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Minding the contexts of mindfulness in quality management

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Mindfulness
in quality
management

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Abstract

Purpose – The purpose of this paper is to point out the potential for further theorizing of the concept of mindfulness, by extending and nuancing present accounts of East-West dichotomies in relation to the concept.

Design/methodology/approach – The paper takes the form of a literature review.

Findings – Dichotomies of Western and Eastern approaches to mindfulness can be extended by analyzing key elements of their respective philosophies, notably through their different views on permanence versus impermanence, uni-directional versus mutual causality and conceptual versus non-conceptual knowledge. Through these key elements, a more nuanced picture of Eastern and Western elements can be identified in relation to quality management research and practice. The dual roots in Eastern and Western contexts point at the potential for further theorizing inherent in the concept of mindfulness.

Originality/value – This paper takes a broad and nuancing view on present dichotomies of Eastern and Western accounts on mindfulness and points at the concept's future potential.

Keywords Epistemology, Pragmatism, Philosophical concepts, Quality, Mindfulness, Ontology, East-West

Paper type Conceptual paper

Introduction

The concept of mindfulness has, with its dual roots in Western and Eastern contexts, an inherent potential for further theorizing in the area of quality management (QM). The notion of mindfulness implies an imperative to challenge orthodoxy and scrutinize processes of consciousness. This may inspire broader choices of theory and method in research and evoke unconventional understandings of QM practices.

The future of QM is contested: from the critical view that its future is past (Rahman, 2004) in terms of its “faddishness”, to the conviction that its underlying practices are fundamental and essential (Nair, 2006) and will play a central role in future organizational development (McAdam and Henderson, 2004). In the face of such challenges, increased academic rigor in terms of theoretical refinement and methodological awareness has been called for, to increase the corrective function of QM research in relation to diversifying QM practices. In the ambition to position QM in general management theory, new approaches have flourished, generally promoting “soft” aspects of QM at the cost of earlier “hard” focuses on systems and technique.

One of the latest contributions to this movement is mindfulness-based approaches to QM, offering especially challenging and provoking perspectives, fundamentally at odds with variance-based notions searching to eliminate variance for the sake of quality control. However, while mindfulness certainly offers new and rich avenues for theoretical and methodological development, Weick and Putnam (2006) pointed at the



need to distinguish between Western and Eastern notions of mindfulness. However, this distinction need to be further nuanced to exploit the full potential of the concept of mindfulness. Ultimately, the split background and heritage of the concept challenges any tendencies of orthodoxy.

Quality management: from statistics to mindfulness

Since its earliest roots in the 1920s' application of statistics to manufacturing (Shewhart, 1931). QM has come a long way, reaching a point where the development raises fundamental issues about its very essence and character. With the practical stance of the original teachings of Deming, Juran, Crosby and Ishikawa (Sousa and Voss, 2002) and its practitioner-driven diffusion, QM has evolved in multiple directions, provoking the question of whether it really represents a distinguishable body of knowledge and practice. While such consistency may be found on a conceptual level, it has shown harder to find in practice with its multiple influences (Hackman and Wageman, 1995). Different interpretations and hybrids of, e.g. total quality management (TQM), Six Sigma and lean production and other business practices such as management control, balanced scorecards and incentive systems frequently mix up to bundles of principles, systems and practices, often addressed under the heading of QM. Sousa and Voss (2002) saw the increasing number of initiatives under the QM umbrella as a dangerous trend threatening to destroy the validity of the QM concept.

Searching for a quality management paradigm

Wu *et al.* (2011) argued that the implementation of QM as a commodity that can be applied uniformly to all organizations has failed. This increases the pressure for research to provide a corrective function (Hackman and Wageman, 1995), away from the universalistic orientation, through increased academic rigor both in terms of methodological awareness and theoretical advancement (Sousa and Voss, 2002). While promising in its pragmatic integration of theoretically opposing schools, QM also has an uneasy relation with dominant management theory, especially in its views on behavioral processes of motivation, work design, pay for performance, learning and change (Hackman and Wageman, 1995). Consequently, the contribution of QM to management theory may be as difficult as it is important in conveying some of its pragmatist heritage (Dahlgaard-Park, 2006).

As a general trend, studies in QM are increasingly shifting its focus from "hard" tools, techniques and systems, to "soft" behavioral and cultural aspects of QM (Mink, 1992; Glover, 1993; Silvestro, 1998; Raghavan-Gilbert *et al.*, 1998; Foster and Jonker, 2007; Ndubisi, 2011; Wu *et al.*, 2011). Increasingly, organizations and QM practices are studied out of a "soft" systems perspective (Dahlgaard-Park, 2006; Klefsjö *et al.*, 2008), emphasizing interrelationships and interdependencies (Zelbst *et al.*, 2010) and the emergent properties of value-generating clusters (Conti, 2006). Hence, QM is understood not as a static management philosophy, but the result of an evolution (Harnesk and Abrahamsson, 2007), starting to understand the most difficult human factor (Dahlgaard and Dahlgaard-Park, 2006) by addressing the importance of intangible resources and QM as an knowledge enabler (Colurcio, 2009).

Recently, efforts to situate QM in the context of management theory (Sousa and Voss, 2002) have been intensified. For instance, Sidorova and Isik (2010) analyzed TQM in the context of broader business process research, Braunscheidel *et al.* (2011)

suggested Six Sigma adoption to be better explained by social mechanisms and Dobosz-Bourne and Kostera (2007) analyzed the quest for quality in terms of mythical ideas that get translated from one organization to another. Dahlgaard-Park (2006) criticized the view of learning in much QM theory as a “simple” process of obtaining new information and pointed at the pragmatist heritage and its similarity with Eastern thought and in similar vein Mauléon and Bergman (2009) pointed at the direct linkage between Shewhard and Deming’s quality theories and pragmatist epistemology. Hence, new contributions into the QM field also increasingly address issues of how we understand processes and causality in theorizing (Anderson *et al.*, 2006), alternative theoretical perspectives (Styhre, 2002), and the challenge of exploiting theoretical advancement for practical purposes (Voronov and Coleman, 2003).

Despite the lack of work into the key elements of QM philosophy (Moore and Brown, 2006), paradigmatic differences have been reported in terms of, e.g. culture (Vecchi and Brennan, 2009; Wu *et al.*, 2011), mechanistic vs organic conceptions of TQM (Moore and Brown, 2006), Western vs TQM approaches (Glover, 1993), industry vs service approaches (Silvestro, 1998), transactional vs transformational leadership (Mink, 1992), emphasis on control vs creativity (Abdullah and Ahmad, 2009), performance evaluation (Soltani, 2005), the role of measurement and statistics (Womack, 2007), stakeholders (Foster and Jonker, 2007), variance theory vs process theory (Raghavan-Gilbert *et al.*, 1998) and explicit vs tacit knowledge (Abdullah and Ahmad, 2009). Thus, QM can be enacted in many ways, depending on mental models, assumptions and preconditions (Moore and Brown, 2006) and it thus becomes crucial to look at the context defining the concepts (Womack, 2007; Takeuchi *et al.*, 2008), as in the relatively new domain of context dependent studies (Wu *et al.*, 2011). Hence, QM may represent different paradigms, dependent on the context.

Mindfulness in quality management

One of the latest contributions to the orientation toward “soft” aspects of QM is the notion of mindfulness, emphasizing the need for awareness of more than one perspective, openness for new information and the creation of new categories for learning (Langer, 1989, 1997), or even a receptive, non-conceptual attention and awareness (Brown and Ryan, 2003; Brown *et al.*, 2007; Dane and Pratt, 2007). In high-reliability organizations, it has been described as collective mutual adaptation to ongoing changes (Weick and Roberts, 1993; Weick *et al.*, 1999; Weick and Sutcliffe, 2006; Jordan *et al.*, 2009; Ndubisi, 2011). Hence, the notion of mindfulness suggests a paradigm in stark contrast with mainstream notions of QM as routine-based, ultimately searching to eliminate variance, i.e. establish stable, optimized flows of production. A mindfulness-based perspective instead suggests the world to be characterized by constant change and that the solution must be a co-variation with the changing circumstances by which quality and reliability is achieved. Hence, a mindfulness strategy excludes QM as rigid programming and instruction as a solution and instead emphasizes the need for the human capacity to continuously learn and reach beyond established routines, experiences and categories (Weick and Sutcliffe, 2001).

While mindfulness-based approaches share this view, there has been some controversy around the distinguishing characteristics of mindful behavior, as opposed to mindless or less mindful behavior. Mindful-based approaches generally emphasize the highly situated human cognition and its capacity to maintain a flexible attitude

towards reality, with the habitual, routine-based and taken for granted attitude as its opposite. Based on the need for both stability and learning in organizations, Levinthal and Rerup (2006) suggested more or less mindful behavior to be seen as complementary. From a more radical viewpoint, Weick and Sutcliffe (2006) instead argued that more or less conceptual modes of experience would be a more meaningful distinction for mindfulness. More specifically, Weick and Putnam (2006) have pointed at the different understandings of mindfulness in Eastern and Western contexts of QM, with Langer (1989, 2000) as representative for the Western strand, as opposed to the original Buddhist view. In other words, even the context of mindfulness in QM seems to matter. To shed some light on these tensions inherent in the concept of mindfulness, the key elements of the philosophy of the respective strands will here be scrutinized and discussed.

In the following, the Western and Eastern views will be discussed, respectively, in terms of assumptions of (im)permanence, causality and notions of knowledge. Thereafter, notions of East and West are nuanced by relating to different traditions of thought in the West, especially pragmatism, systems theory and other alternative traditions of thought. Finally, the mindfulness concept's inherent potential for bringing the QM field to further theoretical refinement and methodological awareness will be discussed.

Minding the contexts of mindfulness

Notions of Eastern and Western contexts will by necessity be broad, not to say exaggerated caricatures, for pedagogical reasons. Focusing on key elements of the paradigms (Moore and Brown, 2006) allows for a more distinct comparison, however of metaphysical nature. In popular language, knowledge and belief as well as science and metaphysics are used as opposites rather than as synonyms. However, the common definition of (scientific) knowledge as justified true belief points at the centrality of justifications (methods), which are not innocent: "To know what *method* to adopt, one must already have arrived at some *metaphysical* and some *epistemological* conclusions" (Rorty, 1992, p. 1, italics added). Monod and Boland (2007) complained about a "Peter Pan syndrome" of research failing to address such issues.

Weick and Putnam (2006) insisted that mindfulness means something quite different in Eastern and Western thought. Langer's (1989) dominating view on mindfulness is representative of its Western treatments, focusing on contents of minds, rather than on processes of mind, as in the Eastern, Buddhist tradition. While a glimpse of the Eastern mindfulness may be found in the thin slices of perception that precede conceptualizing, Langer's Western view is more conceptual, seeing mindfulness as a matter of distinction and differentiation. In the Western view, people act less mindfully when they hold on past categories, acting on "auto pilot", holding on to conventional ideas and a single perspective without considering that things could be otherwise. Mindfulness instead would then mean to learn to switch modes of thinking. The Eastern view rather perceives mindfulness in terms of a non-conceptual, meditative attitude focusing on inner experiences of the ongoing process of awareness (Langer, 1989).

These different views on mindfulness are not isolated from other assumptions of metaphysical and epistemological nature. Besides the more non-conceptual mode of knowing in the Eastern tradition, Weick and Putnam (2006) also contrasted Eastern notions of impermanence as a fundamental character of the world and interdependent causality as opposed to Western belief in permanence and predictability. These key

elements of the respective paradigms can also be found independently in other accounts from different disciplines (Macy, 1991; Siew and Khong, 2009). Three key elements of fundamental ontological and epistemological nature can be traced in the literature characterizing the Western paradigm as opposed to Eastern thought, namely permanence rather than impermanence as a basic character of the world, uni-directional causality rather than mutual causality, and conceptual knowledge rather than non-conceptual modes of knowing (Bjurström, 2011). Hence, these key elements may provide focus points to compare the different contexts of mindfulness.

Minding the context of the Western view

Permanence

The first characteristic of the Western view is the emphasis on permanence, or stability over change (James, 1909/1996; Chia, 1996; Weick, 1998; Tsoukas and Chia, 2002). Lovejoy (1936/2001) pioneered the discipline of history of ideas with his study of *The Great Chain of Being*, i.e. the idea of a rational, static and orderly structured world, fully accepted by researchers during the eighteenth century heyday of enlightenment. Plato's world of ideas was seen as a higher sphere of the world of experience, containing universal concepts with the following assumption that true knowledge is about ideas. On top of the world of ideas was the ultimate idea or God, from which all the rest could be derived: a perfect and complete one, as the world derived from him must be. Hence, the superior world of ideas was a complete scheme of classification, hierarchically ordered without gaps from the day of creation (Lovejoy, 1936/2001). As Nonaka and Takeuchi (1995, p. 31) put it ultimate reality came to lie in an "eternal, unchanging, invisible and abstract entity" rather than in the concrete and changeable. To such a world, understanding and coping with change remains a challenge.

Uni-directional causality

The second trait of Western thought concerns its insistence on uni-directional causality. In consequence of seeing permanence as primary, change must be caused by some external agent, and ultimately by an Unmoved Mover (Macy, 1991). To Thomas Aquinas, the necessity of such an actor became a logical proof of God's existence. Descartes argued that God's unilateral power extends to the very concepts the thinker can make about him and hence, the source of the idea of God must be God himself. The rising modern science embraced the idea of unidirectional causality with Newton's law of inertia and determinism with Laplace's argument: how could it act otherwise than it does? While radical empiricists like Hume denied the objective nature and necessity of causality, the linear causal notions shaped scientific method with analysis, prediction and control through a mechanistic model of reality. Reality could be analyzed and the whole could be understood in terms of its parts, leaving overarching patterns of relationships disregarded as immeasurable or irrelevant. Universe seemed like a deterministic clockwork without any room for novelty, or as a play of atoms determinable only statistically by the laws of chance (Macy, 1991). In such a world, the emerging order in systems of elements in mutual interaction is hard to conceptualize.

Conceptual knowledge

The third mark is the view on conceptual knowledge as true representations of reality. One of the greatest challenges to science has been to find a universal language truly representing reality, by real essentialist definitions rather than nominal ones.

Bacon lamented about the imprecise character of natural language, not matching the true divisions of nature. Consequently, in 1620 he proposed a scientific language of real characters with Chinese signs as a prototype (Rutherford, 1998). In 1668, Wilkins suggested an ideal language consisting of two parts: a system of categories summarizing the true divisions of the world and a set of characters to represent them. Leibniz aimed to go as far as to break down all concepts into their simplest elements into an alphabet of human thoughts. However, this ambition was acknowledged to lie beyond the intellectual power of humans and instead his heritage became a formalization of syntax for argumentation, later developed into logics and positivist scientific method (Rutherford, 1998). While many of these ambitions showed vain, rigorous knowledge is still strongly associated with definition and classification of concepts as valid representations of the world. However, where knowledge equals abstract concepts, grasping nuance and novelty remains a challenge and the link between knowledge and skilled performance becomes weak.

Summing up the Western view underpinning the attitude, the three issues of permanence, uni-directional causality and conceptual knowledge seem to interact to convince us that any problem can be isolated and its causal relationships analyzed and described with an eternal, abstract formula representing true knowledge about the world. With such an understanding, it makes perfectly sense to bring in experts to the analysis, leaving only the solution and instructions to the employees. Hence, quality and reliability relies on finding an “eternal, unchanging, invisible and abstract entity”, rather than in the “delicate, transitional process of permanent flux and visible and concrete matter” which Nonaka and Takeuchi (1995, p. 31f) described as the “ultimate reality” from a Eastern viewpoint. Consequently, QM ideally means finding a pure formula with a minimum of variance. However, this is not the only way of seeing it.

Minding the Eastern context of mindfulness

In the Eastern context, mindfulness needs to be understood in its Buddhist terms, especially in its views on impermanence, mutual causality and a meditative attitude, i.e. a non-conceptual mode of knowing as expressions of mindfulness (Macy, 1991; Weick and Putnam, 2006; Siew and Khong, 2009).

Impermanence

Siew and Khong (2009) argued that in the Buddhist tradition, things are ontologically characterized by “arising”, “passing away” and “changing whilst standing”. Macy (1991) stressed that while masked by the appearance of continuity, mindful practice reveals the ceaseless arising and passing of events or existence and there is nothing in our experience that is aloof from change. No factor external to change, no absolute that is not definitive of process itself, secures our existence. There is no immutable essence from which everything emanates – rather it is the pattern of change itself. Contrary to the linear worldview, in which order requires a static basis impermeable to change, the doctrine of impermanence means a dual assertion – of order within change. Hence, in the Buddhist view, order and impermanence go hand in hand (Macy, 1991, p. 35).

Mutual causality

Buddhist teaching emphasizes the interconnectedness of phenomena in all spheres: the universe, nature, and human existence. Hence, cause-effect relationships take the character of mutual interaction. Mindfulness means having continuous awareness

of the body, feelings, mind and mental objects (Siew and Khong, 2009). Hence, the oneness of man and nature, body and mind, self and others is emphasized (Nonaka and Takeuchi, 1995). Zen[1] archery practice aims at achieving such experience of oneness: “It shoots” – the bow, the arrow, the muscles, the eyes, the light, etc. produced it, without conscious will of the archer (Holmes, 1991). Mutual causality also makes beginnings unthinkable. Even the thinking mind and the “self” are part of the causal co-arising, or as Fuller put it: “I seem to be a verb”. Hence, the notion of mutual causality erases the borders between body and mind, the knower and the known, self and society, the doer and the deed (Macy, 1991).

A non-conceptual mode of knowing

The Buddhist enlightenment of *satori*[2] is quite different from the Western view of conceptual knowledge as representing the world. The Eastern notion rather lies in the deep, delicate and subtle, beyond logic (Nonaka and Takeuchi, 1995). Zen students experiencing *satori* testify that their world was turned upside down, but they cannot lucidly describe their new way of looking at life. In their preparation, their teachers use words and actions in non-sensical ways, to elicit direct experience: “I can get closer to what I’m transacting with if I can shut up, both outwardly and inwardly” (Holmes, 1991, p. 73). Siew and Khong (2009) expressed this state as a meditative attitude: the nonattachment, the acceptance and letting be and the letting go.

Summing up the Eastern view, the three issues of impermanence, mutual causality and a non-conceptual mode of knowing seem to interact to convince us that all knowledge and all situations are characterized by a co-arising of phenomena and even of the “self” and “mind”. With such a view, it makes perfectly sense to see QM as conformity to changes (Sugimori *et al.*, 1977), using equations for pedagogical purposes only (New, 2007) and like Toyota placing human capabilities at the center of the company’s culture (Takeuchi *et al.*, 2008). As a continuous evolution and reconfiguration (Pil and Fujimoto, 2007), the system should be thought of as an open-ended process designed for uniqueness and creativity through its integrated control functions (Black, 2007) evoking improvements through constant experimentation (Womack, 2007). Hence, New (2007) concluded that we possibly never will understand Toyota’s system, because of its annoying habit of ceaselessly developing and improving its own practice.

Nuancing notions of East and West – back to the future?

While a generalization in terms of the East and the West may have its pedagogical virtues, it evidently overlooks nuances in the landscape. In similar vein, many accounts of the evolution of the QM genre in terms of a development in linear stages (Foster and Jonker, 2007) from early industrialists to later day’s focus on organic processes (Moore and Brown, 2006) or service production (Raghavan-Gilbert *et al.*, 1998), run the risk of missing nuances in the picture. For instance, Mauléon and Bergman (2009) argued that much of the pragmatist epistemology of Shewhart’s and Deming’s theory of quality has been forgotten – the subjective, interpretive, social, and strongly action-oriented character of knowledge, meaning that there could be no such thing as a neutral, permanent depiction of reality, e.g. in the design of an industrial process. Poropat and Kellett (2006) even suggested that the proximity between the pragmatist view and the Japanese culture may explain the fast adoption of TQM in Japan. Hence, the picture may need to be nuanced by considering typical Eastern views also in Western traditions. In some ways, the exploration of the possibilities of the notion of mindfulness may seem like a journey back to the future.

Impermanence

Also the pragmatists see change as a basic feature of the world. To Lewis, Shewhart and Deming, questioning was necessary, as the world is changing: “everything that has a name is to be identified with certainty only over some stretch of time” (Lewis, 1929, p. 257, in Mauléon and Bergman, 2009, p. 164). James (1909/1996, p. 253) argued that our notion of change as the shift from one state to another actually misses what it really is: exactly that which goes on in between them. Instead, he suggested, we should recognize that “the essence of life is its continuously changing character”. To Deming and Lewis, predictions and verification are never complete, and Shewart emphasized the limits of statistical evidence (Mauléon and Bergman, 2009). Hence, pragmatists and the founding fathers of the quality movement seem to agree in their view on the world as an ever changing place.

Systems theory evolved as traditional scientific tools could not cope with multivariate complex systems where variables seemed irreducible to a linear causal chain. In consequence, the systems view came to focus on holistic processes. The organized whole of nature was acknowledged to be an open system, in processes of transformation where no component of the system remains permanent (Macy, 1991). While notions of systems are often used with a quite traditional Western thinking, Flood (1999) stressed the point of systemic thinking as one of accepting paradoxes of managing within the unmanageable, organizing within the unorganizable, and learning within the unknowable. Hence, in emphasizing the interconnected nature of nature, systems theory may end up suggesting an evolving world without reach for any ultimate order or description.

The emphasis on impermanence has also been emphasized in other traditions in the West, not least in the process-oriented organization theory, echoing the romantic era (Tsoukas and Chia, 2002). When eighteenth century enlightenment turned into the nineteenth century Romantic era, the issue of change became critical (Lovejoy, 1936/2001). The enlightenment’s preference for simplification, associating rationality with uniformity turned into its counterpart. *The Great Chain of Being* was turned upside down, from seeing the world of experience as emanating from a complete and fixed world of ideas, to seeing the latter as a sphere of mere potentiality. The world now turned into a fluid and flexible one, derived from the experience of ongoing change. Hence, the notion of impermanence is what unifies romanticist, pragmatist and even Eastern ontologies with the original ideas of the founding fathers of the quality movement.

Mutual causality

Pragmatists early rejected the Cartesian divide between subject and object. Descartes had introduced the notion of the mind as an inner arena with mental images of the world on display. This notion made epistemology, i.e. the relation between the images and the world, central to philosophy. Pragmatists rejected the idea of objectivity-as-perfect-pictures, instead seeing prejudices and intent as a necessary for accommodating beliefs with experience. Even in scientific method, pragmatists saw experience as something tangible and concrete, rather than as eternal abstractions. Truth happens to an idea – its verity is in fact an event, belonging to a community of inquirers. Experience was not only a sensation of nature, but rather a sensation in nature. Hence, truth does not refer as much to objective reality as to a coherent social and

practical context (Murphy, 1990). According to C.I. Lewis who inspired the quality movement, what is tested by experience is the interpretation of experience in the light of our concepts such as, e.g. causality. What is not tested is the concepts themselves (SEP, 2010). Deming complained that he after seven readings of Lewis' text still did not understand, to which Shewhart answered that he read it 14 times before it began to mean anything to him (Mauléon and Bergman, 2009).

With systems theory, scientists re-conceptualized causality as systems of elements in mutual interaction to tackle the WW2 challenge to design self-guiding antiaircraft missiles, to which one-way causality did not apply (Macy, 1991). While this dynamic complexity (Senge, 1990) is often ignored, Flood (1999, p. 82) argued that *satori* – the intuitive perception of wholeness – is at heart of systems thinking:

Systemic thinking, then, is not something that can be explained easily and understood comprehensively. It is not recommended to rush into rationalization of this sort. Very quickly we will lose touch with the notion of wholeness in a trivialized account of its so-called properties. Many text-books that deal with systemic thinking make this mistake. They explain the world in terms of systems and subsystems, what a system is and how a system behaves. An account in these terms does to systemic thinking what analysis does to *satori* – it strips it of all essential meaning.

In the Western tradition, early mathematicians and mystics provide the few exceptions from the view of unidirectional causality before the romantic era (Macy, 1991). However, the view of linear causality has been weakened by the findings that the position of the observer (as Einstein showed) and the act of observation (as Heisenberg demonstrated) alters the perception of cause and effect. Nevertheless, there are still strong tendencies to interpret even systems thinking with Newtonian ideas of orderliness (Monod and Boland, 2007).

Non-conceptual mode of knowing

In the pragmatist tradition, Deming assumed that there is no single and eternally valid classification or objective relation between our concepts and the world. In consequence, numerical control is not understood as exact depictions or predictions, but rather as practical proxies for the time being (Mauléon and Bergman, 2009). New pragmatism has further emphasized the non-representative, concrete nature of knowledge (Murphy, 1990): “Beliefs are true or false, but they represent nothing” (Davidson, in Rorty, 1990, p. 2). However, concrete, subjective, holistic and sentimental assessment of experience is not new. James (1879) argued in *The Sentiment of Rationality* that “A philosophy, to be acceptable for us, must not only be rational; it must strike us as rational” (Murphy, 1990, p. 34).

Systems theories emphasizing the role of context for cognitive processes often come close to a non-conceptual mode of knowing. The term practice conveys a view on human agency in the interplay between individuals and structures making deterministic prediction impossible. It also suggests cognition to take place outside the head, in the practical and social arrangements determining the view and “truths” of the situation (Ocasio, 1997; Giere and Moffatt, 2003; Lave and Wenger, 1991; Blackler, 1995; Schatzski, 2005; Whittington, 2006). Distributed cognition may be the intellectual way of describing the kind of being part of a situation which Senge *et al.* (2005) express in more intuitive, emotional and holistic ways of presenting, strongly reminding of Siew and Khong's (2009) notion of a meditative attitude.

In the Western tradition, Wittgenstein's aphorism "Don't think – look!" (Tsoukas and Chia, 2002, p. 571) and Goethe's goal of a metamorphosis of the scientist (Amrine, 1998) support Borges' (1942/2000) influential joke, mocking at John Wilkins' ambition to create a scientific language, by referring to a Chinese Emperor's arbitrary and absurd classification of animals. Borges' essay ends with a quote pinpointing the Western critique of its own heritage, also typical for post-modern accounts:

Man knows that there are in the soul tints more bewildering, more numberless, and more nameless than the colors of an autumn forest [. . .]. Yet he seriously believes that these things can every one of them, in all their tones and semitones, in all their blends and unions, be accurately represented by an arbitrary system of grunts and squeals. He believes that an ordinary civilized stockbroker can really produce out of his own inside noises which denote all the mysteries of memory and all the agonies of desire (Chesteron, 1904, in Borges, 1942/2000, p. 105).

Concluding discussion

The above illustrations of the different contexts of mindfulness express its inherent potential for further theorizing and methodological awareness into the area of QM. Not only do the different contexts of mindfulness evoke different ontological and epistemological assumptions. From either Eastern or Western understandings of the concept, it implies an imperative to challenge orthodoxy and scrutinize processes of knowing. By analyzing the key paradigmatic elements of Western and Eastern contexts of mindfulness, we are also able to trace different theories and traditions of thought in the West – of earlier or later dates – which may nurture further reflection and openness for alternative theoretical and methodological approaches in QM research while maintaining its practical scope. Hence, the comparison opens up for a richness of sources for renewal with nuances that are sometimes missing in more linear accounts of the QM evolution.

While mindfulness-based approaches to QM distance themselves from the emphasis on permanence in variance-based approaches, the implications of mindfulness can be further exploited as to see not only the environment, but also processes of knowing as expressions of impermanence. Conceptual notions of mindfulness may be accused for ignoring the very essence of change, by seeing it as a mere transition from one conceptual understanding to another, rather than seeing it as an ongoing process of non-conceptual interaction with the practical world. Applied to the research process, mindfulness would open up for more interpretive methodological approaches, with the pragmatist test of validity of research results in the concrete experience of everyday practice, seeing the influence of insights and convictions not as a bias, but as an expression of mutual causality in the co-arising of the knower and the known.

Notions of mindfulness may play a central role in strengthening the academic rigor in terms of methodological awareness and theoretical breadth and depth, to increase the corrective function of QM research. With its practical imperative and pragmatist heritage, here exposed in relation to Eastern tradition, QM may also make important contributions to general management theory, by integrating different theoretical perspectives and meet the general need to exploit theoretical advancement for practical purposes. Mindfulness-based QM research not only places the human factor at the center of theorization, but also emphasizes the critical role of highly situated perception and opens up for its further exploration.

To exploit these potentialities, further research of either conceptual or empirical character should first of all clarify the contexts of QM concepts, meaning that concepts of QM cannot be taken for granted without asking questions about their connotations, practices and consistency. Hence, rather than trying to impose authoritative interpretations to save the validity of QM concepts, accounts of QM should be qualified through considerations about the interpretation of concepts in everyday practices of research and production. Second, while QM research can be broadened by applying theoretical approaches from general management theory, the potential contribution of QM research through its practical and pragmatist background should not be ignored. Third, while inspiration from other fields should not be ignored, the earlier traditions of QM research and practices should not be forgotten either, as in the connection between the pragmatism of the founding fathers of QM and the Eastern context of pioneering applications in Japan, opening up for a reinterpretation of QM history.

Finally, whether mindfulness is conceived of in more conceptual or non-conceptual ways, its fundamental notions are at odds with any tendency of orthodoxy. In that way, mindfulness is an ever promising, but never innocent concept, carrying along expectations of change. With its dual roots in Eastern and Western contexts, it actualizes different paradigms, in the original meaning of the term. With this split background, mindfulness may continue to stimulate both research and practice, addressing issues of consistency and novelty in theoretical and methodological assumptions. In many ways, mindfulness may trigger a renewed attitude of “simultaneous belief and doubt” (Weick, 1996, p. 148) in the practice of QM research.

Notes

2. Sudden enlightenment and a state of consciousness attained by intuitive illumination: the spiritual goal of Zen.
1. Japanese Mahayana Buddhism that aims at enlightenment by direct intuition through meditation.

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How Can Mindfulness Help Manage Expectations? Mindfulness is purposely paying attention with a mirror-like quality of mind. The mirror simply reflects. It is objective. The essence of mindfulness runs through all of these facets of making progress on just about anything. It is especially needed in the realm of work. Mindlessness is the quality of doing without attention. Our habits and biases drive our decisions and behavior. We're all familiar with this experience. Key words: quality management, organization management, industrial and mineral resources economy, innovation economy, quality management system, total quality management. How to cite this article: Semenov V.P., Mikhailov Yu.I. Challenges and Trends of Quality Management in the Context of Industrial and Mineral Resources Economy. Quality-focused development strategy implies creation and implementation of approaches that are aimed at finding a balance between the interests of producers, consumers, partners, owners, personnel and the community as a whole; it serves as a certain guarantee of progressive advancement and constant improvement of company performance under the conditions of a dynamic and competitive world.