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Five potentials of critical realism in management and organization studies

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ABSTRACT

There is a lack of research explicitly demonstrating the potential of applying critical realism in qualitative empirical Management and Organization Studies (MOS). If scholars are to obtain the explanatory value that can be developed through detailed applications of critical realism, the existing gap between the philosophical foundation, methodological recipes and hands-on practices of applied critical realism must be bridged. Through a literature review and analysis of existing applications of critical realism in MOS studies, this paper presents five particular potentials of applying critical realism. The five potentials each address significant aspects of critical realism that, when explicitly applied in a research process, can contribute to the understanding of management and organizations. Following the analysis, we discuss what characterizes a detailed application and how this can add to the future of critical realism in MOS studies.

KEYWORDS

Critical realism;
management; organization;
case study; review;
qualitative

Introduction

In recent years, there has been an increasing amount of research into the methodology of critical realism in Management and Organization Studies (MOS) (see for instance Fleetwood 2005; Easton 2010; Wynn and Williams 2012; Bygstad, Munkvold, and Volkoff 2016; Fletcher 2017). These methodologically oriented papers introduce various modes of conducting critical realist research. Some resemble recipes, while others work at a higher level of abstraction. In contrast to this surge of methodologically oriented papers, there is a shortage of papers applying critical realism in empirical research. The lack of MOS scholars that explicitly apply critical realist ontology and epistemology becomes obvious in the lack of critical realist terminology applied in delineating and situating research strategies, as well as discussing findings and research implications (Contu and Willmott 2005). The aim of this paper is to demonstrate the potential of applying critical realism by showing the explanatory value added by this philosophy of science when the complexity inherent in MOS is studied. We do not seek to argue whether critical realism is a better alternative to other philosophies of science, but rather to highlight

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potentials of critical realism. Through analysis and description of the different ways that existing studies have applied critical realism, we hope to contribute towards reducing the shortage of explicitly applied critical realism in MOS studies.

Detailed and peripheral applications of critical realism

One reason for the shortage of practical applications of critical realism in MOS might be that critical realism can seem daunting; scholars are perhaps wary of applying it out of fear of not grasping its philosophical and practical complexity. We argue that there is therefore a need for a mediating bridge between, on the one end of the spectrum, critical realist philosophical explorations (see for instance Fleetwood 2005; Reed 2005; Elder-Vass 2010; Danermark 2019); and on the other end of the spectrum, critical realist explorations of the application of critical realism to research (see for instance Fletcher 2017; McAvoy and Butler 2018). It is this bridge that we hope to provide for MOS researchers with this paper. Whilst there are rare examples of MOS empirical studies that use a *detailed application* of critical realism - which enables them to reach conclusions they could not draw without the philosophical foundation of critical realism - most examples of the use of critical realist research in MOS are based on a *peripheral application* of it. In these cases, there are relatively few specific elements from critical realist ontology and epistemology and the application of critical realism is thus not very explicit. In peripheral applications, critical realism is often portrayed as serving the primary purpose of providing the researcher with epistemological permission to make interpretations and reach results that go beyond empirical observations (see for example Rossi, Rannisto, and Stenvall 2016; Ansong and Boateng 2018; Hines, Taylor, and Walsh 2018). While the peripheral application of critical realism is a legitimate research strategy, five distinct potentials of a more detailed application of critical realism are identified, and these form the crux of this paper.

Identifying potentials of critical realism in MOS studies

In the following, we present five potentials found through a review and analysis of detailed applications of critical realism in extant MOS studies. The five potentials identified are:

1. Applied critical realist ontology enables the researcher to delineate the phenomenon under study.
2. Critical realism provides a meta-theoretical framing of the interplay between structures and actors that unfolds over time.
3. Applied critical realist methodology offers explanatory value through the interplay of multiple empirical aspects.
4. Applied critical realist epistemology accentuates the interpretative role of the researcher in developing knowledge.
5. Critical realism bridges the gap between local and general knowledge.

The five potentials differ in which aspects of critical realist philosophy they are based on and which aspects of MOS they are relevant for as they elaborate *what, why and how* critical realism creates explanatory value when explicitly applied in studies of management and organizations. The five potentials provide central reference points for critical

realist researchers by addressing these fundamental questions that also drive empirical case studies (Swanborn 2010).

Potentials 1 and 2 demonstrate critical realist answers to *what* is studied empirically: the former in how relationships between entities constitute part of what certain entities are, and the latter in how applying critical realism can entail focusing on structure, actors and the relationship between these entities over time. Narrowing our focus to concentrate on entities and their relations as the objects under study allows the researcher to more easily delineate the phenomenon in a specific complex context of organizational life.

Potentials 3 and 4 demonstrate critical realist answers to *how* a study can be done: in the former, through retroduction and triangulation of data sources, and in the latter, by emphasizing how the researcher cannot be separated from the study but must be taken into account as part of the research process. Thus, the philosophy of science provides central reference points as to how the entirety of complex entities in MOS can be studied while ensuring scientific rigour and transparency.

Potential 5 demonstrates a critical realist answer to *why* researchers can extend findings beyond localized and case-specific types of knowledge. By invoking the philosophy of science, the researcher is provided with a platform for bridging both the theoretical knowledge advanced and the practical implications across MOS contexts with the localized findings.

The potentials presented in this paper represent a synthesis of how we found critical realism added explanatory value in extant MOS studies. The studies reflect various approaches to detailed applications of critical realism for which reason the potentials are not all present in all studies. We hope that the introduction of the five potentials will guide the interested reader in visiting the papers included in the review to learn more about the specific methods and reasoning applied.

The remainder of the paper is structured as follows. First, the review method is described and 26 selected critical realist MOS studies are presented. This is followed by a presentation of the abductive process used to identify the five potentials for critical realist research in MOS. After this, we introduce and elaborate each potential in depth. The paper concludes with a discussion of what characterizes a detailed application and how this can add to the future of critical realism in MOS studies.

Method

The five potentials presented in this paper have been synthesized through analysis of 26 critical realism-based MOS studies, which were identified through a search of three research databases (see [table 1](#)). In the literature search, the term ‘critical realism’ was applied in combination with terms beginning with ‘organ’ – thereby including, among others, organization (with both z and s), organization study, and management and organization study. The details of database search strings as well as the manual search activities are elaborated in [Table 1](#).

The output of the database literature search was combined with a manual survey of the last five years’ publications in the *Journal of Critical Realism* as well as our own archives and papers found through backward and forward snowballing. After duplicate removal, the search provided 348 results. Since the search was conducted in online literature databases, books and reports are not included. However, since our focus is on empirical renditions of applied critical realist research, we expect the practical implications of this to be limited.

Table 1. Search strings and activities in literature selection

Scope and selection	Search strings and search activities
Database search: Scopus	<i>'critical realism' AND organi*</i>
Database search: Academic Search Premier (ASP), Business Source Premier (BSP)	<i>organi* stud* AND critical realism</i>
Journal of critical realism	Manual search past 5 years of publications
Researchers own archives	Backward and forward snowballing
After duplicate removal 348 scientific papers	
Dual researcher evaluation and selection Process	Reading titles and abstracts of all papers
Exclusion criteria	<ul style="list-style-type: none"> • purely quantitative studies • non-empirical work • Studies beyond the scope of MOS • Papers introducing but not applying critical realism in data analysis • Non-peer reviewed
Final selection for full reading and tabulation 26 scientific papers	

The titles and abstracts of all 348 materials were read, and both authors participated in a selection process in order to identify relevant papers, chapters, and reports. Based on this screening process 26 papers were selected; see [Table 2](#). The 26 papers were read

Table 2. Papers selected for integrative review.

Author(s)	Year	Field	Data collection methods
Aaltonen, A., & Tempini, N.	2014	Information Systems	Interviews, observation
Ahmed, S., & Uddin, S.	2018	Corporate Governance	Interviews, observation, documents
Alwadain, A., Fielt, E., Korthaus, A., & Rosemann, M.	2016	Enterprise Architecture (Information Systems)	Interviews, documents
Ansong, E., & Boateng, R.	2018	Information Systems	Interviews
Armstrong, R.	2019	Performance Management	Participatory research, interviews, observation, informal conversation, documents
Ashraf, M. Junaid, & Uddin, S.	2013	Public Management	Interviews, documents
Barker, L., McKeown, T., Wolfram Cox, J., & Bryant, M.	2018	Public Management	Interviews, documents
Dobson, P. J.	2003	Organizational Change	Interviews, field work, documents
Hales, C.	2007	Management	Interviews, observation, documents
Hines, P., Taylor, D., & Walsh, A.	2018	Operations Management	Action research
Kempster, S.	2006	Management Learning	Interviews
Keränen, T.	2012	Organizational Change	Interview, documents
Lundgren-Resentera, M., & Kahn, P. E.	2019	Organizational Change	Interviews
Madsen, C. U., and Waldorff, S. B.	2019	Institutional logics	Interviews, historical archival data sources
Massingham, P. R.	2018	Knowledge Management	Survey, workshop
McGhee, P., & Grant, P.	2017	Management	Survey, interviews
Mirani, R.	2013	Organizational Change	Interviews
Mutiganda, J. C.	2013	Organizational Change	Interviews, observation, documents
Nach, H.	2015	Organizational Change	Interviews, documents
Palmer, A., & Bosch, A.	2017	Gendered Organization	Interviews
Rezania, D., Baker, R., & Nixon, A.	2019	Management	Interviews
Rossi, P., Rannisto, P.-H., & Stenvall, J.	2016	Public Management	Interviews, observation, documents
Snell, D., Schmitt, D., Glavas, A., & Bamberry, L.	2015	Organization studies	Interviews, field work, documents
Soininen, Tiina	2013	Public management	Interviews, observation, documents, survey
Tuominen, T. M., & Lehtonen, M. H.	2018	Organization studies	Interviews, documents
Williams, C. K., & Karahanna, E.	2013	Organizational Change	Interviews, observation, informal conversation and archival data

in-depth by both researchers and tabulated to allow for comparison and a broader overview of what characterized the studies and their uses of critical realism. They were classified according to 1) method and data sources; 2) academic field; 3) classification of findings; and 4) how general or local the study described its findings as being. This process of tabulation ensured both inter-researcher comprehension and scientific rigour while reducing potential researcher bias (Wynn and Williams 2012).

Based on the literature selection process, an integrative literature review of the philosophical foundation and the methodology applied was conducted. Integrative reviews analyse, critique and synthesize literature on a specific topic (Torraco 2005). However, the research process presented here has unfolded on a meta-level, as the aim was to explicate the value added by the philosophy of science across a range of diverse MOS studies rather than synthesizing research on a specific phenomenon. For this reason, the research process was based on an abductive method of collocating the content and process of MOS research in the selected studies. As such, the contents of MOS research constitute the empirical observations from which we abductively identify and redescribe (O'Mahoney and Vincent 2014) the explanatory value that arises as critical realism is applied in exploring MOS phenomena. In practice, the process was driven by combining input from empirically based MOS studies with the philosophical foundation of critical realism found in seminal readings of e.g. Bhaskar, Sayer, Archer, Elder-Vass, Fleetwood, Danermark etc. Thereby in itself representing a process founded on the central premises of critical realist research. This process was driven by our curiosity to discover ways in which critical realism can shape the research practices described and how it added value to the findings represented in the case studies.

Focusing on studies that were based on detailed applications, we dissolved the research practices and categorized the studies by relevant themes based on both the research processes described and the aspects from critical realism applied. This allowed for comparison and discussion of how the themes across the 26 papers fitted together and, by doing so, highlighting how they created a foundation for conducting and disseminating critical realist research. This was synthesized into five potentials of applying critical realism in MOS. To ensure methodological trustworthiness (Healy and Perry 2000) all potentials are demonstrated and substantiated through excerpts of MOS studies that underlines the arguments of *what, how and why* critical realism can create explanatory value.

Acknowledging the fact that critical realist researchers are always informed by their existing experiences, the identification of the five potentials cannot be isolated from our personal research endeavours within both MOS and critical realism confer Kringelum (2017) and Frederiksen (2018). Thus, as in all critical realist research, our rendition of the meta-theoretical reality found in critical realist research is value-aware in the corroboration of the explanatory value (Healy and Perry 2000). While the epistemological point of departure in critical realist research can create challenges in terms of researcher subjectivity, confer e.g. Potential 4, we have sought to minimize this through continuous inter-researcher discussions and 'going back and forth' between the empirical MOS studies and the philosophical tenets of critical realism in the abductive process (Dubois and Gadde 2002).

Findings

In the following the five potentials of critical realism will be presented and discussed according to the explanatory value added for MOS studies.

Potential 1: applied critical realist ontology enables the researcher to delineate the phenomenon under study

The first potential of critical realism is based on studies that demonstrate how applied critical realist ontology can help focus empirical studies. MOS topics can be studied empirically using qualitative methods in any number of ways, involving a variety of data sources and aspects. From all these possibilities follows the risk of data asphyxiation and unfocused analysis. While the chosen field of research, research questions and data sources can guide the researchers' focus, critical realism has the potential to offer researchers reference points to define *what* could be studied as aspects of management or organizations. This can include observed, unobserved and unobservable aspects.

Critical realism is based on a number of ontological claims about the makeup of the world across three overlapping domains of reality (Bhaskar 2008). One claim relates to entities in the world and how what they *are* (what constitutes them) is dependent on their relationship with other entities – an argument similar to those found in systems thinking (Mingers 2011). In a critical realist understanding of the world, entities cannot be reduced to being something in themselves. Studying *a manager* as an individual with the purpose of learning something about *management* is a reductionism. An entity in critical realism is only what it is by virtue of the ways this entity can cause something to happen in other entities — the entity's causal powers; and the ways this entity is susceptible to influence from other entities — the entity's liabilities (Sayer 2002, 104–5). Some entities have an internal relationship, meaning that these entities only exist in their current state by virtue of their relationship to other entities i.e. being a manager requires someone to manage. Other entities have external relationships, meaning their causal powers and liabilities may interact, but are not prerequisites for one another's existence (Sayer 2000).

This aspect of critical realist ontology is applied in MOS as a set of basic assumptions about the makeup of the world, which in the selected studies focused empirical and analytical work and added explanatory value. For example, Mutiganda (2013) studied accountability (asking for and giving reasons for conduct) through budgets in public sector hospitals. Applying a critical realist philosophy of science, Mutiganda defined an internal relationship between accountors asking for reasons and accountees giving reasons — arguing that you cannot be an accountee without an accountor to whom you are held accountable. Medical professionals in the hospitals were interviewed about their roles as accountees in a budget policy, and the study found that accountees in different hospital districts responded in quite different ways when met with similar budgetary policies set by their accountors.

This basic relationship between accountor and accountee, and the understanding that each entity exists by virtue of their relationship with the other, appears to have been used as a guiding assumption for data collection and analysis in the study. Although the process of data collection and analysis was likely filled with trials and movements in

various directions, Mutiganda applied critical realist ontology as a set of basic assumptions, which guided *what* was studied empirically and in turn, what could be concluded. This led the researcher to interview both actors seen as accountors and actors seen as accountees. The paper did not focus on whether accountor and accountee roles actually existed in the organizations under study and did not question whether accountor and accountees were in a mutually dependent relationship. Instead, Mutiganda qualitatively studied, analysed, and reported on how that *a priori* existing basic assumption about the makeup of the world worked in practice in the two organizations.

Another example of this application of critical realist ontology comes from Ahmed and Uddin (2018), who based their study of corporate governance on defining organizations as an array of internally and externally linked positions and relationships. This entailed that shareholders and directors were assumed to be in an internal relationship with each other, and that positions like those would inherently come with particular interests, which also in part condition the causal powers and liabilities of people occupying these positions.

The way critical realism is applied in MOS thus delineates the phenomenon under study and helps focus the study as critical realist ontology offers reference points as to *what* should be studied, when subscribing to a critical realist ontology. This represents a contrast to a study grounded in e.g. hermeneutics where focus could be how actors in the organizations *understand* accountability or corporate governance in their organizations and the meaning this poses to them rather than assuming the *a priori* existence of the before mentioned relation (Sayer 2000).

Applying critical realist ontology as a basic assumption thus has the potential to reduce complexity for the researcher. This entails delineating the phenomenon under study by focusing on the relationships between entities and how these unfold across the ontological domains as observed, unobserved and unobservable aspects of MOS.

Potential 2: critical realism provides a meta-theoretical framing of the interplay between structures and actors that unfolds over time

The second potential of critical realism touches upon the role of and interplay between structures, actors, and time, which, when applied, is presented as morphogenesis and emergence that can guide researchers in *what* they study when exploring MOS phenomena. The dichotomy of structure and agency is a recurring theme in social science, particularly in organizational studies (Reed 2003). In critical realist studies, structure and agency are closely interlinked. Organizations are understood as entities made up of structures and actors with agency, which can be analysed in specific empirical settings. When applied, then, critical realism can guide researchers in acknowledging the analytical dualism of structures and agency (Bhaskar 1989) that over time creates morphogenetic cycles of change (Archer 1995).

In addition, the second potential shows how critical realism provides MOS studies with a meta-theoretical framework that embraces the fact that the actions under study occur over a cyclical flow of time (Fleetwood 2005). Thus, critical realism can help MOS researchers situate organizational phenomena which are embedded in and evolve with the organizational context over time. If a researcher is explicit about the temporality of structures

and agency, that researcher will be better supported in acknowledging the interplay of entities as the case unfolds.

Mirani (2013) shows, how the concept of morphogenesis can support the research process through a case study of how an organization's offshore vendor relationships transformed over time. Mirani presents the study as three temporally different organizational change cycles occurring as the organization develops their relationships with overseas vendors. Initially, the organization has a relationship with a captive vendor due to lack of vendor governance discipline (cycle 1), which leads them to build unstandardized relationships with multiple other offshore vendors (cycle 2) and finally to create a tighter relationship based on an application management plan with two selected vendors (cycle 3). This study demonstrates how including temporal development affects the outcome of the study. Each cycle represents a unique situation in itself, but by acknowledging development over time, the interplay of structures and actors can be unfolded in order to identify the complexity of organizational change. This, in turn, reflects the need for longitudinal research in MOS studies to embrace the complexity and temporal unfolding of phenomena that are embedded in and evolve across morphogenetic cycles. As the development of organizations is a cyclical phenomenon the analytical starting point will always be arbitrary (Fleetwood 2005), so recognizing the temporal interplay between structures and actors in critical realism can guide MOS researchers in elaborating and mitigating this potential research limitation.

In terms of emergence, this aspect is applied by Tuominen and Lehtonen (2018) in their study of the emergence of transformative agency in temporary development groups. As this is studied on both individual and collective levels, the researchers emphasize the need for taking into account both synchronic and diachronic emergence. Synchronic emergence is defined by Elder-Vass (2010, 5) as a relationship between the properties of a whole and its parts with the focus on the relationships at a particular moment in time. Diachronic emergence addresses the changing properties of entities over time and thus explicates how preceding structures frame temporal development.

Tuominen and Lehtonen (2018, 1605) incorporate both aspects of emergence by studying how past structures and different life experiences *diachronically* shaped individuals' agentic properties while these properties also *synchronically* influenced the individuals' agency in the group, just as collective agency emerged *synchronically* from relations between members of the group. The diachronic emergence of individual properties thus becomes a form of structural and cultural conditioning that affects the synchronic emergence of collective agency developed. In turn, this creates diachronic emergence as a part of individual agency when the participants leave the temporary groups. This exemplifies how critical realism can help the researcher to define the subject matter by delineating both the structures, agency and temporal dimensions of the phenomena under study.

According to Bhaskar, this delineation marks where the critical realist interplay of structure and agency breaks with the structuration of Giddens. Although rising from similar notions of the interplay of structure and agency, critical realism entails what Bhaskar defines as a *tensed* difference: 'There *was* structure; there is *now* that agency; and there *will be* the structure that this agency produces' (Buch-Hansen 2005, 62–63). Critical realism can reduce both the risk of conflating structure and agency and the risk of mistaking development over time for isolated occurrences and thereby provide MOS research with a potential to more clearly delineate how pre-existing structures affect MOS

phenomena, how agency is created and which structures are produced on account of this agency. By invoking critical realism, MOS research can more clearly emphasize the interaction of empirical phenomena as they unfold, why they unfold (or not) as they do and the potential effects on future occurrences.

Potential 3: applied critical realist methodology offers explanatory value through the interplay of multiple empirical aspects

The third potential of critical realism is based on studies demonstrating how triangulation of different data sources and aspects within them can yield explanatory value. Critical realism distinguishes between the world and human knowledge of the world (Bhaskar [1986], 2009), and as an epistemological consequence, researchers have limited access to the unobservable or unobserved parts of the real domain. Critical realism is based on a causal criterion in which the researcher can plausibly argue the existence of an unobservable entity by referring to observable effects, which points towards the existence of such an entity (Sayer 2000, 12). This process is often referred to as retrodution (Sayer 2002, 106–7). When retroduting, Wynn and Williams (2012, 803) argue that researchers should *triangulate* as a way to ‘approach the underlying reality from multiple viewpoints in order to overcome our perceptual limitations.’

Critical realism is also founded on a methodological openness inherent in epistemological relativism, which means that the methods applied can vary depending on the study at hand (O’Mahoney and Vincent 2014; Armstrong 2019). The variety of data collection methods is explicit in the reviewed detailed renditions of critical realist research and includes the following: participation (Armstrong 2019); focus groups (Peters et al. 2013); observation (Mutiganda 2013); interviews (Lundgren-Resentera and Kahn 2019); and mixed methods (McGhee and Grant 2017). The data collection methods are often inter-linked to provide what McGhee and Grant (2017) conceptualize as complementary empirical approaches within a meta-theoretical critical realist context. Data collection in critical realist MOS studies is thus a means for the researcher to approximate the underlying ontology. Employing a variety of data collection methods is necessary to approach the specific context under study in order to delineate the phenomenon. To capture the complexity of the world and the multitude of structures and mechanisms at play, critical realism provides a pluralistic view of data collection and methods (Wynn and Williams 2012) while still continuously acknowledging the central role of the researcher in collecting and interpreting data.

The potential presented here shows *how* critical realism applied in MOS studies offers a particular explanatory value, which is often based on the triangulation of different data sources and different aspects of these data sources. This potential recurs in studies that, through the triangulation of different aspects, reach findings and offer insights that they would be unlikely to reach using any single aspect — findings which are also (partially) unobservable. Here findings come out of a particular *combination* of, or interplay between, these aspects. For example, Snell et al. (2015) studied stress processes in workers who were at risk of losing their jobs. They found that when confronted with the risk of job loss, worker experiences of associated stress differed substantially. The analysis shows how this was the result of a complex interplay between personal agency, organizational structures, and different prior experiences with labour market

insecurity. For example: how many years workers had left on the job market; whether they were used to stable employment or were contract workers; whether their qualifications were formally recognized outside their industry; and whether they were tied to the community through children in local schools or spouses with local jobs. Snell et al. (2015) present their findings using illustrative interview quotes – but the actual analytical process leading to these findings was based on a number of different data sources, including several months of field research, accessing publicly available documents such as industry reports and press clippings, and finally conducting 35 semi-structured interviews. They were thus not merely reporting on what the workers had said about stress – what a (radical) social constructivist grounded study could do in search of peoples' contested constructions or discourses of stress. Such an approach would leave out the unobserved (non-discursive) or material dimensions which are included in the domains of critical realist ontology (Sayer 2000). Instead, 'data collected through field work observations and secondary sources was used to supplement and triangulate the data and provide an account of the generative processes at work in conditioning worker experiences and emotional stress' (Snell et al. 2015, 68).

Another example comes from Armstrong (2019), who uses a critical realist approach to develop a tailored Performance Measurement and Management (PMM) tool to match the inherent complexity found in and across organizational environment(s) where 'what drives the success of one effort in one context may differ in another (Chenhall 2003)' (Armstrong 2019, 570). The study shows how a number of recent events in the organization that were seemingly unrelated to the development of a PMM tool were in fact influencing the staff in a way that needed consideration throughout the tool development process. These included the fact that the company's founder had recently returned as CEO; that the company had moved to a new address that entailed longer commutes; and that the company was changing their strategy by moving towards a new pricing model and targeting a new segment. The analytical process that found these events to be significant was based on triangulation of numerous aspects, including active researcher involvement in the tool development process, attending meetings, semi-structured interviews, informal conversations, and archival data (Armstrong 2019). Developing the tool was then based on making sense of these and a number of other events, which could assist in understanding how the tool could best support the organization. But including these aspects was only possible by accepting that it would not be possible to definitively determine or observe every possible connection or causality that was important for the development of a good PMM tool.

Critical realist ontology in itself will arguably lead the researcher to understand worker stress or performance management tools as the result of an interplay between a number of different and partially unobservable aspects. Applied critical realism also allows the researcher to make interpretations not otherwise possible – interpretations that extend beyond what any single observed aspect could yield.

Potential 4: applied critical realist epistemology accentuates the interpretative role of the researcher in developing knowledge

The fourth potential of critical realism demonstrates the interpretative role of the researcher in developing knowledge as well as the epistemological modesty essential

for conducting critical realist MOS studies. Critical realism is founded on the condemnation of ‘the epistemic fallacy’ (Bhaskar 1998, 24), by underlining that our knowledge of reality (the transitive dimensions) is not the same as reality itself (the intransitive dimension). While reality can be approximated and tentative theoretical constructs can be established (Zachariadis, Scott, and Barrett 2014; Armstrong 2019), research must not reduce ontology to epistemology by conflating that which exists with the knowledge obtained about it. Researchers often neglect to underline the epistemologically precarious ground they tread upon when collecting, analysing, and reporting organizational data (Newton, Deetz, and Reed 2011). Critical realism provides a setting and thus a potential for elaborating the role of the researcher and the epistemological challenges inherent in conducting MOS research, which can guide *how* a study can be done.

Critical realism has an interpretivist – by some termed relativist (Al-Amoudi and Willmott 2011) – epistemology in which it is recognized that knowledge about structures, mechanisms, and events is merely a potentially value-laden excerpt of the field of research. Knowledge about this excerpt is historically conditioned and socially constructed, thus bringing the challenges of researcher subjectivity into play. For this reason, the value of the epistemological foundation of critical realism in MOS studies lies in how it can guide the interpretative process of data collection and analysis across the ontological domains; from what can be empirically observed to the unobservable constructs derived in the actual and real domains. While a growing number of studies explicitly distinguish between the world and our knowledge of the world (Danermark 2019), the implications for the research process are rarely described. The potential of accentuating the interpretative role of the researcher in developing knowledge underlines the need to disambiguate ontology and epistemology, as called for by Danermark (2019).

This potential also demonstrates how the epistemology of critical realism can guide the interpretative process of data collection in MOS studies as presented in McGhee and Grant (2017). The researchers formed their data collection around real-life stories of actual events as their respondents ‘narrated 2–3 critical ethical work incidents, discussed their management and explained any consequences.’ A critical realist epistemological framework allowed the researchers, having little prior knowledge or documentation, to explore spirituality in the work place as a phenomenon by framing the study through the actual events experienced within the context. As explicated in the study, there are several advantages to this approach of studying events. This includes a first-person narrative of the incidents, thus generating rich data of the event, which in turn helps the researcher delineate the phenomenon studied even when a sound theoretical definition is lacking. The researcher can analyze the collected data in order to identify ‘demi-regularities’ that represent thematic patterns in the data (McGhee and Grant 2017) through abduction. To illustrate the process of abduction, McGhee and Grant (2017) describe how an insurance claim handler deals with a conflict between the corporate rules and his own values, which the researchers interpret as a process of spiritual enactment. In doing so, the potential of critical realist epistemology stands out as the researchers explicitly convene the empirical data to move beyond the thick descriptions of specific empirical entities (Fletcher 2017) towards global themes contributing to theoretical explanation of spirituality at work.

The interpretative aspect of identifying data driven events calls attention to the role of the researcher. According to Zachariadis, Scott, and Barrett (2014, 863), ‘social

phenomena or structures are concept-dependent and thus are not independent from the agents' notion of them or the apparatus through which they became observable.' This means that when working with empirical (transitive) observations and moving toward the underlying ontological (intransitive) domains in social sciences, the interpretative role of the researcher must be considered as it has central implications for the unfolding of the research process as the researcher cannot leave aside the theoretical frame of reference and the potential research bias.

The implications of the epistemological potential of critical realism are underlined in the multiple case study of change in public management projects presented by Soininen (2013). The study describes the research practice of analysing empirical case evaluations across different development programmes in Finland in order to synthesize and identify mechanisms affecting public administration projects:

in practice, I took a step back and asked the case evaluation: 'What is the fundamentally same or similar social action, which is present in each of the projects and is described in each evaluation case?' Only when I was convinced of the fundamental social feature, which I decided to call the mechanism, did I turn to comparing it with theory.

This statement describes the central role of the researcher in approaching reality through interpretation of empirical data as a part of abductive reasoning. In less methodological papers, such reflections are, unfortunately, often left aside for more content-driven contributions thus clouding the interpretivist stance of the researcher which is especially relevant in MOS studies of complex phenomena that occur as a result of a number of observable and unobservable mechanisms.

The epistemological interpretivism of critical realism requires the researcher to take on an attitude of epistemological modesty, defined by Runde and de Rond (2010) as an acknowledgement that the researcher will not be able to uncover all aspects of reality and all research is a product of a research process. Researchers will always be limited in their knowledge of the intransitive dimension that can only be approximated. When studying a MOS phenomenon in practice, researchers step into a complex world of many layers with a frame of reference that in part will guide how the world is processed and analyzed. Thus, the process of generating knowledge of the world is a part of acknowledging the ubiquitous randomness of empirical investigation and the analytical starting point (Fleetwood 2005) imposed in part by the researchers' frame of reference. For this reason, it can also be challenging to remain epistemologically modest without subverting the value of research as elaborated in Potential 5.

For MOS research, critical realism provides a nudge to go beyond empirically identifiable events. But as events are observed by researchers, the movement and interlink between ontological domains can only occur when facilitated by a researcher. As emphasized by Bhaskar the three levels of reality are not naturally in phase, rather 'it is the social activity of science which makes them so' (2008, 57). For this reason, the researcher cannot be separated from the research process and outcome, and this renders the concept of traditional reliability – i.e. the consistency and repeatability of research procedures (Yin 2014) – superfluous. Rather than applying and failing in terms of traditional norms of reliability, critical realist research must be evaluated by the methodological trustworthiness of studies, e.g. in terms of rigour and transparency (Healy and Perry 2000), as elaborated in the following and final potential.

Potential 5: critical realism bridges the gap between local and general knowledge

The fifth potential of critical realism lies in its ability to create theoretical development through case studies by emphasizing the methodological trustworthiness of the research process. Critical realism is founded on the appreciation that social science is neither nomothetic nor idiographic, which means that it does not seek to develop a law-like understanding nor to merely document the uniqueness of the social world (Sayer 2000). For this reason, critical realism is well suited as a philosophical foundation for conducting case studies with an aim of obtaining deep knowledge of (non)-empirical phenomena while adding to the theoretical development of a field. Methodological trustworthiness and transparency does not come by itself in MOS studies. By actively employing the ontology of critical realism, researchers have the potential to develop sound contributions to theoretical development without overselling the notion of generalizability. This potential reflects *why* critical realist researchers can extend findings beyond localized and case-specific types of knowledge and this explanatory value is an overarching reason for choosing critical realism for MOS.

The applicability of case research findings has been widely debated in the social sciences. According to Eisenhardt (1989), the research strategy of case studies ‘focuses on understanding the dynamics present within single settings.’ However, Flyvbjerg (2006) breaks with the positivistic argument of non-generalizability in case study research. By emphasizing the insufficiency of predictive theories to explain social reality, he underlines the need for exploring and developing concrete and context-dependent knowledge. In line with this, organizational case studies situated within the critical realist philosophy of science provide the researcher with the opportunity of challenging the existing norms and potential constraints of traditional case study methods. This is supported through the critical realist research aim of analytical generalization (Healy and Perry 2000) which in contrast to positivist statistical generalization is concerned with explanation of how empirical phenomena occur (or not) rather than prediction (Wynn and Williams 2012; Mingers and Standing 2017). Analytical generalization reflects the process of generalizing theories as a part of theory building (Easton 2010) that is undertaken while acknowledging that researchers cannot assume that mechanisms activated in one context will provide similar effects in future or other contexts (Wynn and Williams 2012). This is, for instance, found in Lawson’s (1997) description of demi-regularities that represent the occasional actualization of a mechanism that occurs over time and space (Mingers and Standing 2017).

Nevertheless, there is no shortage of critical realist research playing the ‘get-out-of-jail fallibility’ card (Contu and Willmott 2005) in which the application of single case studies is often emphasized as a research limitation. For example, Mutiganda (2013) explores the impact of governance and budgetary policies on the accountability of organizational actors by studying two hospital districts in Finland. Here Mutiganda underlines the case study limitation by stating that ‘the findings of this study cannot be generalized to other organisations’ (2013, 530). However, this disclosure of limitation becomes superfluous if the paradigmatic and methodological basis of critical realism is truly acknowledged.

In a similar vein, Kempster (2006) highlights that ‘the critical realist perspective of identifying underlying causal influences that may be generative to other contexts (Fleetwood

2004) responds to Bryman's (2004: 752) call for qualitative researchers to view their findings in a more cumulative way rather than discrete context bound discussion.' Nevertheless, Kempster proceeds to dismiss the study's own findings on the causal influences on leadership learning as being 'limited to the context of a single organization and that generalization is thus limited and substantive only to the case organization.'

Building on the ontological foundation of critical realism elaborated in Potential 1, there is no need for critical realist researchers to burden themselves with this notion of fallibility. Rather, when applying *detailed* critical realist methodology, researchers can stand on safe ground when arguing that the explanatory value of research findings (as elaborated in Potential 3) can extend beyond the single case setting. This is explicated by Mirani (2013), who did a longitudinal study of the organizational mechanisms that can affect the relationship between an organization and multiple IT vendors. Mirani argues that the nature of the organizational mechanisms explored can vary from context to context (localized) but nevertheless always add to the 'how' aspect of the phenomenon under study (generalized). Therefore – while long-term offshoring will unfold differently in different contexts – understanding the phenomenon in depth can provide insights that can help managers precipitate certain events by the intentional management of organizational mechanisms (if such mechanisms renders themselves manageable). Mirani (2013) underlines the fact that inferences about the powers or potential of the central entities of a system derived through empirical observation

... may be legitimately extended to events beyond those directly observed. Critical realists hold that the over-arching purpose of all studies of a given system is to refine these inferences on many levels over time, bringing them ever closer to its objective reality, with the understanding that this reality will never be completely captured.

Thus, the inherent aim of conducting critical realist case studies provides leeway to discuss both the local and general nature of mechanisms and structures.

To invoke the philosophical and practical value of the generalizability of critical realist studies, the researcher must emphasize the methodological trustworthiness (Healy and Perry 2000) of the study at hand. Rigor and transparency are key issues in critical realist research processes, as the research unfolds on domains that are empirically non-observable. Nevertheless, few papers follow the stringency in data presentation and analysis that is necessary when conducting detailed application of critical realism. Presumably, some of these aspects are ingrained in the research process but do not find their way to the published paper.

McGhee and Grant (2017) address the potential constraints of non-generalizability and trustworthiness in their study of spirituality at work by specifying validity in critical realism in accordance with their field of research as being 'determined by whether the generative mechanism (i.e. spirituality) is as follows:

- involved in the observed events in the field (Zachariadis, Scott, and Barrett 2014) and
- present in other domains (i.e. wherever spiritual people are)

In their study, participant narratives affirmed the first term of validity and the second term was affirmed through expert evaluation of inductive research themes. The expert

evaluation entailed having seven spirituality experts corroborate, challenge, and add to the inductively-derived themes. In so doing, McGhee and Grant (2017) contextualized the measures of research evaluation in their own research setting, a necessary step in critical realist MOS studies. Thus, they address the critical realist terms of doing research in open systems where causality and mechanisms are contingent on the context of the study (O'Mahoney and Vincent 2014), thus providing a contextual frame for discussing the validity and reliability of the study.

Critical realism provides MOS researchers with the potential to bridge the contextualized, empirical deep knowledge of phenomena in the transitive domains with the analytically generalizable mechanisms and structures of the intransitive domain. However, doing so builds on the premise of stringency in data analysis to account for both methodological trustworthiness and transparency to ensure theory building. Nevertheless, this movement between domains and local-general knowledge is often an abductive non-linear process for which reason no threshold level of stringency and transparency can be identified. In the discussion, the implications this brings for future MOS research is elaborated further.

Discussion

The aim of this paper has been to demonstrate the potential of applying critical realism by showing the explanatory value added by this philosophy of science in extant MOS studies.

As stated in the introduction, many MOS studies are based on a peripheral application of critical realism, where relatively few specific elements from critical realist ontology and epistemology are introduced and not explicitly applied. In contrast stands the (much fewer) detailed applications of critical realism, in which critical realist concepts are applied actively in analysis, discussion, and conclusions. While peripheral applications fail to take advantage of the potentials of critical realism, detailed applications are able to strike a balance between choosing aspects of this philosophy of science and including those to ground the research. This enables them to reach conclusions they could not have reached without the philosophical foundation of critical realism.

In the following, we elaborate what characterizes detailed applications of critical realism that bridge the philosophical foundation and hands-on practices of exploring contextualized MOS phenomena. First, based on the variety and complexity identified in the five potentials, the research practice of balancing aspects of critical realism is discussed. Second, making a clear connection between the phenomena under study and the philosophy of science proved to be a central trait in detailed applications of critical realism in MOS. For this reason, the challenge of balancing the philosophy of science by making critical realist terminology intelligible within MOS subject areas is discussed. Finally, the future potentials and challenges of critical realist research in MOS is presented.

Balancing aspects of critical realism

The five potentials represent a multitude of aspects that can inspire and inform critical realist research. This should however not be mistaken with assuming that a detailed application entails including as many aspects of critical realist ontology and epistemology as possible. As evident in the five potentials, the aspects of critical realism include:

- The understanding that entities in the world are constituted by their liabilities and causal powers, as well as their internal relationship with, or external relationship to, other entities (Potential 1).
- The role of and interplay between structures, actors, and time, the dualism of structures and agency, and the morphogenetic cycles of change and synchronic and diachronic emergence (Potential 2).
- The stratification of the world into the real, actual, and empirical domains. The unobserved or unobservable parts of the real domain and the observable effects of these parts, which the researcher can argue the existence of, using retroduction and triangulation (Potential 3).
- The distinction between the intransitive dimension and the transitive dimension and an interpretivist epistemology involving the researcher taking on an attitude of epistemological modesty (Potential 4).
- The localized and generalizable nature of mechanisms and structures (Potential 5).

While this list condenses the potentials critical realism provide to MOS, most researchers would likely agree that explicitly addressing this amount of complexity could easily get in the way of successfully undertaking any MOS study, not to mention presenting it to a reader in an intelligible way. Thus, balancing the aspects of critical realism entails recognizing the intricate connections between them and addressing specifically those that can affect the study at hand.

The scope and focus of the studies presented throughout the review are multiform in terms of their research question and context, but also, importantly, in terms of which aspects of critical realism they include and apply. The papers that succeeded in striking a balance between the philosophical foundation of critical realism and the hands-on practice of MOS studies were explicit in the inclusion of multiple aspects of critical realism. They do so by invoking the ontological scope of the phenomenon and the appertaining contextual demarcation of exploring MOS phenomena. Here critical realism provides the researcher with the awareness of the complexity of e.g. organization studies and emphasizes the need for consistency in delineating the level of analysis, the interaction with the context under study and potentially unobservable aspects. In turn, this ontological awareness is aligned with the epistemological challenges and limitations of the study being conducted.

For this reason, the potentials most suitable for a specific MOS study are not given; it depends on the phenomenon and the context. As presented in Potential 1, Mutiganda (2013) studies accountability relationships in hospitals and applies critical realist ontology as a way of framing the study in order to understand accountability as a relationship between entities held accountable and entities that hold other accountable. Mutiganda studies how actors think and act in accountability relationships at a certain point in time, and thus not as a process developing over time. If comparing this study to Potential 2, it could be argued that it overlooks how accountability relationships in hospitals, as the result of an interplay between structures, actors, and time, actually develop diachronically over time, and consequently should be studied as such. This would, however, naturally lead to a different study with a different scope and aim.

As made evident throughout the review, detailed applications of critical realism in studies of complex managerial and organizational phenomena entail that researchers

must be conscious of the aspects selected, their philosophical foundation and thus the paradigmatic premises to which they are internally connected; even when not presented explicitly in the study. This, however, leaves MOS researchers with the challenge of translating the aspects of critical realism to the exact context under study, their specific research aim and the subject area to which they are adding. This challenge will be discussed in the following.

Balancing philosophy, terminology and subject area

As shown throughout the review, critical realist MOS studies are multivariate and researchers must be open towards the variety of theoretical and methodological options to pursue. For this reason, the five potentials of critical realist research in MOS are not prescriptions for specific research methods, but are rather meant to inspire researchers in reflecting and reasoning on a basis of the central tenets of critical realist empirical studies in MOS. This must, in addition, be communicated through research papers in accordance with the subject area under study, which provides yet another challenge of balancing the focus on philosophical methodological discussions while adding to the theoretical content development within a specific subject area in MOS.

The five potentials, and the empirical studies they are identified through, involve a multiplicity of critical realist terminology and a high degree of complexity that is based in part on the numerous aspects of critical realism. If critical realism remains only an introductory credo, the application risks becoming peripheral to the point where critical realism makes no difference to the research. If, on the other hand, critical realist terminology is applied with as much detail as possible, the terms can overshadow an understanding of the management or organization studied. This can be labelled *terminology asphyxiation*. As we have demonstrated, critical realist terminology does provide a language to describe the world studied – but it should be carefully dosed. Essentially, this becomes a challenge of acknowledging the philosophical underpinnings, translating this to the process of conducting research and letting these aspects support the main focus of the research. When doing so, the researcher can embrace the potentials presented throughout this paper to add additional explanatory value by utilizing the reference points provided.

Critical realist MOS scholars are unified by an overall ambition of wanting to explain and also change the world (Alvesson and Skoldberg 2009). In operationalizing this ambition lies a need for knowing *what* complex MOS phenomena are comprised of, *how* they can be studied and the premises for doing so and *why* critical realist research can add to the understanding of the complex world of organizations and management.

The future of critical realist MOS studies

The aim of this paper has been to alleviate the shortage of explicitly detailed applications of critical realism in MOS studies. To some extent, this means that this paper falls in line with the aforementioned plethora of methodologically-oriented contributions. Nevertheless, the focus on explicit application and especially on the distinct potentials found in applying critical realism can guide future research in MOS.

MOS researchers are still faced with two challenges when conducting critical realist research. Firstly, researchers must balance the theoretical-empirical divide based on the

research aims. Despite progress in the field, there is still a need to balance the interaction between theoretical explanations of underlying mechanisms and the tendencies they are generating against the contextually-situated empirical events through which phenomena are investigated (Lawson 1997). Secondly, researchers must balance the scientific theoretical-empirical divide by acknowledging how paradigmatically ingrained the research is. This is by no means an easy task, especially when working within the complex field of MOS. For this reason, the gap between the potential value added by the ontological and epistemological foundations of critical realism and the current methodological application in empirical studies still exists (McAvoy and Butler 2018).

When researchers succeed in bridging the detailed application of critical realism and the empirical world under investigation, they create potential for in-depth exploration of the organizational and managerial challenges encountered in the context of a complex, interchangeable world. If succeeding in this endeavour of situating MOS research within a critical realist frame, the researchers can stand on safe ground in discussing the research findings across theoretical disciplines and empirical contexts. In the words of Bhaskar, it depends on how researchers apply the philosophy of science in their research endeavours within organizations and managements, as 'it is in its applications that, on its own self-understanding, the whole point and value of critical realism as an *underlabourer*, and occasional midwife, lies' (2014, V).

Detailed application of critical realism provides distinct potential for MOS research, as represented throughout this paper. If MOS researchers acknowledge critical realism as an underlabourer, it can provide them with an ontological setting for delineating the research field and phenomenon under study through a meta-theoretical lens, while emphasizing the role of researchers in developing knowledge and thus the need for multiple empirical aspects in this knowledge development. If researchers acknowledge both the scientific rigour needed and the methodological trustworthiness it can provide, this may add significant explanatory value to MOS studies both locally and generally.

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References

- Aaltonen, A., and N. Tempini. 2014. "Everything Counts in Large Amounts: A Critical Realist Case Study on Data-Based Production." *Journal of Information Technology* 29 (1): 97–110. doi:[10.1057/jit.2013.29](https://doi.org/10.1057/jit.2013.29).
- Ahmed, S., and S. Uddin. 2018. "Toward a Political Economy of Corporate Governance Change and Stability in Family Business Groups: A Morphogenetic Approach." *Accounting, Auditing and Accountability Journal* 31 (8): 2192–2217. doi:[10.1108/AAAJ-01-2017-2833](https://doi.org/10.1108/AAAJ-01-2017-2833).
- Al-Amoudi, Ismael, and Hugh Willmott. 2011. "Where Constructionism and Critical Realism Converge: Interrogating the Domain of Epistemological Relativism." *Organization Studies* 32 (1): 27–46. doi:[10.1177/0170840610394293](https://doi.org/10.1177/0170840610394293).
- Alvesson, Mats, and Kaj Sköldbberg. 2009. *Reflexive Methodology: New Vistas for Qualitative Research*. 2nd ed. London: Sage.
- Alwadain, A., E. Fieft, A. Korthaus, and M. Rosemann. 2016. "Empirical Insights Into the Development of a Service-Oriented Enterprise Architecture." *Data and Knowledge Engineering* 105: 39–52. doi:[10.1016/j.datak.2015.09.004](https://doi.org/10.1016/j.datak.2015.09.004).
- Ansong, E., and R. Boateng. 2018. "Organisational Adoption of Telecommuting: Evidence from a Developing Country." *Electronic Journal of Information Systems in Developing Countries* 84 (1), doi:[10.1002/isd2.12008](https://doi.org/10.1002/isd2.12008).
- Archer, M. S. 1995. *Realist Social Theory: The Morphogenetic Approach*. Cambridge: Cambridge university press.
- Armstrong, R. 2019. "Critical Realism and Performance Measurement and Management: Addressing Challenges for Knowledge Creation." *Management Research Review*, doi:[10.1108/BIJ-10-2012-0068](https://doi.org/10.1108/BIJ-10-2012-0068).
- Ashraf, M. Junaid, and Shahzad Uddin. 2013. "A Consulting Giant; a Disgruntled Client: A "Failed" Attempt to Change Management Controls in a Public Sector Organisation." *Financial Accountability & Management* 29 (2): 186–205.
- Barker, L., T. McKeown, J. Wolfram Cox, and M. Bryant. 2018. "More of the Same? A Dual Case Study Approach to Examining Change Momentum in the Public Sector." *Australian Journal of Public Administration* 77 (2): 253–271. doi:[10.1111/1467-8500.12306](https://doi.org/10.1111/1467-8500.12306).
- Bhaskar, Roy. 1986. 2009. *Scientific Realism and Human Emancipation*. London: Routledge.
- Bhaskar, Roy. 1989. *Reclaiming Reality: A Critical Introduction to Contemporary Philosophy*. London, New York: Verso.
- Bhaskar, Roy. 1998. "Philosophy and Scientific Realism." In *Critical Realism: Essential Readings*, edited by Margaret Archer, Roy Bhaskar, Andrew Collier, Tony Lawson, and Alan Norrie, 16–47. London; New York: Routledge.
- Bhaskar, Roy. 2008. *A Realist Theory of Science. 2nd Edition. Classical Texts in Critical Realism*. London, New York: Routledge.
- Bhaskar, Roy. 2014. "Foreword." In *Studying Organizations Using Critical Realism: A Practical Guide*, edited by Paul K. Edwards, Joe O'Mahoney, and Steve Vincent, v–xv. Oxford: Oxford University Press.
- Buch-Hansen, Hubert. 2005. "Critical Realism in the Social Sciences." *Distinktion: Journal of Social Theory* 6 (2): 59–69. doi:[10.1080/1600910X.2005.9672913](https://doi.org/10.1080/1600910X.2005.9672913).
- Bygstad, Bendik, Bjørn Erik Munkvold, and Olga Volkoff. 2016. "Identifying Generative Mechanisms Through Affordances: A Framework for Critical Realist Data Analysis." *Journal of Information Technology* 31 (1): 83–96.
- Contu, Alessia, and Hugh Willmott. 2005. "You Spin Me Round: The Realist Turn in Organization and Management Studies*." *Journal of Management Studies* 42 (8): 1645–1662. doi:[10.1111/j.1467-6486.2005.00560.x](https://doi.org/10.1111/j.1467-6486.2005.00560.x).
- Danermark, Berth. 2019. "Applied Interdisciplinary Research – a Critical Realist Perspective." *Journal of Critical Realism* 0 (0): 1–15. doi:[10.1080/14767430.2019.1644983](https://doi.org/10.1080/14767430.2019.1644983).
- Dobson, P. J. 2003. "Business Process Reengineering (BPR) Versus Outsourcing - Critical Perspectives." *Systemic Practice and Action Research* 16 (3): 225–233. doi:[10.1023/A:1023863906650](https://doi.org/10.1023/A:1023863906650).

- Dubois, Anna, and Lars-Erik Gadde. 2002. "Systematic Combining: An Abductive Approach to Case Research." *Journal of Business Research, Markets as Networks* 55 (7): 553–560. doi:[10.1016/S0148-2963\(00\)00195-8](https://doi.org/10.1016/S0148-2963(00)00195-8).
- Easton, Geoff. 2010. "Critical Realism in Case Study Research." *Industrial Marketing Management* 39 (1): 118–128. doi:[10.1016/j.indmarman.2008.06.004](https://doi.org/10.1016/j.indmarman.2008.06.004).
- Eisenhardt, Kathleen M. 1989. "Building Theories from Case Study." *The Academy of Management Review* 14 (4): 532–550.
- Elder-Vass, Dave. 2010. *The Causal Power of Social Structures: Emergence, Structure and Agency*. Cambridge: Cambridge University Press.
- Fleetwood, Stephen. 2005. "Ontology in Organization and Management Studies: A Critical Realist Perspective." *Organization* 12 (2): 197–222. doi:[10.1177/1350508405051188](https://doi.org/10.1177/1350508405051188).
- Fletcher, Amber J. 2017. "Applying Critical Realism in Qualitative Research: Methodology Meets Method." *International Journal of Social Research Methodology* 20 (2): 181–194. doi:[10.1080/13645579.2016.1144401](https://doi.org/10.1080/13645579.2016.1144401).
- Flyvbjerg, Bent. 2006. "Five Misunderstandings About Case-Study Research." *Qualitative Inquiry* 12 (2): 219–245. doi:[10.1177/1077800405284363](https://doi.org/10.1177/1077800405284363).
- Frederiksen, Dennis Jim. 2018. "We Are in This Together: A Qualitative Exploration of Organisational, Relational and Personally Experienced Differences between Paid Public Sector Work and Volunteer Third Sector Work." PhD dissertation, Aalborg: Aalborg University.
- Hales, Colin. 2007. "Structural Contradiction and Sense-Making in the First-Line Manager Role." *Irish Journal of Management* 28 (1): 147–179.
- Healy, Marilyn, and Chad Perry. 2000. "Comprehensive Criteria to Judge Validity and Reliability of Qualitative Research Within the Realism Paradigm." *Qualitative Market Research: An International Journal* 3 (3): 118–126. doi:[10.1108/13522750010333861](https://doi.org/10.1108/13522750010333861).
- Hines, Peter, Darrin Taylor, and Aidan Walsh. 2018. "The Lean Journey: Have We Got It Wrong?" *Total Quality Management & Business Excellence* 0 (0): 1–18. doi:[10.1080/14783363.2018.1429258](https://doi.org/10.1080/14783363.2018.1429258).
- Kempster, Stephen. 2006. "Leadership Learning Through Lived Experience: A Process of Apprenticeship?" *Journal of Management and Organization* 12 (1): 4–22. doi:[10.5172/jmo.2006.12.1.4](https://doi.org/10.5172/jmo.2006.12.1.4).
- Keränen, T. 2012. "Change in Organization – Emerging Situations, Character and Praxis." *Advances in the Human Side of Service Engineering*, 193–199. doi:[10.1201/b12315](https://doi.org/10.1201/b12315).
- Kringelum, Louise Brøns. 2017. "Transcending Organizational Boundaries – Exploring Intra- and Inter-Organizational Processes of Business Model Innovation in a Port Authority." PhD dissertation, Aalborg: Aalborg University.
- Lawson, Tony. 1997. *Economics and Reality. Economics as Social Theory*. London, New York: Routledge.
- Lundgren-Resenterra, Mariangela, and Peter E. Kahn. 2019. "The Organisational Impact of Undertaking a Professional Doctorate: Forming Critical Leaders." *British Educational Research Journal* 2007, doi:[10.1002/berj.3503](https://doi.org/10.1002/berj.3503).
- Madsen, Christian Uhrenholdt, and Susanne Boch Waldorff. 2019. "Between Advocacy, Compliance and Commitment: A Multilevel Analysis of Institutional Logics in Work Environment Management." *Scandinavian Journal of Management* 35 (1): 12–25. doi:[10.1016/j.scaman.2018.11.002](https://doi.org/10.1016/j.scaman.2018.11.002).
- Massingham, P. R. 2018. "Measuring the Impact of Knowledge Loss: A Longitudinal Study." *Journal of Knowledge Management* 22 (4): 721–758. doi:[10.1108/JKM-08-2016-0338](https://doi.org/10.1108/JKM-08-2016-0338).
- McAvoy, John, and Tom Butler. 2018. "A Critical Realist Method for Applied Business Research." *Journal of Critical Realism* 17 (2): 160–175. doi:[10.1080/14767430.2018.1455477](https://doi.org/10.1080/14767430.2018.1455477).
- McGhee, P., and P. Grant. 2017. "Applying Critical Realism in Spirituality at Work Research." *Management Research Review* 40 (8): 845–869. doi:[10.1108/BJR-10-2012-0068](https://doi.org/10.1108/BJR-10-2012-0068).
- Mingers, John. 2011. "The Contribution of Systemic Thought to Critical Realism." *Journal of Critical Realism* 10 (3): 303–330. doi:[10.1558/jcr.v10i3.303](https://doi.org/10.1558/jcr.v10i3.303).
- Mingers, J., and C. Standing. 2017. "Why Things Happen – Developing the Critical Realist View of Causal Mechanisms." *Information and Organization* 27 (3): 171–189. doi:[10.1016/j.infoandorg.2017.07.001](https://doi.org/10.1016/j.infoandorg.2017.07.001).

- Mirani, Rajesh. 2013. "A Case Study of Morphogenetic Change in Long-Term Offshoring." *International Journal of Information Management* 33 (4): 663–673. doi:[10.1016/j.jinfomgt.2013.03.006](https://doi.org/10.1016/j.jinfomgt.2013.03.006).
- Mutiganda, Jean Claude. 2013. "Budgetary Governance and Accountability in Public Sector Organisations: An Institutional and Critical Realism Approach." *Critical Perspectives on Accounting* 24 (7–8): 518–531. doi:[10.1016/j.cpa.2013.08.003](https://doi.org/10.1016/j.cpa.2013.08.003).
- Nach, H. 2015. "'Identity Under Challenge: Examining User's Responses to Computerized Information Systems.'" *Management Research Review* 38 (7): 703–725. doi:[10.1108/MRR-02-2014-0031](https://doi.org/10.1108/MRR-02-2014-0031).
- Newton, Tim, Stan Deetz, and Mike Reed. 2011. "Responses to Social Constructionism and Critical Realism in Organization Studies." *Organization Studies* 32 (1): 7–26.
- O'Mahoney, J., and S. Vincent. 2014. "'Critical Realism as an Empirical Project.'" In *Studying Organizations Using Critical Realism*, edited by P. K. Edwards, J. O'Mahoney, and S. Vincent, 1–20. Oxford: Oxford University Press.
- Palmer, A., and A. Bosch. 2017. "What Makes Representation of Executive Women in Business Happen?" *Equality, Diversity and Inclusion* 36 (4): 306–320. doi:[10.1108/EDI-09-2016-0071](https://doi.org/10.1108/EDI-09-2016-0071).
- Peters, Linda D., Andrew D. Pressey, Markus Vanharanta, and Wesley J. Johnston. 2013. "Constructivism and Critical Realism as Alternative Approaches to the Study of Business Networks: Convergences and Divergences in Theory and in Research Practice." *Industrial Marketing Management* 42 (3): 336–346. doi:[10.1016/j.indmarman.2013.02.003](https://doi.org/10.1016/j.indmarman.2013.02.003).
- Reed, Michael. 2003. "The Agency/Structure Dilemma in Organization Theory: Open Doors and Brick Walls." In *The Oxford Handbook of Organization Theory*, edited by Haridimos Tsoukas, and Christian Knudsen,, 1st ed, 289–309. Oxford, New York: Oxford University Press.
- Reed, Michael. 2005. "Reflections on the 'Realist Turn' in Organization and Management Studies." *Journal of Management Studies* 42 (8): 1621–1644. doi:[10.1111/j.1467-6486.2005.00559.x](https://doi.org/10.1111/j.1467-6486.2005.00559.x).
- Rezania, D., R. Baker, and A. Nixon. 2019. "Exploring Project Managers' Accountability." *International Journal of Managing Projects in Business* 12 (4). doi:[10.1108/IJMPB-03-2018-0037](https://doi.org/10.1108/IJMPB-03-2018-0037).
- Rossi, P., P.-H. Rannisto, and J. Stenvall. 2016. "Creating Innovative Public Services by Fostering Conflicts." *South Asian Journal of Business and Management Cases* 5 (1): 1–12. doi:[10.1177/2277977916634219](https://doi.org/10.1177/2277977916634219).
- Runde, Jochen, and Mark de Rond. 2010. "Evaluating Causal Explanations of Specific Events." *Organization Studies* 31 (4): 431–450. doi:[10.1177/0170840610361836](https://doi.org/10.1177/0170840610361836).
- Sayer, Andrew. 2000. *Realism and Social Science*. London, Thousand Oaks, Calif: Sage.
- Sayer, Andrew. 2002. *Method in Social Science*. Revised 2nd Edition. S.L.: Routledge.
- Snell, D., D. Schmitt, A. Glavas, and L. Bamberry. 2015. "Worker Stress and the Prospect of Job Loss in a Fragmented Organisation." *Qualitative Research in Organizations and Management: An International Journal* 10 (1): 61–81. doi:[10.1108/QROM-03-2014-1210](https://doi.org/10.1108/QROM-03-2014-1210).
- Soininen, Tiina. 2013. "Mechanisms of Change in Public Management Projects." *SAGE Open* 3 (2): 1–10. doi:[10.1177/2158244013486490](https://doi.org/10.1177/2158244013486490).
- Swanborn, P. G. 2010. *Case Study Research: What, Why and How?* Los Angeles: SAGE.
- Torraco, R. J. 2005. "Writing Integrative Literature Reviews: Guidelines and Examples." *Human Resource Development Review* 4 (3): 356–367. doi:[10.1177/1534484305278283](https://doi.org/10.1177/1534484305278283).
- Tuominen, Tiina M, and Mikko H Lehtonen. 2018. "The Emergence of Transformative Agency in Professional Work." *Organization Studies* 39 (11): 1601–1624. doi:[10.1177/0170840617717093](https://doi.org/10.1177/0170840617717093).
- Williams, C. K., and E. Karahanna. 2013. "Causal Explanation in the Coordinating Process: A Critical Realist Case Study of Federated It Governance Structures." *MIS Quarterly: Management Information Systems* 37 (3): 933–964. doi:[10.25300/MISQ/2013/37.3.12](https://doi.org/10.25300/MISQ/2013/37.3.12).
- Wynn, Donald, and Clay K Williams. 2012. "Principles for Conducting Critical Realist Case Study Research in Information Systems." *MIS Quarterly* 36 (3): 787–810. doi:[10.1016/j.jiproman.2012.11.012](https://doi.org/10.1016/j.jiproman.2012.11.012).
- Yin, Robert K. 2014. *Case Study Research Design and Methods*. 5th ed. California: Sage Publications.
- Zachariadis, M., S. Scott, and M. Barrett. 2014. "Methodological Implications of Critical Realism for Mixed-Methods Research." *MIS Quarterly* 37 (3): 855–879.