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Towards Common Ground and Trading Zones in Management Research and Practice

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The purpose and nature of management scholarship is contested, evidenced by debates about the 'academic–practitioner divide' and attendant remedies for addressing it, including mode 2 and mode 3 research, engaged scholarship, evidence-based management and design science. In this paper the authors argue that, without a culture of dialogical encounter, management scholarship will never be able to emerge from its adolescence, and management will not develop into the profession that it should and can become. The central proposition is that the highly fragmented landscape of management (practice and scholarship) lacks sufficient capability for dialogue among the plurality of actors situated across that landscape. Developing the dialogical capability ultimately required to break this fundamental impasse demands, first, a shared sense of purpose and responsibility (akin to the Hippocratic Oath in medicine) and, second, institutional entrepreneurship to establish more and better 'trading zones'. Drawing on the philosophy of pragmatism, the authors further this endeavour by identifying and proposing key elements of a statement of shared purpose and responsibility. Finally, they explore the nature and characteristics of successful trading zones, highlighting particular examples that have already been created in management studies.

Introduction

The purpose and nature of management scholarship is contested (Whitley, 1984a, 1984b), evidenced by numerous debates on the academic–practitioner divide and attendant ways of addressing it, such as Mode 2 and 3 research, engaged scholarship, pragmatic science, evidence-based management (EBMgt) and design science (e.g. Anderson, Herriot and Hodgkinson, 2001; Bartunek, 2011; Grey, 2001; Hodgkinson and Rousseau, 2009; Huff and Huff, 2001; Pandza and Thorpe, 2010; Rousseau, 2006; Van de Ven and Johnson, 2006; Weick, 2001). In this respect,

The authors are grateful to Joan van Aken, three anonymous reviewers and editor Geoffrey Wood for helpful comments on earlier versions of this paper. The authors also would like to acknowledge the participants in a workshop conducted at the BAM conference in 2013, during which the idea for this paper initially arose. Our attempt in the first half of this paper to define a shared norm can be considered as an alpha test as to whether a group of seven scholars and practitioners with highly different backgrounds and epistemic preferences could subscribe to such a norm.
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the *British Journal of Management* has a long history of furthering debates on the purpose and nature of management scholarship (e.g. MacLean, MacIntosh and Grant, 2002; Starkey and Madan, 2001; Tranfield and Starkey, 1998; Tranfield, Denyer and Smart, 2003). More recently, however, these debates appear to have been subdued.

A prominent example is the discourse on Mode 2 research and related ways to connect rigour and relevance. Whereas Tranfield and Starkey's (1998) initial advocacy of Mode 2 (inspired by Gibbons *et al.*, 1994) and a number of subsequent commentators (e.g. Huff and Huff, 2001; Hodgkinson, Herriot and Anderson, 2001; Starkey and Madan, 2001) expressed optimism for a future for management scholarship based on teamwork and transdisciplinarity, Bartunek (2011) has observed more recently that, contrary to initial expectations, the Mode 2 discourse has failed to make substantial progress. As such, disputes on the purpose and nature of management research appear to have taken on some characteristics of language games, rather than of a discourse that would evoke productive movement (Bartunek, 2011; Starkey, Hatchuel and Tempest, 2009).

Another, no less prominent, example is the design science perspective that has been arising in management studies (e.g. Romme, 2003; Van Aken, 2004; Jelinek, Romme and Boland, 2008; Hodgkinson and Starkey, 2011). Some early work in this area (e.g. Van Aken, 2004, 2005) presented design science as an alternative to the social science roots of management scholarship. The juxtaposition of explanatory and design sciences was initially helpful, because it raised important questions about management studies as a field (e.g. Avenier, 2010; Mohrman, 2007; Pandza and Thorpe, 2010). Other work in this area has pursued a more integrative approach, arguing that science-oriented and design-oriented perspectives are different but complementary ingredients of the future of management research (Jelinek, Romme and Boland, 2008; Romme, 2003; Sarasvathy, 2003). A related dispute on whether critical realism would provide an adequate philosophical foundation for management research as a design science (e.g. Hodgkinson and Starkey, 2011, 2012; Willmott, 2012) has not converged towards a shared position.

In this paper, we aim to reignite the debate concerning the nature and purpose of management research. Our central proposition is that the highly fragmented landscapes of management research and practice lack the capability to enable the series of conversations among the plurality of actors, which are ultimately required in order to break the current impasse. We will argue that a shared sense of purpose and responsibility (Rolin, 2010) and more 'trading zones' in which communities with disparate meanings and logics are able to collaborate despite global differences (Galison, 1997) are essential to foster this essential capability.

In this respect, Mary Parker Follett (1927, p. 73) captured the essence of management as a profession by arguing that it connotes 'a foundation of science and a motive of service'. Similarly, Simon (1967) argued at the time that the key challenge in designing business schools as professional schools was to synthesize science and practice in both research and teaching. Although the nature of professionalism in management is by no means settled (Augier and March, 2011), the general consensus is that management currently is not a profession, 'even though it might and should be' (Pfeffer, 2012, p. ix) (see also Khurana and Nohria, 2008; Rousseau, 2012a). Most business schools have, therefore, abandoned the quest for professionalism and have lost their independence as arbiters of relevant knowledge and professional practice (Khurana, 2007). In this paper, we argue that some normative and socio-political 'common ground' needs to be developed to create necessary (although insufficient) conditions for management scholarship to contribute more forcefully to the professionalization of management practice.

As such, this paper contributes to the discourse on fragmentation within the academic community of management scholars (Whitley, 1984a, 2000) and debates concerning the divide between practitioners and scholars (e.g. Anderson, Herriot and Hodgkinson, 2001; Kieser, Nicolai and Seidl, 2015; Tranfield and Starkey, 1998) and suggests how these challenges might be addressed. We argue that, without dialogues cutting across the entire profession, management scholarship will never be able to emerge from its adolescence (cf. Starbuck, 2006) and management will not develop into the professional discipline that it should and can become.

Our argument proceeds as follows. First, the need for a culture of dialogical encounter in management studies is explored further. We particularly address the need for normative common

ground in terms of a shared sense of purpose and responsibility, and examine whether and how pragmatism can offer that common ground. Subsequently, we consider the institutional barriers that could prevent a culture of dialogical encounter from coming alive, and explore how trading zones (as socio-political common ground) can facilitate experimentation with genuine dialogue. Finally, the implications of our argument are explored by engaging in a thought experiment, starting from the assumption that management research is not connected to any professional endeavour.

Pluralism and fragmentation: toward a shared norm

To a large extent, a culture of dialogue has not come alive in the management discipline owing to the philosophical barriers inhibiting such a culture (e.g. Jackson and Carter, 1991; Johnson *et al.*, 2006; Tadajewski, 2009). In this section, we first explore the pluralistic and fragmented nature of management studies and argue that a dialogical culture can only come about if it can draw on a shared perception of purpose and responsibility. Subsequently, we propose key elements of such common ground by drawing on the philosophy of pragmatism.

Pluralism and fragmentation

The pluralistic and fragmented nature of the landscape of management studies has been identified as a major barrier for management research to emerge from its adolescence (Pfeffer, 1993; Reed, 1996; Thomas and Wilson, 2011; Tranfield and Starkey, 1998; Whitley, 1984a, 2000). Among many demarcation lines within management studies, perhaps the most fundamental one is the separation between description and prescription. Several leading scholars have questioned this separation (e.g. Ackoff and Emery, 1973; Argyris, 1993; Simon, 1996). For example, Simon (1996) argues that it is not possible to dissociate descriptive and normative statements when dealing with goal-oriented systems that can look completely different under varying circumstances. Moreover, Argyris (1993) observes that the emphasis on descriptive theory development is in itself a normative decision: it means giving priority to describing the reality that people have already created, rather than seeking to improve it or make fundamental changes towards a new reality (see also Worren, Moore and Elliot, 2002). Nevertheless, the separation of prescription and description continues to be accepted widely among management scholars.

The literature on multi-paradigm reviews and research strategies (Lewis and Kelemen, 2002), EBMgt and systematic reviewing (Rousseau, Manning and Denyer, 2008; Tranfield, Denyer and Smart, 2003; Van Burg and Romme, 2014) and design science (Avenier, 2010; Hodgkinson, 2013; Mohrman, 2007; Van Aken, 2005) provides frameworks and methods for overcoming the description–prescription divide and other dualisms. However, most management scholars are not familiar with these frameworks and methods (cf. Hodgkinson and Ford, 2014; Rynes, 2007). More importantly, one can argue that the landscape of management theories, approaches and practices is no more pluralistic than that of, for example, architecture or medicine (e.g. Barends, Ten Have and Huisman, 2012). That is, we contend it is not so much the pluralistic nature of this landscape but, rather, the lack of a shared purpose (causing fragmentation and preventing authentic dialogue) that distinguishes management from other professional disciplines such as law, architecture, education and medicine.

Khurana and Nohria (2008) observe that a shared sense of professional purpose and responsibility, or what they call a code, is at the heart of any profession. This shared responsibility provides the profession with a collective identity; it also forges an implicit social contract with society, a contract in which professionals perform a particular set of tasks entrusted to them, and the profession assures societal stakeholders that members of the profession are worthy of being trusted. For example, the codes of the legal and medical professions define a responsibility that is embraced by practitioners as well as scholars in those professions; in the case of medicine, for instance, the Hippocratic Oath provides a shared commitment to 'healing the sick' as well as an 'utmost respect for human life' (Miles, 2004). Khurana and Nohria (2008) believe that the main challenge in writing such a code for management is reaching a broad consensus on the purpose and aims of management – which they think is a huge challenge in view of the divide (among

academics and practitioners alike) into two distinctive schools of thought regarding the fundamental aims of management: namely, maximizing shareholder wealth versus balancing the claims of all of the firm's stakeholders. Any such code for management would, therefore, have to accommodate the notion of shareholder value as well as the notion of accountability towards a broad set of stakeholders. In addition to this broad requirement, we believe that such a code needs to provide some common ground at the epistemic level (Rolin, 2010). Reflecting these concerns, in the remainder of this paper we adopt the term 'shared norm', in preference to the rather narrower 'shared code' notion, as an essential foundation for providing a shared sense of purpose and responsibility.

Our argument thus far implies that a culture of dialogue requires an authentic plurality of theoretical and philosophical perspectives (which are already present in management practice and scholarship) as well as a minimum amount of common ground between otherwise highly different voices (Bakhtin, 1981). Therefore, it is not so much the pluralistic nature of management scholarship and practice that is inhibiting genuine dialogue but, rather, the lack of a shared purpose and responsibility within and across scholarly and practitioner communities.

Toward a (shared) norm of purpose and responsibility

The interdisciplinary discourse on pragmatism and design science (e.g. Banathy, 1996; Cross, 1995; Warfield, 1994) provides elements of a norm that might serve as the common ground needed to enable the series of dialogues required among management practitioners and scholars. In pragmatism, distinctions such as theory–practice or description–prescription do not refer to separate activities, but merely constitute 'tools' or 'maps' that help scholars and practitioners find their way in the world (Zundel and Kokkalis, 2010). Accordingly, pragmatist questions such as 'does or will this work?' can serve as the common ground – in an epistemological sense – on which positivism and constructivism can meet (Argyris, Putnam and McLain Smith, 1985; Wicks and Freeman, 1998). Here, pragmatism implies a shared interest in outcome utility (Kessler and Bartunek, 2014), regardless of how such utility is defined. That is, outcomes may, for example, be of a financial, economic, institutional, motivational and/or moral nature.

Interestingly, whereas management scholars, thus far, have not been able to agree on any shared norm (pragmatist or otherwise), MBA students and graduates, led by an initiative commenced at Harvard Business School in 2008 – also in response to Khurana and Nohria's (2008) call – have set about restoring professional standards and ethics in management. To date, more than 8000 MBA graduates worldwide have signed the MBA Oath that arose from this initiative (for details, see http://mbaoath.org), which seeks to 'create value responsibly and ethically' (Anderson and Escher, 2010).

Here, we posit that a basic norm is needed to facilitate dialogue across highly different scholarly perspectives as well as between academia and practice. Such a normative statement regarding purpose and responsibility might include the following elements:

- *Management should be(come) a profession* that serves the greater good by bringing people and resources together to create value that no single individual can create alone (Anderson and Escher, 2010; Khurana and Nohria, 2008; Rousseau, 2012a).
- *Practicing and knowing co-constitute each other.* Practicing and knowing are co-constitutive, dialogic processes (MacIntosh *et al.*, 2012; Marcos and Denyer, 2012) and management scholars and practitioners alike engage in practicing as well as knowing (possibly in different proportions).
- *Shared interest in outcomes and implications.* Conceptual distinctions such as qualitative–quantitative, positivism–constructivism and description–prescription provide maps that help scholars and practitioners find their way in the world (Zundel and Kokkalis, 2010). A shared interest in outcomes and implications serves to facilitate productive exchange and dialogue across these maps.
- *Learning to see from different perspectives*. Practitioners and scholars learn to see themselves, their personal backgrounds, their organizational settings, and their own presuppositions from a range of different perspectives, thus enabling them to engage reflexively with their profession (Avenier and Parmentier Cajaiba, 2012).

- *Pluralism is essential*. Pluralism in philosophical, theoretical and methodical positions is a great asset to the profession. This also implies scepticism towards searching for a single logic of research – be it positivism, constructivism, realism (critical or otherwise) or any other ontology and epistemology (Baert, 2005; Hildebrand, 2003). Rather than a single logic of research, what Peirce called 'real doubt' is central to management and management scholarship (Locke, Golden-Biddle and Feldman, 2008; Warfield, 1994).
- *Dialogical encounter.* In a culture of 'dialogical encounter', researchers and other professionals engage in knowledge development by drawing on distinct philosophical assumptions (Mingers, 2001), but also regularly expose themselves to fundamentally different views, as an opportunity to reconsider their central presuppositions (Baert, 2005; Bernstein, 1991).

Notably, this proposed norm can accommodate both the idea of shareholder value and the notion of accountability towards a broad set of stakeholders (cf. Khurana and Nohria, 2008), while also being applicable to organizational settings without shareholders. Evidently, a key implication of this norm is that the discourse on management research and practice would transform from debates between 'believers' in highly different worldviews (Walsh, Meyer and Schoonhoven, 2006) to an ongoing dialogue between professionals drawing on different epistemic and theoretical stances, but also agreeing on the need to expose themselves continually to other voices, in the interest of building and sustaining a viable discourse on their (evolving) profession. What we propose here is a permissive form of pluralism that requires participants to be reflexively aware of their own philosophical assumptions as well as those of others, accepting that any philosophical stance is precarious (Baert, 2005; Zundel and Kokkalis, 2010).

In this respect, the norm proposed here constitutes a coherent set of the most simple and basic ingredients of management scholarship; that is, a 'minimum viable' set of normative elements – comparable with the notion of a minimum viable footprint in innovation management (Adner, 2012, p. 198) – to which every management scholar can add more specific philosophical ideas, methodological perspectives and theoretical lenses.

Toward more and better trading zones

For the sake of argument, assume that all management scholars and practitioners subscribe to the shared norm outlined in the previous section. Even with this common ground under our feet, any effort to set up and engage in conversation and dialogue is likely to face major institutional and other barriers. These barriers arise from traditional conceptions of research methodology, established conceptions of and systems for training and supervising doctoral students, standards and guidelines concerning how and where research findings are to be published, the performance incentives and career tracks created and sustained by business and management schools (e.g. Hughes *et al.*, 2011; Rousseau, 2012a; Rynes, 2007; Starbuck, 2006) and the all-too-frequent incompatibility of problem-solving styles of practitioners and academics (Amabile *et al.*, 2001; Mohrman, Gibson and Mohrman, 2001). In this section, we draw on the notion of 'trading zones' to assess the extent to which and in what ways these institutional challenges might be addressed.

In a trading zone, communities with disparate meanings and logics collaborate despite global differences (Galison, 1997). The notion of trading zones can help actors to address often overlooked, yet deep-seated, problems related to the process of knowledge integration – such as the need for forms of social interaction and communication that enable collaboration and engagement between disparate academic communities as well as between academic and practitioner communities. The failure to establish such trading zones would thus prevent a culture of dialogical encounter from coming alive.

Sociologists of science and technology (Collins, Evans and Gorman, 2007; Galison, 1997; Gorman, 2002) have introduced the trading zone notion to capture the idea of a space where knowledge is integrated among scientific communities that face a challenge of communicating across (partly incommensurable) paradigms. Most of this sociological work pertains to multidisciplinary interactions in the context of large-scale science and technology projects involving interactions among highly diverse academic communities. Interestingly, management research does not have a tradition of large collaborative projects bringing together scholars from differing subfields, with alternative theoretical traditions and

complementary methodological expertise. In this respect, almost all management research is individualistic or, at best, a small group exercise, with knowledge integration achieved mostly by carefully balanced theoretical bricolage (Boxenbaum and Rouleau, 2011).

Even recent scholarly work inspired by design science (e.g. Healey *et al.*, 2015; Hodgkinson, 2013; Hodgkinson and Healey, 2008; Pascal, Thomas and Romme, 2013; Van Burg *et al.*, 2008) maintains this highly individualistic or small group-based approach. However, evidence-based actionable knowledge in management is likely to be created collectively, through purposeful larger-scale collaboration. Collaborative projects that integrate knowledge across diverse theoretical and methodological traditions could act as effective trading zones, in which integration is managed in order to create a significant impact on management practice. The shortage of trading zones in our field is not a result of management scholars' inability or unwillingness to create them. Rather, it is predominantly a consequence of the primacy of individual scholarship and the inability of key stakeholders (e.g. journal editors, deans of business schools, research funding agencies) to value and reward efforts to develop and integrate knowledge through such collaborative research.

Collaborative efforts of the sort we are calling for here will remain incomplete if they do not engage practicing managers in co-producing knowledge (Van de Ven, 2007). In other words, the requisite orientation towards practice envisaged has to go beyond translating research findings into more practitioner-friendly publications. Such translation may help to disseminate research, but is an insufficient basis on which to proceed in the context of more structural collaboration efforts that include the joint identification of research topics and continuous engagement throughout the project life cycle (Avenier and Parmentier Cajaiba, 2012). However, whereas university–industry collaboration in science and engineering can draw on a shared sense of responsibility (along the lines that we are advocating for management) and enjoys the institutional arrangements necessary for fostering such collaboration (Leten, Vanhaverbeke and Roijakkers, 2013; Perkmann *et al.*, 2013), these conditions do not yet exist in the management discipline; the current state of affairs thus inhibits sustained and productive interactions between management practitioners and researchers. In the domain of management, at best, collaborative projects involve a small number of reflective practitioners or, more typically, resourceful academics undertaking consultancy assignments, in exchange for the gathering of empirical evidence for use in academic publications. One of few examples in the field of management that runs counter to this negative characterization is the EBMngt collaborative set up by Denise Rousseau, which involves a large group of scholars and practitioners with highly diverse backgrounds and orientations (see, e.g., Rousseau, 2012b).

Collins, Evans and Gorman (2007) argue that productive exchanges in trading zones can happen even when the interacting groups concerned ascribe utterly different significance to the knowledge being exchanged and disagree on the meaning of the exchange process itself. Such spaces, in which disparate constituencies collaborate in the absence of shared meaning, have been labelled 'fractionated' trading zones (Kellogg, Orlikowski and Yates, 2006). In this type of trading zone, productive collaboration around research projects, conferences, workshop and documentary programmes for YouTube and television can be accomplished without the need for each of the constituencies to change its core values and practices.

Characteristics of (successful) trading zones in management

Trading zones that are likely to be successful, we suggest, share three characteristics. First, they are explicitly action and goal oriented, involving a commitment to contribute to advances in scholarly knowledge as well as management practice (Simon, 1967). Although purposely designed events such as conferences (Lampel and Meyer, 2008) may provide spaces necessary for scholars and practitioners to explore common ground, to ensure successful outcomes they must also engender collaborative action (e.g. research) towards the attainment of shared goals, thereby motivating the active participation of diverse constituencies.

Second, they are durable. Durable structures share the elements that define 'boundary organizations' (O'Mahony and Bechky, 2008), that is, structures capable of effectively mediating between disparate constituencies and establishing common ground among the differing interests in play. Durable trading zones render collaboration more visible and tangible (Carlile, 2002) in terms

of 'shared' people (e.g. doctoral students), office space, presentations and the like. The most durable trading zones in management are thus likely to be embedded in the context of industry-sponsored projects, large publicly funded research programmes, or research institutes established and governed collaboratively by the diverse constituencies involved (Boisot *et al.*, 2011; Leten, Vanhaverbeke and Roijakkers, 2013).

Third, successful trading zones are characterized by 'psychological safety and informed consent', as enabling conditions for authentic dialogue. Any trading zone in the area of management research and practice will, almost by definition, be highly political in nature. Whereas trading zones would ideally facilitate 'domination-free communication' (Rorty, 1989, p. 62), in practice they often begin as programmes of work encouraged or coerced by powerful actors, subsequently allowing collaborators to develop interactional expertise over time, strengthen engagement and enhance knowledge sharing (Collins, Evans and Gorman, 2007). Issues of domination and coercion are, of course, highly problematic in the context of seeking to engender authentic dialogical encounters about, for example, the research agenda and the precise questions to be addressed collaboratively (Bernstein, 1994; Burrell, 1994). The social and political conditions needed for such dialogue have been studied widely by critical theorists such as Habermas (1984), who identified the self-seeking and power asymmetry barriers inimical to genuine dialogue. Habermas argues that achieving genuine dialogue requires transcending these barriers by establishing certain conditions for all participants, which are highly similar to what management scholars have labelled 'psychological safety' and 'informed consent'. A high level of psychological safety involves a group setting that all participants perceive to be safe for interpersonal risk-taking, such as feeling free to speak up about highly sensitive issues (Edmondson, 1999). Informed consent is a decision principle that serves to avoid coercive decision making within a trading zones; giving informed consent to a proposed decision or action implies that one does not object to it, based upon a clear appreciation and understanding of the relevant facts, implications and consequences (Romme and Endenburg, 2006).

Similarly, Gadamer (2004) offers a hermeneutic elaboration of what constitutes ideal conversations in which participants seek to overcome their differences and develop common ground. He argues that success in this endeavour demands a commitment of all participants to confront one's 'horizon of understanding', thereby learning from one another. Of course, most if not all attempts to create ideal conditions for authentic dialogue will somehow fail. Rather, it is a matter of continual striving to succeed, aiming to approximate as closely as possible the enabling conditions for genuine dialogue to occur, exemplified by the pragmatic and experimentational approach to consent-based dialogue and collaboration advocated by Rorty (1999) and Ansell (2011).

An example of a trading zone that has at least some of these characteristics is the Doctor of Business Administration (DBA) programme offered by a growing number of leading business schools. Typically, DBA programmes require coursework and research beyond the Master's degree, resulting in a dissertation. In contrast to PhD programmes in management research, DBA programmes are deliberately set up to facilitate practice-oriented research by management professionals, supervised by management scholars. In terms of the characteristics of a trading zone discussed earlier, DBA programmes are likely to be rather goal-oriented and durable in nature, although the time horizon of individual projects tends to be limited, because DBA students typically complete their studies part time, over a three- to five-year time horizon. With regard to the third characteristic of a successful trading zone, DBA programmes offer far-from-ideal conditions for dialogue, as students and supervisors alike are under pressure for the degree to be completed as early as possible. Furthermore, many faculty members who are potentially capable of supervising DBA students avoid doing so, being motivated instead to focus their supervision efforts primarily on supervising conventional PhD students, with a view to publishing work resulting from the thesis jointly with their students in top-tier academic journals. Some management schools such as Cranfield and Maryland have recently redesigned their DBA programmes to make them more effective trading zones by focusing explicitly on impact as well as advancing scholarly knowledge, engaging with DBA alumni beyond graduation to enhance durability, and facilitating genuine collaboration between management practitioners and scholars, based on principles of EBMgt (Rousseau, Manning and Denyer, 2008).

Another example of a potential trading zone is management 'labs' for (re)designing, prototyping, developing and testing management processes, tools and practices – perhaps along the lines of the partnership between the UK Design Council and Warwick Business School (http://www.behaviouraldesignlab.org). There is no evidence yet as to whether these labs can deliver on their promise, but this type of initiative towards more design-oriented and experimentation-driven research may generate substantial learning effects, with considerable potential to advance management scholarship and practice. As trading zones, management labs are only likely to succeed if they become embedded in institutional and cultural settings that promote long-term collaborative ties and intensive collaboration between management practitioners and scholars. Notably, many academically trained management scholars lack skills in problem-driven collaborative work with practitioners, as a result of how they were trained as doctoral students. Consequently, initiatives such as management labs should address the problem of capacity building by equipping present and future generations of doctoral students with those skills and offering training programmes that address the needs of established management scholars who wish to meet these highly demanding challenges.

The characteristic features of successful trading zones outlined thus far – action and goal orientation, durability and conditions enabling genuine dialogue (i.e. psychological safety and informed consent) – beg the question of whether and how practitioners might be motivated better to contribute actively to work in such arenas. Given the enormous heterogeneity of the population of management practitioners (Bartunek and Rynes, 2014), we maintain that the very notion of a trading zone suggests that, rather than continuing to spend a lot of effort in trying to convince a larger group of practitioners to work with them, management academics should refocus their attention to harness further the engagement of those practitioners who are actively seeking collaboration with management scholars (cf. Amabile *et al.*, 2001; Mohrman, Gibson and Mohrman, 2001; Romme and Endenburg, 2006). Surely, for the foreseeable future at least, it makes sense to work with the relatively small group of reflective practitioners who would love to trade and work with us, rather than seeking to appeal to the population of management practitioners as a whole.

Implications

The two challenges that we have discussed regarding the need for a culture of dialogue on management practice and research are obviously interdependent. Any convergence towards a norm regarding (professional) purpose and responsibility among management scholars and practitioners will benefit from institutional support of the sort envisaged above, whereas institutional changes in, for example, publication outlets and academic career systems will enable sustained efforts towards a more forceful engagement and dialogue across different traditions in management research and scholarship.

What if management research were to continue as a science not linked to a profession?

Thus far, we have assumed that management should become a profession, similar to the engineering, educational, medical and legal professions. This raises the question of whether our argument for more common ground no longer applies if we assume that management scholarship is a scientific activity that is entirely decoupled from any professional endeavour. The short version of our answer to this question is: our argument and conclusions are not contingent on such an assumption. In fact, a culture of dialogical encounter between highly diverse voices that thrives on a shared sense of purpose as well as many trading zones is highly consistent with Galison's (1997) seminal study of physics as the traditional exemplar of 'science'.

Galison (1997) identifies a diverse set of subcultures in physics with different mental models of their science, a situation not unlike the diversity that exists in management. Galison (1997, p. 46) challenges reductionist accounts of how these diverse subcultures manage to work together to the benefit of their field: 'if the reductionist picture of physics-as-theory or physics-as-observation fails by ignoring this diversity, a picture of physics as merely an assembly of isolated subcultures also falters by missing the felt interconnectedness of physics as a discipline'. As such, the collective work of physics goes into creating, contesting and

ultimately sustaining local coordination, the most important outcomes of which go on to become widely accepted as 'global meanings' (Galison, 1997). The promise of management studies as a body of scholarship interacting deeply with a profession of management is that it will provide a platform for aligning subcultures that are all too frequently isolated from each other.

We conceive of trading zones in management research and practice akin to those that Galison observed in physics, in which theorists, experimenters and instrument makers come together to focus their respective knowledge and skills on addressing, through a process of trading, the common challenges of their discipline. Modern physics was thus created by what, over time, became a highly pluralistic community of theorists, experimentalists, engineers and mathematicians focused on projects such as the bubble chamber. Galison is at pains to distance himself philosophically from both logical positivism and anti-positivism (or realism and anti-realism) in arguing that physics is neither unified nor entirely fragmented, but rather poly-cultural and intercalated: 'many traditions coordinate with one another without homogenization. Different traditions of theorizing, experimenting, instrument making, and engineering meet – even transform one another – but for all that, they do not lose their separate identities and practice' (Galison, 1997, pp. 782–783) and constitute what Morin (2008) calls a *unitas multiplex*. As such, trading zones in physics are the social, material and intellectual 'mortar' that binds the different traditions, philosophies and practices together. Galison's (1997, p. 840) view of science 'as an intercalated set of subcultures bound together through a complex of hard-won locally shared meaning' fits rather well with our plea for more common ground in and around management scholarship – in the form of trading zones that thrive on diversity and dissent, but also draw on a shared sense of purpose.

Galison (1997, p. 844) presents a picture of the disorder of science, arguing 'it is the *dis*unification of science – the intercalation of *different* patterns of argument – that is responsible for its strength and coherence'. Similarly, a key virtue of what Simon (1996) called a design scientist is the willingness to learn, within the constraints of bounded rationality and the limits of human cognition. Effective decision making under conditions of complexity and uncertainty requires an effective bridging of gaps and conflicts in understanding between a diversity of subcultures. Challenging a neo-Darwinian view that human beings are basically selfish (see also McMillan, 2014), Simon emphasizes the importance of altruism and docility:

> Because of their bounded rationality, and because they can therefore greatly enhance their limited knowledge and skill by accepting information and advice from the social groups to which they belong, individuals who are *docile* who tend to accept such information and advice have a great advantage over those who are not docile who reject social influence. (Simon, 1996, p. 45)

Clearly, the ability to engage with the knowledge of others and create trading zones where this engagement can be activated is an essential prerequisite for further developing management as a profession informed by management research.

Kessler and Bartunek (2014, p. 237) recently reviewed the work of the eminent physicist Stephen Hawking (Hawking and Mlodinow, 2010), to observe that:

> [in physics] the philosophy of pragmatism rules the day … A theory is useful if it provides prescriptions for action that, if followed, offer elucidating perspectives and sensible guidance. This is also true in professional fields such as management, which are inexorably embedded in practice and the success of which is eventually calibrated by the degree to which their lessons are reflectively applied towards improving the quality of actions and outcomes. (Kessler and Bartunek, 2014, p. 237)

It thus follows that, to be effective, trading zones must enable actors to understand and overcome the dead weight of dogma and facilitate the attainment of desired outcomes.

In sum, these excursions into physics demonstrate that the argument 'management scholarship is about science and does not serve a profession' cannot provide an escape route for those who would seek to detract from the advancement of management as a profession informed by research. Any academic or professional culture of dialogical encounter thrives on highly pluralist and often conflicting voices, but also on a shared sense of purpose and responsibility and a multiplicity of trading zones where those diverse voices can effectively meet.

The bucket is not empty

There are few examples of successful trading zones in management research, but the bucket is not entirely empty. In the earlier section on trading zones, we highlighted initiatives such as the EBMngt collaborative, DBA programmes and management labs. Another interesting example is the Atlas programme at the Large Hadron Collider (LHC) in CERN (Geneva), which has undertaken several management research projects that, inter alia, have investigated the knowledge architecture, information systems, and HRM processes of large-scale multidisciplinary science programmes. This work demonstrates the contribution that management scholars can make to big scientific challenges (Boisot *et al.*, 2011).

Another interesting example of a successful trading zone in management is Osterwalder's design science programme on business modelling. In his doctoral thesis, Osterwalder (2004) systematically reviewed the literature as well as collected interview data on business model development, resulting in an initial framework. This framework was developed subsequently, together with 470 practitioners from 45 countries, into what is now widely known as the 'business model canvas' (Osterwalder and Pigneur, 2010, 2013). More generally, the design science perspective has been used increasingly to connect descriptive–explanatory and normative–interventionist modes of conducting research in management (e.g. Avenier and Parmentier Cajaiba, 2012; Denyer, Tranfield and Van Aken, 2008; Dougherty, 2008; Healey *et al.*, 2015; Hodgkinson and Healey, 2008; Pascal, Thomas and Romme, 2013; Van Burg *et al.*, 2008).

These examples illustrate that it is not the scale of the trading zone that is critical to its success. For example, Osterwalder's business model project arose from a single doctoral dissertation, whereas LHC is one of the largest scientific programmes ever, involving thousands of physicists and other scholars. Indeed, small- and large-scale programmes are often complementary. Smaller programmes can generate trading zones in which specific and/or novel practical problems and challenges are explored at a faster pace than is possible in large-scale programmes, whereas the latter can capitalize on large amounts of resources, practitioners, companies, scholars and doctoral students brought together to address and solve fundamental challenges in management practice and research.

The institutional context is changing

As argued earlier, institutional settings are largely preventing and demotivating initiatives to create and sustain trading zones that could otherwise connect management researchers with diverse forms of expertise to practising managers capable of co-creating research programmes and related activities. Establishing such trading zones requires institutional entrepreneurship from prominent scholars, deans of business schools and others in influential leadership positions that have a bearing on the funding and governance of the business and management field. If management scholars are able to demonstrate that collaborative work in trading zones (such as that pioneered by Rousseau (2012b)) has a lasting impact on the professionalization of management practice, more and better trading zones are likely to arise and become increasingly legitimated in management and business schools as well as key publication outlets.

Recent changes in the policies of research funding bodies are likely to reinforce the momentum towards more impactful research and dialogue across the academia–practice interface. For example, research funding bodies in the UK have developed an agenda to encourage economic and social impact from research, through its 'pathways to impact' initiative (http://www.rcuk.ac.uk/ke/impacts/). Furthermore, the four UK higher education funding bodies have made the assessment of research impact an integral part of their Research Excellence Framework (http://www.ref.ac.uk/). Similarly, the European Union has been developing its Horizon 2020 agenda to stimulate research focusing on grand societal challenges. These policy changes are likely to stimulate management scholars to engage in research that serves to advance management as a profession.

Professional societies and associations

Academic and professional societies such as the Academy of Management (AoM), British Academy of Management (BAM) and European Academy of Management (EURAM), and professional bodies and associations such as the Chartered Management Institute (CMI) and Chartered

Institute of Personnel and Development (CIPD) are likely to play a key role in creating and sustaining the common ground required to develop management as a profession. However, in contrast to, for example, the case of accounting (e.g. Lee, 1995; Suddaby, Gendron and Lam, 2009), there is hardly any research that addresses the role of these societies and associations (as a potential trading zone) in developing common ground and promoting professionalism in the field of management.

One obvious difference from other disciplines such as accounting, law and medicine is that there are no professional bodies in management that effectively operate across the academic–practitioner divide. The membership of academic societies such as the AoM and BAM is primarily academic in nature; as a result, all their elected representatives and leaders are management scholars. Similarly, professional bodies such as the CMI and CIPD are focused almost entirely on practice, which is also reflected in the way that these bodies are managed; for example, the CMI presidential team of ten persons currently includes nine practitioners (CMI, 2015). Reflecting the composition of their respective leadership and management teams, the online social networks set up by these organizations are highly skewed towards the academic (e.g. AoM Connect: http://aom.org/aomconnect/) or the practitioner (e.g. CIPD Professional Communities: http://www.cipd.co.uk/community) world.

In the light of the foregoing analysis, it is clear that any attempt to create a sustained dialogue across the academic–practitioner divide in management will have to be initiated and sponsored as a collaborative trading zone (e.g. BAM in collaboration with CMI). In the event that such initiatives are created, steps should be taken to learn from the experience of other disciplines that have already attempted to develop more civic forms of professionalism and (re)build their status and reputation in society (e.g. Adler, Kwon and Heckscher, 2008; Suddaby, Gendron and Lam, 2009; Sullivan, 2000).

In this paper, we have advocated developing a shared sense of purpose and responsibility among all those practitioners and scholars seeking to reinforce the professional identity of their trade. We have also argued that trading zones are needed to facilitate and motivate an ongoing dialogue among participants, each of whom must accept that all philosophical stances are inevitably precarious. Accordingly, we suggest that academic and professional associations working in active collaboration one with another are perhaps best positioned to engage with these challenges in ways that are likely to have a longer-term impact.

Issues not addressed and research agenda

In the foregoing analysis, we have addressed the need for normative as well as institutional common ground in our discipline. Future work in this area should address several related challenges that have not been explored in the present paper. For example, we have not considered the question of how training of PhD students might be adjusted to accommodate and enhance the vision and strategy outlined above. Furthermore, we have not considered in any great depth the motivation and attitudes of practitioners towards professional development and collaborative work with management scholars (cf. Bartunek and Rynes, 2014).

The present paper also raises important questions with regard to the role of management consultants (with their own professional bodies), who traditionally operate as key intermediaries between academia and practice. Future work should explore how consultancy firms and their professional associations might contribute to the common ground that we have envisaged as a foundation for professionalizing management, and examine the extent to which the prevailing business models, incentive schemes and knowledge bases of those firms are likely to enable (or detract from) such contributions (Muzio, Kirkpatrick and Kipping, 2011).

Future work in this area also needs to address fundamental issues pertaining to the role of power and politics (Baughman, Dorsey and Zarefsky, 2011; Hodgkinson, 2012). For example, who will orchestrate the various negotiation processes needed to move management practitioners and academics towards the shared norm we have begun to develop; who will decide variously which particular trading zones are initiated, sustained and discontinued; and how might such trading zones be rendered less fragile (cf. Marcos and Denyer, 2012)? If the influence of organizational and institutional power is not addressed explicitly, we risk creating a 'rationality façade' (Hodgkinson, 2012), an illusion of rationality that would mask underlying fundamental differences of interpretation, purpose and power among the various stakeholders in the future of management. In the final analysis,

denying this reality can only undermine the field's efforts to become a true profession.

Moreover, any attempt to develop common ground and create trading zones in management would surely benefit from studies of the (actual versus espoused) role of academic and professional associations in such ventures. We also encourage more empirical studies of how and where impact on management practice and its professionalization is achieved, drawing on more pluralist conceptualizations of scholarly impact (cf. Aguinis *et al.*, 2014; Kieser, Nicolai and Seidl, 2015).

Concluding remarks

Despite the phenomenal growth in the number of business schools and the volume of research produced by their faculty, the level of engagement of management scholars with practice is generally poor (Hughes *et al.*, 2011) and the body of academic knowledge on management is highly fragmented (Pfeffer, 1993; Starbuck, 2006; Whitley, 1984a, 2000). Whereas the literature on, for example, Mode 2 research and design science offers an initial set of tools and strategies for addressing these challenges, we have argued in this paper that the lack of normative common ground and a series of institutional constraints are inhibiting further progress in the discourse on the nature and purpose of management practice and scholarship. To address these fundamental challenges, first, key elements of a shared norm were outlined. Second, we argued that more and better trading zones are needed to enable more meaningful dialogues on key practical and theoretical challenges in management. As such, we hope that our analysis will reignite the discourse on the purpose and nature of management and its scholarship.

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