RE-IMAGINING SUPPLY CHAIN CHALLENGES THROUGH CRITICAL ENGAGED RESEARCH

ANNE TOUBOULIC,
Nottingham University Business School

LUCY MCCARTHY
Queen's University Belfast

LEE MATTHEWS
Nottingham University Business School

In this manuscript, we explore how engaged research can support the development of the theory and practice of supply chain management (SCM) and present critical engaged research as an extended form of engaged research. The article's main purpose is to examine more closely the relationship between critical engaged research and the process of theorizing. This essay presents an expanded model of knowledge production for the field of SCM and explores the opportunities for the production and co-production of new knowledge types, with an emphasis on knowledge produced through a critical engagement with practice. We offer a discussion on how critical engaged research may be applied in SCM research to build, elaborate and test theory.

Keywords: sustainability; organization; ethics; theory; supply chains; critical

INTRODUCTION

The field of supply chain management (SCM) is at a crossroads. The nature of the contemporary research problems that SCM scholars are tackling requires our research to be forward-looking and drive change, or at the very least to interrogate the usefulness of our research to address such problems (Matthews et al., 2016; Montabon, Pagell & Wu, 2016; Pagell & Shevchenko, 2014). Global supply chains (SCs) are increasingly perceived to be at the heart of societal challenges which places SCs and SCM at the forefront of endeavors to change discourses and practice in light of such "wicked problems." Observation-driven modes of inquiry have enabled making sense of the relationship between SCM and these challenges, expanding the conceptual remit of our field. Yet, alone they offer limited possibilities when it comes to solving such issues in practice (Brown, Harris & Russell, 2010; Maestrini et al., 2016; Rittel & Webber, 1973). Expanding our modes of knowledge production can serve to reconnect both theory and practice as a way to make a difference.

In this article, we discuss the role of engaged research in supporting the development of the theory and practice of SCM and present *critical engaged research* as an extended form of engaged research. The main purpose was to examine more closely the relationship between engaged research and the process of theorizing and to consider how *critical engaged research* can contribute toward the production and co-production of new knowledge types. While engaged research is often conceived as a process to instigate and research change (e.g., Bradbury et al., 2019), in this article, we not only embrace the transformative opportunities offered by such approaches but also their power to facilitate a re-imagining of issues in SCM and the building of novel theory. Engaged research can also expand the conceptual boundaries of supply chain research to include the "imaginary," and imaginaries are collective social visions and articulations of how the world ought to be (Castoriadis, 1997; Fairclough, 2009). We offer a nuanced view of the possibilities for engaged research in SCM, and how it can help knowledge production. In particular, the re-embedding of the researcher's voice and agency, that is, their ability to act, at the heart of the research process is central to our argument. We see their

reflexivity, interpretations, and questioning as central to the process of theorizing (Chaudry, 2009; McCarthy, 2017).

This article suggests new modes of knowledge production for a re-imagining of issues in SCM and providing alternative approaches to theorization. We outline how researchers can engage in theory testing, elaboration, and building through critical engaged research. It is intended that this article will be a useful guide for SCM scholars interested in using a critical engaged approach to develop theories that are both practical and transformative.

DEFINING CRITICAL ENGAGED RESEARCH

Engaged research includes a "family" of approaches, welcoming diversity it does not have a definitive classification but is participative and focused on creating change with others (Reason & Bradbury, 2008). The spectrum of engaged research is thus wide (Cassell & Johnson, 2006) offering a variety of philosophical approaches and methodologies (Van de Ven, 2007). While some can be viewed as more objectivist and interventionist (e.g., experimental AR; action science), others resonate with assumptions from critical theory (e.g., emancipatory and participatory research) or postmodernism (e.g., narrative inquiries, reflexive deconstruction through collaborative inquiry). These different approaches fit within different research paradigms and thus produce different conceptualizations and operationalizations of the notion of engagement.

At the heart of engaged research is "the integration of theory and practice" and explicit reflections on the role of the researcher in the process (Touboulic & Walker, 2016: 311). Theorization in research and engaged research in particular is not an end in itself, and it has a performative nature in that it intervenes in the production of discourse and practice as well as theory (Spicer, Alvesson, & Kärreman, 2009). Hence, the production of knowledge is a way of "advancing theory that has practical consequences for humanity" (Vo & Kelemen, 2017: 859). The SCM researcher hence contributes to the "constructing" and "imagining" of SCs through engaged research.

It is important to acknowledge that calls for more *engaged research* in the field of SCM are not new and a number of authors have argued for a closer working relationship with practice through our research approaches (e.g., Westbrook, 1995; Näslund, 2002; Näslund et al., 2010), in particular promoting the adoption of interventionist action research (AR) as a form of engaged research. However, it is worth noting that accounts of these forms of AR in SCM are centered on the intervention whereby researchers—as external experts—come into the practical sphere to work with and solve practitioners' problems, which represents only one form of engagement. We contend that by constructing engagement solely as expert intervention, some of the nuances of engaged research may be lost and opportunities for developing SCM knowledge may be missed. In particular, engaged research enables viewing researchers as not only contributing to conceptual developments but also to "practical wisdom." SCM as a field has its roots in practice, and hence researching SCM phenomena is a naturally practical endeavor. The critical forms of engaged research suggest that it is necessary to question the desirability and direction of the practical agenda pursued in light of society's wellbeing (Touboulic & McCarthy, 2019). Such types of engaged research align with Flyvbjerg's definition of "phronetic" research (2001), that is, research that focuses on values and power to inform practical knowledge rather than abstract knowledge.

Within critical engaged research, the traditional power relations between researcher and participants are not taken for granted and the emphasis shifts toward longitudinal engagement *with* participants, co-creation, and reflexivity. This allows SCM scholars to challenge their own assumptions, develop new research questions, and investigate novel SC phenomena. In this process, SCM scholars are able to capture prospective accounts as well as the *now* of SC management and to reflect upon the limits of existing knowledge.

Critical engaged research provides an opportunity to analyze SC phenomena in the context within which they are constructed and to present a richer picture of the empirical world. We argue that the starting point of our research must be a consideration of its objectives in the broader societal context and research paradigm in which the research sits. Reflexivity within all research should begin at the outset, as there is always a need to consider the value of the research for the field, the researcher and for the participants. In line with the subjectivist philosophical underpinnings of the "radical humanist" and "interpretivist" paradigms (Burrell & Morgan, 1979), we agree that it is not possible, or in fact desirable, to detach ourselves as researchers from what we are observing (Easterby-Smith & Malina, 1999). Not only is deliberation on the context of an observation important but we also need to critically deliberate on the values and assumption of the (co)researchers. Reflexivity allows us to find strategies to better understand our complex roles in relation to others (Bolton, 2010). Thus, the approach of critical engaged research is more context bound and personal, leading to a cyclical process of preparation, participation, and reflection to guarantee the quality of the research (Näslund et al., 2010; Pedersen & Olesen, 2008).

Reflexivity in critical engaged research is key to generating relevant knowledge by integrating theory and practice. This practice is challenging for all parties, and time is necessary to reflect upon a multiplicity of perspectives as well as past and future actions. It is likely that some discomfort will be experienced in the realization of the value tensions that exist between the researchers and other parties' espoused values. To overcome issues of "singular and narcissistic accounts" or "dominant discourses being reproduced from collaborative reflexive practices" (Ripamonti et al., 2016), a three-pronged approach is suggested. A description of a critical event; an on-the-spot comment on the critical event; and finally, based on a discussion within the community of inquiry, a write-up of alternative interpretations, voices, and perspectives of what may have caused the critical event and—most important—what changes to instigate for the better.

Considerations of power through reflexive practice should take place throughout the research process including theorization. We propose that this is central to re-imagining issues in SCM and enabling the production of knowledge to address societal grand challenges. We suggest that addressing the set of reflexive questions below enables critical engaged researchers to interrogate the usefulness of their research in addressing such challenges and clarify the boundary conditions of the knowledge being developed by making research choices more transparent throughout the process. The following three reflexive questions draw upon and expand the questions underpinning Flyvbjerg's (2001) "phronetic" approach to social research:

1. How is the theorization helping us address societal grand challenges?

   - Is it good for the environment and humanity?
   - Does it privilege a short-term or long-term, sustainable orientation?

2. Who is the theorization serving?

   - Is this framing desirable?
   - What is the context?
   - Who is included and excluded?
   - Who gains and who loses, and by which mechanisms of power?

3. How do we judge the desirability of the theoretical contributions?

   - What, if anything, should we do about the problem being researched?
   - What course of action should be proposed—legally/morally/ethically?
   - Who benefits? Are there better outcomes for the majority than minorities or marginalized parties?

The first question encourages reflection on how theorization within critical engaged research frames the societal grand challenges and ways forward. Does the research theorize SCM based on an "economically dominant" or an "ecologically dominant" logic? (Montabon, Pagell, & Wu, 2016). Does the theorization privilege either a short-term or long-term orientation and on what theoretical basis is the relationship between the short-term and long-term constructed?

The second question is concerned with the varying interests of research participants and encourages reflection on whether the theorization of context privileges the interests of one set of research participants. For the grand societal grand challenge(s) being researched are the relevant socio-political and historical contexts included in the theorization? Does theorization in a specific context result in the exclusion of any legitimate stakeholders? Critical engaged researchers will need to reflect upon the theoretical basis of this exclusion and consider the extent to which it can be justified to those stakeholders.

The third question supports reflection on the performative nature of the theorization (Gond et al., 2016). Whom do the proposed actions serve? And who will be impacted? In answering these questions, there should be a reflection upon whether the proposed actions have been co-produced and theorized from a multi-stakeholder perspective. Does the theorization of the solution privilege one party over the other? On what theoretical basis are the interests of the participants constructed? And do the outcomes acknowledge the limited agency of less powerful parties?

For each of these reflexive questions, there should be a consideration of whether there are differing perspectives between the participants and how these differences contribute toward theorization. Further, there is a need to reflect upon the power relations between the participants and how these power relations are captured within the theorization.

We define critical engaged research as follows: an extension of engaged research which is transformative for theory and practice through processes of reflexivity and inclusivity. It is longitudinal, contextually aware, and emancipatory and allows the values and agency of the researcher and researched to be integrated into the process. In the following section, we unpack the notion of critical engagement further and explain the importance of embracing a variety of approaches for the field.

EXPANDED MODEL OF KNOWLEDGE PRODUCTION

Having defined critical engaged research, it is important to explore more closely what it can add to the

field from a knowledge production point of view. The possibilities for theorization are determined by the knowledge production process (Alvesson & Skoldberg, 2017). Here, we present an expanded model of knowledge production for SCM and locate critical engaged research in this model. There are two dimensions to knowledge production within our model: degree of engagement and of critical orientation. These two dimensions lead to four types of knowledge production: rationalist, critical, interventionist, and critical engaged research. We do not present one type of knowledge production as superior to the others. Rather, we argue that plurality and diversity are needed for SCM knowledge to develop (Darby et al., 2019; Gammelgaard & Flint, 2012; Matthews et al., 2016). Figure 1 summarizes the argument and presents a two-dimensional expanded framework of knowledge production for SCM. We explain how it is constructed in the remainder of this section.

Engagement dimension

This dimension refers to the extent to which the research seeks to intervene in practice. It is intrinsically linked to the role of the researcher in this process as discussed in the first section. We draw on Gibbons et al's (1994) model of "Mode 1" and "Mode 2" knowledge to construct this dimension.

Mode 1 knowledge production has historically been dominant within the natural and social sciences. Typically, it is knowledge produced within academic disciplines by trained scholars who observe phenomena in practice and whose primary objectives are often not to instigate change or action. The quality criteria of this knowledge are constructed by the institutions of the discipline, that is, the universities and the journals that publish scholarly work. The strength of this type of knowledge is that is able to describe, explain and in some cases predict social phenomena. One of the significant advantages of Mode 1 knowledge is that it is highly generalizable, and indeed, this is one of the most commonly used measures of quality for this mode of knowledge production. Useful examples of this in SCM are the foundational classifications or typologies of SC relationships that form the basis of SCM scholarship, such as in the exemplary work of Choi and Wu (2009) on triads within SCs.

"Mode 2" knowledge is produced through engaged research, has a problem-solving orientation, and is knowledge that is developed within the context of its application (Gibbons et al., 1994). Generalizability does not have a privileged position within Mode 2, which is developed within the context of application. Aspects of engaged theorization may be generalizable, especially those related to the processes of SCM, but

FIGURE 1
An expanded model of knowledge production for SCM [Color figure can be viewed at wileyonlinelibrary.com]
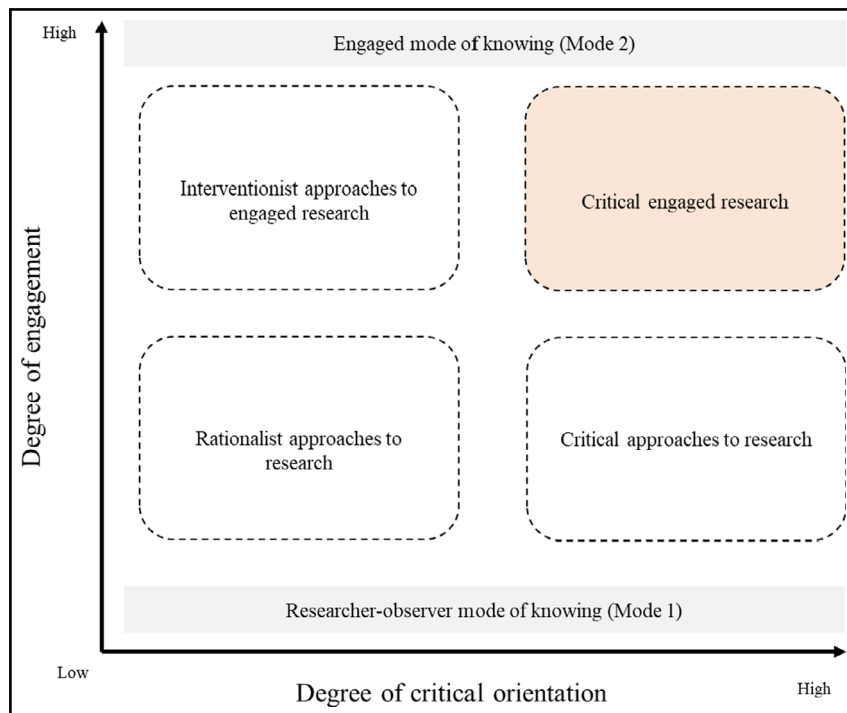
this is not the overriding goal of engaged theorization. This type of knowledge is primarily concerned with changing practice, for example when offering solutions to practical problems, and with developing knowledge from both the process and content of such change. For example, Partridário, Lambert, and Evans' (2007) acknowledge the importance of local context in their intervention-based project on new product development. They include well-defined contexts-of-use and an in-depth understanding of consumption contexts to deliver contextually sensitive solutions for people with reduced access to food.

The original model of Mode 1 and Mode 2 knowledge saw the two modes as dichotomous and privileged Mode 2 knowledge. Instead, we see the two modes as two ends of a continuum and believe they are better seen as complementary. Mode 1 knowledge can be tested and elaborated within Mode 2 knowledge production, and Mode 2 knowledge can contribute toward Mode 1 knowledge. This expanded model of knowledge production based on the complementarity of Mode 1 and Mode 2 knowledge presents significant opportunities for theorization within the field of SCM. An example of Mode 2 knowledge complementing Mode 1 knowledge is Touboulic, Matthews, and Marques (2018) study of the emergence of a carbon reduction strategy within a food supply network in the UK over a five-year period. The research was able to capture both the emergent and the deliberate aspects of the strategy and contributes toward the theorization of supply networks as Complex Adaptive Systems (CAS) (Choi, Dooley, & Rungtusanatham, 2001; Nair et al., 2016). In particular, by helping to resolve the misunderstandings between the focal company and their suppliers about their different understandings of sustainability, the research was able to further elaborate the CAS concept of "schema" within a SC context (Touboulic et al., 2018). Through this research, engaged scholarship was able to contribute toward the general theory of CAS.

Critical orientation dimension

This dimension captures the extent to which research is focussed on questions of power and the related phenomena of exploitation and emancipation. Critically oriented research is strongly normative as well as explanatory and practical (Horkheimer, 1972). Typically, power relations are evaluated from the normative criteria of democratic freedom and participation, grounded in the ideology of social democracy (Alvesson & Sköldberg, 2009). The focus on power means that critical research emphasizes the political and ethical aspects of social organization, such as within the organization of supply chains (New, 1997). The theoretical lenses adopted by critical researchers are diverse but much critical research tends

to be focussed on questioning the dominant ideologies and discourses through which power is legitimized and reproduced (Phillips & Hardy, 2002, Hardy, Bhakoo, & Maguire 2020). Of particular interest within critical research are those ideologies and discourses that are typically unquestioned within a field (Alvesson & Sköldberg, 2009). For example, the frameworks provided by Global Value Chains (Gereffi, 2018) and Global Production Networks (Levy, 2008) have been used to critique the dominant ideology of neo-liberalism and the discourse of free trade. This includes exploitative relations with suppliers in "developing" countries,[1] especially those in commodity supply chains (Levy, Reinecke, & Manning, 2016). Critical research itself has been criticized for seemingly being uninterested in contributing toward practical solutions (Spicer, Alvesson, & Kärreman., 2009) but by combining the dimension of critical orientation with the dimension of engagement, we have identified an opportunity for supply chain management scholarship to be at the forefront of critical research by conducting research that is both critical and engaged.

The rest of the article focuses specifically on the critical engaged research type of knowledge production from Figure 1 and its connection with theory testing, elaboration, and building.

CRITICAL ENGAGED RESEARCH AND SCM THEORY

Having developed our expanded model of knowledge production and argued that *critical engaged research* presents a number of significant opportunities for theorization within SCM, we now focus on the dimensions of critical engaged research. Table 1 below summarizes the way in which the distinctive interrelated dimensions of critical engaged research contribute to different approaches to theorization, namely theory testing, elaboration, and building.

Participatory problematization

Research and theorization are both bounded by the assumptions upon which they are based (Bacharach, 1989), often unconsciously (Alvesson & Sandberg, 2011). The method of problematization has been proposed as a way for researchers to free themselves from the constraints of their own assumptions in order to develop novel theory (Foucault, 1984; Alvesson & Sandberg, 2011). The aim of problematization is to "stimulate a rethink of one's established ideas and

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[1]We acknowledge that the terms 'developing' and 'developed' countries are problematic but use them to remind ourselves that 'sustainability' is a concept constructed within the discourse of 'development'. This highlights one of the intrinsic problems with the sustainability concept, which is that it was developed within a discourse dominated by 'developed' countries.

TABLE 1

How critical engaged SC research contributes toward theorization (theory testing, elaboration, and building)

Aspect of critical engaged research	Theory testing	Theory elaboration	Theory building
Participatory problematization	Each theory of SCM is based on a number of assumptions, which constitute the boundary conditions of the theory. These assumptions can be tested through engagement with research participants and help identify problematic assumptions	Building on the point made in relation to theory testing and problematization, assumptions can be contextualized in order to take account of the specific contexts in which research participants are acting	In order to build novel and interesting theory, researchers need to question the assumptions upon which their existing theories are based. By engaging with research participants, critical engaged researchers can engage in "participatory problematization"
Problem definition	The SCM literature has identified many theoretical problems to solve through scholarship. Critical engaged research provides us with opportunities to test whether these theoretical problems are also problems for research participants	Building on the point made in relation to theory testing and problem definition, theoretical problems can be re-defined through engagement with research participants. Problems can be contextualized in order to take account of the specific contexts in which research participants are acting	By engaging research participants in the problem definition stage of the research process, we increase the potential for identifying new and interesting problems to work on
Experiential knowledge	The experiences of those organizing supply chains and the experiences of those affected by the organization of supply chains should be central to and the starting point of our approach. The longitudinal engagement process of critical engaged research allows for the confronting of our existing (propositional) knowledge to experiential knowledge	Building on the point made in relation to theory testing and experiential knowledge, critical engaged research presents opportunities to elaborate our understanding of experiences by including phenomena such as cognition, emotion, and behavior	Critical engaged research allow SCM scholars the potential to build more complete theories of the behavior of supply chain agents and better understand the interlinked phenomena of cognition, emotion, and behavior
Process knowledge	The processes by which supply chains are being transformed are complex and not yet fully understood. The limited knowledge that we do have of these processes is to be tested by	Building on the point made in relation to theory testing and process knowledge, critical engaged research presents opportunities to elaborate our knowledge of processes in order	As critical engaged research involves scholars actively engaging in process of transformation, it presents significant opportunities to build theory about these processes based

TABLE 1 (continued)

Aspect of critical engaged research	Theory testing	Theory elaboration	Theory building
	participating in transformation processes with research participants	to better understand the contexts in which research participants are acting	on observation and reflection. Participation in processes offers opportunities for longitudinal engagement, which can help us to build theories that give insights into lengthy transformation processes
Contextualization	Critical engaged research provides SCM scholars with the opportunity to test in which contexts our extant theories of SCM can be applied and in which contexts they cannot be applied	Building on the point made in relation to theory testing and contextualization, critical engaged research presents opportunities to elaborate our extant theories in order to better understand the contexts in which research participants are acting	Critical engaged research provides SCM scholars with opportunities to engage in "context theorizing" in which the aim of theorization is to develop contextualized theories rather than theories than are true regardless of context. Context here does not simply mean the specific context of the research site but the broader political, political-economic, and social context
Performativity	Performativity provides a new dimension to theory testing. Both descriptive and normative theories can be tested in practice. Rather than simply testing whether theories accurately describe practice, theories can be tested by being applied to practice and seeing whether they work. The feasibility of normative theories can also be tested	Building on the point made in relation to theory testing and performativity, we can elaborate our theories in order to make them better suited to the context in which the research participants are acting	Critical engaged research provides opportunities to engage in performativity in partnership with research participants. An objective would be to create new discourses and practices, which would provide opportunities for novel theorization. Praxis presents an opportunity for theory to "catch up" to practice by being involved in practice
Inclusivity	Critical engaged research generally aims to be an inclusive method of research that includes research participants in the research process. Critical engaged research as presented in this article seeks to engage a wide variety of supply chain	Building on the point made in relation to theory testing and inclusivity, critical engaged research offers SCM scholars the opportunity to engage a wide variety of supply chain stakeholders in the elaboration of SCM theory. These stakeholders can	Critical engaged research provides opportunities to engage a wide variety of supply chain stakeholders in the building of SCM theory. This allows SCM scholars to identify new phenomena and contexts that can be used as the basis for novel and

(continued)

TABLE 1 (continued)

Aspect of critical engaged research	Theory testing	Theory elaboration	Theory building
	stakeholders than simply supply chain managers, including other supply chain research participants and other stakeholders affecting or affected by the management of the supply chain. This inclusivity creates a diversity of perspectives to be included in the research, and these can be used to test extant theories of SCM considering Who do our theories include/exclude? Are our existing theories privileging the perspectives and contexts of certain stakeholders? Are there stakeholders that find some or all aspects of our theories problematic in relation to their experiences and contexts?	identify new phenomena and contexts to existing theories	interesting theory. The diversity of perspectives may also allow richer theorization of SC phenomena and better capture the diversity of experiences and perspectives of different stakeholders within our theories
Relevance	Critical engaged research enables SCM scholars to test the relevance of our theories for research participants. This is not to privilege the perspective of research participants over scholars but to consider why our theories may not be considered relevant	Building on the point made in relation to theory testing and relevance, those theories that are seen to be lacking in relevance by research participants can be elaborated in order to be more relevant to the context in which research participants are working	By involving research participants in the problem definition stage of research design, there is the opportunity to build theories with high levels of relevance

facilitate imagination and a creative reframing of how one conceptualizes and reasons around the subject matter and/or uses a theoretical framework" (Alvesson and Sandberg, 2013: 50). In this journal, Matthews et al. (2016) and Hardy, Bhakoo, and Maguire (2020) have called for the adoption of a problematization approach within SCM in order to identify those assumptions that hinder the development of novel theorization within the field.

The difficulty for researchers is to find a way of questioning our assumptions from the outside in order to problematize our theories (Feyerabend, 2010). This problematization can be challenging for theories that are foundational to a field or for theoretical assumptions that may even be unconsciously held by the researcher. We believe that critical engaged research offers significant opportunities for problematization through the process of engaging with research participants who may have very different assumptions to the researcher about the phenomena being researched. We refer to this process as "participatory problematization" and believe that it will be especially useful for theory building as researchers can potentially engage in novel theorization based on a new assumption ground.

Problem definition

Engaged research in its broadest sense offers a new approach for moving beyond "established" ways of generating questions and challenging the assumptions in our field (Alvesson & Sandberg, 2011). It offers opportunities for the co-production of questions, and the identification of problems that are of concern to research participants. It puts the concepts and theories developed by researchers to the test through processes of co-exploration with research participants. What may seem interesting to the researcher from an abstract point of view may not find resonance in a given context. Co-defining research problems and avenues of inquiry inevitably increases the relevance of the theories developed and ultimately the uptake of potential ways forward identified through the process of engaged research. This is in turn can lead to novel theoretical insights on the "unfolding" of SCM. Issues related to the boundaries of our theories may also be addressed by closely engaging with non-academic research collaborators in defining the research problem: We can recognize and critique our own boundaries (who and what is included/excluded) and value judgements in order for our analysis to become more inclusive and comprehensive (Kagan et al., 2004; Ulrich, 2000).

Experiential knowledge

Critical engaged research adopts an extended epistemology (Heron & Reason, 1997). While traditional academic research engages at the level of propositional knowing (knowing in abstract intellectual terms and ideas, expressed through statements), Heron and Reason (1997) propose that research needs to also engage at the level of experience, presentation and practice. "Experiential knowing" is especially viewed as the basis of all ways of knowing and refers to people's experience of the world. This echoes James' view that "it is through feelings that we become acquainted with things" (James, 1890: 221 in Heron & Reason, 2008). Van de Ven and Johnson (2006) have suggested that more traditional research designs tend to capture the information that people are willing to share through formal and sometimes shallow data collection techniques such as interviews. From their perspective, engaged research over an extended period of time will provide greater penetration into the subject matter as a result of mutual trust. This means that engaged SCM researchers potentially have access to the traditionally inaccessible realm of personal experiences or the domain of *experiential knowing* (Heron & Reason, 1997), which emerges from the direct encounter or experience with the world.

Through the inclusion of experiential knowing as part of engaged research efforts, SCM scholarship could build more complete theories of the behavior of SC agents and better theorize the interlinked phenomena of cognition, emotion, and behavior (Bishop et al., 2019). Critical engaged research has the potential to expand the experiences captured through engaged research through the inclusion of oftentimes marginalized SC agents. This aligns with calls in SCM research for multilevel theorizing (Carter, Meschnig, & Kaufmann, 2015) as current research often fails to capture the broader picture due to the primacy of cross-sectional designs and the limited number of voices captured within the data collection process. Critical engaged research includes macro level sociopolitical contexts and micro level experiences of individuals. As such, it can provide holistic perspectives and linkages between these levels to be unpacked.

Process knowledge

Critical engaged research enables scholars to re-imagine SCs by seeing them as "sites of human action," which emerge through "the ongoing agency of inter-organizational members" (Tsoukas & Chia, 2002, 580). Engaged researchers are embedded in the research over time and have continuous interactions with research participants, which provides them access to the usually "inaccessible." Therefore, critical engaged research is time intensive as relationships need to be formed and maintained, especially when grappling with issues related to sustainable development due to their complexity and human nature (Partidário et al., 2007). While some might consider this

a limiting condition, it is key to the process, and the value gained from this longitudinal engagement provides access to a process view and can further ensure the relevance of the research. Specifically, it offers a more emergent, temporal, relational, and experience-based approach to knowledge production. Past and present experiences, as well as future possibilities, are open for articulation and ongoing sensemaking (Cunliffe & Scaratti, 2017; Shotter & Tsoukas, 2014). This means that such research approaches are much more focused on the "happening" and "becoming" of SCs and aim to participate in this process of becoming. This aligns with the way Tsoukas (2005) distinguished organizations as things from organizing as a process, as well as with Van de Ven and Poole's (2005) approach to study change as a process.

While this implies that the research process is a lot messier, that is, less controlled, it also provides a greater opportunity to surface the complexity of the SC phenomena in their unfolding, resulting in more relevant, multilevel, and complete conceptualizations. In engaging in such processes, researchers need to be prepared for dealing with emergence, which may involve the boundaries of the research shifting and researchers and participants having to question their own assumptions (Cunliffe & Scaratti, 2017).

Contextualization

Context is important for creating research and theories that are relevant to those affected by the issues researched. Fields such as Organizational Behavior will often draw on organizational context when considering individual behaviors or external context when considering organizational behaviors (Bamberger, 2008; Cappelli & Sherer, 1991). Critical engaged research requires an understanding and positioning linked to the socio-political context in creating research and theory that is more reflective of the reality of the global environment within which SCs are embedded (Jack & Westwood, 2006). Similar to Johns (2006), we argue for multilevel analysis and the movement away from "ad hoc" or subjective contextualization, where the focus is often on "one particular" aspect of context, for example, the competitive environment.

By de-privileging the criterion of generalizability, the process of theorization through critical engaged research is provides an opportunity to capture the contexts in which stakeholders are transforming SCs and SCM practices and the discourses within which they are constructed.

For critical engaged research, acknowledging the context allows for directly challenging "the boundary assumptions of the paradigms within which the theories are nested" (Bamberger, 2008: 840–841). This type of "context theorizing" could help us re-contextualize theories in the SC field by incorporating marginalized voices, power structures, agency, and history. It recognizes the utility of these concepts for extending or producing useful theories and moves against the focal firm perspective so prevalent in our field. Engagement with multiple stakeholders allows for rich and detailed results (Geertz, 1973).

There are two main mechanisms by which critical engaged research can set research in context more effectively. In the first instance, we can revisit past research, contextualizing, and framing our research questions from a grand challenges perspective. We can seek to explain or explore the effect of policies and investment trends, for example Vakili and McGahan (2016) looked at the failure of these in stimulating research around diseases that afflict poorer people.

In the second instance, we can embed context in our research design. Considering the complex nature of the contemporary challenges we face in the SCM field, research can and should be designed to drive change and be forward-looking. We argue for an inclusive approach regardless of methodological choice, where diverse stakeholder concerns are central in the design and impact considerations, and that these relationships "will need to de-commodified and less transactional" (Reichel, 2017). The co-production of the research questions and solutions should acknowledge that contexts will vary depending on the different positions of participants in relation to the supply chain. This approach will recognize the limited agency of the less powerful parties and help researchers avoid the temptation to contribute toward strategies that serve an instrumental purpose for powerful buying firms but which leave the underlying power structures within the supply chain unquestioned, for example corporate sustainability strategies based on "instrumental empowerment" (McCarthy, Touboulic & Matthews, 2018). Critical engaged research offers real possibilities for all parties to co-produce alternative approaches to address the "grand challenges." This will facilitate the capturing of experiences but also of the multilevel nature of SC phenomena. This in turn provides the opportunity in our theorization efforts of zooming in and out and focusing on certain actors, levels or issues (see e.g., Touboulic et al., 2018). Through this process of contextualization, we can make the boundary conditions of our theories more explicit and our research efforts more inclusive.

Performativity

The critical engaged research mode represents work that is both critical and "performative." Performativity has its roots in Austin's (1962) seminal work in linguistics "in which to say something is to do something; or in which by saying something we are doing something" (Austin, 1962: 12). The concept of the "performative" allows scholars to explore how

discourses "do things" and intervene in them to change what is being done (Spicer et al., 2009).

Performativity is a nuanced concept, but Gond and Cabantous (2015) have identified four approaches to performativity that organization and management theory draw on. The "performativity as constitution through citation" approach, based on the work of Derrida (1979) and Butler (1993), is concerned with how subject positions are constructed within discourses that they did not create but which they must "cite" in order to be intelligible to others (Gond et al., 2016). For example, supply chain managers are constructed through the discourse of "supply chain management" and must "cite" this discourse in order to be able to credibly perform as managers, for example, through developing strategies that focus on "cost savings" or "value creation."

The "performativity as bringing theory into being" approach focuses on the performative nature of scientific statements, including economic and management theories and draws on the work of Callon (1998) and Latour (1996). The central argument of this approach is that scientific discourses do not simply describe the "objects" of scientific inquiry but also creates those objects too, that is, they become "self-fulfilling theories" (Marti and Gond, 2017). In the last century, a considerable body of scientific discourse has been constructed on management practices and management tools. In drawing upon this discourse, managers make the world more like the discourse.

The "performativity as sociomateriality mattering" approach is focussed on the social and material effects of discourse, for example how physical supply chains are created based on the discourse of supply chain management. This approach to performativity draws on the work of Barad (2003) and stresses the opportunities to question and contest the use and power of discourse in constructing what is "real."

The final approach is "performativity as the search for performance," within this approach, there is a concern that performativity should not be reduced to a constant drive for improved performance, typically constructed as efficiency (Lyotard, 1984; Cabantous, Gond, Harding, & Learmonth, 2016; Spicer et al., 2009; Wickert and Schaefer, 2015). Instead, performativity should be oriented toward a broader ethical focus, which requires scholars to engage in "active and subversive intervention into managerial discourses and practices" (Spicer, Alvesson, & Kärreman, 2009: 538).

The concept of performativity can be used to advance studies through borrowing concepts or to build theory through a "two-way exchange" (Gond et al., 2016). It offers the potential to engage with supply chain stakeholders on the discourses being cited within the practices of SC M. This provides an opportunity for other discourses to be cited as we try to shift SCM discourse away from its conventional construction of performance as efficiency toward a broader consideration of SCM as an ethical practice, perhaps drawing on and transforming the discourse of sustainable SCM.

Inclusivity

Inclusivity closely interrelates with the notion of contextualization. The field of SCM has developed a fine body of theoretical knowledge about SCs and the practice of SCM. By expanding the knowledge production process to include research participants as collaborators in the design and organization of engaged SCM research, the possibilities for problematizing aspects of extant SCM theories and building novel theories are expanded.

Critical engaged research allows for a re-embedding of the historical, cultural, economic, and political aspects that shape the field and the issues we are interested in. In line with Cunliffe and Scaratti's (2017) concept of situated knowledge, we conceive of a process of knowledge production "which assumes that no one person has full knowledge and that researchers therefore need to understand situations from others' multiple viewpoints" (Cunliffe & Scaratti, 2017: 31). A recontextualization of our research therefore inevitably implies engaging with multiple stakeholders in order to include multiple voices, rather than giving precedence to those that have dominated the economic and political agendas, and aiming for a holistic perspective on issues in SCM.

Relevance

Within critical engaged research, researchers are not simply observers but embrace their agency and exercise it in *the pursuit of worthwhile purposes* (Bradbury & Reason, 2006), which extends SCM research in the realm of the normative and political. One such purpose that is inspiring SCM scholars is the growing socio-political and ecological crisis, which requires us to fundamentally rethink the organization of our global SCs. This new period is characterized by societal grand challenges, such as climate chaos, "political instability, economic volatility, and societal upheaval" (Howard-Grenville et al., 2014). Echoing George et al. (2016), we acknowledge the contribution of businesses and globalization to these challenges and their limited desire/ability to deal with them. They describe these "grand challenges" as "formulations of global problems that can be plausibly addressed through coordinated and collaborative effort" (p 1880).

In the face of these grand challenges, we join the call of prominent authors to increase the relevance of management research (Bartunek, 2007, Bartunek

et al., 2006, Van de Ven, 2007, Van de Ven & Johnson, 2006). We contribute to this from the perspective of SCM. Transforming SCs is fundamental to transitioning to more socially equitable societies (Mohrman & Worley, 2010), and this transition is one of the societal grand challenges that management research should endeavor to tackle (George et al., 2016).

There is thus a pressing need to explore how radical transformations of business practices may emerge (Pagell & Shevchenko, 2014) but to date SCM scholarship has had limited participation in the transformation process and has tended to describe the transformations being made by others. Each SC exhibits social and environmental costs, whether it is child and slave labor manifested from sourcing conflict minerals, the drying up of lakes in Uzbekistan to support our cotton supply chains, or the disappearance indigenous work practices and livelihoods as a response to the devaluation of work and the desire for cheap goods. The challenge for SCM researchers in this context is to re-interrogate what it means to do research and for what purposes knowledge is being developed. The nature of this challenge is dual: It requires both an interrogation of the dominant mode of knowledge production of the field as well as an assessment of the desirability of our research questions.

AN ILLUSTRATION: RE-IMAGINING SUSTAINABLE GLOBAL FOOD SUPPLY CHAINS

In order to illustrate what critical engaged research may look like in practice, we propose to explore how research in global food supply chains may be re-imagined from this knowledge production type.

Critical engaged research can unpack how global history, and colonialism, specifically, has shaped the way global SCs are structured, organized, and governed (Prasad, 2003). This postcolonial legacy is believed to have resulted in the institutionalization of asymmetric relations between focal firms within "developed" countries and suppliers within "developing" countries, exemplified in the dominant practices of control over, and silencing of voices of marginalized stakeholders. Sustainability is a concept constructed within the discourse of "development" but has become decontextualized. Currently, sustainability practices focus on quality and security of supply in the short term for the focal company and "Western" consumer.

To re-contextualize our food supply chains, we must acknowledge that they are rooted in historical trading patterns. The theories we have used to understand global trade have their basis in economic models and traditional international business theories (e.g., The

Hymer–Kindleberger Theory—"Monopolistic Advantage" (Buckley, 1990)). These conceptualizations privilege the discourse of "Western," "home," or "focal" firms, who control and shape their supply chains according to their own agendas. This extends to the sustainability agenda where social and environmental pursuits merely constitute alternative attempts to control the supply chain (McCarthy, Touboulic & Matthews, 2018). How else could we think about sustainability? What mechanisms for achieving sustainability could be offered from a decolonial perspective? (Mignolo & Walsh, 2018).

If we are to make our research in this space truly inclusive, we need to involve traditionally marginalized and silenced or silent voices: indigenous peoples, knowledge, and practices, the natural environment, environmental defenders, workers rather than owners, lower-tier suppliers, communities, and consumers from all backgrounds. What does "sustainability" or related concepts mean from these perspectives? How do these actors currently experience "sustainability" policies and practices? What are the most central concerns for them? What narratives about global food supply chains would support emancipation? How would we co-design an equitable supply chain? How would this be achieved in practice in acknowledgment of the existing power disparities that shape our global food supply chains?

CONCLUSION

We have endeavored to provide a pathway toward the re-imagining of SCM challenges and theories through the adoption of a critical engaged research approach in the production of knowledge. In moving away from the paradigm of the researcher-observer, engaged research can enable SCM scholars to theorize from a longitudinal perspective and create contextually aware knowledge.

We acknowledge that discomfort may emerge from the requirements of reflective practice and challenging dominant discourses and that there are significant resource requirements and effort necessary to maintain relationships and trust. The boundaries of the research can shift and the outputs are sometimes unclear, yet the process in itself can be immeasurably valuable (Reason & Bradbury, 2008). We see this as an opportunity to broaden the contributions made in our field, in particular in light of the urgency of the socio-political and ecological crisis which we currently face. We advocate for diversity in our modes of knowledge production. Critical engaged research adds value-based and political dimensions to SCM research, which are necessary for research in the field to contribute to the *pursuit of worthwhile purposes* (Bradbury & Reason, 2006).

We have shown that critical engaged research embraces an interrelationship between theory and practice in order to generate contextualized, embedded, and processual knowledge. We further argue here that the real contribution that engaged research can make to the field of SCM lies in questioning existing and dominant assumptions to move the field in a new direction and potentially contribute toward novel theorization.

REFERENCES

Alvesson, M., & Sandberg, J. (2011). Generating research questions through problematization. *Academy of Management Review*, 36, 247–271.

Alvesson, M., & Sandberg, J. (2013). *Constructing research questions: Doing interesting research*. New York: Sage.

Alvesson, M., & Sköldberg, K. (2009). Positivism, social constructionism, critical realism: Three reference points in the philosophy of science. In *Reflexive methodology: New vistas for qualitative research* (pp. 15–52).

Alvesson, M., & Sköldberg, K. (2017). *Reflexive methodology: New vistas for qualitative research*. London: Sage.

Austin, J. L. (1962). *How to do things with words*. Oxford: Oxford University Press.

Bacharach, S. B. (1989). Organizational theories: Some criteria for evaluation. *Academy of Management Review*, 14, 496–515.

Bamberger, P. (2008). From the editors beyond contextualization: Using context theories to narrow the micro-macro gap in management research. *Academy of Management Journal*, 51, 839–846.

Barad, K. (2003). Posthumanist performativity: Toward an understanding of how matter comes to matter. *Signs: Journal of Women in Culture and Society*, 28, 801–831.

Bartunek, J. M. (2007). Academic-practitioner collaboration need not require joint or relevant research: Toward a relational scholarship of integration. *Academy of Management Journal*, 50, 1323–1333.

Bartunek, J. M., Rynes, S. L., & Ireland, R. D. (2006). What makes management research interesting, and why does it matter? *Academy of Management Journal*, 49, 9–15.

Bishop, D., Eury, J. L., Gioia, D., Trevino, L., & Kreiner, G. E. (2019). In the heart of a storm: Leveraging personal relevance through "inside-out" research. *Academy of Management Perspectives*, https://doi.org/10.5465/amp.2018.0089

Bolton, G. (2010). *Reflective practice, Los Angeles*. Calif.: Sage.

Bradbury, H., & Reason, P. (2006). Conclusion: Broadening the bandwidth of validity: Issues and choice-points for improving the quality of action research. *Handbook of Action Research*, 343–351.

Bradbury, H., Waddell, S., O'Brien, K., Apgar, M., Teehankee, B., & Fazey, I. (2019). A call to action research for transformations: The times demand it. *Action Research*, 17, 3–10.

Brown, V. A., Harris, J. A., & Russell, J. Y. (Eds.) (2010). *Tackling wicked problems through the transdisciplinary imagination*. London: Earthscan.

Buckley, P. J. (1990). Problems and developments in the core theory of international business. *Journal of International Business Studies*, 21, 657–665.

Burrell, G., & Morgan, G. (1979). *Social paradigms and organisational analysis*. London: Heinemann.

Butler, J. (1993). *Bodies that matter*. New York, NY: Routledge.

Cabantous, L., Gond, J. P., Harding, N., & Learmonth, M. (2016). Critical essay: Reconsidering critical performativity. *Human Relations*, 69, 197–213.

Callon, M. (1998). *The laws of the markets*. Oxford: Blackwell.

Cappelli, P., & Sherer, P. D. (1991). The missing role of context in OB: The need for a meso-level approach. In L. L. Cummings & B. M. Staw (Eds.), *Research in organizational behavior*, Vol. 13 (pp. 55–110). Greenwich, CT: JAI Press.

Carter, C. R., Meschnig, G., & Kaufmann, L. (2015). Moving to the next level: Why our discipline needs more multilevel theorization. *Journal of Supply Chain Management*, 51, 94–102.

Cassell, C., & Johnson, P. (2006). Action research: Explaining the diversity. *Human Relations*, 59, 783–814.

Castoriadis, C. (1997). *The imaginary institution of society*. Cambridge: MIT Press.

Chaudhry, L. N. (2009). Forays into the mist: violences, voices, vignettes. In A. Y. Jackson & L. A. Mazzei (Eds.), *Voice in qualitative inquiry: Challenging conventional, interpretive, and critical conceptions in qualitative research* (pp. 137–164). London and New York: Routledge.

Choi, T. Y., Dooley, K. J., & Rungtusanatham, M. (2001). Supply networks and complex adaptive systems: Control versus emergence. *Journal of Operations Management*, 19, 351–366.

Choi, T. Y., & Wu, Z. (2009). Triads in supply networks: Theorizing buyer-supplier-supplier relationships. *Journal of Supply Chain Management*, 45, 8–25.

Cunliffe, A. L., & Scaratti, G. (2017). Embedding impact in engaged research: Developing socially useful knowledge through dialogical sensemaking. *British Journal of Management*, 28, 29–44.

Darby, J. L., Fugate, B. S., & Murray, J. B. (2019). Interpretive research: A complementary approach to seeking knowledge in supply chain management. *International Journal of Logistics Management*, 30, 395–413.

Derrida, J. (1979). Signature event context. *Glyph*, 1, 172–197.

Easterby-Smith, M., & Malina, D. (1999). Cross-cultural collaborative research: Toward reflexivity. *Academy of Management Journal*, 42, 76–86.

Fairclough, N. (2009). A dialectical-relational approach to critical discourse analysis in social research. *Methods of Critical Discourse Analysis*, 2, 162–187.

Feyerabend, P. K. (2010). *Against method* (4th ed.). London: Verso.

Flyvbjerg, B. (2001). *Making social science matter: Why social inquiry fails and how it can succeed again*. Cambridge, UK: Cambridge University Press.

Foucault, M. (1984). Space, knowledge and power. *The Foucault Reader*, 239.

Gammelgaard, B., & Flint, D. (2012). Qualitative research in logistics and supply chain management: Beyond the justification for using qualitative methods. *International Journal of Physical Distribution & Logistics Management*, Vol. 42. https://doi.org/10.1108/ijpdlm.2012.00542haa.001

Geertz, C. (1973). *The interpretation of cultures*. New York: Basic Books.

Gereffi, G. (2018). *Global value chains and development: Redefining the contours of 21st century capitalism*. Cambridge: Cambridge University Press.

George, G., Howard-Grenville, J., Joshi, A., & Tihanyi, L. (2016). Understanding and tackling societal grand challenges through management research. *Academy of Management Journal*, 59, 1880–1895.

Gibbons, M., Limoges, C., Nowotny, H., Schwartzman, S., Scott, P., & Trow, M. (1994). *The new production of knowledge: The dynamics of science and research in contemporary societies*. Stockholm, Sweden: Sage.

Gond, J. P., & Cabantous, L. (2015). Performativity: Towards a performative turn in organizational studies. In *The Routledge companion to philosophy in organization studies* (pp. 540–548). Abingdon: Routledge.

Gond, J. P., Cabantous, L., Harding, N., & Learmonth, M. (2016). What do we mean by performativity in organizational and management theory? The uses and abuses of performativity. *International Journal of Management Reviews*, 18, 440–463.

Hardy, C., Bhakoo, V., & Maguire, S. (2020). A new methodology for supply chain management: Discourse analysis and its potential for theoretical advancement. *Journal of Supply Chain Management*. https://doi.org/10.1111/jscm.12222

Heron, J., & Reason, P. (2008). Extending epistemology within a co-operative inquiry. In *The Sage handbook of action research: Participative inquiry and practice* (pp. 366–380).

Heron, J., & Reason, P. (1997). A participatory inquiry paradigm. *Qualitative Inquiry*, 3, 274–294.

Horkheimer, M. (1972). *Critical theory: Selected essays*, Vol. 1. A&C Black.

Howard-Grenville, J., Buckle, S. J., Hoskins, B. J., & George, G. (2014). Climate change and management. *Academy of Management Journal.*, 57, 615–623.

Jack, G., & Westwood, R. (2006). Postcolonialism and the politics of qualitative research in international business. *Management International Review*, 46, 481–501.

Johns, G. (2006). The essential impact of context on organizational behavior. *Academy of Management Review*, 31, 396–408.

Kagan, C., Caton, S., Amin, A., & Choudry, A. (2004). Boundary critique: Community psychology and citizen participation. Working Paper. IOD

Research Group, Manchester Metropolitan University. Available from http://e-space.mmu.ac.uk/id/eprint/41847.

Latour, B. (1996). Que peuvent apporter l'histoire et la sociologie des sciences aux sciences de la gestion? (The use of science studies to renew a few questions of organization theory). Paper presented at the XIII° Journ´ees nationales des IAE, Toulouse.

Levy, D. L. (2008). Political contestation in global production networks. *Academy of Management Review*, 33, 943–963.

Levy, D., Reinecke, J., & Manning, S. (2016). The political dynamics of sustainable coffee: Contested value regimes and the transformation of sustainability. *Journal of Management Studies*, 53, 364–401.

Lyotard, J. F. (1984). *The postmodern condition: A report on knowledge*. Vol. 10. University of Minnesota Press.

Maestrini, V., Luzzini, D., Shani, A. B. R., & Canterino, F. (2016). The action research cycle reloaded: Conducting action research across buyer-supplier relationships. *Journal of Purchasing and Supply Management*, 22, 289–298.

Marti, E., & Gond, J.-P. (2017). *When do theories become self-fulfilling? Exploring the boundary conditions of performativity*. Working Paper.

Matthews, L., Power, D., Touboulic, A., & Marques, L. (2016). Building bridges: Toward alternative theory of sustainable supply chain management. *Journal of Supply Chain Management*, 52, 82–94.

McCarthy, L. (2017). Empowering women through corporate social responsibility: A feminist Foucauldian critique. *Business Ethics Quarterly*, 27, 603–631.

McCarthy, L., Touboulic, A., & Matthews, L. (2018). Voiceless but empowered farmers in corporate supply chains: Contradictory imagery and instrumental approach to empowerment. *Organization*, 25, 609–635.

Mignolo, W. D., & Walsh, C. E. (2018). *On decoloniality: Concepts, analytics, praxis*. Durham: Duke University Press.

Mohrman, S. A., & Worley, C. G. (2010). The organizational sustainability journey: Introduction to the special issue. *Organizational Dynamics*, 39, 289–294.

Montabon, F., Pagell, M., & Wu, Z. (2016). Making sustainability sustainable. *Journal of Supply Chain Management*, 52, 11–27.

Nair, A., Yan, T., Ro, Y. K., Oke, A., Chiles, T. H., & Lee, S. Y. (2016). How environmental innovations emerge and proliferate in supply networks: A complex adaptive systems perspective. *Journal of Supply Chain Management*, 52, 66–86.

Näslund, D. (2002). Logistics needs qualitative research-especially action research. *International Journal of Physical Distribution & Logistics Management*, 32, 321–338.

Näslund, D., Kale, R., & Paulraj, A. (2010). Action research in supply chain management: A

framework for relevant and rigorous research. *Journal of Business Logistics*, 31, 331–355.

New, S. J. (1997). The scope of supply chain management research. *Supply Chain Management: An International Journal*, 2, 15–22.

Pagell, M., & Shevchenko, A. (2014). Why research in sustainable supply chain management should have no future. *Journal of Supply Chain Management*, 50, 44–55.

Partridário, P. J., Lambert, J., & Evans, S. (2007). Building more sustainable solutions in production consumption systems: The case of food for people with reduced access. *Journal of Cleaner Production*, 15, 513–524.

Pedersen, C., & Olesen, B. (2008). What knowledge - which relationships? Sharing dilemmas of an action researcher. *International Journal of Action Research*, 4, 254.

Phillips, N., & Hardy, C. (2002). *Discourse analysis: Investigating processes of social construction*. Thousand Oak, CA: Sage Publications.

Prasad, A. (2003). *Postcolonial theory and organizational analysis: A critical engagement*. New York, NY: Springer.

Reason, P., & Bradbury, H. (Eds.) (2006). *Handbook of action research: Concise paperback edition*. London: Sage.

Reichel, A. (2017). Shape of things to come: From the'laws of form'to management in the post-growth economy. *Ephemera: Theory & Politics in Organization*, 17, 89–118.

Ripamonti, S., Galuppo, L., Gorli, M., Scaratti, G., & Cunliffe, A. L. (2016). Pushing action research toward reflexive practice. *Journal of Management Inquiry*, 25, 55–68.

Rittel, H. W., & Webber, M. M. (1973). 2.3 Planning problems are wicked. *Polity*, 4, e169.

Shotter, J., & Tsoukas, H. (2014). Performing phronesis: On the way to engaged judgment. *Management Learning*, 45, 377–396.

Spicer, A., Alvesson, M., & Kärreman, D. (2009). Critical performativity: The unfinished business of critical management studies. *Human Relations*, 62, 537–560.

Touboulic, A., Matthews, L., & Marques, L. (2018). On the road to carbon reduction in a food supply network: A complex adaptive systems perspective. *Supply Chain Management: An International Journal*, 23, 313–335.

Touboulic, A., & McCarthy, L. (2019), Collective action in SCM: A call for activist research. *The International Journal of Logistics Management*, The, Vol. ahead-of-print No. ahead-of-print. https://doi.org/10.1108/IJLM-08-2019-0222.

Touboulic, A., & Walker, H. (2016). A relational, transformative and engaged approach to sustainable supply chain management: The potential of action research. *Human Relations*, 69, 301–343.

Tsoukas, H. (2005). *Complex knowledge: Studies in organizational epistemology*. Oxford: Oxford University Press.

Tsoukas, H., & Chia, R. (2002). On organizational becoming: Rethinking organizational change. *Organization Science*, 13, 567–582.

Ulrich, W. (2000). Reflective practice in the civil society: The contribution of critically systemic thinking. *Reflective Practice*, 1, 247–268. https://doi.org/10.1080/713693151.

Vakili, K., & McGahan, A. M. (2016). Health care's grand challenge: Stimulating basic science on diseases that primarily afflict the poor. *Academy of Management Journal*, 59, 1917–1939.

Van de Ven, A. H. (2007). *Engaged scholarship: A guide for organizational and social research*. Oxford: Oxford University Press on Demand.

Van de Ven, A. H., & Johnson, P. E. (2006). Knowledge for theory and practice. *Academy of Management Review*, 31, 802–821.

Van de Ven, A. H., & Poole, M. S. (2005). Alternative approaches for studying organizational change. *Organization Studies*, 26, 1377–1404.

Vo, L. C., & Kelemen, M. (2017). Collaborating across the researcher-practitioner divide: Introducing John Dewey's democratic experimentalism. *Journal of Organizational Change Management*, 30, 858–871.

Westbrook, R. (1995). Action research: A new paradigm for research in production and operations management. *International Journal of Operations & Production Management*, 15, 6–20.

Wickert, C., & Schaefer, S. M. (2015). Towards a progressive understanding of performativity in critical management studies. *Human Relations*, 68, 107–130.

Anne Touboulic (PhD – Cardiff University) is an Associate Professor of Operations Management at the Nottingham University Business School. Anne's recent research has primarily focused on adopting critical approaches to explore the transition to more sustainable supply chains and on the question of marginalised voices in global and local food systems, which includes different streams of work on the implications and limits of the corporate discourse on sustainability, on food deserts, and on rural communities and farmers. Other projects include using critical discourse analysis to explore concepts of food labour and value and the role of technology; unpacking the role of multistakeholder initiatives in the governance of grand challenges. Anne is also involved in work around the development of an outreach and educational agenda around reconnecting consumers to food and food producers.

Lucy McCarthy (PhD- University College Cork) is a Lecturer in Queens Management School at Queen's University Belfast. Dr. McCarthy's research interests includes contextualising supply chain networks, critical research, marginalised voices, food production and consumption

networks, post-colonialism, discourse analysis. Current research projects include using discourse analysis, critical research approaches and story-telling to consider food value, labour and time in food supply chains and critically questioning the role of technology in food supply chains.

Lee Matthews (PhD – University of Manchester) is an Assistant Professor of Business and Society in International Centre of Corporate Social Responsibility (ICCSR) at the Nottingham University Business School. Dr. Matthews' principal research interests include sustainable supply chain management, with an emphasis upon environmental sustainability and environmental rights. Current projects: 'Environmental rights and supply chain management: the case of environmental defenders in the Amazon; 'Ocean sustainability, biodiversity and supply chain management'.