Introduction

MINDFULNESS: DIVERSE PERSPECTIVES ON ITS MEANING, ORIGINS, AND MULTIPLE APPLICATIONS AT THE INTERSECTION OF SCIENCE AND DHARMA

J. Mark G. Williams and Jon Kabat-Zinn

The guest editors introduce this special issue on Mindfulness, explaining its rationale, aims, and intentions. Integrating mindfulness-based approaches into medicine, psychology, neuroscience, healthcare, education, business leadership, and other major societal institutions has become a burgeoning field. The very rapidity of such growth of interest in mainstream contemporary applications of ancient meditative practices traditionally associated with specific cultural and philosophical perspectives and purposes, raises concerns about whether the very essence of such practices and perspectives might be unwittingly denatured out of ignorance and/or misapprehended and potentially exploited in inappropriate and ultimately unwise ways. The authors suggest that this is a point in the development of this new field, which is emerging from a confluence of two powerful and potentially synergistic epistemologies, where it may be particularly fruitful to pause and take stock. The contributors to this special issue, all experts in the fields of Buddhist scholarship, scientific research, or the implementation of mindfulness in healthcare or educational settings, have risen to the challenge of identifying the most salient areas for potential synergy and for potential disjunction. Our hope is that out of these interchanges and reflections and collective conversations may come new understandings and emergences that will provide both direction and benefit to this promising field.

We are delighted to introduce this special issue of *Contemporary Buddhism,* which is devoted exclusively to invited contributions from Buddhist teachers and contemplative scholars, together with mindfulness-based professionals on both

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the clinical and research sides, writing on the broad topic of *mindfulness* and the various issues that arise from its increasing popularity and integration into the mainstream of medicine, education, psychology and the wider society. That two scientist/clinicians, neither of whom identifies himself as a Buddhist, and neither of whom is a Buddhist scholar, have been invited to be guest editors, is itself an event worthy of note, and a sign of the good will and spaciousness of view of the journal's outgoing editor, John Peacocke. We thank him for the profound opportunity, and the faith he has placed in us.

For many years, from the early 1980s until the late 1990s, the field we might call mindfulness-based applications went along at a very modest level, at first under the aegis of behavioural medicine. The number of papers per year coming out followed a linear trajectory with a very low slope. Someplace in the late 1990s, the rise began to go exponential, and that exponential rate continues (Figure 1). Interest and activity is no longer limited to the discipline of behavioural medicine, or mind/body medicine, or even medicine. Major developments are now occurring in clinical and health psychology, cognitive therapy, and neuroscience, and increasingly, there is growing interest, although presently at a lower level, in primary and secondary education, higher education, the law, business, and leadership. Indeed, in the UK, the National Health Service (NHS) has mandated mindfulness-based cognitive therapy as the treatment of choice for specific patient populations suffering from major depressive disorder. What is more, at a

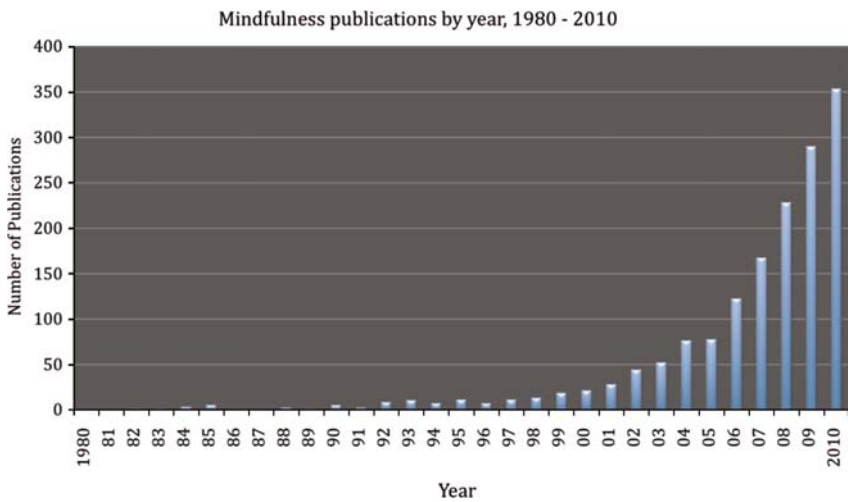

FIGURE 1
Results obtained from a search of the term 'mindfulness' in the abstract and keywords of the ISI Web of Knowledge database on February 5, 2011. The search was limited to publications with English language abstracts. Figure prepared by David S. Black, Institute for Prevention Research, Keck School of Medicine, University of Southern California

scientific meeting on mindfulness research within neuroscience and clinical medicine and psychology in Madison in October 2010,[1] delegates from the National Institute of Health reported that NIH alone funded more than 150 research projects in mindfulness over the preceding five years. The growth of interest in mindfulness in the past 10 years has been huge, and in many ways extraordinary.

From the perspective of 1979, when mindfulness-based stress reduction (MBSR) came into being in the Stress Reduction Clinic at the University of Massachusetts Medical Center in Worcester, Massachusetts, the idea that mindfulness meditation would become integrated into mainstream medicine and science to the extent that it already has, that the NIH would fund mindfulness research at the levels that it has, as well as hold a day long symposium on its campus in May of 2004 entitled *Mindfulness Meditation and Health*, and that the NHS in the UK would mandate a therapy based on mindfulness nationwide, is nothing short of astonishing. This interest is not confined to North America and the UK. It is occurring worldwide.

Indeed, given the zeitgeist of the late 1970s, the probability that Buddhist meditation practices and perspectives would become integrated into the mainstream of science and medicine and the wider society to the extent that they already have at this juncture, and in so many different ways that are now perceived as potentially useful and important to investigate, seemed at the time to be somewhat lower than the likelihood that the cosmic expansion of the universe should all of a sudden come to a halt and begin falling back in on itself in a reverse big-bang . . . in other words, infinitesimal. And yet, improbable as it may have been, it has already happened, and the unfolding of this phenomenon continues on many different fronts. In the large, it signals the convergence of two different epistemologies and cultures, namely that of science and that of the contemplative disciplines, and in particular meditation, and even more specifically, Buddhist forms of meditation and the framework associated with their deployment and practice. Since Buddhist meditative practices are concerned with embodied awareness and the cultivation of clarity, emotional balance (equanimity) and compassion, and since all of these capacities can be refined and developed via the honing and intentional deployment of attention, the roots of Buddhist meditation practices are *de facto* universal. Thus, as Kabat-Zinn argues in the closing contribution, it is therefore appropriate to introduce them into mainstream secular settings in the service of helping to reduce suffering and the attendant mind-states and behaviours that compound it, and to do so in ways that neither disregard nor disrespect the highly sophisticated and beautiful epistemological framework within which it is nested, but on the contrary make profound use of that framework in non-parochial ways consistent with its essence.

The emergence within science and medicine of interest in Buddhist meditative practices and their potential applications represents a convergence of two different ways of knowing, that of western empirical science, and that of the empiricism of the meditative or consciousness disciplines and their attendant

frameworks, developed over millennia. The world can only benefit from such a convergence and intermixing of streams, as long as the highest standards of rigor and empiricism native to each stream are respected and followed. The promise of deepened insights and novel approaches to theoretical and practical issues is great when different lenses can be held up to old and intractable issues.

At the same time, such a confluence of streams and the sudden rise in interest and enthusiasm carries with it a range of possible problems, some of which might actually seriously undermine and impede the deepest and most creative potential of this emergent field and hamper its fullest development. It is in this context that we hope this special issue will spark ongoing dialogue and conversation across disciplines that usually do not communicate with each other, and equally, will spark an introspective inquiry among all concerned regarding the interface between what has come to be called 'first person experience' and the 'third person' perspective of scientists studying aspects of human experience from a more traditional vantage point (Varela and Shear 1999). The promise of the convergence and cross-fertilization of these two ways of understanding the world and human experience is large. It is presently becoming a leading current of thought and investigation in cognitive science (Varela, Thompson and Roach 1991; Thompson 2007) and affective neuroscience (Lutz, Dunne and Davidson 2007). In a parallel and overlapping emergence dating back to 1987, the Mind and Life Institute has been conducting dialogues between the Dalai Lama and scientists and clinicians, along with Buddhist scholars and philosophers on a range of topics related to the confluence of these streams (see Kabat-Zinn and Davidson 2011; www.mindandlife.org).

If increasing interest and popularity in regard to mindfulness and its expressions in professional disciplines might inevitably bring a unique set of challenges and even potential problems—the stress of 'success,' so to speak—then questions to ponder at this juncture might be: Are there intrinsic dangers that need to be kept in mind? Is there the potential for something priceless to be lost through secular applications of aspects of a larger culture which has a long and venerable, dare we say sacred tradition of its own? What are the potential negative effects of the confluence of these different epistemologies at this point in time? Do we need to be concerned that young professionals might be increasingly drawn to mindfulness (or expected by their senior colleagues to use or study a mindfulness-based intervention) because it may be perceived as a fashionable field in which to work rather than from a motivation more associated with its intrinsic essence and transformative potential? Can it be exploited or mis-appropriated in ways that might lead to harm of some kind, either by omission or commission? Might there even be elements of bereavement and loss on the part of some, mixed in with the exhilaration of any apparent 'success', as often happens when success comes rapidly and unexpectedly?

If we can ask such sometimes hard or even uncomfortable questions, and if we can discern elements of both possible danger and promise that we have not thought of before, and if we can stay in conversation and perhaps collaboration

across domains where traditionally there has been little or no discourse, perhaps this confluence of streams will give rise to its maximal promise while remaining mindful of the potential dangers associated with ignoring the existence of or disregarding some of the profound concerns and perspectives expressed by the contributors to this special issue. The very fact that a scholarly journal devoted to Buddhism would host this kind of cross disciplinary conversation is itself diagnostic of the dissolving of barriers between, until recently, very separate areas of scholarship and inquiry.

This special issue thus offers a unique opportunity for all involved in this field, as well as those coming to it for the first time, to step back at this critical moment in history and reflect on how this intersection of classical Buddhist teachings and Western culture is faring, and how it might be brought to the next level of flourishing while engendering the least harm and the greatest potential benefit.

Our first task as Editors was to draw together an international team to contribute original essays, including authors who might raise issues of which some of us may not even be aware either from the scholarly or cultural perspective, issues that might shed some light on how this field could be enriched and deepened. To that end, we invited scholars of Buddhism, scientists, clinicians and teachers who we thought would be able to speak deeply to two audiences: first, to those in the Buddhist community who may not be so familiar with the current use and growing influence of mindfulness in professional settings, or who may be a little puzzled or anxious about it; second, to teachers and researchers within the Western medical, scientific, psychotherapeutic, educational or corporate settings, who would like to be more informed about current areas of debate within Buddhist scholarship.

With this aim in mind, we have organized the essays in a certain sequence, starting from scholars of Buddhism who can help us situate the contemporary debate in an historical context, then moving to teachers and clinicians/scientists for their perspective, before finally coming back to the historical context and the question of how best to honour the traditions out of which the most refined articulation of mindfulness and its potential value arose, yet at the same time, making it accessible to those who would not seek it out within a Buddhist context.

From Abhidharma to psychological science

In the first essay, Bhikkhu Bodhi examines the etymology and use of the term *sati* in the foundational texts to help convey the breadth and depth of mindfulness. He explores the differences in treatment of *sati* pointing out how those systems that give greater emphasis to mindfulness as remembrance require re-interpretation in the light of those that place greater emphasis on what he calls 'lucid awareness.' He examines passages from Nyanaponika Thera to show the dangers of using 'bare attention' as an adequate account of *sati*. Against this background, his article focuses on both the beauty and the challenges inherent in

bringing mindfulness into modern healthcare, education and neuroscience. His article lays important groundwork for understanding the meaning and use of words relating to mindfulness in the texts, and offers a unique perspective on what is and is not important in bringing such practices to the West.

Georges Dreyfus' essay explores the potential hazards of an incomplete understanding of mindfulness, both from the theoretical perspective but also, of major concern, on the experiential level as well. In particular, he argues that current definitions of mindfulness that emphasize only one of the themes present in the historical traditions—present-centred non-judgmental awareness—may miss some of the central features of mindfulness. He explores the implications for current practice of taking fuller account of those Buddhist texts that present mindfulness as being relevant to the *past* as well as the present, including a capacity for sustained attention that can hold its object whether the 'object' is present or not.

Andrew Olendzki continues this examination of the same issues using first the Abhidharma system as found in the Pali work *Abhidhammatthasaṅgaha* in which mindfulness is seen as an advanced state of *constructed* experience, and wisdom as arising only under special conditions; contrasting it with the Sanskrit *Abhidharmakośa*, where both mindfulness and wisdom are counted among the 'universal' factors, and thus 'arise and pass away in every single mind moment.' This has important implications for what we understand about what we are doing in meditation, for the latter approach assumes that, although mindfulness and wisdom are hidden most of the time by attachment, aversion and delusion, the mind is fundamentally already awakened and inherently wise. As Olendzki says 'The practice becomes one of uncovering the originally pure nature of mind.' He suggests that it is the latter approach that provides a basis for an Innateist model of development, and he critiques this model from a constructivist perspective.

What is the contemporary teacher of a mindfulness-based intervention to make of this debate? What are its implications?

John Dunne's article speaks directly to this issue. He focuses on 'non-dual' practice in relation to the more mainstream descriptions found in *Abhidharma* literature, examining Buddhist non-dualism, including attitudes to and theories about thoughts and judgments and how these arise and are affected by practice. He takes up the arguments made in Georges Dreyfus' article, pointing out how Dreyfus's analysis, though an excellent presentation of a 'classical' *Abhidharma* approach to mindfulness, may not be a good fit for the non-dual Innateist approaches to mindfulness that are the more immediate forebears of the mindfulness practiced by clinicians and studied by many scientists in the West, as discussed by Jon Kabat-Zinn in his description of the range of Buddhist influences on the development of MBSR.

John Teasdale and Michael Chaskelson have contributed two essays that take up the challenge of bringing together Buddhist theory and clinical practice. The first article offers a way of looking at the first and second of the Four Noble Truths from the perspective of the question: 'what has this to do with those who

come to an MBSR or MBCT class?' After all, they say, participants in classes are primarily looking for relief from the stress and exhaustion of their illness, or they want to stay well after depression. They do not come asking for resolution of existential suffering.

The authors take this question head on: How are the Four Noble Truths relevant to clinician's concerns? Their article emphasizes the way in which our minds are constructed in a way that makes it very difficult to see clearly the nature of our own suffering, and how we add to it by the way we react to moment by moment experience. They also show the *compulsive* quality to our attachments, expressed in the very language of '*shoulds*' and '*musts*' and '*if onlys*'—how absorbed we are in wishing things were different from how we find them. In so doing, the authors give a deeper meaning to the notion of a 'cognitive' therapy, beyond the cartoon images that are so often mistaken for real knowledge and understanding of the approach. Not only this, but their analysis reminds us how much emotional pain in the Western world arises from the same conditions that have always operated, and how, as the authors express it 'the patterns of mind that keep people trapped in emotional suffering are, fundamentally, the same patterns of mind that stand between all of us and the flowering of our potential for a more deeply satisfying way of being'. Finally, the article talks directly to teachers of mindfulness-based interventions: why do *teachers* need to know these truths at all? They point out the dangers of attempting to teach without the 'road map' both of understanding and of experience.

Teasdale and Chaskelson's second article unpacks classical Buddhist teachings from the perspective of underlying psychological processes and, in particular, the way that working memory (already referred to in Georges' Dreyfus' article) operates. They revisit and re-state Teasdale and Barnard's Interacting Cognitive Subsystems (ICS) theory to provide a framework for understanding how the mind might transform suffering. ICS recognizes two kinds of meaning, one explicit and specific (expressed in a simple proposition such as 'the cat sat on the mat'), the other implicit and holistic (felt in the language of the poet or story-teller).

Teasdale and Chaskelson show how suffering can be seen in psychological terms as a response to 'particular patterns of information' (for example, patterns that convey certain 'affectively-charged' meanings). If 'working memory' can hold separate pieces of information and then integrate them into wider patterns, then suffering can be transformed by changing the very patterns of information that produce it: 'Working memory provides a place where these patterns can be held and integrated with other patterns to create new patterns that do not produce suffering'. In ICS terms, mindfulness is a way of creating such new patterns of implicit, holistic meanings. For readers who are already familiar with the ICS model, this re-statement of it will be a welcome contribution. For readers who do not already know it, this article will provide a wonderful gateway into it.

Marrying Buddhist teaching and contemporary mindfulness practice

The next group of papers explores the challenges inherent in bringing to life the deep and lasting truths and practices of the dharma within the secular context of day to day clinical work with people, examining how one mindfulness-based intervention (mindfulness-based cognitive therapy [MBCT]) combines on the one hand the need to be faithful to recent scientific discoveries about depression with, on the other, faithfulness to the broad foundational tradition of Buddhist meditative practices and understanding.

Melanie Fennell and Zindel Segal point out that, on the face of it, MBCT is an unlikely marriage. What happens when one partner to a marriage is mindfulness meditation, rooted in Buddhist thought and practice, and the other partner comes from a western tradition of cognitive and clinical science? As MBCT/mindfulness teachers whose original professional training was in cognitive therapy and cognitive science, these authors are well-placed to see the possible strains inherent in the marriage and to map them out with precision and clarity. The authors examine points of congruence and divergence between the two traditions. Particularly helpful is their brief and authoritative summary of the origins and current practice of Cognitive Therapy (CT), its key underpinnings, and the way it interfaces with the world of psychotherapy. Their discussion reminds us that the development of a mindfulness-based intervention for depression which incorporates and extends the *success* of CT in bringing about lasting relief of recurrent suffering needs to keep in mind and respect those insights and successes in their own right and on their own terms, and not make throwaway comments about whole fields of psychotherapy (such as CT) simply because it has taken a different tack than mindfulness-based approaches. Fennell and Segal's article reminds us that CT is a complex and valid approach in its own right, sharing common features with mindfulness. They characterize MBCT as a marriage between equal partners and suggest that, despite some appearances, it is a marriage that may well endure.

Kuyken and Feldman zero in on one particular aspect of mindfulness-based interventions: compassion. What is compassion? It is, in their words, both an 'orientation of mind' and a 'capacity to respond'. In compassion, the mind is both *oriented* to recognize pain in human experience and *cultivates an ability* to meet it with kindness, empathy, equanimity and patience. While Fennell and Segal provide the evidence on the efficacy of MBCT in reducing risk of depression in general, Kuyken and Feldman now build on this foundation by showing, from clinical work with those who come for help for their depression, how it is through the cultivation of compassion that people can learn to change their perspective on and gain some freedom from long-lasting conditions that have previously been utterly disabling. Interestingly, there is now evidence that, even where a mindfulness-based intervention does not include specific lovingkindness or compassion practices, the instructors' own embodiment of these qualities in all

aspects of their teaching of the curriculum and in their interactions—from the initial welcome to class, to the guiding of formal practices and the enquiry following it—enables participants to cultivate a compassionate response to their own suffering. Research has shown that the extent to which participants are able to cultivate such a compassionate response, where before there was self-denigration, underlies the effectiveness of the mindfulness programme in reducing risk of future depression (Kuyken *et al*. 2010).

Martine Batchelor's article places the recent developments in the clinical application of mindfulness in the context of her own experiences as a Korean Zen nun. She studied Zen Buddhism under the late Master Kusan Sunim and became his interpreter and translator. After his death she began to write extensively about what is core in Buddhist thought and practice. Her article tells how, in 1992, as part of her research for a book on women and Buddhism (*Walking on lotus flowers*, 1996—re-issued as *Women on the Buddhist path*, 2001) in which she interviewed women from different Buddhist traditions (Asians and Westerners, nuns and laywomen) she discovered that 'the techniques of meditation they used did not seem to matter as much as their dedicated sincerity as practitioners of the Dharma'. She suggests that that no matter which Buddhist tradition we follow, the practice of *samatha* (calmness and stability) and *vipassanā* (insight) will lead to the cultivation of mindfulness.

She then builds on this analysis to make an even more radical suggestion: that examination of the 'four great efforts' described in the *Vitakkasaṇṭhāna Sutta* extends the overarching umbrella of common intentions and discoveries within different Buddhist traditions to include the therapeutic approaches embodied within MBCT and MBSR, and even including traditional cognitive behavioural therapy. Each, she says, 'share a pragmatic, self-reliant approach to life that recognizes the great value of acceptance and compassion'.

Edel Maex gives himself a similar task in his article, but from the other end, so to speak. He came to Zen as a practising psychiatrist coping with the burdens of a busy clinic, and then, wishing to offer his patients something of the same insights and practices he had found so liberating, came upon the writings of Jon Kabat-Zinn. In Jon's book, *Full Catastrophe Living* (Kabat-Zinn 1990), he found something that, as his endearing down-to-earth language expresses it, would save him 10 years of work! Maex points out the dangers of taking mindfulness out of the Buddhist context: it runs the risk that instead of allowing patients to appreciate the power of the dharma experientially, it might become just another technique, stripped of all the very depth and wisdom that he feels carries the healing power inherent in mindfulness. What, then, was it that he noticed in this modern writing that he found authentic, both as a Zen practitioner and as a busy clinician?

He calls his article an exercise in 'back translating' some 'clinical' mindfulness concepts back to basic Buddhist concepts. His intention was to write for contemporary mindfulness teachers to help 'reconnect with some treasures that are present in our roots' and for his Zen friends and colleagues to reassure them

that contemporary approaches have not thrown out the Dharma in a rush to be relevant. As he concludes: 'As the history of Buddhism shows, it is in a process of continual reformulation in accordance with the present needs of those in front of us'.

Sharon Salzberg contributes to the renewing of our intentions by reminding us in her article how mindfulness and lovingkindness are intrinsically cultivated together. Mindfulness is not just 'knowing what is happening', such as hearing a sound, but knowing it in a certain way—free of grasping, aversion and delusion. It is this freedom that provides the platform for more sustained transformation and insight. Mindfulness, she says, 'helps us break through the legends, the myths, the habits, the biases and the lies that can be woven around our lives. We can clear away the persistence of those distortions, and their familiarity, and come to much more clearly see for ourselves what is true. When we can see what is true, we can form our lives in a different way'. The refining and expanding of lovingkindness follows because deepening of insight includes seeing how all of our lives are inextricably interconnected, thus allowing an *inclusiveness* of caring. Sharon Salzberg does not just assert this—her paper embodies it, with a gentleness and humour in her stories and examples that invite us to respond.

Mindfulness in education and medicine: the challenge of institutional change

We started this Introduction by indicating how mindfulness has become popular very rapidly. A central catalyst to this growth has been the willingness to take teachings that had been handed down in monasteries in Asia over centuries, and then taught in retreat centres over several decades, into contexts such as hospitals and clinics that had not explicitly asked for them, or for that matter, knew of their existence. As we have seen from the contributions so far, bringing mindfulness to the world outside the monastery or retreat centre requires a constant translation and back-translation. This work is never finished, for systems and institutions and people change; different language, images and metaphors need to be sculpted, tried, refined, used and then discarded (at least for a while) when they lose their power to communicate.

This point is no better illustrated than by Miribai Bush who, in her article, draws on insights gathered from 13 years of leading the Center for Contemplative Mind in Society and its pioneering programme that encourages and supports the innovative integration of contemplative practices into novel courses and curricula across a wide range of settings in higher education. She describes courses integrating contemplative practices and perspectives across a diverse range of disciplines—from architecture to physics, from economics to poetry. Some are taught by Buddhist scholars; others by authorities within their own disciplines, each of whom has a personal meditation practice. Contemplative practices include various forms of meditation, yoga, and visualization as well as unique practices that have emerged from the disciplines themselves: in behavioural

economics, for example, self-awareness practices reveal the unconscious emotions governing economic choices; in architecture, meditation encourages design of the built environment that harmonizes with the natural environment.

She discusses how the centre developed and still supports this movement, showing what questions this experience of contemplative education raises about its future impact on the academy. The article culminates in a wonderful summary of the 'languaging' of mindfulness in the classroom: how teachers have explored images and metaphors from the history or philosophy of their own discipline (for example, a science teacher teaching mindfulness of sound, talking of an 'acoustic ecology'). She shows how, in this way, the skilful and creative teacher can define and introduce practices in an accessible way that still resonate with the deep wisdom of the traditions from which they are drawn.

One institution of higher learning where mindfulness seemed, from the outside at least, to be securely established was the University of Massachusetts Medical Center, the institution where MBSR was originally developed. For this reason alone, the story that Saki Santorelli recounts in his article is extraordinary. In 1998, the University of Massachusetts Hospital, home of the Stress Reduction Clinic from its beginning in 1979, merged with another hospital. Several years later, due to severe budget constraints, the Stress Reduction Clinic was in one fell swoop eliminated from the clinical system. All of a sudden, the clinic that had, through the vision and hard work of so many people, developed a world-renowned reputation based on extensive clinical research, and that had transformed the lives of hundreds of thousands of people, either directly or indirectly, was threatened with extinction.

Saki Santorelli begins his elegantly told and electrifying story with an e-mail that anyone in a leadership position would dread receiving. It came three months after his assuming the directorship of the Center for Mindfulness. All of a sudden the heart of the entire enterprise, the Stress Reduction Clinic, was threatened, and along with it, everything else and all of the people who worked at the centre and had devoted their lives to the work. How to respond? Santorelli's essay reveals what mindfulness practice might mean—did mean—in such a situation of crisis, and we see in penetrating starkness how leadership is honed not in the good times only, but also when all apparent hope is exhausted, and there seems nothing left to do except to honour 'our innate capacity for residing in the raw, open heart and remembering the true source of wisdom and power.'

How can even a taste of such wisdom be transmitted to participants in a programme of classes lasting only eight weeks? It seems incredible. Yet the evidence, published in scientific journals around the world, suggests that participants, taught by instructors who themselves have learned to embody some of those qualities of which Saki Santorelli speaks, can and do experience transformation that they never imagined. Perhaps it is this that partly explains its enormous popularity and its increasing impact in the world.

Can we define, research, and measure mindfulness without denaturing it?

As already noted, the introduction of an ancient Buddhist mediation practice into mainstream medicine and other disciples is perforce associated with a particular set of challenging circumstances related to the major cultural and epistemological shifts it inevitably engenders. Buddhist scholars, in particular, may feel that the essential meaning of mindfulness may have been exploited, or distorted, or abstracted from its essential ecological niche in ways that may threaten its deep meaning, its integrity, and its potential value. This may or may not be an inevitable cost of developing and operationalizing new and secular Dharma-based portals such as MBSR and MBCT, aimed at individual whose lives might be transformed in some ways by authentic practice but who would never come to it if offered in a more traditional Buddhist framework or vocabulary. This theme emerged from Miribai Bush's description of the different languages in which scholars from different disciplines are teaching the relevance of mindfulness practice to their students, and it is a topic that is revisited again in Jon Kabat-Zinn's closing article.

Once mindfulness was introduced into clinical settings and into other disciplines such as higher education, and once it began to be evaluated scientifically, it was virtually inevitable that the very rules for gathering empirical evidence through scientific enquiry would require that new bridges be built between domains that previously may have had no prior communication or intellectual discourse. For instance, in psychology, there are rules about qualitative methods that govern what can and cannot be done when interviewing participants, and about what can be inferred from a transcript of such interviews. There are also rules about how to set up a trial to test quantitatively the claims of efficacy of a mindfulness programme. Building such bridges with an open mind can be a painful process for all concerned on both sides of any epistemological divide.

Paul Grossman and Nicholas Van Dam present an eloquent call for caution in this regard. They are particularly concerned that the rush to define mindfulness within Western psychology may wind up denaturing it in fundamental ways that may not even guessed at by those who make use the term in clinical and laboratory settings, that is, unless they are themselves deeply grounded in first person experience of the dharma through their own personal practice, study, and exploration. Their article first considers how many psychologists are currently characterizing mindfulness. They then explore the question of whether these characterizations are at all compatible with the original Buddhist teachings on mindfulness. They then consider whether scientific characterizations of mindfulness meet the empirical standards of contemporary scientific methodology. Their conclusion is that there is a great deal of fundamental work to be done in this area, that a fresh look at how we name the self-report questionnaires and their subscales that claim to measure the construct of 'mindfulness' might be in order,

and that caution and patience are needed 'lest we reify and trivialize concepts that may have a richness of which we cannot yet be fully aware'.

Ruth Baer's paper presents a cogent and empirically powerful alternative perspective. She articulates the fundamental challenge presented to us by evidence-based medicine and psychology: that we need to see if it is possible to work out *why* something that appears to bring about change is doing so, and therefore to explore by whatever valid methods we have at our disposal what processes may underlie it. This is important because most therapies have some beneficial effects that have little to do with what the clinician actually *believes* is the critical ingredient. It is the oft-maligned and underappreciated placebo effect. The placebo effect is one of the most powerful effects in medicine. In general, teachers and therapists are reluctant to acknowledge its potential influence, because we'd all prefer that it was the teaching and therapy we offered that was life-transforming to our patients. Research into what is actually the case can be very sobering.

So Baer asks: how is this investigation to be done and what is actually learned if we do not take up the challenge of actually attempting to assess a person's understanding or depth of mindfulness practice (at least as it is taught in a clinical mindfulness-based programme or intervention), and then evaluate whether training leads to change in these qualities and in the general tendency to respond mindfully to the experiences of daily life? If this could be done, might we also see whether any such changes are correlated with the improvements in mental health that are often observed? Her paper elegantly summarizes the quest for and development of reliable and valid mindfulness questionnaires, and the research to date on how useful they may or may not be, and the on-going challenges of their interpretation.

Traditional teaching and contemporary application revisited

The last two articles bring us full circle to the connection between traditional teachings and contemporary applications.

Rupert Gethin revisits some traditional Buddhist sources to see how they understand mindfulness, exploring how their understanding fits—or does not—with some of the ways mindfulness is now presented in the context of mindfulness-based interventions. Starting with well known sources such as the *Satipaṭṭhānasutta*, he moves on to pay more attention to some of the details of the understanding of mindfulness in later Buddhist systematic thought. These details, though less well known, provide important clues about traditional Buddhist approaches to the cultivation of mindfulness. In particular, he explores the notion of mindfulness as 'non-judgmental'. He very cogently maps out the full range of the territory and potential issues at the interface of the converging epistemological streams:

> How one views the adaptation of Buddhist mindfulness practice to a modern clinical context for the treatment of stress and depression will depend on one's particular perspective. From one sort of Buddhist perspective, the abstraction of mindfulness from its context within a broad range of Buddhist meditative practices might seem like an appropriation and distortion of traditional Buddhism that loses sight of the Buddhist goal of rooting out greed, hatred and delusion. From a different Buddhist perspective, it might seem to be an example of 'skill in means' (*upāya-kauśalya*): it provides a way of giving beings the opportunity to make a first and important initial step on the path that leads to the cessation of suffering. From yet another perhaps still Buddhist perspective that might be characterized as 'modernist', it strips Buddhism of some of its unnecessary historical and cultural baggage, focusing on what is essential and useful. A non-Buddhist perspective might regard the removal of the unnecessary historical and cultural baggage as finally revealing the useful essence that had hitherto been obscured by the Buddhist religion. Finally we might regard the coming together of practices derived from Buddhism with the methods of modern western cognitive science as affording a true advance that supersedes and renders redundant the traditional Buddhist practices. As observers of social history, we might also see it as an example of a change from a cultural situation where we turn to religion to heal our souls to one where we turn to medicine and science.

Jon Kabat-Zinn's concluding essay recounts some strands of the history of how MBSR came into being from his own personal perspective, and emphasizes his view of the opportunities and dangers associated with attempts to bring the Dharma in its most universal expression into the mainstream culture and its institutions in ways that have the potential to catalyse profound learning, growing, healing and transformation. From the beginning, the aim was to contribute to a shifting of the bell curve of the society toward greater levels of sanity, well-being, and kindness, engendering what he terms elsewhere (Kabat-Zinn 2005) an 'orthogonal rotation in consciousness' in both individuals and institutions, both locally and globally. He touches on a theme that Miribai Bush also brings up in her paper, namely the question of the very language we use when we speak about mindfulness. Terminology and emphasis have always changed over time as the Dharma entered new cultures, and this is happening once again in our era. One question that arises is how we consciously use language in teaching mindfulness, including the implicational dimensions so elegantly evoked and described in the second paper by Teasdale and Chaskelson. How might we expand the meaning of a term such as 'mindfulness' in the English language so that it may sometimes carry the meaning of 'the Dharma' in its entirety, as Kabat-Zinn suggests? Is it possible to do so authentically, without falling into delusion or ignorance? Can it be a skilful approach for catalysing a more universal and hopefully still authentic and liberative understanding of the mind and its potential for wisdom, compassion, and freedom? Can such an

approach be effective in both recognizing and mobilizing our individual capacities as human beings to realize the full dimensionality of our being, what some call our *true nature,* in this lifetime?

This, of course, was the intended purpose in introducing the term *mindfulness* into mainstream medicine in the first place. One risk is that some may have surmised that 'mindfulness' was being decontextualized, and promulgated as the only important element in Buddhist practice. Kabat-Zinn directly addresses this issue in his paper, and suggests that rather than a *decontextualizion* of the Dharma, MBSR is an attempt to *recontextualize* it in its essential fullness. Had MBSR employed traditional Buddhist language, or insisted that medical patients referred by their doctors to the Stress Reduction Clinic because of their suffering be introduced to the practice of mindfulness through the explicit framework of the Four Noble Truths, the Eightfold Noble Path, and the Four Foundations of Mindfulness, for example, it may very well have prevented MBSR and other interventions in medicine and psychology from taking root in the first place.

Such a perspective may have some relevance to the debates and differing views expressed in this special issue. Now that there is widespread interest and activity in mindfulness and its potential applications in secular life, the kind of close examination and potential clarification of the various traditional dimensions, attributes, virtues, and implications of the various elements of mindfulness that are being articulated and discussed in this forum, a first of its kind, become important, in fact, absolutely necessary, for the deepening and flourishing of the field as a whole.

Concluding remarks

Mindfulness, as it is taught in mindfulness-based interventions, has always been associated with the elements of what are technically known as clear comprehension and discernment. It is not merely bare attention, although bare attending is an intimate part of it. Nor is it merely conceptual, cognitive, or thought-based. Indeed, in essence, it is awareness itself, an entirely different and one might say, larger capacity than thought, since any and all thought and emotion can be held in awareness. Both are powerful dimensions of the human experience. While we get a great deal of training in our education systems in thinking of all kinds, we have almost no exposure to the cultivation of intimacy with that other innate capacity of ours that we call *awareness*. Awareness is virtually transparent to us. We tend to be unaware of our awareness. We so easily take it for granted. It rarely occurs to us that it is possible to systematically explore and refine our relationship to awareness itself, or that it can be 'inhabited.' This is a profound area for both first person and third person investigation and debate.

In the cultivation of mindfulness in secular settings, a spirit of self-inquiry and self-understanding is central. This is one reason why we take pleasure in the coming together of Buddhist scholars, scientists, educators and clinicians in this format and are optimistic about its value. Our hope is that this kind of scholarly

inquiry and cross-discipline dialogue will continue and will yield new fruit, and nourish our ongoing understanding and practice of the meditative disciplines that rest firmly on a foundation of respect for the traditional understandings of dharma and value remaining faithful to those understandings in new and appropriate ways.

The enormous interest in mindfulness theory and practice within western science, medicine, healthcare and education will continually bring new challenges and also new opportunities. Ancient and modern, Eastern and Western modes of inquiry and investigation are now in conversation and cross-fertilizing each other as never before. Indeed, we could say the field of mindfulness-based applications is in its infancy and there is great promise that it will continue to yield new insights and avenues for research as it develops in multiple directions. For example, there are western psychologists who are using new methodologies to show how the mind and body generate both delusion and clarity. Consider the phenomenon of change blindness. Studies show that, when someone's view of a person is occluded for a second or two, he or she may not realize that a *new* person has taken the place of the original one, even as the conversation continues (Simons and Levine 1998). Or consider experiments showing that if you are induced to inadvertently nod your head when listening to a view being expressed, you are more likely to endorse that view later without knowing that your opinion was experimentally manipulated (Briñol and Petty 2003; Wells and Petty 1980); or the recent findings showing that conceptual processing can have extraordinarily maladaptive consequences, such as making someone with an eating disorder feel that they are heavier than they really are (Rawal, Park, and Williams forthcoming).

All these studies are compelling demonstrations of the mind's capacity to delude itself. None needs an explicitly dharma-based interpretation; yet all are consistent with a dharma-based perspective, and provide important examples and potential insights into the ways of one's own mind for people who will never read a Buddhist text. In their own way, these lines of research speak to the importance of paying attention without forgetfulness and with compassion to the mind's capacity to fool us moment by moment.

The essays in this issue bear witness to the need for constant inquiry, translation, renewal, and dialogue. We might say that the teachings are actually *kept alive* by our continual willingness to test them out. If they become dogma, they may give false comfort for a while to some, but they are likely to ossify, creating needless disputes and losing their enlivening and liberative potential. A dried flower can be very beautiful, but it is no use to a bee.

As co-editors, our role in this Introduction has been to introduce the original aim of this special issue and give you a taste of its contents from a diverse and passionate group of contributors. Our aim has been equally to preview a few of the creative tensions inherent in an enterprise of this scope and magnitude and make them explicit. For it is precisely from within the 'tension' between the Buddhadharma, with all its highly developed and diverse traditions and lineages, and what we might call a 'lived universal dharma' in an everyday idiom, that the

potential for insight, healing, and transformation emerges—a transformation that can be seen, day after day, in those who come to mindfulness-based clinical programmes seeking help with their suffering, and who, through their cultivation of mindfulness and their implicit exposure to the Dharma, even if they have never heard the word, experience profound changes that continue to astonish and humble all involved.

NOTE

1. This meeting was organized, with the support of the Fetzer Institute, by Richard Davidson, Zindel Segal and Amishi Jha.

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J. Mark G. Williams, University of Oxford Department of Psychiatry, Warneford Hospital, Oxford OX3 7JX, UK. Email: Mark.williams@psych.ox.ac.uk

Jon Kabat-Zinn, Center for Mindfulness, University of Massachusetts Medical School, 55 Lake Avenue North, Worcester, MA 02421, USA. Email: mindfulness@umassmed.edu

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