed: the positivist; the interpretivist/constructivist; the transformative; the realist; and the postpositivist. Acceptance of interpretivist, transformative or realist approaches necessarily entails wholesale rejection of positivism, while acceptance of postpositivism involves its partial rejection. Postpositivism has superseded positivism as the guiding paradigm of the scientific method. The incorporation in randomised controlled trials of postpositivist assumptions indicates that even on the methodological territory that it once claimed as its own, positivism has been rendered redundant as an appropriate paradigm for contemporary nursing research.

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Title: The Redundancy of Positivism as a Paradigm for Nursing Research

Running Title: The Redundancy of Positivism

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The Redundancy of Positivism as a Paradigm for Nursing Research.

ABSTRACT

New nursing researchers are faced with a smorgasbord of competing methodologies. Sometimes they are encouraged to adopt the research paradigms beloved of their senior colleagues. This is a problem if those paradigms are no longer of contemporary methodological relevance. The aim of this paper is to provide clarity about current research paradigms. It seeks to interrogate the continuing viability of positivism as a guiding paradigm for nursing research. It does this by critically analysing the methodological literature. Five major paradigms are addressed: the positivist; the interpretivist / constructivist; the transformative; the realist; and the postpositivist. Acceptance of interpretivist, transformative or realist approaches necessarily entails wholesale rejection of positivism, while acceptance of postpositivism involves its partial rejection. Postpositivism has superseded positivism as the guiding paradigm of the scientific method. The incorporation in randomised controlled trials of postpositivist assumptions indicates that even on the methodological territory that it once claimed as its own, positivism has been rendered redundant as an appropriate paradigm for contemporary nursing research.

Keywords

Research methodology, positivism, interpretivism, constructivism, realism, postpositivism,
Introduction

As part of their rite of passage into the research community, it is common for new nursing researchers to have to defend their methodology and justify their chosen research design. In order to be accepted as a respected member of the discipline, there is motivation for them to adopt the powerful discourses of the time. In particular, they can be influenced by those held in authority regarding what constitutes knowledge and what approaches to its generation are acceptable to the discipline. There is a danger that this influence may lead them to adopt inappropriate philosophical groundings for their research. The danger is all the more acute if the paradigm that the neophyte is being encouraged to adopt is no longer of contemporary relevance.

Background

Paradigms can be defined as sets of beliefs that provide theoretical frameworks for the purpose and conduct of research (Kuhn, 1962). These beliefs relate to both ontological concerns (relating to the nature of reality or realities) and epistemological issues (relating to what can be known about reality/realities). Such perspectives underpin the selection of research methodologies. Since the 1970s there has been much debate about the relative merits of different paradigms and their application in healthcare research, a debate often referred to as the ‘paradigm war’ (Denzin, 2010). The fog of this war has led to confusion among many researchers regarding the paradigm within which their research is positioned.

Aim and outline

The general aim of this paper is to provide clarity on this topic by addressing the current relationships between some of the most influential paradigms, and describing how these
have changed over time. Its specific aim is to interrogate the continuing viability of positivism as a guiding paradigm for nursing research.

Competing paradigms will be examined to show how their critical insights have fundamentally challenged core aspects of positivism. Four major paradigmatic challenges to positivism are examined. While these paradigms have complex histories involving numerous thinkers, for heuristic purposes we have identified the origin of each of them with the ideas of a single seminal theorist: the Kantian, which led to the development of interpretive and constructivist approaches; the Marxian, which led to the development of transformative approaches; the Durkheimian, which led to realist approaches; and the Popperian, which led to postpositivist approaches. We will argue that acceptance of any of the first three of these approaches necessarily entails wholesale rejection of positivism, while acceptance of postpositivism involves its partial rejection.

In order to show how positivism, even on the methodological terrain where it was once reigned supreme, has been rendered redundant, we will explore how it relates to that paragon of contemporary scientific method – the randomised controlled trial.

**The source of paradigm confusion**

Much of the paradigm confusion in nursing appears to stem from the sometimes misleading information emanating from one source of authority – research methods textbooks. We explored this issue by undertaking a content analysis of a number of nursing research books published between 2010 and 2015. Coding of descriptors demonstrated that the characterisation of positivism was inconsistent, and in some cases anachronistic. Thus, for example, while some textbooks clearly explain the differences between positivism and
postpositivism and position contemporary quantitative research within the postpositivist paradigm (Grove et al., 2013), others do not differentiate between the approaches (Grove et al., 2015). Indeed, the term postpositivism itself is riven with ambiguity, with no agreed definition of it amongst commentators. For some, it is a broad term including both interpretivist and objectivist positions (O’Leary, 2004). For others, it is confined to a description of Karl Popper’s revision and reformulation of positivism (Cresswell, 2003). Because of its greater definitional specificity, it is the latter sense that we will use in this paper.

In other instances, authors classify all quantitative research as having its roots in positivism, and qualitative research as having its roots in interpretivism or constructivism without reference to alternative paradigms or to the broad range of research that comes under their influence (McKie, 2014; Topping, 2015). Some textbooks refer to positivism as the paradigmatic origin of quantitative research, but do not qualify its current position (Burns and Grove, 2011). Others do make such a qualification, arguing that while quantitative social research developed within the positivist paradigm, today it is no longer guided by positivism (Grove et al., 2013; Parahoo, 2014). Still others suggest that quantitative research is a “…modified positivist position…” (Polit and Beck, 2012: p.12), which is dominant in nursing research and, for reasons of simplicity, categorise it as positivism. Furthermore, there are a number of authors that label quantitative and qualitative approaches as ‘paradigms’ rather than methodical strategies (Tappen, 2011; LoBiondo-Wood and Haber, 2014).

The lack of consistency in terminology and categorisation of approaches in research textbooks is particularly confusing for novice researchers, who are often challenged to justify the philosophical underpinnings of their studies. In order to meet this challenge, they need to
be clear on the differences and similarities between the competing paradigms, and be
certain of defending the philosophical foundation of their work.

Untangling the elements of this challenge requires an appreciation of the historical
development of the philosophy of science, including how various philosophical strands relate
to each other historically and ideationally.

**The emergence of the ‘scientific method’**

‘MAN, being the servant and interpreter of Nature, can do and understand so much and so
much only as he has observed in fact or in thought of the course of nature: beyond this he
neither knows anything nor can do anything’ (Bacon, 1857: Aphorism I).

Before addressing positivism, it is important to set out the context of its emergence.
According to Karl Popper (1989), it can be seen as an important stage in human intellectual
evolution.

For Popper, the first great evolutionary break of humans from other animals was the
development of language, which enabled humans to describe and seek to explain the world
around them. In early societies, these explanations were animistic and superstitious,
developing in time into more sophisticated myths and religions with their own hermetically
sealed schools of thought. A crucial characteristic of these schools, for reasons of societal
cohesion (Durkheim, 1995), was that their tenets were regarded as inviolate: ‘A school of
this kind never admits a new idea. New ideas are heresies’ (Popper, 1989:141).
According to Popper, the next momentous stage in human intellectual evolution was the emergence of criticism, whereby it was permissible to question established ideas about the nature of the world. Criticism found its first expression in the pre-Socratic philosophers of classical Greece, but submerged again in Europe with the rise of Platonic idealism and then dogmatic Christianity¹. Later, with the Renaissance (the name of which refers to the rebirth of classical ideas), followed by the Enlightenment and the rise of science, criticism began to be accepted again as a powerful tool for advancing knowledge.

It was in this context that the seventeenth century English philosopher, Francis Bacon, promulgated what is known as the scientific method. For Bacon, our understanding of the world should not be based on metaphysical systems but on observation. However, he accepted scholastic philosophy's concerns about the unreliability of human interpretation of sensory inputs. He argued therefore that our stance towards any claims to empirical knowledge should be one of doubt, and that they should be tested systematically and repeatedly. He identified the experimental method as the best way of doing this. This involved the repeated application of a putative causal state or event to ascertain whether a putative effect was consistently detected following its application.

**Positivism**

*‘All good intellects have repeated, since Bacon's time, that there can be no real knowledge but that which is based on observed facts’* (Comte, 1896:29).

The practical successes of natural science were the inspiration for the development of positivism as a model for understanding society. The French philosopher and sociologist, Auguste Comte, saw science as the means for understanding society and human behaviour.
He coined the term ‘positive’ philosophy to differentiate it from the negative philosophy, which he believed underpinned woolly and metaphysical thinking (Comte, 1875). Comte’s positivist approach involved the use of scientific methods to uncover the dynamics of society in the same manner that physical science was uncovering the dynamics of the natural world (the philosophical term for this common purpose is ‘naturalism’, a term which has somewhat confusingly also been adopted by recent qualitative researchers to describe the study of people in their ‘natural’ environments. It is used in the former sense in this paper).

Comte believed that scientists should focus on confirmable observations of empirical events and this alone should constitute human knowledge. His analogy between the natural and social worlds was not limited to his epistemology. At the ontological level, he assumed that the people’s actions were subject to social laws in the same way that events in the natural world were governed by natural laws.

The word positivism originates from the Latin word ‘positum’ and means that facts are ‘posited’ or positioned in front of the researcher (Alvesson, 2009). For positivists, objective truth existed and the goal of science was to discover it. To uncover truth, the researcher was required to be objective and collect facts using methods that were value-free (McEvoy and Richards, 2006). By such methods, it was claimed they could identify general laws (McEvoy and Richards, 2006; Parahoo, 2014; Weaver and Olson, 2006).

As to what those laws were, positivists took an empiricist approach (empiricism being the doctrine that all knowledge is based on experience). They regarded laws as empirically observable relations of cause and effect. This reflected the position taken by the Scottish eighteenth century philosopher, David Hume (1969). He argued that causal laws are based
on the empirical experience of ‘constant conjunctions’, whereby one event is observed to occur immediately and consistently after another. Thus, causality rests in the relation of constant conjunction, rather than in any force external to that relation. In essence, the positivist doctrine involved the following logic:

Our minds interpret the world through our senses, and because the world is subject to the laws of science, events outside the mind can be observed, described, explained and predicted. Therefore, to make sense of the outside world all we had to do was to observe it (McKenna, 1997, p 121).

By placing rational observation as the key to understanding the social world, positivism marked an important step in humanity’s intellectual development. However, it should be noted that Comte (1875) regarded it as a new (albeit secular) religion, in that he saw it as capable of uncovering inviolable truths gathered together under the umbrella of a unified science. Later positivists, most notably those of the Vienna circle of logical positivists, while vociferously decrying any form of metaphysics, remained true to the Comtean aspiration to the unity of science.

**Logical positivism**

The aim of the logical positivists was to defend and strengthen positivist empiricism in the context of early twentieth century scientific developments. They attempted to shore up empiricism in an era where an ever increasing proportion of science’s subject matter was not directly observable; a development most dramatically displayed by the replacement of
classical physics by quantum mechanics. They argued that the theoretical axioms required to explain these phenomena, while they could not be verified directly, could be anchored empirically by ‘correspondence rules’ (Carnap, 1966) which were amenable to observational testing\(^2\).

Logical positivists also attempted to strengthen positivism by marshalling the ideas of the early Wittgenstein (1974) to argue that empirical knowledge was the only valid form of knowing. On the basis of ‘the principle of verifiability’, which states that the meaning of a proposition lies in its method of verification (Passmore, 1967), they contended that any statement that could not be empirically verified was not just mistaken or confused, but was meaningless nonsense (Ayer, 1936).

**Challenges to Positivism**

Positivism has faced a number of significant challenges, four of which we will adumbrate here. Our discussion is ordered according to the chronology in which the challenges emerged. Indeed, Immanuel Kant planted the seeds of the first challenge before Comte was even born. These challenges at least partially map on to the four-part typology of paradigms proposed by MacKenzie and Knipe (2006) – interpretivist/constructivist; transformative; pragmatic; and postpositivist. The Kantian challenge led to what they term the ‘interpretivist/constructivist paradigm’, and the Marxian challenge to the ‘transformative paradigm’. However, in contrast to the problem-driven approach of methodological pragmatism, the scientific realism that developed from Durkheim’s challenge to positivism, while sharing with the ‘pragmatic paradigm’ a licence for mixed methods research, contains well-developed realist ontological and epistemological positions.
These three challenges provided clear alternatives to the positivist model as a means for understanding the world. In contrast, the Popperian challenge aimed to improve on positivism’s conception of the scientific method. Popper’s challenge led to the paradigm that MacKenzie and Knipe term ‘postpositivist’.

**The Kantian challenge**

‘It is not that by our sensibility we cannot know the nature of things in themselves in any save a confused fashion; we do not apprehend them in any fashion whatsoever’ (Kant, 2007: B62).

The first set of interrelated challenges have their wellspring in the philosophy of Immanuel Kant (2007), who distinguished between things in themselves (noumena) and what appears to our senses (phenomena). He argued that all we can ever have access to are phenomena, rendering the objective world unknowable.

Kantian ideas influenced the work of Max Weber (1949), who used their emphasis of the importance of the subjective to refute the ability of natural scientific methods to explain human behaviour. He argued that understanding social behaviour required interpretation of the meanings and motives of the actors involved, whose actions were the result of choice rather than determined by social laws. Thus, the naturalist approach of positivism was challenged by the rise of interpretivist sociology.

An even more direct line from Kant can be found in the phenomenological tradition. Thus, in relation to scientific method, Edmund Husserl (1970) argued that the use of positivistic
science to uncover human thinking in disciplines such as psychology distorted human experience. Once again, the message was that positivism was an inappropriate way to find out about people because it treated thinking and feeling human beings as objects.

Another neo-Kantian attack on positivism came via the nineteenth century German philosopher, Friedrich Nietzsche, and in particular his admonition to seekers after knowledge:

Let us guard against the snares of such contradictory concepts as 'pure reason', ... 'knowledge in itself': these always demand that we should think of an eye that is completely unthinkable ... in which the active and interpreting forces ... are supposed to be lacking ... There is only a perspective seeing, only a perspective 'knowing' (Nietzsche, 1969, 119, emphasis in original).

Nietzsche’s perspectivism had a major influence on postmodernists’ rejection of grandiose explanatory 'metanarratives' (Lyotard, 1984). The postmodernist acceptance of perspectivism led to their abandonment of any pretentions to generalise knowledge, and to their denial of the scientist’s ability to adopt an objective stance.

**The Marxian Challenge**

‘The philosophers have only interpreted the world, in various ways; the point is to change it’ (Marx, 1974: 123).
In contrast to the positivist conception of the role of the social scientist as simply describing the causal laws that govern human behaviour, Marx argued that structured social relations could be altered through political action (Marx and Engels, 2002). The role of the social scientist, according to Marx, should be to engage in critical analysis of existing social structures with a view to informing political action to overcome the exploitative and oppressive relations they contain.

Acceptance of the Marxist position entails a denial of positivism’s objectivism. This differentiates between facts and values and argues that scientists, because their job is solely to gather empirical information, should eschew the adoption of values, which distort objective neutrality. In contrast, Marxists and other critical theorists argue that in order to explain social reality, it is essential to evaluate and criticise its own self-understanding (Horkheimer and Adorno, 2002).

Marx concentrated on class inequalities between those who owned and controlled the means of production and those who did not. However, critical or transformative social science has since broadened its scope to encompass other forms of inequality, such as those associated with ethnicity, gender and sexual orientation.

**The Durkheimian challenge**

‘A social fact is … capable of exercising on the individual an external constraint … [It] is general throughout a given society, while at the same time existing in its own right, independent of its individual manifestations’ (Durkheim, 1966:13).
The nineteenth century French sociologist, Émile Durkheim, challenged positivism’s empiricist ontology. As can be seen from the quotation above, Durkheim (1966) expanded the definition of what counted as real from ‘individual manifestations’ (i.e. the empirically observable events that positivists viewed as constituting reality) to include those forces that exercised ‘external constraint’ on events. In doing so, he was setting out the scientific realist alternative to positivism.

Scientific realists argue that positivists misunderstand the nature of causation. This misunderstanding comes from their acceptance of David Hume’s (1969) empiricism, which reduces causal laws to being one and the same as constant conjunctions. In contrast, realism asserts the independent reality of causal forces, which they see as ontologically distinct from the events they generate. Moving causation from constantly conjoined events to generative mechanisms has significant consequences for science. Rather than being restricted to describing constant conjunctions, science can start to explain how the influence of causal mechanisms is exerted.

Since Durkheim, scientific realism has developed along a number of lines. However, its most sustained development as a philosophy of science is critical realism, which combines the ontological realism of Durkheim with the critical social science of the Marxist tradition (Archer, 1995; Bhaskar, 1998).

In his examination of the nature of causation, the twentieth century British philosopher, Roy Bhaskar (2008), argued that, except in artificially controlled situations such as experimental conditions, constant conjunctions rarely pertain. This is because multiple causal mechanisms are at play in open systems. There should be acceptance that events in open
systems are generally caused by a combination of causal mechanisms, which may mutually reinforce or undermine each other’s powers. This allows for a more nuanced analysis than that of positivism, depicting causation as involving tendencies rather than invariable consequences.

For critical realists, the opportunities, restraints and social mores embedded in structured social relations have a powerful influence on how people behave (Archer, 1995). Their assertion of the power of social mechanisms to influence the patterning of events, including human actions, involves a rejection of the neo-Kantian position that explanation of human behaviour should be sought solely in the meanings and motivations of the actors involved (Weber, 1949; Husserl, 2012).

However, critical realists also reject the Comtean model of causation, which places exclusive causal onus on social laws and regards human agency as epiphenomenal. Instead, they insist that, because both social structures and human agents possess their own unique generative mechanisms, one cannot be reduced to the other (Archer, 1995). They assert the need to ‘distinguish sharply … between the genesis of human actions, lying in the reasons, intentions and plans of human beings, on the one hand; and the structures governing the reproduction and transformation of social activities, on the other’ (Bhaskar, 1989: 79). This in turn leads to an assumption of the appropriateness of mixed methods approaches. Patterns of events and behaviours can only be demonstrated through numerical calculation. However, because ‘meanings cannot be measured, only understood’ (Bhaskar, 1998: 46), qualitative approaches are needed to uncover people’s understandings and motivations.

**Summary of points of divergence between positivism and alternative paradigms**
The primary points of divergence between positivism and the three perspectives outlined above are as follows:

- Interpretivists’ insistence on the importance of taking into account individuals’ capacity to think and to choose to act in certain ways, undermines the determinist philosophy of positivism, which sees people’s actions as governed by natural and social laws.
- A stronger constructivist argument refutes positivism’s claim to be able to uncover objective knowledge about a unified reality, adopting a relativism that regards both reality and our understandings of it as constantly shifting from one perspective to another.
- Those from the transformative paradigm argue that acceptance that humans can shape their social world is at variance with positivism’s value-neutrality and social determinism, which prevents it from contributing to critical analysis of social formations that in turn can be used to inform human choices about improving the social world.
- Realists argue that positivism’s empiricist concentration on establishing laws through the observation of constant conjunctions of events leaves it unable to adequately explain causation in terms of tendencies, which is how it is almost invariably manifested in open systems.
- A common criticism of positivism from all these perspectives involves their rejection of its belief in science’s ability to uncover definitive objective facts.

The Popperian challenge

‘Observation is always selective … It needs a chosen object, a definite task, an interest, a point of view, a problem’ (Popper, 1989:46).

Not only has positivism had to contend with profound challenges from alternative philosophical positions, it has also been subjected to immanent critiques that demonstrated
internal inconsistencies. Karl Popper, the twentieth century Austro-British philosopher of science, posited the most important of these. As a supporter of the scientific method (and a friend of members of the Vienna circle), Popper’s aim was to eliminate positivism’s weaknesses.

While subscribing to the general tenets of the scientific method, Popper (1972) believed that the positivist conception of the method was weakened by its failure to address what is known as the Humean problem of induction. Positivists accepted Hume’s (1969) ontology of causation that identified it as the experience of constant conjunctions of events. Consequently, they argued, knowledge was generated by the systematic gathering of data to demonstrate causal relationships in the form of constant conjunctions. If one event was demonstrated to occur repeatedly shortly after another, then the former could be established as an effect and the latter as its cause. Such an approach, whereby a general conclusion emerges from the observation of a number of particular instances, is known as induction. However, positivism’s approach ignored the crucial weakness of inductivism that Hume (1969) identified. His argument that observation of past conjunctions is no guarantee that they will be observed in the future logically compromised the generalisability of inductively generated knowledge about the nature of causal relations. The certainty that Comtean positivism aspired to was fatally undermined by the Humean problem of induction.

Recognising the dilemma, logical positivists sought to argue their way out of the contradiction between the empiricist principle that only experience could decide between the truth and falsity of a statement and the Humean objection that inductive arguments from experience are invalid. Following Wittgenstein (1974), they did so by attempting to redefine what was meant by a scientific statement. Popper was scathing in his criticism of these attempts, accusing them of sharing ‘with all the older attempts an unfounded assumption …
that all genuine statements must be, in principle, completely decidable’ (Popper, 1972: 312). He went on to argue that ‘If this assumption is dropped, then it becomes possible to solve in a simple way the problem of induction. We can, quite consistently, interpret natural laws or theories as genuine statements which are *partially decidable*, i.e. which are, for logical reasons, not verifiable but, in an asymmetrical way, *falsifiable only*’ (312-13, emphasis in original). In other words, while it is not possible to state definitively that a statement is true, it is possible to state definitively that it is false.

In replacing the principle of verification with the principle of falsification, Popper reversed the logical flow of scientific endeavour, which for positivists proceeded inductively from observation of specific instances to constructing general statements about causal relations. Instead, Popper proposed the hypothetico-deductive method, which involved the initial formulation of a hypothesis about the nature of a causal relationship, followed by the gathering of empirical data to test that hypothesis (the process of deduction), with the aim of falsifying rather than verifying it.

The replacement of positivism’s scientific aim of inductive verification by deductive falsification marked an important qualification to claims about the epistemological power of science. No matter how frequently experimental science fails to falsify a hypothesis, the possibility that it will be falsified in the future still remains. This inability of science to vouchsafe the causal relations it identifies leads postpositivism to accept that scientific knowledge is always provisional and subject to potential falsification. While science may get us closer to the truth by ruling out false conjectures, it can never definitively assert that it has attained it – scientific statements are only ever ‘partially decidable’.
Popper’s rejection of positivism’s inductive approach involved a rejection of epistemological empiricism. For positivists, knowledge could be gained from simply looking at the facts, while for Popper this was an untenable position: ‘the belief that we can start with pure observations alone, without anything in the nature of theory, is absurd’ (Popper, 1989:46). Thus postpositivism asserts the primacy of theory, arguing that science progresses from the identification of clearly articulated hypotheses that are posed in such a manner that they are amenable to empirical falsification.

The centrality postpositivism gives to theory has important consequences for how it views the role of the scientist. It accepts that the development of scientific knowledge depends upon the creation of theoretical conjectures. This involves a conception of scientists as having an active and imaginative role to play in the scientific endeavour. This contrasts with positivism’s perception of them as passive gatherers of objective data.

While Popper criticises positivism’s exclusive concentration on empirical experience as the source of scientific knowledge, asserting instead the crucial role of theory, he shares with positivism an ontological empiricism that identifies causation with empirically observable events. In other words, while the method of identifying causal relations may have moved from induction to the deduction, the object of that process remains the same. Critical realists, who assert the independent reality of causal forces, ontologically distinct from the events they generate, have challenged this conception of causality.

Popper’s acceptance of positivism’s ontological empiricism also entails a sharing of its adherence to scientific value neutrality that asserts that the world is as it is, irrespective of how we would wish it to be. It is therefore important, notwithstanding the scientist’s role in
deciding what aspects of the world should be investigated, that science is conducted in such a way that involves the acquisition of facts not tainted by the values of those involved in its acquisition. This is in contrast to the transformative paradigm which warrants the development of assumptions about how the world should be (Popper, 1957).

**Similarities and differences between positivism and postpositivism**

**Similarities**

Positivism and postpositivism share the following assumptions:

- The scientific method can be used to understand relations of cause and effect in both the social and natural worlds.
- Systematic and sustained empirical observation is key to gaining knowledge.
- The focus of science should be on the conjunctions of events because it is the constancy of conjunction that constitutes causation.
- Science should be value neutral.

**Differences**

Positivism and postpositivism differ in relation to the following assumptions:

<table>
<thead>
<tr>
<th>Positivism</th>
<th>Postpositivism</th>
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<tbody>
<tr>
<td>Causal laws are identified by means of systematic and sustained empirical observation of instances of conjunction</td>
<td>Hypotheses conjecturing a causal relationship are tested by systematic and sustained empirical observation of</td>
</tr>
<tr>
<td>(inductivism).</td>
<td>instances of conjunction (hypothetico-deductivism).</td>
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<tr>
<td>The existence of causal laws can be confirmed if observation reveals the constant conjunction of the events being investigated (verification).</td>
<td>The aim of observation is to refute hypotheses about causal relationships (falsification).</td>
</tr>
<tr>
<td>Science is capable of uncovering the true nature of causal laws.</td>
<td>While science can rule out false conjectures, it can never definitively establish the true nature of causal laws.</td>
</tr>
<tr>
<td>The role of the scientist is to systematically observe and record instances of constant conjunction and to develop or verify statements about laws on the basis of those observations.</td>
<td>The scientist’s role includes the development of conjectures and hypotheses, which means that they have a creative part to play in the research process.</td>
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**Positivism, postpositivism and the randomised controlled trial**

In order to demonstrate that, even in the area where the claim of positivism’s salience is most persistent, key components of positivism have been rendered redundant, we will now examine the methodological underpinnings of the current ‘gold standard’ of the scientific method in healthcare research – the randomised controlled trial (RCT). We will support our arguments through the use of examples of recent nursing RCTs.
In the literature, confusion often surrounds the question of whether RCTs in healthcare research are paradigmatically positioned within positivism or postpositivism. We wish to argue that they sit firmly within the postpositivist paradigm. While the assumptions underlying RCTs include those that are common to positivism and postpositivism, they also include an acceptance of hypothetico-deductivism, falsification, the provisional nature of scientific knowledge, and the active role of the scientist in selecting scientific problems. On these grounds, it is inappropriate to label RCTs as being founded on positivism.

In terms of the common assumptions of positivism and postpositivism, RCTs’ comparison of experimental groups that are exposed to interventions with control groups that are not entails the adoption of the scientific method. In addition, they use systematic and sustained observation to measure the frequency of conjunction between the intervention and the outcome of interest in comparison to the frequency of the outcome’s occurrence in the control group. Through their adoption of blinding procedures, they are designed to ensure that the predispositions of the scientists and subjects involved will not bias the results of the trial (Altman, 1991; Jadad, 1998).

In terms of the differences, RCTs do not simply gather data with a view to identifying effective therapies, but commence with hypotheses that are then empirically tested (Jadad, 1998). For example, an RCT of a nursing intervention for pressure ulcer prevention was based on the primary hypothesis that “…the incidence rate of HAPU [hospital acquired pressure ulcers] in at-risk hospitalised patients who receive a PUPCB [pressure ulcer prevention care bundle] will be lower than that in those receiving standard care” (Chaboyer et al., 2016, p 64).
While Chaboyer et al.’s positive directional hypothesis might be taken as demonstration that the positivist strategy of verification remains the dominant approach, the use of this form of hypothesis in RCT reports is essentially a literary device used for clarity. It does not reflect the actual processes involved in RCTs, where inferential statistics are used to test null hypotheses, which predict that no causal relationship exists (Machin et al., 2007). Thus, the testing of null hypotheses in RCTs, notably through the use of p (probability) values that seek to measure the probability of observed outcomes being the result of chance, adhere to the postpositivist dictum that scientific research should aim for falsification rather than verification. Numerous examples of the use of p values in nurse-led RCTs can be given (see, for example, Dumville et al., 2009; Mooney et al., 2014).

The greater evidential weight given to systematic and meta-analytic reviews of multiple RCTs than to individual RCTs indicates an acceptance that, notwithstanding their rigour, the results obtained from RCTs should not be regarded as definitive (Gough et al., 2012). Thus, for example, an RCT evaluating an educational programme to reduce the use of external restraints by staff on patients with dementia came to the conclusion that ‘staff education can … reduce the use of physical restraints’. (Pelifolk et al. (2010:62). However, a Cochrane systematic review which included five cluster-randomised controlled trials which met Cochrane quality criteria (including that of Pelifolk et al.) came to the conclusion that ‘There is insufficient evidence supporting the effectiveness of educational interventions targeting nursing staff for preventing or reducing the use of physical restraints in geriatric long-term care’ (Möhler et al., 2011:2).

Because the selection of hypotheses to be tested by RCTs is discretionary, scientists have a creative role to play in the direction in which science develops. One way they do this is by identifying problems that they regard as worthy of investigation. Thus Hanson et al.
provide a rationale for their evaluation of a quality improvement intervention targeted at palliative care in nursing homes with the following statement: ‘Death is a frequent occurrence in nursing homes, yet few clinical quality standards promote excellence in palliative care for those who die in this setting’.

It can be seen from the above review that postpositivist tenets, rather than those of positivism, animate contemporary randomised controlled trials in the field of nursing.

**Contemporary nursing research paradigms**

The strong influence of postpositivism in the areas of experimental and quasi-experimental health research should not be taken to indicate that we have reached the end of methodological history. Even within the paradigm, it is recognised that postpositivist strategies contain problematic tensions with which researchers and methodologists continue to struggle. These include the artificiality of RCTs’ controlled settings, which compromises their ability to predict the effects of interventions in everyday clinical settings, and their focus on average effects, which blinds them to human individuality (Rothwell, 2005; Ernest et al., 2015). Attempts have been made within the parameters of the postpositivist paradigm to address these problems, a notable example being the British Medical Research Council’s (MRC) Framework for the Development and Evaluation of Complex Healthcare Interventions (MRC, 2008).
More widely, it can be noted that the current state of play in nursing research methodology is one of pluralism. Acceptance of the importance to successful nursing care of patients’, relatives’ and clinicians’ experiences and motivations has provided a solid foundation for those paradigms that assert the need for interpretation (Streubert and Carpenter, 2011). Conversely, the rise of evidence-based nursing, with its assertion of the need for robust evidence about the effectiveness of nursing interventions has encouraged the adoption of evaluation strategies that sit within the ambit of postpositivism (Porter and O’Halloran, 2009).

While the increasing acceptance of pluralism has led to a cooling off of paradigmatic wars, this does not mean that conflict has ceased altogether. While there is mostly a patrician silence from the confident ranks of postpositivist methodologists, adherents to alternative paradigms continue to point out what they see as postpositivism’s errors. Probably the most vociferous critics here have been postmodernists, who have gone so far as to accuse scientifically guided evidence-based practice of being fascistic in its dehumanisation of the individual (Holmes et al., 2006).

The current attitude of realists to postpositivism’s scientific method is more ambiguous. While they are at one in pointing out what they see as its weaknesses and contradictions (Porter and O’Halloran, 2012; Pawson, 2013), they are divided about what should be done about them. Some (Marchal et al., 2013; van Belle et al., 2016) argue that experimental designs’ reliance on the notion of constant conjunction means that they cannot provide an adequate understanding of how and why things work. Others (Bonell et al., 2012; Porter et al., 2017) argue that the RCT, with its capacity to identify the efficacy of an intervention within the confines of a closed system, is a necessary but not sufficient methodology, and needs to be combined with realist-based interrogations of individual experience and social context.
The most acute controversy between critical realism and postpositivism is grounded in the former’s acceptance of transformative assumptions, which lead critical realists to challenge the postpositivist dichotomy between rationally-based reasoning and value-based reasoning. They have pointed out that as beings whose relation to the world is one of concern (Sayer, 2011), humans constantly use empirical knowledge to inform their concerns about present or future flourishing or suffering. While those who espouse value neutrality may be formally correct in their assertion that ‘ought’ cannot be logically derived from ‘is’, from a realist perspective, ‘[t]he force of the “ought” . . . is not a matter of the logical relations between statements, but of bodily needs or compulsions – states of being or becoming, not statements’ (Sayer, 2011, p. 51). Thus, a factual statement that describes an objective human need or lack contains within itself the inference that there is merit in responding to alleviate that need or lack. This argument has particular resonance for nurse researchers, given their shared acceptance that the avoidance of avoidable suffering of patients is a paramount value position (Porter, 2016).

Ironically, the paradigm identified by MacKenzie and Knipe (2006) that has not been considered in depth here – the pragmatic paradigm – has, with the rise in popularity of mixed-methods approaches (Curry and Nunez-Smith, 2014) that are intimately associated with it, been one of the success stories of the last decade. The reason why we have not concentrated on pragmatic approaches is that their paradigmatic characteristics are very unclear. To the extent that pragmatic simply refers to the belief that research methods should be considered according to their practical consequences (Peirce 1958), it is hard to see them as constituting a distinct paradigm. To the extent that the pragmatic paradigm flags an adherence to the anti-foundationalism of Richard Rorty’s pragmatism (1991), then it can be categorised as another variant of Nietzschean perspectivism. Ambiguity is not lessened
by consideration of the paradigmatic location of mixed-methods approaches. While often associated with pragmatism, they can be equally applicable in other paradigms including the transformative (Mertens, 2005), realist (Allmark and Machaczek, 2018) and postpositivist (Medical Research Council, 2008). Nevertheless, we would be remiss not to acknowledge that, with the cooling off of the paradigmatic wars, pragmatism's influence continues to grow.

It will be noted that positivism has not been mentioned in this summing up of contemporary healthcare methodology. While some of its tenets continue to animate the postpositivist paradigm (and continue to be the focus of critics of postpositivism), as a coherent overarching paradigm, it is now of little more than historical interest.

**Conclusion: the redundancy of positivism**

The previously hegemonic position of positivism has long gone. Many social and healthcare researchers have abandoned it in favour of paradigms that they believe better incorporate the experiences, needs and aspirations of human subjects. However, while the interpretive, transformative and realist paradigms challenged the dominance of the positivist paradigm, they did not render it redundant. As long as positivism could claim to provide the paradigmatic structure for the scientific method, it could still assert its relevance. What finally rendered positivism redundant was the emergence of postpositivism, which supplanted it on the methodological territory that it had claimed as its own.

While debate continues about where best to locate healthcare research, that debate has moved on from consideration of the appropriateness of positivism as a foundational philosophy. The twin pincers of anti-positivist and postpositivist paradigms have divested it of its *raison d'être*. It is therefore anachronistic for nursing methodologists and research
methods textbook writers to continue to refer to positivism as a pertinent research paradigm for contemporary nursing, just as it is inappropriate for nurse researchers to be expected to defend their work from a positivist stance.
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Endnotes

1. Like many sweeping historical schema, Popper's can be accused of oversimplification. For example, there is evidence that medieval thought was considerably more disputatious than Popper indicates (Marenbon, 2007).

2. While logical positivism had disintegrated as a distinctive philosophical position by the 1940s (Passmore, 1967), its echoes continued in Anglo-American thought, not least through influence of the diaspora of those associated with it. Thus, the emphasis that logical empiricists such as Hempel (1965) placed on the importance of theoretical axioms as the foundation of scientific disciplines provided considerable impetus for the development of nursing theories and conceptual frameworks in the 1970s and 80s (Risjord, 2010).
The Methodological Dynamism of Grounded Theory

Nicholas Ralph¹, Melanie Birks², and Ysanne Chapman³

Abstract
Variations in grounded theory (GT) interpretation are the subject of ongoing debate. Divergences of opinion, genres, approaches, methodologies, and methods exist, resulting in disagreement on what GT methodology is and how it comes to be. From the postpositivism of Glaser and Strauss, to the symbolic interactionist roots of Strauss and Corbin, through to the constructivism of Charmaz, the field of GT methodology is distinctive in the sense that those using it offer new ontological, epistemological, and methodological perspectives at specific moments in time. We explore the unusual dynamism attached to GT’s underpinnings. Our view is that through a process of symbolic interactionism, in which generations of researchers interact with their context, moments are formed and philosophical perspectives are interpreted in a manner congruent with GT’s essential methods. We call this methodological dynamism, a process characterized by contextual awareness and moment formation, contemporaneous translation, generational methodology, and methodological consumerism.

Keywords
epistemology, grounded theory, methodology, methodological dynamism, ontology, philosophy, reflexivity, research philosophy, research, qualitative, research, quantitative

Introduction
No inventor has permanent possession of the invention ... a child once launched is very much subject to the combination of its origins and the evolving contingencies of life. Can it be otherwise for a methodology?

Strauss and Corbin (1994, p. 283)

Grounded theory (GT) methodology is marked by differences of opinion and divergences in paradigms, philosophies, genres, approaches, and methods. For a methodology that is only four decades young, GT has evolved significantly over this period. Nonetheless, GT is still characterized by a lack of consensus on what it is and how to “correctly” use it. We view the evolution of GT methodology as no happy accident; rather, it is the product of an individual’s epistemological and ontological interpretations applied in the context of GT methods. We refer to this process as methodological dynamism. We describe and detail this process and offer observations to researchers who wish to understand how new methodological interpretations become ensconced in GT.

Background
New interpretations of GT methodology have arisen throughout its brief yet rich history. The differences in these interpretations have led to ongoing and robust debate among grounded theorists. From the postpositivism of Glaser and Strauss (Glaser & Strauss, 1967), to the symbolic interactionism and pragmatism of Strauss and Corbin (1990), to the constructivism of Charmaz (2000), the field of GT is interesting in the sense that grounded theorists offer markedly new ontological and epistemological perspectives at specific moments in time that have developed “followings.” Such changes reflect an inherent dynamism in interpreting GT methodology and the

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philosophies applied to guide its use. Philosophical positioning defines how GT methods are used, thus emphasizing the need for grounded theorists to develop a strong ontological and epistemological self-awareness.

Awareness of what is, and what is not, GT is essential to preventing the perception that GT lacks boundaries or limitations in how it is used. For instance, irrespective of the guiding philosophy in GT, its essential methods (see Figure 1) have been similarly valued across the GT spectrum by its users. Nonetheless, some GT methods are emphasized where a philosophical “bent” exists. Glaser and Strauss, for example, are viewed as critical realists operating in a postpositivist paradigm (Benoliel, 2001; Chen & Boore, 2009; Mills, Bonner, & Francis, 2006a), who emphasize objectivity, inductive logic, and the emergence of data, thus focusing on the constant comparative method in order to produce GT (Annells, 1997a; Glaser, 1978; Glaser & Holton, 2007). Strauss and Corbin are seen as pragmatic interactionists with a constructivist intent, leading them to emphasize axial coding and coding paradigms for the purpose of explicating the nature of relationships within the data (Bryant & Charmaz, 2010; Corbin & Strauss, 2014; Mills, Bonner, & Francis, 2006b; Strauss & Corbin, 1990). Charmaz views GT as a constructivist methodology with symbolic interactionist underpinnings, thus emphasizing writing as a method because it facilitates the reconstruction of events and generation of data (Charmaz, 2001; Mills et al., 2006a).

Clearly, GT allows the researcher to consider his or her ontological and epistemological position. It also permits the expression of different perspectives in that emphasis will be placed on a particular essential method to suit one’s philosophical viewpoint. Such nuances of GT reflect a situation in which its “users” position themselves philosophically to facilitate their interpretation of what is “going on.”

These changing standpoints in GT are not only representative of its struggle for currency, as Annells (1997a) suggests, but also an indication of the role that symbolic interactionism plays in forming these methodologically dynamic viewpoints. If researchers symbolically interact with sources of data, they also interact with the broader environment to identify and interpret social contexts and their application to GT. If moments arrive as a consequence of the impact of wider social changes that Annells (1997a) alludes to, in turn, grounded theorists adopt the ontology and epistemology of the moment they are working in. Annells reveals in Birks and Mills (2011) that without having ontological and epistemological standpoints to refer to during the moment of postmodernism, she arrived at her own application of GT that was characterized by undergoing a process similar to Clarke’s (2003) situational analysis. It is apparent that GT is a dynamic methodology in that it is characterized by the contemporaneously interpreted philosophical perspectives of the researcher in response to their interaction with wider social forces. Therefore, the grounded theorists’ ontological and epistemological perspectives are expressed in their use of GT’s essential methods.

While the use of its essential methods is consistently applied across the development of GT thinking, philosophical drivers are far more fluid and raise questions regarding what GT really is. Morse et al. (2009, p. 8) asks, “if a method is well developed and that method is published, taught and used, and that method is changed by the second person, is it still the same method?” These authors (2009, p. 17) answer their own query in part by stating that “science changes, develops and usually improves over time.” So long as the essential methods are observed in the course of developing GT, the use of theoretical lenses need not be singular among grounded theorists. As Holton (2009) explains, GT adopts an epistemological perspective appropriate to the data and an ontological stance aligned with the researcher. It is in the process of shifting philosophical perspectives over time that we see the methodological dynamism of GT. Researchers appear to be responding to social pressures and changes over time and approaching GT with new philosophies to guide how they apply its essential methods.

### Methodological Dynamism in GT Thinking

In exploring the dynamism that characterizing GT and its driving philosophies, we began to note salient points that seemed to illustrate the process of how new interpretations of GT came to prominence. These points are enounced in the idea of methodological dynamism, a process guided by symbolic interactionism, in which generations of researchers.
Contemporaneous Interpretation

Contemporaneous interpretation refers to the timing and nature of contextual and paradigmatic interpretation by researchers who contribute to the formation of moments in research. It is marked by the process of making philosophical sense of GT in a contemporaneous manner and is informed by broad, wide-ranging forces in society that occur over time. Contemporaneous interpretation is carried out with an awareness of the dominant context at play and how we symbolically interact with and are cognizant and conscious of such forces in relation to GT. The concept of macro influences on the social consciousness is not new, as Yuginovich (2000) argues that historically, social paradigms are a stronger force than language in the molding of social consciousness.

The unfolding of contemporaneous interpretation in GT methodology can be seen in the context of concurrent developments in contextual awareness and moment formation. If we observe movements in the work of Strauss and Corbin (1990, 1994), we note they shift from postpositivism to constructivism over time. Given their work occurred during the transition from the moment of blurred genres (1970–1986), to the crisis of representation (1986–1990), to the moment of postmodernism (1990–1995), and finally to postexperimental inquiry (1995–2000), it is interesting to note the congruency between the characteristics of the dominant philosophical paradigm of the moment and developments in GT methodology. Such congruency is evidence of contemporaneous interpretation occurring, as researchers are contemporaneously interpreting their context in a moment of time and translating its meaning to GT methodology.

Table 1. Defining Methodological Dynamism.

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<td>The derivation of sense and order that occurs when people symbolically interact with their context to form moments in qualitative research</td>
<td>The interpretation of dominant shifts in society and philosophy by a researcher aware of the context in which they are living.</td>
<td>The generational character of a methodological translation that repositions GT philosophically and is subsequently disseminated and interpreted by the researcher</td>
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Note. GT = grounded theory.
For instance, the moments of blurred genres and the crisis of representation are typified by relativistic postpositivism in that Strauss and Corbin’s early work outlines a prescriptive method in order to limit the biases of the researcher and foster a more reflexive approach (Denzin & Lincoln, 2011). As the moments of postmodernism and postexperimental inquiry are ushered in—periods characterized by constructivist thought—Strauss and Corbin (1994) and Charmaz (2000) explore constructivism and its relationship to GT (Birks & Mills, 2011). It is noteworthy that Charmaz constructs an approach that incorporates positivist methods with a postpositivist approach while remaining cognizant of the researcher’s position in relation to the text and their research subjects (Charmaz, 2006). Furthermore, Charmaz’s focus is implicit of the importance of reflectivity when theory is being developed (Birks & Mills, 2011). Ironically, Charmaz’s approach is a construction of the defining elements of different moments in research evident in the positivism of traditionalism, the postpositivism of modernism, the position of the researcher in blurred genres and crisis of representation moments, the pragmatism of the postmodernism moment, and the multiplicity of philosophical frameworks as represented by the moment of postexperimental inquiry.

These examples demonstrate how contemporaneous philosophies are aligned and applied to form new interpretations of GT methodology. In effect, contemporaneous interpretation is an active process in which ontological and epistemological standpoints are interpreted and reinterpreted over time by grounded theorists situated in the dynamic of shifts in society and philosophy. Moments color the grounded theorist’s perspective, and they are influenced by broad shifts of context and respond by adopting a congruent philosophical standpoint. Contemporaneous interpretation is fundamental to the formation of new methodological approaches to GT, and thus we observe the importance of methodological dissemination and interpretation—an event that establishes a generational methodology.

**Generational Methodology**

Even at first glance, GT is a methodology of generations. Each generation is characterized by a particular methodological translation that repositions GT philosophically and is subsequently disseminated and interpreted by the researcher. For example, classic or Glaserian GT characterizes the first generation in the same manner that constructivist GT marks the second generation.

There is an ongoing perception that seminal texts produced by first-generation grounded theorists contain methodological gaps that have seen subsequent generations of grounded theorists arrive at certain philosophical perspectives for the purpose of planning and executing a course of study (Birks & Mills, 2011). The researchers who addressed these gaps are referred to as second-generation grounded theorists, a label attached to those who identified with a body of students operating under the guidance—either directly or indirectly—of Barney Glaser and Anselm Strauss (Morse et al., 2009). Despite Glaser and Strauss’ resolve, original texts remained largely silent on the methodology of GT. This silence is tacitly indicative of the fact that GT is not prescient of future ontological and epistemological perspectives.

Voltaire, a French philosopher and historian, is purported to have said “history should be written as philosophy” (Dingle, 2000, p. 244), as the cultivation of dominant philosophical paradigms and the progression of social history are indelibly intertwined. The absence of ontological and epistemological perspectives in first-generation texts is representative of a true focus on emergence as to have it otherwise may force a philosophical standpoint onto future GT studies. To bind future generations to modernist philosophy potentially restricts the translational impact of GT, as it would anchor it to antiquarian schools of thought rather than leaving it subject to philosophical influences over time. Nonetheless, the anchoring force of Glaser’s perspective is in our view valuable, as his prolific writings on classic GT offer a constant platform of reference for subsequent generations. Glaser has been largely constant, in spite of the evolution of GT propelled by these generations.

Second-generation grounded theorists have been influential in filling in what they perceive to be methodological gaps left by the first-generation by using the early work of Glaser and Strauss as a reference point for their own interpretations of grounded theory (Birks & Mills, 2011). It is this process of “filling in” that defines a generational methodology as it gives fit and form to a new methodological approach in GT and enables it to be subject to the process of methodological consumerism.

The role of generations as interpreters of the contemporaneous interpretation is pivotal to the development of methodological understanding, as individuals have interpreted new formations of GT methodology in their own context. It is thus the role of the third-generation to stand on the shoulders of giants and translate, interpret, and debate the works of the first- and second-generation in order to arrive at a contemporaneous understanding of GT. As such, the first-generation grounded theorists, such as Glaser and Strauss, can be viewed as custodians of its infancy, responsible for its birth, and nurture in the same manner that second-generation grounded theorists carried it through its childhood and encouraged its growth. GT is now potentially situated before third-generation researchers who wrestle with questions regarding a methodology in adolescence, trying to establish its identity in the grand scheme of methodology, philosophy, and inquiry.

**Methodological Consumerism**

We view methodological consumerism as the final phase of methodological dynamism. The defining feature of methodological consumerism is the “buy-in” that occurs when a new methodological approach to GT is offered, debated, interpreted, and adopted. In aid of illustrating this point, it is remarkable to note that Denzin and Lincoln (2011) suggest that newcomers from traditionally quantitative fields were attracted to GT as a result of Strauss and Corbin’s (1990) cookbook.
approach for conducting analysis. The subtext of this situation is that quantitative researchers were drawn to GT because it was morphing into a recipe for conducting research with which they were familiar. Such uptake demonstrates methodological consumerism in action and highlights the power that contemporaneous interpretation has on this process.

Even the discovery of GT itself harkens to the idea of methodological consumerism It is well reported that Glaser and Strauss—two men with epistemological assumptions embedded in sociological theory and influenced by symbolic interactionism—moved to counter the influence of quantitative positivist science by “discovering” GT (Benoliel, 2001; Suddaby, 2006). Their original paradigmatic position was post-positivist (Annells, 1997a; Benoliel, 2001), a stance that reflected the essence of the second moment of qualitative research. This stance was representative of the newly powerful paradigm for inquiry of the time (Benoliel, 2001; Denzin & Lincoln, 2011) and established a context in which The Discovery of Grounded Theory would become one of the most widely used methodologies in research. These events highlight methodological consumerism in action as Glaser and Strauss articulated an approach to research that suited the philosophical shifts of the time.

It is the symbolic interactionism between context, moment formation, contemporaneous interpretations, and grounded theorists everywhere that knits consensus in a somewhat serendipitous way to bring a methodology to the point where it is ready to be consumed “en masse.” This process demonstrates the macro level at which methodological consumerism occurs. Thus, without the occurrence of methodological consumerism, the nuances of variant GT methodologies are not disseminated, therefore not discussed, and consequently not consumed. At its most extrapolated level, methodological consumerism is about allowing the processes of methodological dynamism (see Figure 2) to occur in order to reach an understanding of how to employ GT methodology in one’s own research.

Conclusion
The methodological dynamism of GT is an appropriate means of observing and explaining both how and why it has changed since its inception. In many respects, the constancy and flexibility of how its essential methods are applied, albeit in different ways, still appeal to Glaser and Strauss’ goals of discovering theory in a systematic manner. GT’s essential methods establish a systematic approach for those wishing to produce GT while allowing researchers the room to apply their interpretations in different ways. Although variations in how GT is used clearly exist, the implication is that GT is dynamic because of its differences in philosophical standpoints within its monolith. In this dynamic state, GT responds to social pressures, changes over time, and adapts to the moment in which it is used. This adaptation is represented by methodological dynamism—a process informed by symbolic interactionism in which generations of researchers contemporaneously interact with their context, moments are formed, and prevailing

and personal philosophical perspectives are translated into products of research.

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